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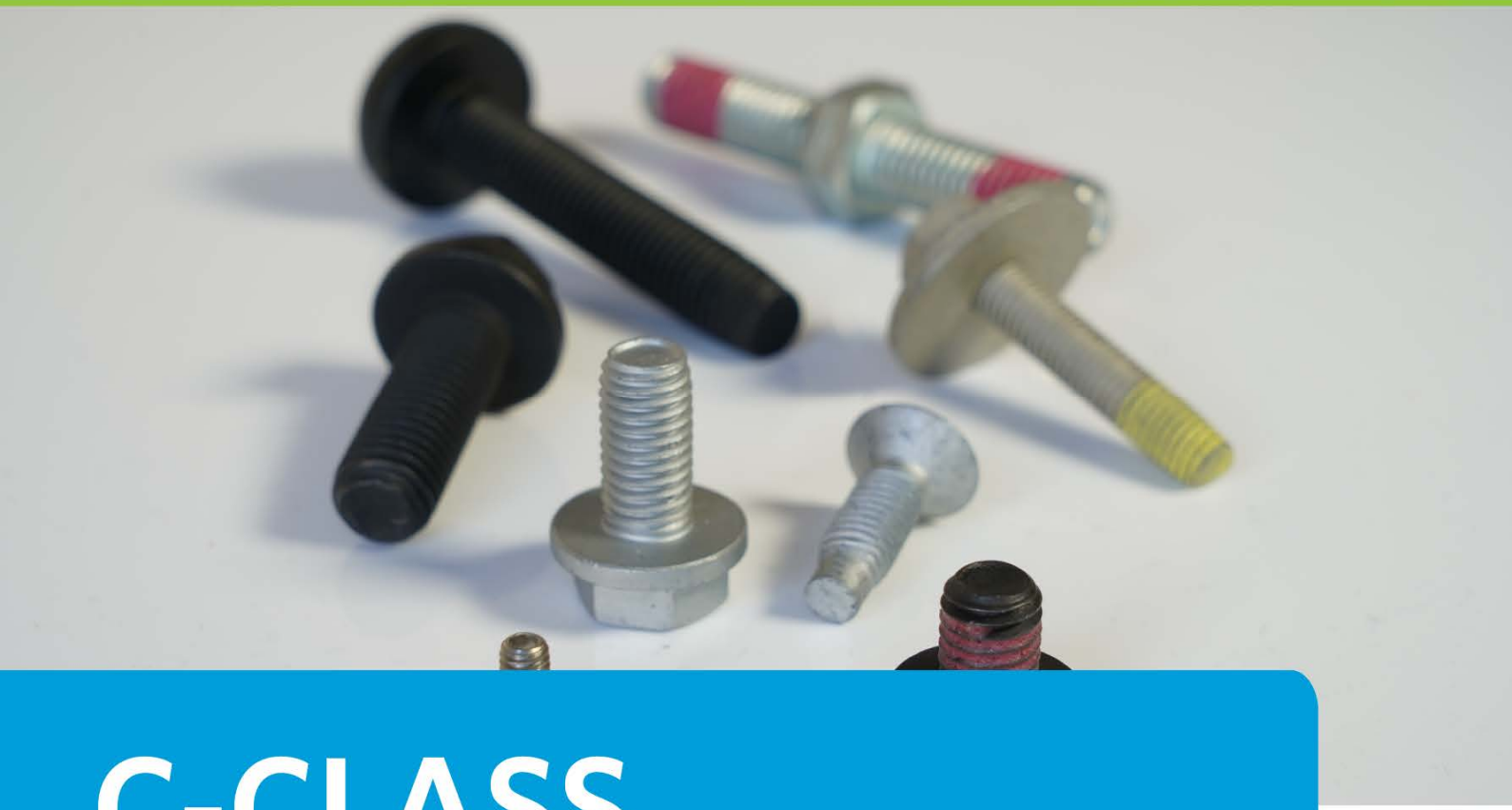
Powered by renewable energy



C-CLASS COMPONENTS

FASTENERS | COMPONENTS | VMI

MAXIMISING MANUFACTURING EFFICIENCIES



support@optimas.com

KEY CONTACTS & INTRODUCTION

KEY CONTACTS

EUROPEAN HEADQUARTERS

Unit A Nimrod Way,
East Dorset Trade Park,
Wimborne,
Dorset, UK.
BH21 7HY

SALES

T: +44 (0)1202 865222
F: +44 (0)1202 865270
E: sales@optimascomponents.com

ACCOUNTS

T: +44 (0)1452 880527
F: +44 (0)1452 880765
E: accounts.ac@optimascomponents.com

ASIA PACIFIC HEADQUARTERS

No. 96, Weixi Road,
Weiting Town,
Suzhou Industrial Park,
Suzhou, China.
215122

T: +86 512 6733 5583
F: +86 512 6733 5589
E: china@optimascomponents.com

QUALITY ASSURED

Optimas Components is committed only to the supply of the highest quality products. To underpin this promise we work only with world class manufacturing partners, all of whom are qualified via our rigorous vendor rating system.

- Quality assurance ISO 9001:2008 accreditation
- Environmental Management System to ISO 14001:2004
- Occupational Health & Safety Management Systems to BS OHSAS 18001:2007

RS 00412 EMS 562471 OHS 84294

OPTIMAS

INTRODUCING OPTIMAS COMPONENTS

Optimas Components is a leading global supplier of C-class components, including fasteners, cable management and finishing products.

With over 47 years of experience in supplying superior quality components, we have earned a worldwide reputation for outstanding customer service and support.

We are a technical distributor with in-depth and broad based engineering, product, industry, application and material knowledge, able to advise customers as to the optimum solution to their needs.

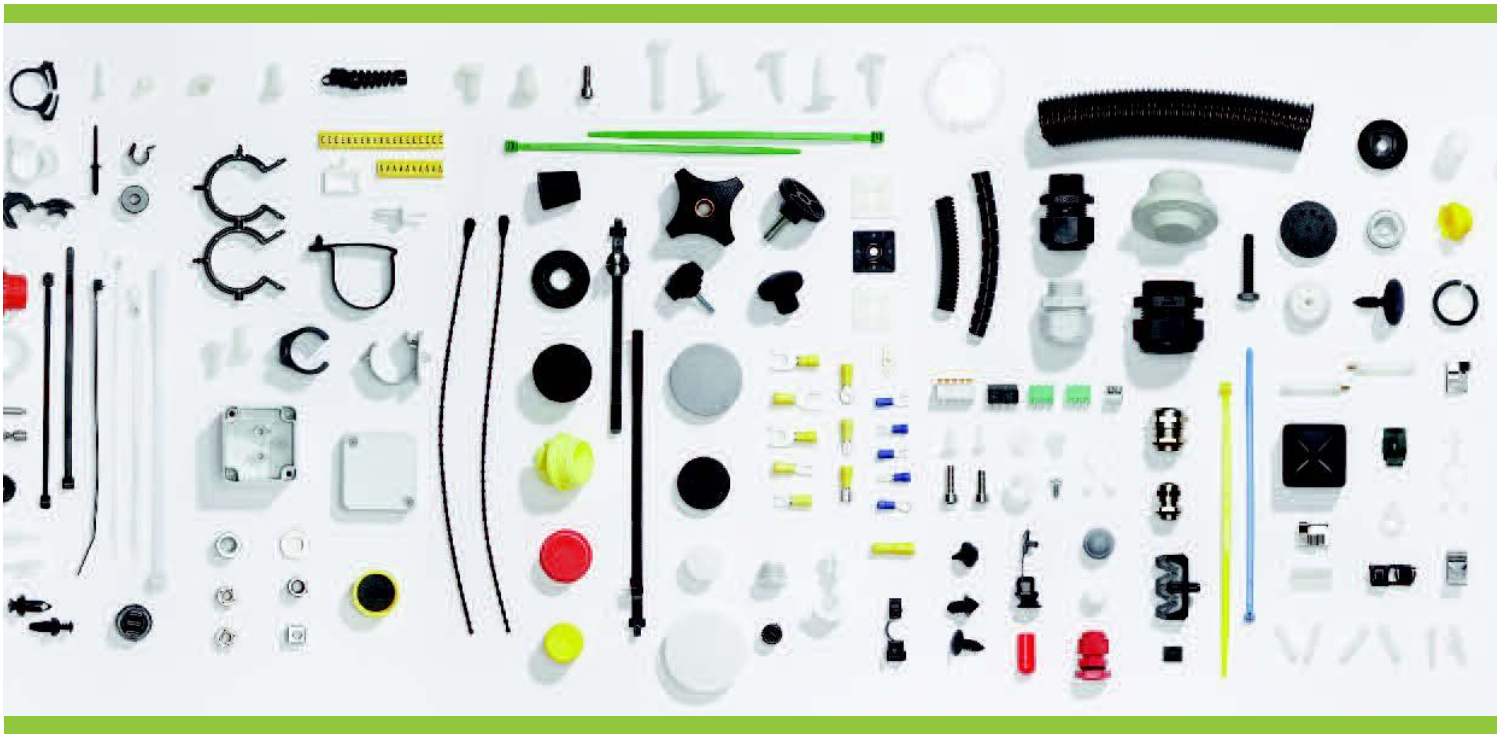
We supply thousands of customers in a broad range of industries, including: Industrial Equipment, IT, Electrical, Electronics, Telecoms, Lighting, Domestic Appliance, Automotive, Aerospace, Transport, Healthcare, Medical, Point of Sale and Commercial Solar Farms. We help these customers specify solutions and make informed purchasing decisions around technologies, applications and relevant standards.

Throughout the world, we provide innovative supply chain management solutions to reduce our customers' total cost of production and implementation.

OPTIMAS OE SOLUTIONS

We are the Components Division of Optimas OE Solutions, a leading global independent supplier of industry standard and highly engineered fasteners. Every year, Optimas supplies more than 8 billion components to over 2,000 customers in the rail, automotive, power, agricultural and industrial markets.

GLOBAL SOURCING SPECIALISTS



GLOBAL SOURCING SPECIALISTS

Optimas Components is committed to supplying customers with the correct parts, where and when they're required. We have the supply chain partners, the logistics expertise and the customer service experience required to achieve this.

CATALOGUE PARTS

In our catalogue you will find 14,000-plus standard parts from our most frequently requested product lines. However, this is just an indication of what we can supply.

NON-CATALOGUE PARTS SOURCING

We have relationships with thousands of component manufacturers within our vast global supplier network, producing an infinite number of plastic and metal parts. Their capabilities include injection moulding, extrusion, compression moulding, dip moulding, vacuum forming, stamping, pressing and machining.

If the exact part you require isn't in our catalogue, but it exists, we have a dedicated team of sourcing specialists able to find it for you from among this network. From a one-off to any volume required to suit your needs, our team will know which companies to contact.

BESPOKE PARTS DESIGN AND MANUFACTURE

When an off-the-shelf part just doesn't exist or you simply prefer a completely bespoke part be created from scratch, we can provide you a fresh and creative approach to overcoming cable management and fastening challenges.

Projects typically range from a minor adaptation of an existing part through to a complete bespoke product or assembly. We can take your brief of an idea or a product requirement and manage the entire project right through to delivery of the final parts. The whole process is controlled by our ISO 9001 quality systems.

By using advanced processes such as 3D Printing, Selective Laser Sintering, Direct Metal Laser Sintering or Stereo lithography, customers receive their new part in just a few days.

Typically, bespoke products we have developed for customers to date have reduced labour-intensive tasks and increased the strength and reliability of their end products.

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THE OPTIMAS DIFFERENCE

The most important job for any distributor is getting the right product where it needs to be, when it needs to be there. At Optimas Components, our goal is to help customers minimise cost, save time, improve productivity, mitigate risk, and offer scalable and repeatable solutions.

Historically, we have provided customers with products in the form of 'C-Class' components. Today, customers are increasingly relying on Optimas Components technical, industry, product and material knowledge and application expertise to provide them with a wide range of supply chain services that add value at every step. This is helping to make our customers even more competitive in their markets.

As our customers grow and expand we are increasingly becoming a single source supply partner to them. By leveraging Optimas Components' global presence and experience in international supply chain services and logistics, we are able to support our customers and help them quickly become competitive in and penetrate new markets and geographies.





KITTING AND BAGGING

Ideal for laboratories, R&D departments, resellers, spares or maintenance supplies, we can deliver the parts you need, packed exactly how you want them.

- Reduce your bill of materials; only purchase one complete pack of components
- Save time and money by receiving all parts packed and labelled how you need them
- Have all the information you require on the labels and packaging
- Enjoy maximum flexibility with your procurement process
- Reduce the number of vendors you transact with

DYEING

Due to the hygroscopic properties of nylon, we are able to quickly and easily dye parts in a wide variety of colour shades.

- The process is ideal when producing a small quantity of coloured parts or when multiple colours of a particular part are required
- Dyed parts are ideal for colour coding, identification and colour matching
- Colours can be supplied to standard Pantone or RAL references or matched to your colour sample

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NON-CATALOGUE PARTS SOURCING

If the part you require isn't in our catalogue, our team of sourcing specialists will find it from among our vast global network of manufacturing partners.

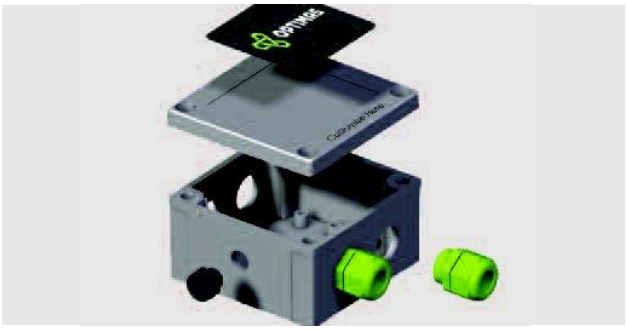
- Reduce the number of vendors you deal with
- Provide us with your BOM and we will do the research for you
- Reduce costs by outsourcing your supply chain requirements
- If the part you require doesn't exist then we can design and develop a bespoke part to your exact needs



BESPOKE PARTS DESIGN & MANUFACTURE

When an off-the-shelf part doesn't exist or you simply prefer a completely bespoke part be created from scratch.

- Fresh, creative approach to overcoming cable management and fastening challenges
- A unique solution developed to suit your exact needs
- Reduce your labour-intensive assembly tasks
- From concept through prototyping to delivery of final parts



ENCLOSURE CUSTOMISING

Our standard enclosures can be completely customised to meet the exact requirements of your application.

- Reduce your bill of materials, only purchase one complete part
- Remove secondary processes, receive the part pre-customised
- Save on time and labour to get the required solution
- Receive our assistance in preparing drawings, layouts and specifying parts
- We have a dedicated sub-assembly area and team

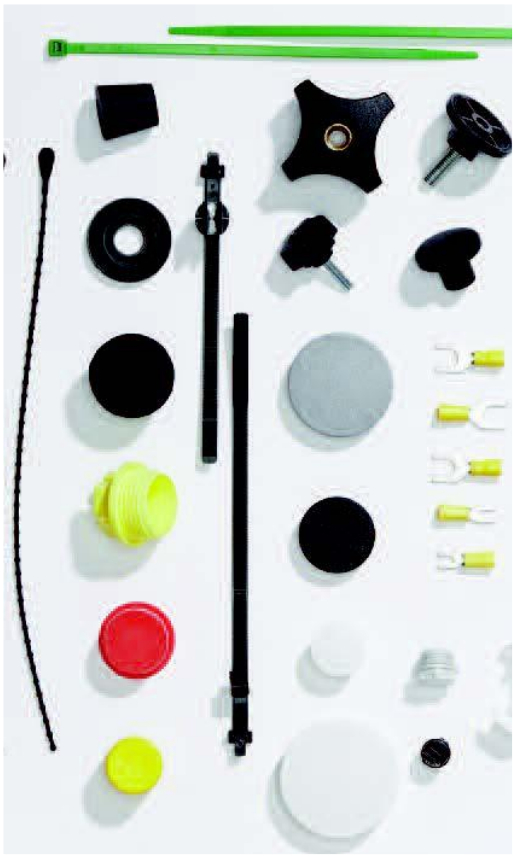


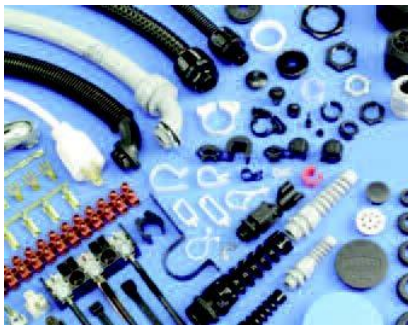
ON-SITE INVENTORY MANAGEMENT

Our inventory management system can supply and maintain on-site component stocks, freeing up your time to focus on core activities.

- Never run out of parts in your stores
- Eliminate production line shortages and delays
- Only pay for parts as you use them
- Stock levels and replenishment managed by us
- Reduce your supplier list – purchase hundreds of parts from just one supplier

MANUFACTURING PARTNERS





HEYCO PRODUCTS INC

Cable Protection Products

Heyco Products Inc. has over 75 years of experience in the design and manufacture of moulded wire protection products and stamped electrical components to meet demanding applications. They were the original designers and manufacturers of the nylon cable strain relief bushing in the 1950's and have been innovating new products ever since. Optimus Components has been Heyco's exclusive UK distributor since 1968.



FIBOX

Enclosure Systems

The FIBOX enclosure range features over 500 different standard enclosures made of polycarbonate, ABS, polyester fibre-glass and aluminium.

Fibox is the industry leader in developing both new products and new technologies for moulding thermoplastic enclosures. Fibox consider moulding technology an essential part of product development.

Every year, Optimas supplies over 8.6 billion components to 2,200+ customers from 74 distribution centres.

With a global presence, we can give your products worldwide exposure.

If you're interested in becoming a supply partner contact us.



THOMAS & BETTS

Cable Ties & Accessories

T&B's broad offering of cable ties includes Ty-Rap®, Ty-Fast®, Catamount®, and Deltec® fastening products and tools - all designed to make the task of fastening, bundling, clamping and managing wires easier for construction, communications, utility and original equipment manufacturers.

In 2012 Thomas & Betts was acquired by ABB.



PMA & ADAPTAFLEX

Flexible Conduit Systems

PMA and Adaptaflex are both part of the ABB group of companies, including Thomas & Betts. They are all world leaders in the design and manufacture of high performance flexible conduit systems and offer an outstanding range of metallic and non-metallic conduits as well as complementary fittings and other accessories.

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DBI PLASTICS

Protection Caps & Plugs

DBI Plastics operate worldwide and deliver protective solutions for businesses in the automotive, machine and construction markets. The company's goal of zero defects is a major target for all parts of the business and makes DBI a leading partner in the industry. DBI offer a wide range of solutions for many applications and demands.



HUMMEL AG

Cable Glands & Connectors

HUMMEL AG has a worldwide reputation as a manufacturer of innovative, high quality cable glands, circular connectors and enclosures; a company always adding value in terms of quality, reliability and service.

Today, HUMMEL is the choice of many, when it comes to joining techniques in the electrical engineering, electronics and heating fittings industries.



TAPPER SEALING TECHNOLOGY

Cable Sealing Systems

TST is a division of RUTAB, Sweden's leading supplier of cable glands, grommets and flexible conduits.

They have reached that position by focusing on long-term planning, a high service level, a broad quality product range and extensive investment in developing unique products.

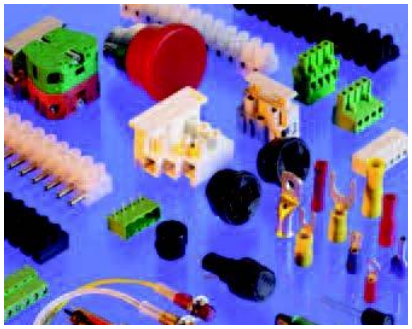
The core of their range is cable and pipe entries, where they offer a wide range.



VELCRO®

Hook & Loop Products

The VELCRO® brand is a technologically-driven, global organisation and the industry leader in hook and loop fasteners supplying global industrial, automotive and consumer markets. Reusable and flexible, patented VELCRO® brand ONE-WRAP® self-gripping fasteners are a unique back-to-back fastening system. They wrap around objects to be bundled and then the remaining strap tip attaches back onto itself for a neat and secure closure without buckles or hardware.



CAMDENBOSS

Electro-Mechanical Products

Offering a comprehensive range of PCB terminal blocks, relay bases, batteries, fuses and fuseholders, CamdenBoss is a private company, certificated to ISO 9001:2000. They design, develop and manufacture products which generally exceed the accepted industry standard. Many products are approved by globally recognised test and approval houses, such as VDE, UL, CSA, SEMKO, NEMKO, DEMKO, IMQ, etc.



ARAYMOND

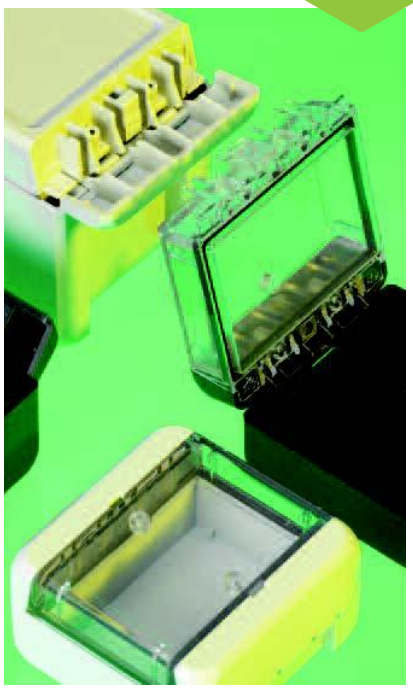
Fastening & Assembly Systems

A world player for fastening and assembly systems, ARaymond Industrial develops and markets intelligent solutions specifically designed for industrial markets, including household appliances, lighting, electrical equipment, heating and ventilation. Whenever an assembly line is present they work hand in hand with industrial customers to develop optimal assembly solutions for the needs of those markets.

NEW PRODUCT LOCATOR

CHAPTER 2
Enclosures

NEW

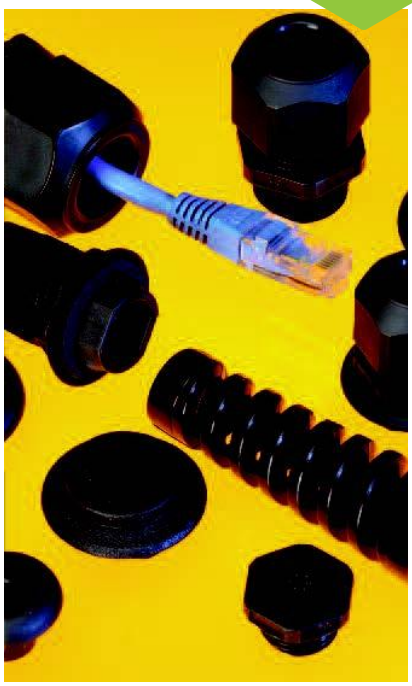


New Enclosure products featured include:

- The Bocube range of screwless and hinged enclosure boxes from BOPLA
- The ARCA IEC non-corrosive electrical cabinets for harsh environments from FIBOX
- The Euromas Polymas enclosures complete with moulded-on liquid tight cable glands

CHAPTER 3
Cable Glands

NEW

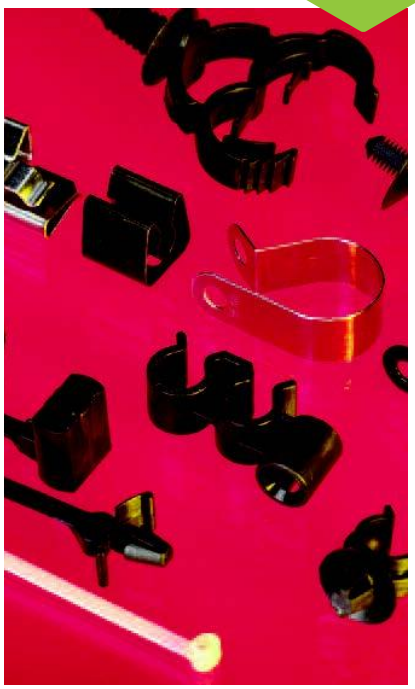


New Cable Gland and Liquid Tight products featured include:

- An entire range of Heyco cable glands, vent plugs and liquid tight blanking plugs
- Hummel's 'Hygienic' design cable glands
- Heyco's Split Seal cable glands, Snap-In cable glands, and Stainless Steel and Brass Nickel Plate cable glands
- Hummel's EX Active series cable glands for requirements of EN 60079-0:2012

CHAPTERS 5/6
Cable Clips & Ties

NEW



New Cable Clip and Cable Tie products featured include:

- Industrial cable clips and ties from ARaymond
- Extension of the Heyco SunRunner cable clip range
- Introduction of Thomas & Betts high temperature cable ties for more demanding applications

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CHAPTER 7
Conduit & Fittings

NEW



New Conduit & Fitting products featured include:

- A new conduit and accessory range from Heyco, including PVC and Nylon conduits and fittings

CHAPTER 8/10
Cable Protection and Caps & Plugs

NEW

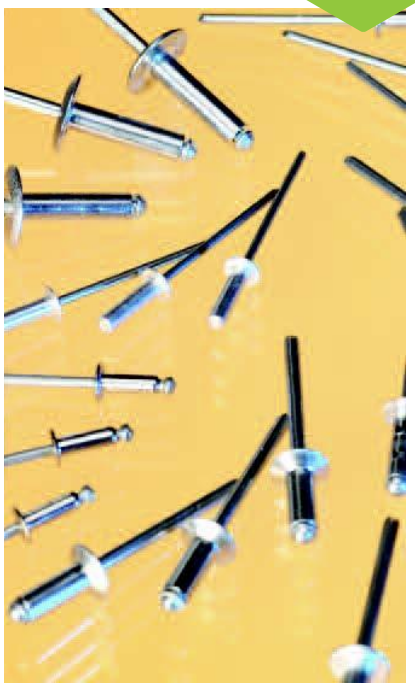


New Cable Protection, Caps & Plug products featured include:

- 2 families of white PVC grommets, ideal for light or white goods applications
- An extention to the Heyco Bushing & Sheet Metal Plug ranges
- A range of Threaded Universal Plugs
- A range of Heyco Protection caps and plugs

CHAPTER 12
Rivets & Panel Fasteners

NEW

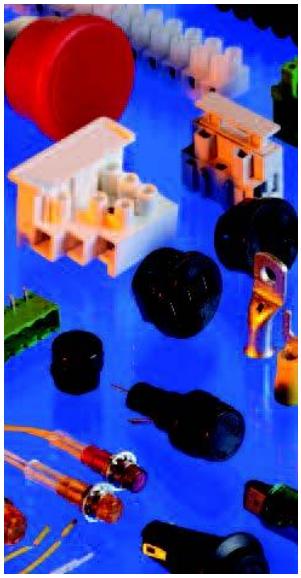


New Rivet & Panel Fastener products featured include:

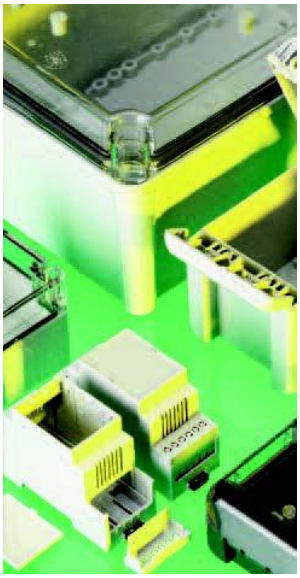
- A range of steel and aluminium rivets from Stanley Engineered Fastening for joining two or more components in a quick and simple process

PRODUCT LOCATOR

CHAPTER 1
Terminals, Indicators & Fuses



CHAPTER 2
Enclosures



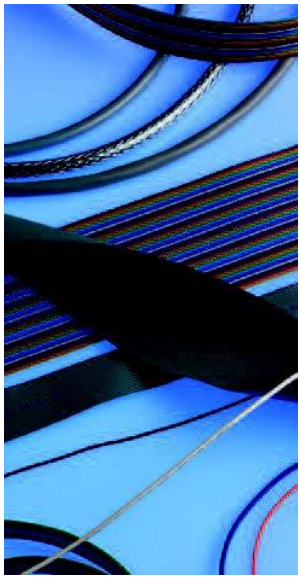
CHAPTER 3
Cable Glands



CHAPTER 4
Strain Relief Bushings



CHAPTER 9
Wire & Cable



CHAPTER 10
Caps & Plugs



CHAPTER 11
PCB Accessories



CHAPTER 12
Rivets & Panel Fasteners



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CHAPTER 5
Cable Clips



CHAPTER 6
Cable Ties & Markers



CHAPTER 7
Conduit & Fittings



CHAPTER 8
Cable Protection



CHAPTER 13
Screws, Nuts, Washers & Clips



CHAPTER 14
Feet



CHAPTER 15
Knobs & Handles



REFERENCE
Information

- IP & IK Rating Information
- Material Information
- Tolerance Information
- Alphabetical Index
- Numerical Index
- Terms & Conditions

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VISIT THE COMPREHENSIVE OPTIMAS COMPONENTS WEBSITE

- Access to over 15,000 product lines including 2,000 new products
- Real-time price and stock information
- New search filters to find the exact part you need
- Quick links to associated products
- Sortable table headings
- Request free of charge samples
- View product specifications, approvals, line drawings and download 3D CAD files
- Dedicated pages for all the Value Added Services Optimas Components can provide

optimascomponents.com





✓ Real-time prices

Snap-In Ratchet Strain Relief Nylon 6,6 Black

£351.25 (per 1000)

Quantity discounts available view price breaks

✓ Product Line Drawings
✓ 3D CAD
✓ Request Samples

Specifications | Approvals | Price breaks

Material	Nylon 66
Flammability	UL94V-2
Material Temperature Index	125°C
Maximum temperature on part	Shall not exceed 105°C
RoHS	Directive 2011/65/EU compliant

- Anchors and protects cable at chassis entry
- Can be pre-assembled onto cable prior to installation
- Locks onto cable
- Installs easily with fingertip pressure into a standard round or Double D hole

Line Drawing | CAD File | Request sample

Min Qty 1500 | Qty Required 0 | CHECK AVAILABILITY | ADD TO BASKET

✓ Real-time stock levels

Product details

Product details (click a table heading to sort)

Part number	Approximate Cable Dimensions	A Mounting Hole Diameter	B To Prevent Rotation	Max Chassis Thickness	Body Length	Cable Section
3101260 CAD File	2.9 to 14.6	22.2	19.6	3.2	25.4	Flat or Round

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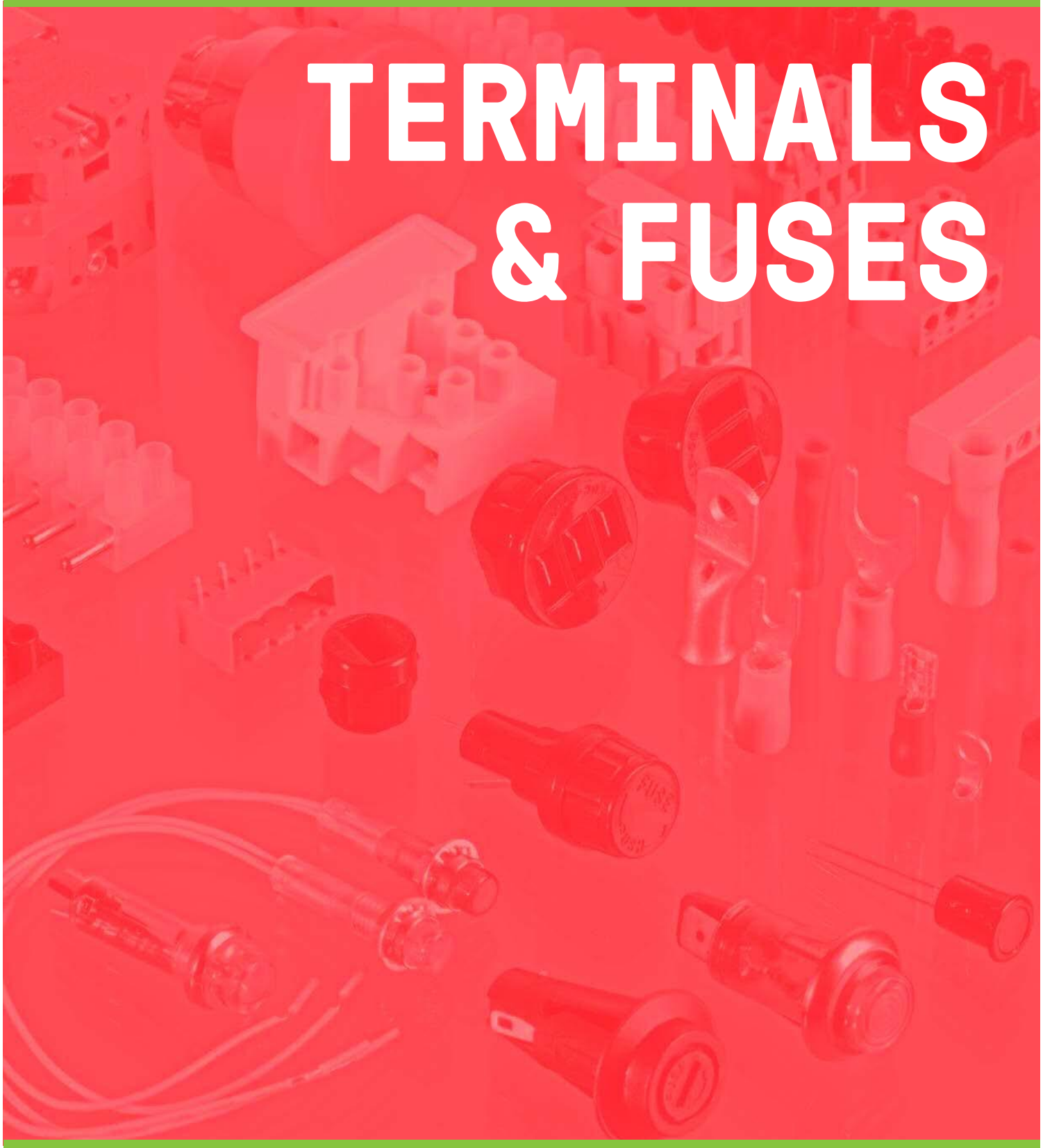
CHAPTER 1

TERMINALS & FUSES



NON-CATALOGUE
PARTS SOURCING



GLOBAL PARTS SOURCING SPECIALISTS

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- Reduce the number of vendors you deal with
- Provide us with your BOM and our Specialist Sourcing Team will do the research for you
- Reduce costs by outsourcing your supply chain requirements

TO FIND THE PARTS YOU NEED:

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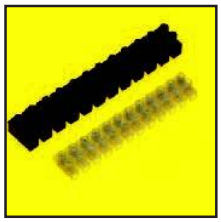
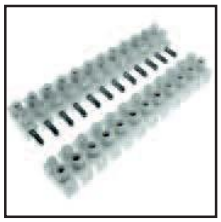
High Temperature Resistant Connection Blocks P1-3


Terminal Blocks Polyethylene P1-3


12 Way Nylon Terminal Blocks P1-4


Pluggable Terminal Blocks Plug In Style P1-4


Easy Break Terminal Blocks P1-4


5x20mm Fused Terminal Blocks P1-6


6.3x25mm (¼" x 1") Fused Terminal Blocks P1-6


5x20mm Semi-Enclosed PCB Mounting 22.6mm Pitch Fuse Holders P1-7


5x20mm Low Profile Panel Mounting Fuse Holders P1-7


5x20mm Panel Mounting Fuse Holders P1-8


5x20mm Snap Fit Panel Mounting Fuse Holders P1-8


Multi-Size Inline Fuse Holder P1-8


5x20mm Quick Blow Glass Fuses P1-9


5x20mm Time Delay Glass Fuses P1-9


5x20mm Quick Blow Ceramic Fuses P1-9


5x20mm Time Delay Ceramic Fuses P1-10



6.3x25mm British Plug Top Fuses P1-10


Lens Clips P1-10

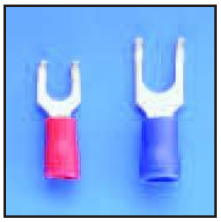


Heyco Wire Connectors Crimp On P1-11



Heyco Wire Connectors Spring Insert P1-11


Ring Terminals P1-12


Spade (Fork) Terminals P1-12


Butt Connectors P1-12


Pin Terminals P1-13


Blade Terminals P1-13


Male Bullets P1-13


Female Bullets P1-13


Male Tabs P1-14


Female Push-Ons P1-14

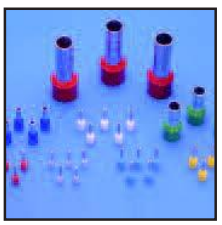

Fully Insulated Female Push-Ons P1-14


Piggy Back Female Push-Ons P1-15

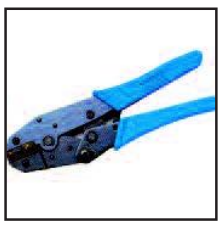


Heat Shrink Solder Butt Connectors P1-15


Copper Tube Crimp Terminals P1-15


Cord End Ferrules & Tools P1-16


Ratchet Crimping Tools for Cord End Ferrules P1-16


Ratchet Crimping Tools for Pre-Insulated Terminals P1-16



Crimping Tools for Copper Tube Crimp Terminals 10-16mm²
P1-17



Crimping Tools for Copper Tube Crimp Terminals 6-50mm²
P1-17



Crimping Tools for Copper Tube Crimp Terminals 25-150mm²
P1-17



Terminal Bushings and Terminals
P1-18

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High Temperature Resistant Connection Blocks

Approvals:

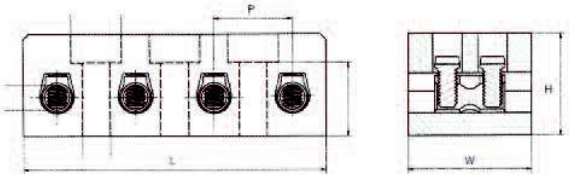
Specifications: RoHS ✓

Voltage (max): 450V AC
Working temperature: 5°C to 350°C
Insulating body: Porcelain (DIN 40685)
Insert: Nickel-plated brass
Screws: Zinc-plated steel CQ-15

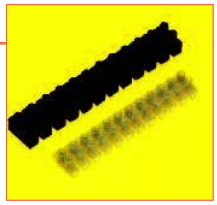
- Porcelain body rated to 1000°C
- Inserts rated to 350°C
- 1 to 4 poles available
- 3, 3.5, 4.4, and 6mm insert diameter sizes
- CE marked



PART NUMBER	Poles	Max Current A	Insert Diameter mm	Max Conductor		Dimensions			Mounting Hole Size		Pitch	Terminal	Unit Quantity
				Rigid mm²	Flexible mm²	Length	Width	Height	Diameter	Screw Head			
2130013	1	32	3.0	4	4	10.0	18.0	17.0	-	-	-	M2.6	200
2130014	2	32	3.0	4	4	21.5	18.0	17.0	4.5	6.9	11.5	M2.6	200
2130015	3	32	3.0	4	4	33.0	18.0	17.0	4.5	6.9	11.5	M2.6	150
2130016	4	32	3.0	4	4	44.5	18.0	17.0	4.5	6.9	11.5	M2.6	100
2130017	1	41	3.5	6	4	11.0	20.0	17.5	-	-	-	M3	100
2130018	2	41	3.5	6	4	23.5	20.0	17.5	4.5	7.5	12.5	M3	100
2130019	3	41	3.5	6	4	36.0	20.0	17.5	4.5	7.5	12.5	M3	50
2130020	4	41	3.5	6	4	48.5	20.0	17.5	4.5	7.5	12.5	M3	20
2130021	1	57	4.4	10	6	12.0	22.0	18.0	-	-	-	M3.5	75
2130022	2	57	4.4	10	6	26.0	22.0	18.0	5.0	8.5	14.0	M3.5	60
2130023	3	57	4.4	10	6	40.0	22.0	18.0	5.0	8.5	14.0	M3.5	120
2130024	4	57	4.4	10	6	54.0	22.0	18.0	5.0	8.5	14.0	M3.5	90
2130025	1	76	6.0	16	10	16.0	30.0	23.0	-	-	-	M4	150
2130026	2	76	6.0	16	10	34.0	30.0	23.0	5.0	9.0	17.5	M4	75
2130027	3	76	6.0	16	10	52.0	30.0	23.0	5.0	9.0	17.5	M4	50
2130028	4	76	6.0	16	10	70.0	30.0	23.0	5.0	9.0	17.5	M4	60

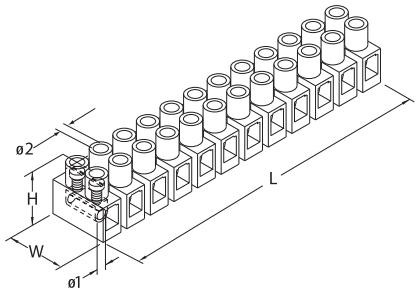


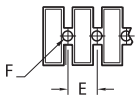
Terminal Blocks - Polyethylene



Specifications: RoHS ✓

Materials:
Inserts: Brass Screws: Galvanised Steel
Insulation: Polyethylene
Temperature Rating: 80°C
Number of Poles per strip: 12





PART NUMBER	Colour	Current Rating (amps)	Cable csa (mm²)	Rated Voltage (V)	L	W	H	Ø1	Ø2	E	F	Unit Quantity (Strips)
2070000	Natural	3 - 24	4	380	93.0	16.5	13.0	2.8	3.5	8.0	2.5	100
2070001	Black	3 - 24	4	380	93.0	16.5	13.0	2.8	3.5	8.0	2.5	100
2070002	Natural	5 - 32	6	380	115.0	19.0	16.0	3.3	4.0	10.0	3.0	100
2070003	Black	5 - 32	6	380	115.0	19.0	16.0	3.3	4.0	10.0	3.0	100
2070004	Natural	15 - 61	12	400	137.0	23.0	19.0	4.5	5.5	12.0	3.0	100
2070005	Black	15 - 61	12	400	137.0	23.0	19.0	4.5	5.5	12.0	3.0	100
2070006	Natural	30 - 76	16	400	165.0	25.5	20.0	5.5	5.5	14.0	3.0	100
2070007	Black	30 - 76	16	400	165.0	25.5	20.0	5.5	5.5	14.0	3.0	100
2070008	Natural	60 - 101	25	400	205.0	36.0	30.0	7.5	6.0	17.5	4.0	10
2070009	Black	60 - 101	25	400	205.0	36.0	30.0	7.5	6.0	17.5	4.0	10

12 Way Nylon Terminal Blocks



- Moulded from Natural PA6
- Available with or without wire protection
- UL94-V2 Self extinguishing as standard
- V0 types pass 960°C glow-wire test
- Easily cut to size
- Can also be supplied pre-cut
- Can be printed on request
- Closed inserts (middle barrier) option
- Captive terminal screws

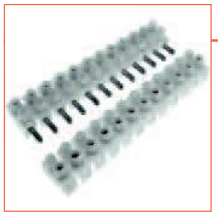
Specifications: RoHS ✓

Voltage: 21143112-21143312 - 450VAC
211434112-21143512 - 750VAC (UL600VAC)
Working temp: -30°C to +110°C
Moulding: UL94-V2 PA6
Standard insert: Nickel-plated brass
Terminal screws: Zinc-plated steel CQ-15
Wire protectors: Stainless steel

Approvals:

PART NUMBER	Pitch/UL Rating	Wire Protection	Insert Diameter mm	Cable Acceptance	Terminal Screws	Dimensions				Fixing Hole Diameter	Max Current A	Unit Quantity
						Length	Width	Height	Pitch			
21143112W	8mm/20A	No	3.2	4.0mm²/ 12AWG	M3	94	18	15.5	8	2.8	32	50
21143112	8mm/20A	Yes	3.2	2.5mm²/ 14AWG	M3	94	18	15.5	8	2.8	32	50
21143312W	10mm/30A	No	3.5	6.0mm²/ 10AWG	M3	116	21	16	9.95	2.8	41	50
21143312	10mm/30A	Yes	3.5	4.0mm²/ 12AWG	M3	116	21	16	9.95	2.8	41	50
21143412W	12mm/50A	No	4.4	10.0mm²/ 8AWG	M3.5	140	23	18.5	12	2.8	57	50
21143412	12mm/50A	Yes	4.4	6.0mm²/ 10AWG	M3.5	140	23	18.5	12	2.8	57	50
21143512W	14mm/65A	No	6.0	16.0mm²/ 6AWG	M4	166	29	23	14	3.5 x 6.4 slot	76	50
21143512	14mm/65A	Yes	6.0	10.0mm²/ 8AWG	M4	166	29	23	14	3.5 x 6.4 slot	76	50

Pluggable Terminal Blocks - Plug In Style



- Easily cut to size
- UL94-V0 (160°C) flame retardant version available on request
- Available pre-cut to length

Specifications: RoHS ✓

Voltage: 450V AC
Working temp: 85°C
Short period: 85°C
No. of poles: 12
Moulding: UL94-V2 Self extinguishing PA 6
Colour: White
Conducting bush: Brass
Screws: Zinc, colour passivated and tropicalised

Approvals:

PART NUMBER	Size/ Rating	Insert Diameter mm	Terminal Screws	Dimensions				Fixing Hole Diameter	Max Current A	Unit Quantity
				Length	Width	Height	Pitch			
21143112MF	8mm/6A	2.9	M3	94.8	16	15.3	8	2.5	17.5	75
21143312MF	10mm/10A	3.4	M3	119	20.3	16.4	10	3.2	24	75
21143412MF	12mm/16A	4.3	M3.5	141.9	23.2	19.2	12	3.3	57	75

Easy Break Terminal Blocks

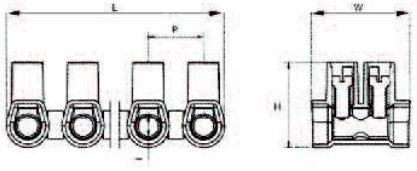


- Easily snapped to required numbered of poles
- No remaining burrs
- No tools needed to cut to length
- Supplied with screws in raised position
- 12 poles
- Halogen free

Specifications: RoHS ✓

Rating: 450V AC
Working temperature: -30°C to 110°C
Moulding: UL94-V2 self extinguishing PA6
Insert: Nickel plated brass
Screws: Zinc-plated steel





PART NUMBER		Current Rating	Connecting Capacity	Min Conductor Section	Dimensions				Terminal Screw	Unit Quantity
Natural	Black				L	W	H	P		
211EB43112	211EB43112B	24A	2.5mm²	1mm²	95.5	17.5	14.75	8	M3	100
211EB43312	211EB43312B	41A	6mm²	2.5mm²	118	19	15.6	10	M3	100
211EB43412	211EB43412B	57A	10mm²	4mm²	142	20.8	18.2	12	M3.5	100
211EB43512	211EB43512B	76A	16mm²	6mm²	160	23	21.2	13.5	M4	60
211EB43812	211EB43812B	125A	35mm²	16mm²	176	25.5	28	15	M5	30

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CIRCULAR CONNECTORS



SIGNAL AND POWER CIRCULAR CONNECTORS

Available in a wide range of thread sizes, contacts and housings to suit all applications, Hummel's Circular Connectors have earned a worldwide reputation for their high quality robust construction, performance and durability.

KEY FEATURES:

- **THREAD SIZES** – Signal Connectors in M16, M23 & M27; Power Connectors in M23 & M40
- **CONTACTS** – constructed from Brass Alloy, Nickel and Gold plated
- **HOUSINGS** – from die cast Copper/Zinc Alloy with Nickel plating; straight, right angle and panel fittings; male & female variants available
- **INSERTS** – moulded in Nylon, PBT (UL94V-0)

KEY BENEFITS:

- A wide range of Contact Configurations, from 2 to 18 contacts dependant on the housing type
- User-friendly modular assembly
- Integrated liquid tight strain relief fitting

ALSO AVAILABLE:

- Alternative housing finishes on request
- Stainless Steel (INOX) connector range
- Moulded Connector Cordset range

FOR FURTHER INFORMATION ON CIRCULAR CONNECTORS PLEASE CALL US ON: +44 (0) 1202 865222

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OPTIMAS



5x20mm Fused Terminal Blocks

- 1 - 5 pole terminal strip with 5x20mm fuse holder to IEC257
- Integral spare fuse carrier
- Interlocking fuseholder with 2130000
- Anti rotation spigot
- IP20 finger protection
- Cable entry 4mm²
- Wire protector on fuse terminal as standard
- Standard 3 to 5 pole with earth screw, without wire protectors
- Meets creepage and clearance requirements of IEC (8mm)
- Easily cut to size

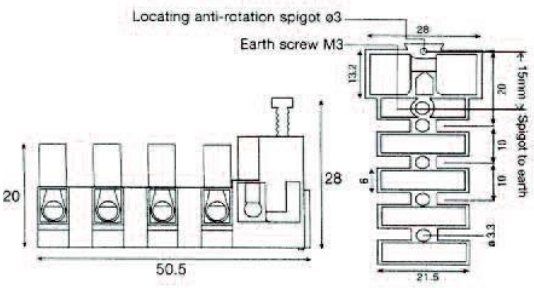
Specifications: RoHS ✓

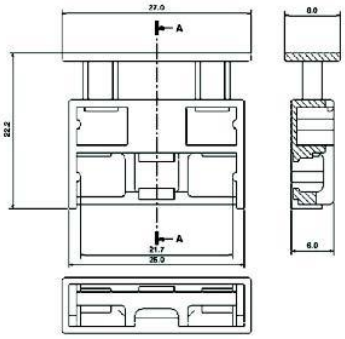
Rating: Fuseholder 250V AC, Terminal 450V AC
Current rating: Fuseholder 13A, Terminal 20A
Moulding: UL94-V0 flame retardant PA
Terminal: Brass, nickel plated
Fuse clip: Phosphor bronze
Wire protector: Stainless steel
Temperature: -20° to 120°C
Fuse size: 5x20mm glass or ceramic
Screws: M3

Approvals:

FIMKO approved on non earth versions

PART NUMBER	Poles	Unit Quantity
2130000	1 Interlocking	100
2130001	2	100
2130002	3 with earth screw	100
2130003	4 with earth screw	100
2130004	5 with earth screw	100







6.3x25mm (¼"x1") Fused Terminal Blocks

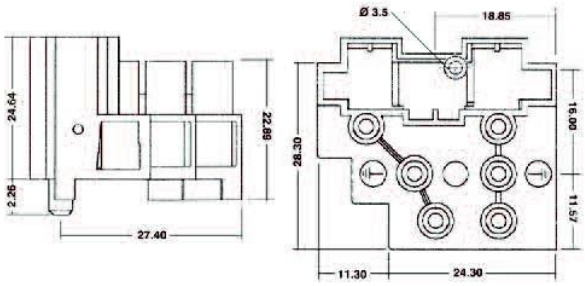
- 2 or 3 pole terminal block
- Accepts 5x20mm & 6.3x25mm (1"x¼") fuses to IEC257
- Anti rotation spigot
- IP20 finger protection
- Cable entry 3x1.5mm² or 2x2.5mm²
- Meets creepage and clearance requirements of IEC (8mm)
- 16mm fixing pitch
- 2 pole supplied in 3 pole housing
- Supplied complete with earth screw and washer

Specifications: RoHS ✓

Rating: Fuseholder 250V AC, Terminal 450V AC
Current rating: Fuseholder 13A, Terminal 20A
Moulding: UL94-V0 flame retardant PA
Terminal: Brass, nickel plated
Fuse clip: Phosphor bronze
Temperature: -20° to 125°C
Fuse size: 5 x 20mm & 6.3 x 25mm, (1"x1/4") glass or ceramic
Screws: M3.6
Terminal marking: L=Live, ⏚=Earth, N=Neutral

Approvals:

PART NUMBER	Poles	Unit Quantity
2130005	2	50
2130006	3	50



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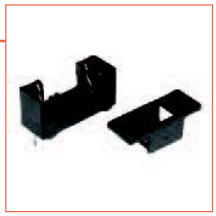
5x20mm Semi-Enclosed PCB Mounting 22.6mm Pitch Fuse Holders

Approvals:

Specifications: RoHS ✓

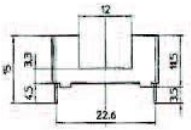
Moulding: UL94-V0 flame retardant PA
Colour: Black
Rating: 6.3A/ 250V
Contacts/Resistance: Tinned nickel plated Brass, <5mΩ
Dielectric strength: 3kV / 60"
Power dissipation: 1.6W
Insulation resistance: 100MΩ
Recommended PCB hole size: 1.5mm

- PCB mounting
- Fuse retaining insulation cover
- Enclosed contacts
- 22.6mm pitch
- Moulded in UL94-V0 retardant PA
- IEC 127-6

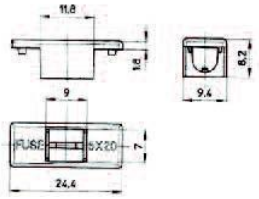


PART NUMBER	Description	Unit Quantity
2130011	No spigot	500
2130012	Cover for 2130011	500

2130011



2130012



5x20mm Low Profile Panel Mounting Fuse Holders

Approvals:

Specifications: RoHS ✓

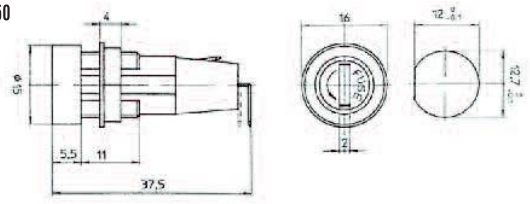
Rating: 6.3A/ 250V
2130053: 10A/ 250V
Contacts/Resistance: Tinned nickel plated Brass, <5mΩ
Moulding: UL94-V0 flame retardant PBT
Dielectric strength: 3kV / 60"
2130053: 1.5kV
Power dissipation: 2.5W
Insulation resistance: >100MΩ

- Low profile panel mounting
- Moulded in UL94-V0 PBT
- Screw driver release
- Screw & bayonet carrier
- Solder, 2.8/4.0/4.8 quick connect terminals
- Anti-rotation D fixing
- IEC 127-6
- Industry standard



PART NUMBER	Carrier	Terminal	Unit Quantity
2130050	Screw	Solder/2.8mm quick connect	250
2130051	Bayonet	Solder/2.8mm quick connect	250
2130052	Bayonet	Solder/4.8mm quick connect	250
2130053	Bayonet	Solder/4mm quick connect	50

2130050



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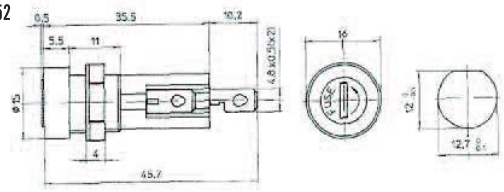

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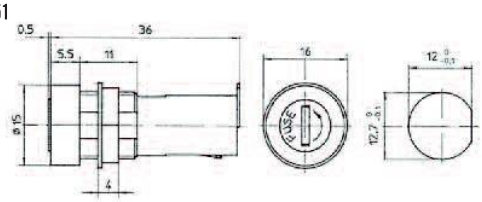
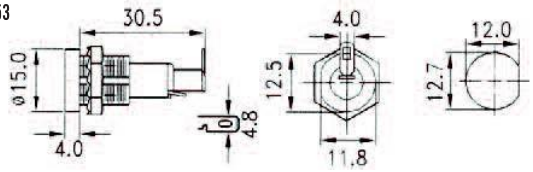


2130053



5x20mm Panel Mounting Fuse Holders



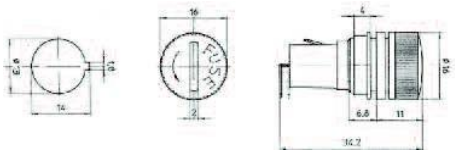
- Finger/screwdriver release, screw carrier
- Anti-rotation key fixing
- Combined solder/2.8mm quick connect terminals
- Compact
- IEC 127-6

Specifications: RoHS ✓

Rating: 6.3A/ 250V
Contacts: Tinned nickel plated Brass
Moulding: UL94-V0 flame retardant PC
Dielectric strength: >3kV
Power dissipation: 2.5W
Insulation resistance: >100MΩ

Approvals:

PART NUMBER	Description	Unit Quantity
2130054	Panel mount fuseholder	250



5x20mm Snap Fit Panel Mounting Fuse Holders



- Snap fit panel mounting
- Finger/screwdriver release, screw carrier
- Anti-rotation D fixing
- Combined solder/2.8mm quick connect terminals
- IEC 127-6

Specifications: RoHS ✓

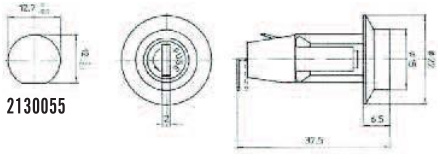
Rating 2130055: 6.3A/250V
Rating 2130056: 10A/250V
Contacts: Tinned nickel plated brass
Moulding 2130055: UL94-V0 flame retardant PBT
Moulding 2130056: UL94-V0 flame retardant PC
Dielectric strength 2130055: 3kV
Dielectric strength 2130056: 1.5kV
Insulation resistance: >100MΩ
Power dissipation 2130055: 2.5W

Approvals:

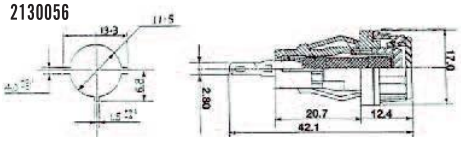
2130055 approvals

PART NUMBER	Description	Release	Unit Quantity
2130055	Screw	Screw driver	250
2130056	Bayonet	Finger	50

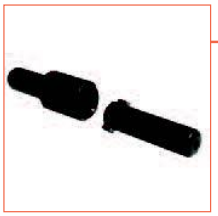
2130055



2130056



Multi-Size Inline Fuse Holder



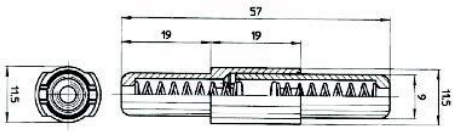
- Inline type fuseholder
- Accepts 5 x 20mm, 6.3 x 32mm (1¼" x ¼") and 6.3 x 25mm (¼" x 1") fuses
- Allows own choice of wire
- Bayonet type cover

Specifications: RoHS ✓

Rating: 6.3A/ 250V
Contacts/Resistance: Tinned nickel plated Brass
Moulding: UL94-HB PA6
Dielectric strength: 1.5kV
Operating power: 1.6W
Insulation resistance: >100MΩ

Approvals:

PART NUMBER	Description	Unit Quantity
2130060	6.3 x 32mm, 6.3 x 25mm, 5 x 20mm	250



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5x20mm Quick Blow Glass Fuses

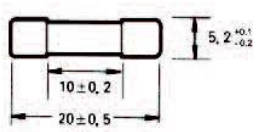
Approvals:
c US, BSI (200mA to 6.3A)

Specifications: RoHS ✓
Materials: Glass cartridge, nickel plated end caps

Break capacity 35A/250V or 10 x In whichever is greater at above 3.5A

- Quick blow (F) IEC60127-2/2
- Colour coded available





PART NUMBER	Rating	Unit Quantity
2131000	125mA	500
2131001	160mA	500
2131002	200mA	500
2131003	250mA	500
2131004	315mA	500
2131005	400mA	500
2131006	500mA	500
2131007	630mA	500
2131008	800mA	500

PART NUMBER	Rating	Unit Quantity
2131009	1A	500
2131010	1.25A	500
2131011	1.6A	500
2131012	2A	500
2131013	2.5A	500
2131014	3.15A	500
2131015	4A	500
2131016	5A	500
2131017	6.3A	500
2131018	8.A	500
2131019	10A	500
2131020	12.5A	500

5x20mm Time Delay Glass Fuses

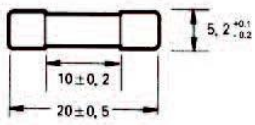
Approvals:
c US, BSI (200mA to 6.3A)

Specifications: RoHS ✓
Materials: Glass cartridge, nickel plated end caps

Break capacity 35A/250V or 10 x In whichever is greater at above 3.5A

- Time delay (F) IEC60127-2/3
- Colour coded available
- Spiral element or plated solder section for superior characteristics





PART NUMBER	Rating	Unit Quantity
2132000	100mA	500
2132001	125mA	500
2132002	160mA	500
2132003	200mA	500
2132004	250mA	500
2132005	315mA	500
2132006	400mA	500
2132007	500mA	500
2132008	630mA	500
2132009	800mA	500

PART NUMBER	Rating	Unit Quantity
2132010	1A	500
2132011	1.25A	500
2132012	1.6A	500
2132013	2A	500
2132014	2.5A	500
2132015	3.15A	500
2132016	4A	500
2132017	5A	500
2132018	6.3A	500
2132019	8.A	500
2132020	10A	500
2132021	12.5A	500

5x20mm Quick Blow Ceramic Fuses

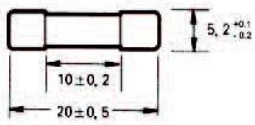
Approvals:
c US, BSI (250mA to 10A)

Specifications: RoHS ✓
Materials: Ceramic cartridge, nickel plated brass end caps, sand filled

Break capacity 1500A/250V

- Quick blow (F) IEC60127-2/1





PART NUMBER	Rating	Unit Quantity
2133000	100mA	500
2133001	125mA	500
2133002	160mA	500
2133003	200mA	500
2133004	250mA	500
2133005	315mA	500
2133006	400mA	500
2133007	500mA	500
2133008	630mA	500
2133009	800mA	500

PART NUMBER	Rating	Unit Quantity
2133010	1A	500
2133011	1.25A	500
2133012	1.6A	500
2133013	2A	500
2133014	2.5A	500
2133015	3.15A	500
2133016	4A	500
2133017	5A	500
2133018	6.3A	500
2133019	8A	500
2133020	10A	500
2133021	12.5A	500

5x20mm Time Delay Ceramic Fuses



- Time delay (T) IEC60127-2/5

Specifications: RoHS ✓

Materials: Ceramic cartridge, nickel plated brass end caps, sand filled

Break capacity 1500A/250V
200mA- 15A BSI 1A-6.3A

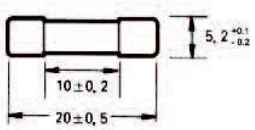
Approvals:

c UL us (200mA to 15A)

VDE BSI (1A to 6.3A)

PART NUMBER	Rating	Unit Quantity
2134000	100mA	500
2134001	125mA	500
2134002	160mA	500
2134003	200mA	500
2134004	250mA	500
2134005	315mA	500
2134006	400mA	500
2134007	500mA	500
2134008	630mA	500
2134009	800mA	500

PART NUMBER	Rating	Unit Quantity
2134010	1A	500
2134011	1.25A	500
2134012	1.6A	500
2134013	2A	500
2134014	2.5A	500
2134015	3.15A	500
2134016	4A	500
2134017	5A	500
2134018	6.3A	500
2134019	8.A	500
2134020	10A	500
2134021	12.5A	500



6.3x25mm British Plug Top Fuses

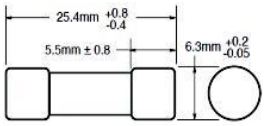


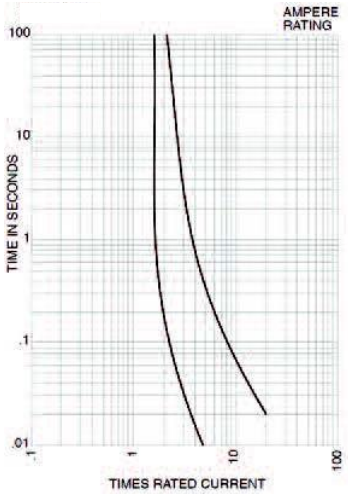
Specifications: RoHS ✓

Materials: Ceramic tube, silver - plated copper end caps
Power dissipation max 1 Watt
Break capacity:
6000A, 264VAC, 50Hz,
p.f. 0.3 - 0.4

LIMITS FOR PRE-ARCING TIME			
	1.0 In.	1.6 In.	1.9 In.
In	MIN	MIN	MAX
1A - 13A	1,000 hrs	30 min.	30 min.

PART NUMBER	Rating	Unit Quantity
2139000	1A	500
2139001	2A	500
2139002	3A	500
2139003	5A	500
2139004	7A	500
2139005	10A	500
2139006	13A	500





Lens Clips

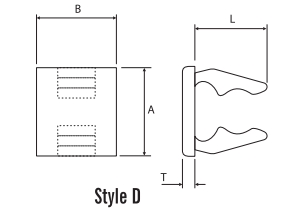


- Power "ON" identification
- Self-retaining
- Holds neon bulb securely
- Easy to use
- Low cost

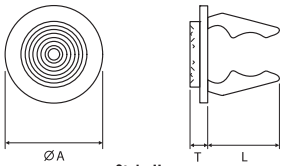
Specifications: RoHS ✓

Material: Polycarbonate

PART NUMBER	Colour	Chassis Thickness	Head Dimensions	Head Height	A	B	L	T	Style	Neon Bulb Dia.	Unit Quantity
5126003	Natural	0.71 - 1.62	9.20 x 11.1	1.70	11.10	9.10	8.75	1.70	D	6.00	Please Call
5127003	Red	0.71 - 1.62	9.20 x 11.1	1.70	11.10	9.10	8.75	1.70	D	6.00	Please Call
5128003	Amber	0.71 - 1.62	9.20 x 11.1	1.70	11.10	9.10	8.75	1.70	D	6.00	Please Call
5126007	Natural	0.7 - 1.6	12.00	2.00	12.00	-	8.70	2.00	H	6.00	Please Call
5127007	Red	0.7 - 1.6	12.00	2.00	12.00	-	8.70	2.00	H	6.00	Please Call
5128007	Amber	0.7 - 1.6	12.00	2.00	12.00	-	8.70	2.00	H	6.00	Please Call



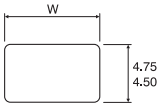
Style D



Style H

Panel Thk	W
0.70	9.25
0.90	9.25
1.20	9.35
1.60	9.50

Hole Profile



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Heyco®Wire Connectors - Crimp On



Approvals:

Listed under Underwriters' Laboratories File E80121

Specifications: RoHS ✓

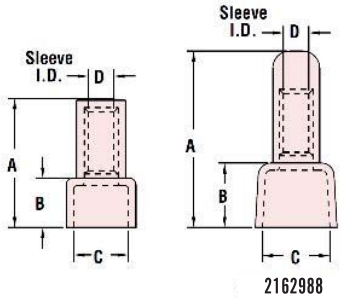
Material: Nylon 6,6 with Brass sleeve

Flammability Rating: UL94V-0

Temperature Range: -18°C to 105°C

- Quick, permanent and secure installation with recommended crimp tool.
- Five sizes for #10 AWG thru #22 AWG.
- UL rated at 600 volts except as noted.
- Closed-end nylon shell with plated copper internal sleeve.

NEW



2162988

PART NUMBER	Description	Wire Combinations	Part Dimensions				Unit Quantity
			A	B	C	D	
2162986	1622N	1 x 16AWG & 1 x 20AWG or 2 to 5 x 22AWG	15.2	5.9	6.2	2.4	1,000
2162988**	1422DN	1 x 14AWG & 1 x 18AWG or 2 to 7 x 22AWG	21.1	7.9	8.4	3.0	1,000
2162990	1422N	1 x 14AWG & 1 x 18AWG or 2 to 7 x 22AWG	15.2	5.9	6.5	3.0	1,000
2162992	1022N	1 x 10AWG & 1 x 14AWG or 4 x 20AWG	17.1	8.0	9.4	4.0	1,000
2162994	1020N	1 x 10AWG & 1 x 12AWG or 4 x 16AWG	22.2	10.2	12.0	5.1	1,000

** Features extra clearance beyond sleeve

HEYCO® Genuine HEYCO® Parts!

Heyco®Wire Connectors - Spring Insert



Approvals:

Listed under Underwriters' Laboratories File E80121

Certified by the Canadian Standards Association File 211101

Specifications: RoHS ✓

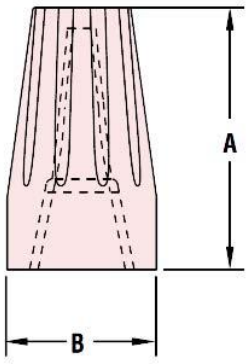
Material: Polypropylene with Steel Wire Spring

Flammability Rating: UL94V-2

Temperature Range: -18°C to 105°C

- Grey, Blue, Orange, Yellow, and Red colors for easy size and capacity identification.
- Square wire spring insert bites into and securely connects #10 AWG thru #22 AWG.
- Fluted body for easy assembly.
- 81-G and 82-B UL rated 300 volts. 83-0 and 84-Y UL rated at 600 volts.

NEW



PART NUMBER	Description	Wire Combinations	Part Dimensions		Unit Quantity
			A	B	
2162937	81-G	Joins 22AWG to 14AWG Min. 3 x 22AWG Max. 2 x 16AWG	14.5	8.4	5,000
2162940	82-B	Joins 22AWG to 14AWG Min. 3 x 20AWG Max. 3 x 16AWG	17.8	9.9	5,000
2162949	83-0	Joins 22AWG to 14AWG Min. 2 x 18AWG Max. 2 x 14AWG	21.3	11.4	5,000
2162952	84-Y	Joins 22AWG to 10AWG Min. 3 x 20AWG Max. 2 x 12AWG	23.9	13.7	5,000
2162955	86-R	Joins 20AWG to 8AWG Min. 2 x 14AWG Max. 4 x 12AWG	26.7	16.3	4,000



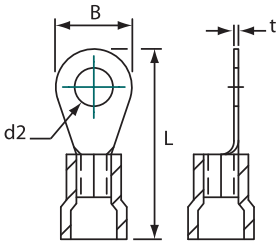
Ring Terminals

- High grade PVC insulation makes crimping easy whilst ensuring complete integrity of termination
- A range of pre-insulated terminals that combine high quality with competitive pricing

Specifications: RoHS ✓
Materials:
Terminal: Copper (Tin Plated)
Insulation: PVC

Approvals:
UL Approved

PART NUMBER	Stud Size	Insulation Colour	Wire Range (A.W.G)	Wire Range (mm²)	B	d2	t	L	Unit Quantity
2031000	3.0	Red	22 - 16	0.5 - 1.5	5.5	3.2	0.75	17.5	100
2031001	3.5	Red	22 - 16	0.5 - 1.5	6.6	3.7	0.75	20.4	100
2031002	4.0	Red	22 - 16	0.5 - 1.5	6.6	4.3	0.75	20.4	100
2031003	5.0	Red	22 - 16	0.5 - 1.5	8.0	5.3	0.75	21.7	100
2031004	6.0	Red	22 - 16	0.5 - 1.5	11.6	6.4	0.75	27.6	100
2031005	8.0	Red	22 - 16	0.5 - 1.5	11.6	8.4	0.75	27.6	100
2031006	10.0	Red	22 - 16	0.5 - 1.5	13.7	10.5	0.75	31.5	100
2032000	3.0	Blue	16 - 14	1.5 - 2.5	8.5	3.2	0.8	23.0	100
2032001	3.5	Blue	16 - 14	1.5 - 2.5	6.6	3.7	0.8	20.6	100
2032002	4.0	Blue	16 - 14	1.5 - 2.5	8.5	4.3	0.8	23.0	100
2032003	5.0	Blue	16 - 14	1.5 - 2.5	9.5	5.3	0.8	23.0	100
2032004	6.0	Blue	16 - 14	1.5 - 2.5	12.0	6.4	0.8	28.1	100
2032005	8.0	Blue	16 - 14	1.5 - 2.5	12.0	8.4	0.8	28.1	100
2032006	10.0	Blue	16 - 14	1.5 - 2.5	13.7	10.5	0.8	31.9	100
2032007	12.0	Blue	16 - 14	1.5 - 2.5	19.0	13.0	0.8	35.5	100
2033000	4.0	Yellow	12 - 10	4.0 - 6.0	9.5	4.3	1.0	26.7	100
2033001	5.0	Yellow	12 - 10	4.0 - 6.0	9.5	5.3	1.0	26.7	100
2033002	6.0	Yellow	12 - 10	4.0 - 6.0	12.0	6.4	1.0	32.7	100
2033003	8.0	Yellow	12 - 10	4.0 - 6.0	15.0	8.4	1.0	34.9	100
2033004	10.0	Yellow	12 - 10	4.0 - 6.0	15.0	10.5	1.0	34.9	100
2033005	12.0	Yellow	12 - 10	4.0 - 6.0	19.2	13.0	1.0	39.9	100





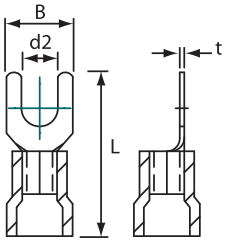
Spade (Fork) Terminals

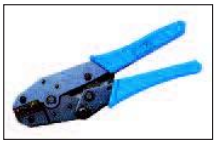
- High grade PVC insulation makes crimping easy whilst ensuring complete integrity of termination
- A range of pre-insulated terminals that combine high quality with competitive pricing

Specifications: RoHS ✓
Materials:
Terminal: Copper (Tin Plated)
Insulation: PVC

Approvals:
UL Approved

PART NUMBER	Stud Size	Insulation Colour	Wire Range (A.W.G)	Wire Range (mm²)	B	d2	t	L	Unit Quantity
2031008	3.0	Red	22 - 16	0.5 - 1.5	5.7	3.2	0.75	22.0	100
2031009	3.5	Red	22 - 16	0.5 - 1.5	5.7	3.7	0.75	22.0	100
2031010	4.0	Red	22 - 16	0.5 - 1.5	6.4	4.3	0.75	22.0	100
2031011	5.0	Red	22 - 16	0.5 - 1.5	8.0	5.3	0.75	22.0	100
2031012	6.0	Red	22 - 16	0.5 - 1.5	10.7	6.4	0.75	23.0	100
2032008	3.0	Blue	16 - 14	1.5 - 2.5	5.7	3.2	0.80	22.5	100
2032009	3.5	Blue	16 - 14	1.5 - 2.5	5.7	3.7	0.80	22.5	100
2032010	4.0	Blue	16 - 14	1.5 - 2.5	6.4	4.3	0.80	22.5	100
2032011	5.0	Blue	16 - 14	1.5 - 2.5	8.0	5.3	0.80	22.5	100
2032012	6.0	Blue	16 - 14	1.5 - 2.5	10.7	6.4	0.80	23.5	100
2033006	3.5	Yellow	12 - 10	4.0 - 6.0	8.1	3.7	1.00	26.7	100
2033007	4.0	Yellow	12 - 10	4.0 - 6.0	8.2	4.3	1.00	26.7	100
2033008	5.0	Yellow	12 - 10	4.0 - 6.0	9.0	5.3	1.00	26.7	100
2033009	6.0	Yellow	12 - 10	4.0 - 6.0	12.0	6.4	1.00	30.7	100
2033010	8.0	Yellow	12 - 10	4.0 - 6.0	13.5	8.4	1.00	32.6	100





Ratchet Crimping Tool can be found on page 1-17



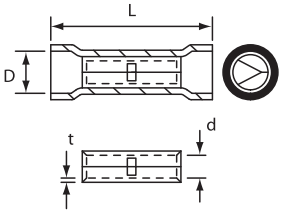
Butt Connectors

- High grade PVC insulation makes crimping easy whilst ensuring complete integrity of termination
- A range of pre-insulated terminals that combine high quality with competitive pricing

Specifications: RoHS ✓
Materials:
Terminal: Copper (Tin Plated)
Insulation: PVC

Approvals:
UL Approved

PART NUMBER	Insulation Colour	Wire Range (A.W.G)	Wire Range (mm²)	D	d	L	t	Unit Quantity
2031013	Red	22 - 16	0.5 - 1.5	4.3	1.7	25.0	0.75	100
2032013	Blue	16 - 14	1.5 - 2.5	4.5	2.3	25.0	0.80	100
2033011	Yellow	12 - 10	4.0 - 6.0	6.5	3.4	27.0	1.00	100



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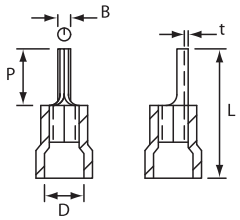
Pin Terminals



Approvals:
UL Approved

Specifications: RoHS ✓
Materials:
Terminal: Copper (Tin Plated)
Insulation: PVC

- High grade PVC insulation makes crimping easy whilst ensuring complete integrity of termination
- A range of pre-insulated terminals that combine high quality with competitive pricing



PART NUMBER	Insulation Colour	Wire Range (A.W.G)	Wire Range (mm^2)	P	D	B	L	t	Unit Quantity
2031014	Red	22 - 16	0.5 - 1.5	10.0	4.3	2.0	22.5	0.8	100
2032014	Blue	16 - 14	1.5 - 2.5	10.0	4.7	2.0	23.0	0.8	100
2033012	Yellow	12 - 10	4.0 - 6.0	14.0	6.7	2.7	27.5	1.0	100

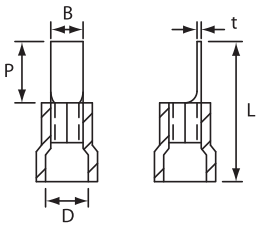
Blade Terminals



Approvals:
UL Approved

Specifications: RoHS ✓
Materials:
Terminal: Copper (Tin Plated)
Insulation: PVC

- High grade PVC insulation makes crimping easy whilst ensuring complete integrity of termination
- A range of pre-insulated terminals that combine high quality with competitive pricing



PART NUMBER	Insulation Colour	Wire Range (A.W.G)	Wire Range (mm^2)	P	D	B	L	t	Unit Quantity
2031015	Red	22 - 16	0.5 - 1.5	11.0	4.3	3.00	25.0	0.75	100
2031016	Red	22 - 16	0.5 - 1.5	14.0	4.3	3.00	21.5	0.75	100
2031017	Red	22 - 16	0.5 - 1.5	18.0	4.3	2.45	28.5	0.75	100
2032015	Blue	16 - 14	1.5 - 2.5	9.0	4.7	2.80	20.0	0.80	100
2032016	Blue	16 - 14	1.5 - 2.5	18.0	4.7	2.45	29.0	0.80	100
2033013	Yellow	12 - 10	4.0 - 6.0	10.0	6.7	2.80	24.0	1.00	100
2033014	Yellow	12 - 10	4.0 - 6.0	18.0	6.7	2.8	33.0	1.00	100

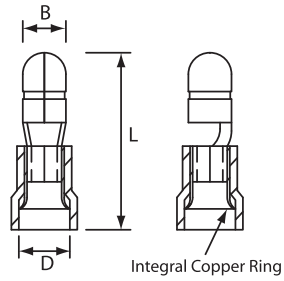
Male Bullets



Approvals:
UL Approved

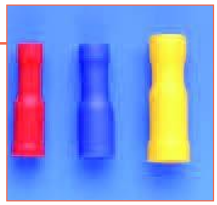
Specifications: RoHS ✓
Materials:
Terminal: Brass (Tin Plated)
Integral Ring: Copper
Insulation: PVC

- Design incorporates an integral copper ring that provides good conductivity in high vibration applications
- High grade PVC insulation makes crimping easy whilst ensuring complete integrity of termination
- A range of pre-insulated terminals that combine high quality with competitive pricing



PART NUMBER	Insulation Colour	Wire Range (A.W.G)	Wire Range (mm^2)	D	B	L	Unit Quantity
2031029	Red	22 - 16	0.5 - 1.5	4.1	4.0	21.5	100
2032027	Blue	16 - 14	1.5 - 2.5	4.9	5.0	22.5	100
2033020	Yellow	12 - 10	4.0 - 6.0	6.5	5.0	26.0	100

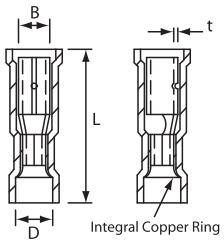
Female Bullets



Approvals:
UL Approved

Specifications: RoHS ✓
Materials:
Terminal: Brass (Tin Plated)
Integral Ring: Copper
Insulation: PVC

- Design incorporates an integral copper ring that provides good conductivity in high vibration applications
- High grade PVC insulation makes crimping easy whilst ensuring complete integrity of termination
- A range of pre-insulated terminals that combine high quality with competitive pricing



PART NUMBER	For Male Bullet Diameter	Insulation Colour	Wire Range (A.W.G)	Wire Range (mm^2)	D	B	L	t	Unit Quantity
2031028	4.0	Red	22 - 16	0.5 - 1.5	4.3	4.65	24.5	0.4	100
2032026	5.0	Blue	16 - 14	1.5 - 2.5	4.9	5.65	24.5	0.4	100
2033019	5.0	Yellow	12 - 10	4.0 - 6.0	6.5	5.65	28.0	0.4	100



Male Tabs

- Design incorporates an integral copper ring that provides good conductivity in high vibration applications
- High grade PVC insulation makes crimping easy whilst ensuring complete integrity of termination
- A range of pre-insulated terminals that combine high quality with competitive pricing

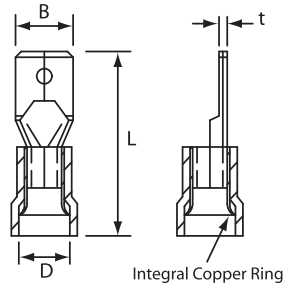
Specifications: RoHS ✓

Materials:
Terminal: Brass (Tin Plated)
Integral Ring: Copper
Insulation: PVC

Approvals:

UL Approved

PART NUMBER	B Tab Size	Insulation Colour	Wire Range (A.W.G)	Wire Range (mm^2)	D	L	t	Unit Quantity
2031018	4.8	Red	22 - 16	0.5 - 1.5	4.1	22.0	0.8	100
2031019	6.4	Red	22 - 16	0.5 - 1.5	4.1	22.0	0.8	100
2032017	4.8	Blue	16 - 14	1.5 - 2.5	4.9	22.5	0.8	100
2032018	6.4	Blue	16 - 14	1.5 - 2.5	4.9	22.5	0.8	100
2033015	6.4	Yellow	12 - 10	4.0 - 6.0	6.5	24.5	0.8	100





Female Push-Ons

- Design incorporates an integral copper ring that provides good conductivity in high vibration applications
- High grade PVC insulation makes crimping easy whilst ensuring complete integrity of termination
- A range of pre-insulated terminals that combine high quality with competitive pricing

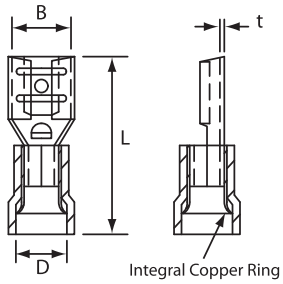
Specifications: RoHS ✓

Materials:
Terminal: Brass (Tin Plated)
Integral Ring: Copper
Insulation: PVC

Approvals:

UL Approved

PART NUMBER	To Fit Tab Width	To Fit Tab Thickness	Insulation Colour	Wire Range (A.W.G)	Wire Range (mm^2)	D	B	L	t	Unit Quantity
2031020	2.8	0.5	Red	22 - 16	0.5 - 1.5	4.1	3.2	19.0	0.25	100
2031021	2.8	0.8	Red	22 - 16	0.5 - 1.5	4.1	3.2	19.0	0.25	100
2031022	4.8	0.5	Red	22 - 16	0.5 - 1.5	4.1	5.0	19.5	0.4	100
2031023	4.8	0.8	Red	22 - 16	0.5 - 1.5	4.1	5.0	19.5	0.4	100
2031024	6.4	0.8	Red	22 - 16	0.5 - 1.5	4.1	6.7	21.5	0.4	100
2032019	4.8	0.5	Blue	16 - 14	1.5 - 2.5	4.9	5.0	20.0	0.4	100
2032020	4.8	0.8	Blue	16 - 14	1.5 - 2.5	4.9	5.0	20.0	0.4	100
2032021	6.4	0.8	Blue	16 - 14	1.5 - 2.5	4.9	6.7	22.0	0.4	100
2032022	8.0	0.8	Blue	16 - 14	1.5 - 2.5	4.4	8.3	23.5	0.4	100
2033016	6.4	0.8	Yellow	12 - 10	4.0 - 6.0	6.5	6.7	25.0	0.4	100
2033017	9.4	1.2	Yellow	12 - 10	4.0 - 6.0	6.5	9.9	30.1	0.5	100





Fully Insulated Female Push-Ons

- Design incorporates an integral copper ring that provides good conductivity in high vibration applications
- High grade PVC insulation makes crimping easy whilst ensuring complete integrity of termination
- A range of pre-insulated terminals that combine high quality with competitive pricing

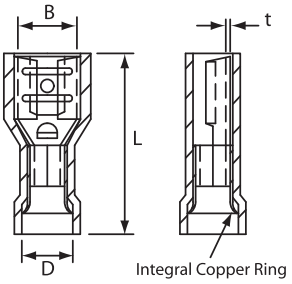
Specifications: RoHS ✓

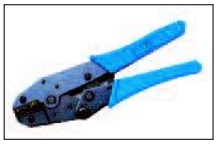
Materials:
Terminal: Brass (Tin Plated)
Integral Ring: Copper
Insulation: PVC

Approvals:

UL Approved

PART NUMBER	To Fit Tab Width	To Fit Tab Thickness	Insulation Colour	Wire Range (A.W.G)	Wire Range (mm^2)	D	B	L	t	Unit Quantity
2031025	4.8	0.8	Red	22 - 16	0.5 - 1.5	4.1	5.0	20.5	0.4	100
2031026	6.4	0.8	Red	22 - 16	0.5 - 1.5	4.1	6.7	22.0	0.4	100
2032023	4.8	0.8	Blue	16 - 14	1.5 - 2.5	4.9	5.0	21.5	0.4	100
2032024	6.4	0.8	Blue	16 - 14	1.5 - 2.5	4.9	6.7	22.5	0.4	100
2033018	6.4	0.8	Yellow	12 - 10	4.0 - 6.0	6.7	6.7	25.0	0.4	100





Ratchet Crimping Tool can be found on page 1-17

OPTIMAS

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Piggy Backs Female Push-Ons



Approvals:

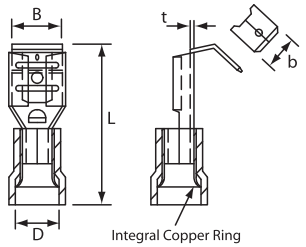
UL Approved

Specifications: RoHS ✓

Materials:

Terminal:	Brass (Tin Plated)
Integral Ring:	Copper
Insulation:	PVC

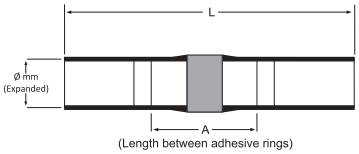
- Design incorporates an integral copper ring that provides good conductivity in high vibration applications
- High grade PVC insulation makes crimping easy whilst ensuring complete integrity of termination
- A range of pre-insulated terminals that combine high quality with competitive pricing



PART NUMBER	To Fit Tab Width	To Fit Tab Thickness	Insulation Colour	Wire Range (A.W.G)	Wire Range (mm²)	D	B	L	b	t	Unit Quantity
2031027	6.4	0.8	Red	22 - 16	0.5 - 1.5	4.1	6.7	22.5	6.35	0.4	100
2032025	6.4	0.8	Blue	16 - 14	1.5 - 2.5	4.9	6.7	23.0	6.35	0.4	100

Heat Shrink Solder Butt Connectors





Specifications: RoHS ✓

Material: Insulation - Heat shrinkable polyolefin with integrated meltable thermoplastic adhesive rings
Solder - Lead-free tin
Seal when applied: IP67

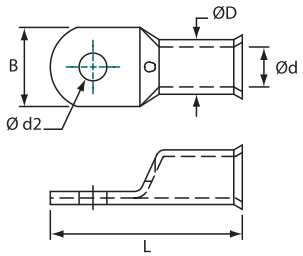
- Ideal for joining cables without the need for crimping
- Solder within the butt flows connecting the wires together
- Adhesive rings provide a water and contaminant resistant seal to IP67
- Allows visual inspection of the cables
- Provides excellent abrasion and strain resistance

NEW

PART NUMBER	Wire Range (mm²)	Wire Range (AWG)	L	Ø	A	Colour	Unit Quantity
2034000	0.1 - 0.5	38 - 28	26.0	1.5	15.0	White	100
2031030	0.5 - 1.5	22 - 18	42.0	3.0	15.0	Red	100
2032028	1.5 - 2.5	16 - 14	42.0	4.5	15.0	Blue	100
2033021	3.2 - 6.0	12 - 10	42.0	6.0	15.0	Yellow	100

Copper Tube Crimp Terminals





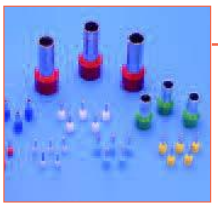
Specifications: RoHS ✓

Material: High conductivity copper to BS2871
Purity: >99.9% Entry: Bell-mouth easy entry
Plating: Bright electro-tin plating to BS 1872
Barrels: Internal Barrel diameters suit standard cables as defined in BS 6360

- All copper tube terminals have bell mouth entry for ease of cable insertion
- All terminals have inspection holes to check cable is properly inserted before crimping
- Copper tube splices, four hole transformer fixing, long palm, right angle, blank terminals, copper pins, dissimilar copper splices and flag terminals also available on request.
- Sizes above 95mm² available on request.
- Other Stud sizes available on request

PART NUMBER	Cable Area (mm²)	Stud Size	Ød2	ØD	Ød	B	L	Unit Quantity
2051000	10.0	5.0	5.3	6.6	4.5	11.0	30.0	100
2051001	10.0	6.0	6.3	6.6	4.5	11.0	30.0	100
2051002	10.0	8.0	8.3	6.6	4.5	12.5	30.0	100
2051003	10.0	10.0	10.3	6.9	4.5	16.0	34.1	100
2051004	10.0	12.0	12.7	6.9	4.5	18.0	34.1	100
2051005	16.0	5.0	5.3	7.5	5.5	11.0	25.0	100
2051006	16.0	6.0	6.3	7.5	5.5	11.0	30.7	100
2051007	16.0	8.0	8.3	7.5	5.5	12.5	30.7	100
2051008	16.0	10.0	10.3	7.5	5.5	16.0	35.9	100
2051009	16.0	12.0	12.7	8.1	5.5	18.0	35.9	100
2051010	25.0	5.0	5.3	9.1	6.7	13.0	32.2	50
2051011	25.0	6.0	6.3	9.1	6.7	13.0	32.2	50
2051012	25.0	8.0	8.3	9.1	6.7	13.0	32.2	50
2051013	25.0	10.0	10.3	9.1	6.7	16.0	36.9	50
2051014	25.0	12.0	12.7	9.1	6.7	18.0	36.9	50
2051015	35.0	6.0	6.3	11.0	8.6	16.0	37.6	50
2051016	35.0	8.0	8.3	11.0	8.6	16.0	37.6	50
2051017	35.0	10.0	10.3	11.0	8.6	16.5	41.5	50
2051018	35.0	12.0	12.7	11.0	8.6	18.0	41.5	50

PART NUMBER	Cable Area (mm²)	Stud Size	Ød2	ØD	Ød	B	L	Unit Quantity
2051019	50.0	6.0	6.3	12.4	9.5	18.0	41.0	30
2051020	50.0	8.0	8.3	12.4	9.5	18.0	41.0	30
2051021	50.0	10.0	10.3	12.4	9.5	18.0	44.0	30
2051022	50.0	12.0	12.7	12.4	9.5	19.0	44.0	30
2051023	50.0	14.0	14.8	12.4	9.5	21.0	52.8	30
2051024	70.0	6.0	6.5	15.0	12.0	22.5	53.5	30
2051025	70.0	8.0	8.3	15.0	12.0	22.5	53.5	30
2051026	70.0	10.0	10.3	15.0	12.0	22.5	53.5	30
2051027	70.0	12.0	12.7	15.0	12.0	22.5	53.5	30
2051028	70.0	14.0	14.8	15.0	12.0	22.5	55.5	30
2051029	70.0	16.0	16.5	15.0	12.0	24.0	55.5	30
2051030	95.0	8.0	8.3	17.0	13.4	25.0	53.2	20
2051031	95.0	10.0	10.3	17.0	13.4	25.0	53.2	20
2051032	95.0	12.0	12.7	17.0	13.4	25.0	53.2	20
2051033	95.0	14.0	14.8	17.0	13.4	25.0	56.8	20
2051034	95.0	16.0	16.5	17.0	13.4	25.0	56.8	20



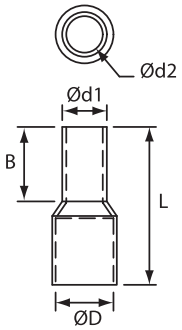
Cord End Ferrules

- Cord end ferrules provide a neat end termination to tri-rated cable and multi-stranded wires
- Available in both the French and German colour coding systems
- Also commonly known as bootlace ferrules or cord end terminals

Specifications: RoHS ✓

Material: High conductivity copper
Purity: >99.9%
Plating: Bright electro-tin plating
Insulation: Nylon 6,6

French Type		German Type		Conductor Size (mm^2)	L	B	Ød1	Ød2	D	Unit Quantity
PART NUMBER	Insulation Colour	PART NUMBER	Insulation Colour							
2060001	Violet	2061001	Light Blue	0.25	10.0	6.0	0.90	0.75	1.9	1,000
2060002	Pink	2061002	Green	0.34	12.0	8.0	0.95	0.80	1.9	1,000
2060003	White	2061003	Orange	0.50	14.0	8.0	1.15	1.00	2.6	1,000
2060004	Blue	2061004	White	0.75	14.0	8.0	1.35	1.20	2.8	1,000
2060005	Red	2061005	Yellow	1.00	14.0	8.0	1.55	1.40	3.0	1,000
2060006	Black	2061006	Red	1.50	14.0	8.0	1.85	1.70	3.5	1,000
2060007	Grey	2061007	Blue	2.50	14.0	8.0	2.35	2.20	4.2	1,000
2060008	Orange	2061008	Grey	4.00	17.0	10.0	3.00	2.80	4.8	1,000
2060009	Green	2061009	Black	6.00	20.0	12.0	3.70	3.50	6.3	1,000
2060010	Brown	2061010	Ivory	10.00	22.0	12.0	4.70	4.50	7.6	1,000
2060011	Ivory	2061011	Green	16.00	24.0	12.0	6.00	5.80	8.8	1,000
2060012	Black	2061012	Brown	25.00	28.0	16.0	7.50	7.30	11.2	1,000
2060013	Red	2061013	Beige	35.00	30.0	16.0	8.50	8.30	13.0	1,000





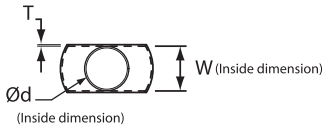
Twin Cord End Ferrules

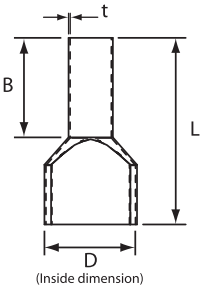
- Cord end ferrules provide a neat end termination to tri-rated cable and multi-stranded wires
- Available in both the French and German colour coding systems
- Also commonly known as bootlace ferrules or cord end terminals

Specifications: RoHS ✓

Material: High conductivity copper
Purity: >99.9%
Plating: Bright electro-tin plating
Insulation: Nylon 6,6

French Type		German Type		Conductor Size (mm^2)	B	Ød	D	W	L	t	T	Unit Quantity
PART NUMBER	Insulation Colour	PART NUMBER	Insulation Colour									
2060050	White	2061050	Orange	2 x 0.5	8.0	1.50	4.7	2.5	15.0	0.15	0.25	1,000
2060051	Grey	2061051	White	2 x 0.75	8.0	1.80	5.0	2.8	15.0	0.15	0.25	1,000
2060052	Red	2061052	Yellow	2 x 1.0	8.0	2.05	5.4	3.4	15.0	0.15	0.30	1,000
2060053	Black	2061053	Red	2 x 1.5	8.0	2.30	6.6	3.6	16.0	0.15	0.30	1,000
2060054	Blue	2061054	Blue	2 x 2.5	10.0	2.80	7.8	4.2	18.5	0.20	0.30	1,000
2060055	Grey	2061055	Grey	2 x 4.0	12.0	3.70	8.8	4.9	23.0	0.20	0.40	1,000
2060056	Yellow	2061056	Black	2 x 6.0	14.0	4.80	10.0	6.9	26.0	0.20	0.40	1,000
2060057	Brown	2061057	Ivory	2 x 10.0	14.0	6.40	12.8	7.6	26.5	0.20	0.50	1,000
2060058	Blue	2061058	Green	2 x 16.0	14.0	8.30	18.6	9.6	31.5	0.30	0.50	1,000







Crimping Tools for Cord End Ferrules

- Adjustable tensioner
- Replaceable jaws
- Ergonomically designed handles reduce operator fatigue
- Polished jaws mean that ferrules release easily after crimping

Specifications: RoHS ✓

Length: 800 1003 & 800 1004: 205mm, 800 1005: 226mm

Weight: 800 1003 & 800 1004: 0.39Kgs, 800 1005: 0.54Kgs.

PART NUMBER	Description	Unit Quantity
8001003	Crimping Tool for cord end ferrules 0.5mm^2 to 6.0mm^2	1
8001004	Crimping Tool for cord end ferrules 4mm^2 to 16mm^2	1
8001005	Crimping Tool for cord end ferrules 16mm^2 to 35mm^2	1



Ratchet Crimping Tool for Twin Cord End Ferrules

- Adjustable tensioner
- Replaceable jaws
- Ergonomically designed handles reduce operator fatigue
- Polished jaws mean that ferrules release easily after crimping

Specifications: RoHS ✓

Length: 225mm

Weight: 0.54Kgs

PART NUMBER	Description	Unit Quantity
8001006	Ratchet crimping tool for twin cord end ferrules 0.5mm^2 to 6.0mm^2	1

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Ratchet Crimping Tool for Pre-Insulated Terminals

Specifications:	RoHS ✓
Length 225mm	
Weight 0.51kg	

- Adjustable tensioner
- Replaceable jaws
- Indents on jaws identify which jaw has been used
- Ergonomically designed handles reduce operator fatigue



PART NUMBER	Description	Unit Quantity
8001000	Ratchet crimping tool for red, blue and yellow pre-insulated terminals	1

Ratchet Crimping Tool for Copper Tube Terminals 10 - 16mm²

Specifications:	RoHS ✓
Length: 242mm	
Weight: 0.54Kgs	

- Adjustable tensioner
- Ergonomically designed handles reduce operator fatigue
- Ideal for IEE specification earthing bond work



PART NUMBER	Description	Unit Quantity
8001002	Ratchet crimping tool specifically designed for crimping 10mm² and 16mm² copper tube terminals	1

Ratchet Crimping Tool for Copper Tube Terminals 6 - 50mm²

Specifications:	RoHS ✓
Length: 390mm	
Weight: 1.10Kgs	

- Hexagon crimping
- Multiple rotating dies built into head, easy to select correct size
- Longer handles minimise the effort required to produce a perfect crimp



PART NUMBER	Description	Unit Quantity
8001007	Heavy duty crimping tool for 6 to 50mm² copper tube terminals	1

Ratchet Crimping Tool for Copper Tube Terminals 25 - 150mm²

Specifications:	RoHS ✓
Length: 650mm	
Weight: 2.90Kgs	

- Hexagon crimping
- Multiple rotating dies built into head, easy to select correct size
- Longer handles minimise the effort required to produce a perfect crimp



PART NUMBER	Description	Unit Quantity
8001008	Heavy duty crimping tool for 25 to 150mm² copper tube terminals	1



Terminal Bushings

- Designed to provide a low cost, completely insulated means for quick connection or disconnection of wire through panels
- Choice of solder, double male or crimp terminals in standard 4.8 or 6.4 sizes
- Available in single, double or triple terminal configuration

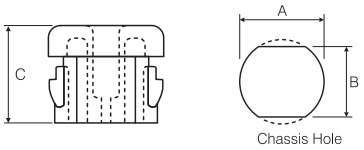
Specifications: RoHS ✓

Material: Nylon 66
Flammability: UL94V-2

Tolerances: C = ± .41

Approvals:

PART NUMBER		Terminal Accommodated		Chassis Dimensions			C Bushing Length	Bushing Shape	Unit Quantity	
Black	White	Width	Qty.	A	B	Maximum Thickness			Black	White
7104032	7104031	4.8	1	12.7	11.8	3.2	12.7	Circular	1,000	5,000
7104022	7104021	6.4	1	12.7	11.8	3.2	12.7	Circular	1,000	5,000
7104042	7104041	6.4	1	17.5	16.3	3.2	13.3	Circular	1,000	5,000
7104060	7104059	4.8	2	17.5	16.3	3.2	13.3	Circular	1,000	5,000
7104062	7104061	6.4	2	17.5	16.3	3.2	13.3	Circular	1,000	5,000
7104082	7104081	6.4	3	22.2	21.0	3.2	12.7	Circular	1,000	5,000
				Length	Width					
†7104017	7104018	4.8	1	11.3	6.3	2.3	12.0	Rectangular	1,000	5,000
†7104019	7104020	6.4	1	11.3	6.3	2.3	12.0	Rectangular	1,000	5,000





Terminal Bushing components are supplied as follows:
1) Moulded bushing only, without terminals
2) Terminals only (Brass or Brass Tin Plated)
3) Bushings pre-assembled with terminals of your choice

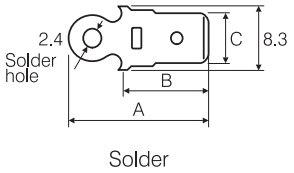
When ordering, please clearly state part numbers of all components required
Also state whether or not pre-assembly of terminals is required

UL approved, except parts marked †

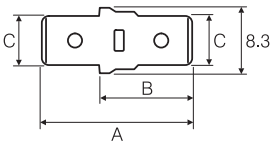
For further information on part approvals, please visit the technical resources section on our website.

Terminals

PART NUMBER		Dimensions			Terminal Configuration	Unit Quantity
Brass	Brass (Tin Plated)	Overall Length A	B	Terminal Width C		
7114800	7114801	20.6	12.0	6.4	SOLDER	1,000
7114810	-	16.3	12.0	6.4	SOLDER	1,000
7114720	-	17.4	10.3	4.8	DOUBLE MALE	1,000
7114830	7114829	21.1	12.0	6.4	DOUBLE MALE	1,000



Solder



Double male

1. Current rating: 10 amps
2. Working temperature: -20°C to +105°C - Continuous
3. Insulation Resistance: In excess of one million megohms when tested at 500 volts D.C. - from terminal to terminal and terminal case
4. Dielectric Withstanding Voltage : In each case breakdown occured not through the moulding, but from terminal to terminal or case, through the shortest air gap. We recommend the maximum rating of the connectors should be taken as follows:-

Bushing	Tab	Rating R.M.S. A.C.
7104017, 7104018	7114720	300v
7104019, 7104020	7114800, 7114801, 7114810, 7114829, 7114830	300v
7104021, 7104022	7114800, 7114801, 7114810, 7114829, 7114830	500v
7104031, 7104032	7114720	500v
7104041, 7104042	7114800, 7114801, 7114810, 7114829, 7114830	500v
7104059, 7104060	7114720	450v
7104061, 7104062	7114800, 7114801, 7114810, 7114829, 7114830	450v
7104061, 7104062	7114829, 7114830	500v
7104081, 7104082	7114800, 7114801, 7114810, 7114829, 7114830	400v

These ratings are predicted on the condition that proper distance between adjacent terminals be maintained, that wires soldered to tabs be clipped as short as possible and wires are not frayed out of the crimps.

5. Optimas Components cannot accept responsibility if the values shown are exceeded, but would advise potential users that values recommended are well within actual limits proved or tested. The electrical characteristics of the circuit in which the bushing is used plus the physical environment in which the bushing is placed may require modification of the above given values.

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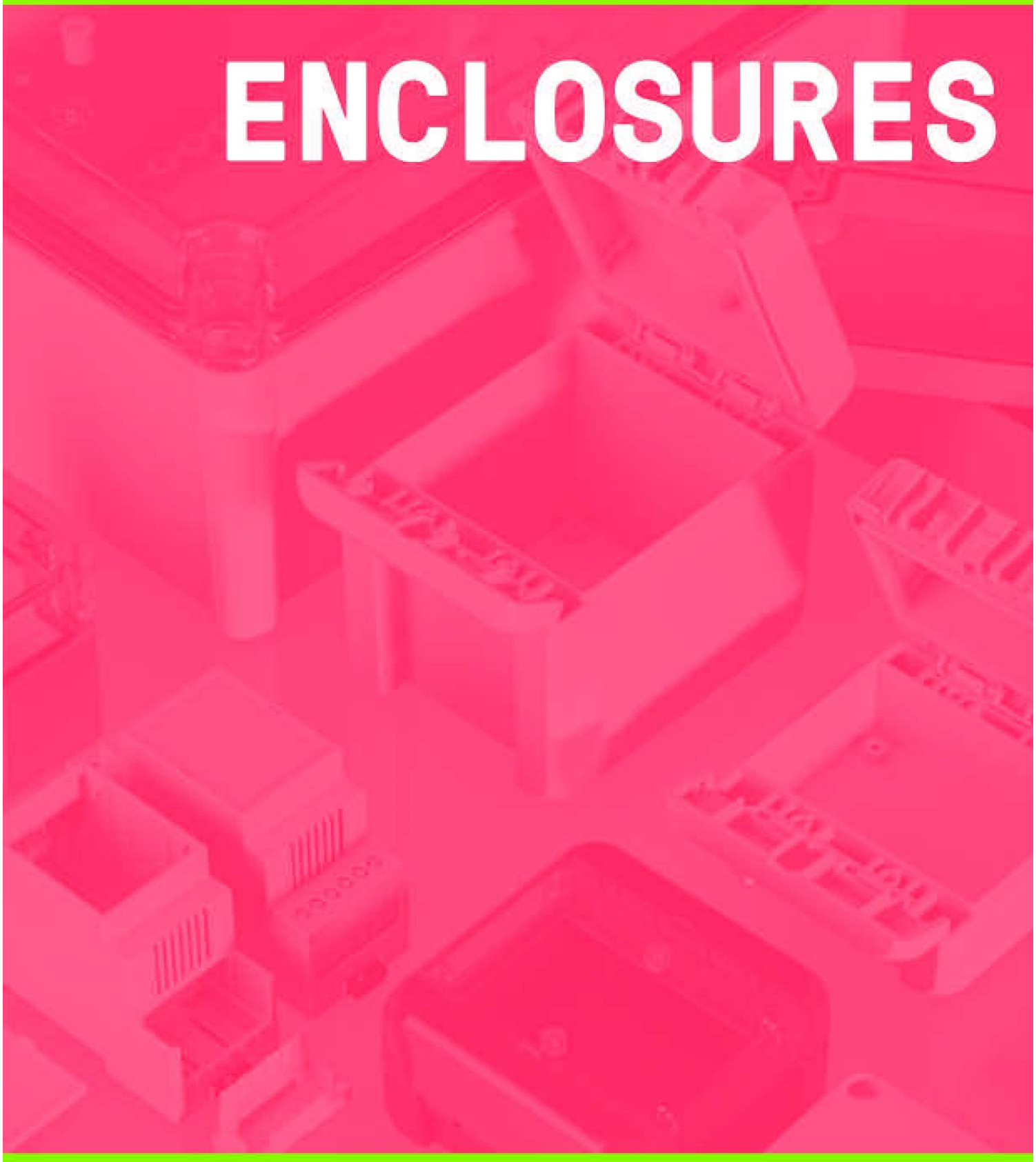
CHAPTER 2

ENCLOSURES



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DIN Rail Standard Height Module Box Kits P2-6


1000 Series (MNX) PC 100 x 100 Enclosures P2-7

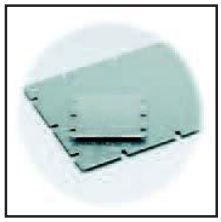

1000 Series (MNX) PC 130 x 80 Enclosures P2-7


1000 Series (MNX) PC 130 x 130 Enclosures P2-8


1000 Series (MNX) PC 180 x 130 Enclosures P2-8


1000 Series (MNX) PC 180 x 180 Enclosures P2-9


1000 Series (MNX) PC 255 x 180 Enclosures P2-9


Mounting Plates for 1000 Series (MNX) Enclosures P2-10


Hinges and Wall Mounting for 1000 Series (MNX) Enclosures P2-10


2000 Series (SOLID) 188 x 188 Enclosures P2-11

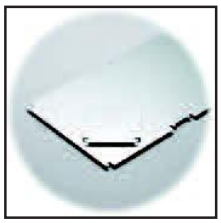

2000 Series (SOLID) 278 x 188 Enclosures P2-11


2000 Series (SOLID) 278 x 278 Enclosures P2-11


2000 Series (SOLID) 378 x 188 Enclosures P2-11


2000 Series (SOLID) 378 x 288 Enclosures P2-12


2000 Series (SOLID) 558 x 278 Enclosures P2-12


Mounting Plates for 2000 Series (SOLID) Enclosures P2-12


Hinges and Wall Mounting for 2000 Series (SOLID) Enclosures P2-12


3000 Series (EURONORD) 120 x 80 Enclosures P2-13


3000 Series (EURONORD) 122 x 120 Enclosures P2-13


3000 Series (EURONORD) 160 x 120 Enclosures P2-13


3000 Series (EURONORD) 200 x 120 Enclosures P2-14


Mounting Plates for 3000 Series (EURONORD) Enclosures P2-14


Hinges and Wall Mounting for 3000 Series (EURONORD) Enclosures P2-14


4000 Series (PICCOLO) 110 x 80 Enclosures P2-15


4000 Series (PICCOLO) 140 x 80 Enclosures P2-15


4000 Series (PICCOLO) 170 x 80 Enclosures P2-15


4000 Series (PICCOLO) 170 x 140 Enclosures P2-15


4000 Series (PICCOLO) 230 x 80 Enclosures P2-16


4000 Series (PICCOLO) 230 x 140 Enclosures P2-16


Mounting Plates for 4000 Series (PICCOLO) Enclosures P2-16


Hinges and Wall Mounting for 4000 Series (PICCOLO) Enclosures P2-16


5000 Series (TEMPO) 95 x 65 Enclosures P2-17


5000 Series (TEMPO) 110 x 110 Enclosures P2-17


5000 Series (TEMPO) 130 x 95 Enclosures P2-17


5000 Series (TEMPO) 130 x 130 Enclosures P2-18


5000 Series (TEMPO) 187 x 122 Enclosures P2-18

Enclosures & Accessories Product Locator



5000 Series (TEMPO)
201 x 163 Enclosures
P2-18



5000 Series (TEMPO)
240 x 191 Enclosures
P2-18



5000 Series (TEMPO)
289 x 239 Enclosures
P2-18



5000 Series (TEMPO)
344 x 289 Enclosures
P2-19



Mounting Plates for 5000
Series (TEMPO) Enclosures
P2-19



Hinges and Wall Mounting for
5000 Series (TEMPO)
Enclosures P2-19



6000 Series (CAB)
150 x 150 Enclosures
P2-20



6000 Series (CAB)
300 x 200 Enclosures
P2-20



6000 Series (CAB)
300 x 300 Enclosures
P2-20



6000 Series (CAB)
400 x 300 Enclosures
P2-20



6000 Series (CAB)
500 x 400 Enclosures
P2-21



6000 Series (CAB)
600 x 400 Enclosures
P2-21



6000 Series (CAB)
200 x 300 Enclosures
P2-21



6000 Series (CAB)
300 x 400 Enclosures
P2-21



6000 Series (CAB)
400 x 500 Enclosures
P2-21



Mounting Plates for
6000 Series (CAB) Enclosures
P2-22



Front Plate and Plate
Accessories for 6000 Series
(CAB) Enclosures P2-22



Hinges and Wall Mounting for
6000 Series (CAB) Enclosures
P2-22



7000 Series (EURONORD ALN)
Aluminium Enclosures
P2-23



Mounting Plates for
7000 Series (EURONORD ALN)
Enclosures
P2-23



Inspection Windows
P2-23



Bocube Enclosures ABS with
Grey Lid
P2-24



Bocube Enclosures
Polycarbonate with Grey Lid
P2-25



Bocube Enclosures
Polycarbonate with Clear Lid
P2-25



Euromas Polymas - Enclosures
with Moulded on Glands
P2-26



ARCA IEC Electrical Cabinets
P2-27



ARCA IEC DIN Rail Frame Sets
P2-27



ARCA IEC Inner Door Set
P2-28



ARCA IEC Pole Mounting Kits
P2-28



ARCA IEC Wall Mounting Lug
Set
P2-28

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- Can be safely machined without conductive swarf residue
- Chemical resistant
- UL94-5VA raw material flammability

SEE THE FULL RANGE IN CHAPTER 2 OR AT:

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PART NUMBER	Length	Width	Depth	Material	Lid Type	Other Features	Catalogue Page
8808000	60	66	46	Alu	RAL 7001	No	2-23
8808002	77	82	57	Alu	RAL 7001	No	2-23
8805055	95	65	60	ABS	Grey	No	2-17
8801000	100	100	60	PC	Transparent	No	2-7
8801001	100	100	75	PC	Transparent	No	2-7
8801300	100	100	60	ABS	Transparent	No	2-7
8801301	100	100	75	ABS	Transparent	No	2-7
8801100	100	100	60	PC	Grey	No	2-7
8801101	100	100	75	PC	Grey	No	2-7
8801400	100	100	60	ABS	Grey	No	2-7
8801401	100	100	75	ABS	Grey	No	2-7
8801050	100	100	60	PC	Transparent	Knock outs	2-7
8801051	100	100	75	PC	Transparent	Knock outs	2-7
8801150	100	100	60	PC	Grey	Knock outs	2-7
8801151	100	100	75	PC	Grey	Knock outs	2-7
8808001	100	66	46	Alu	RAL 7001	No	2-23
8804000	110	80	65	PC	Transparent	No	2-15
8804150	110	80	65	ABS	Transparent	No	2-15
8804050	110	80	65	PC	Grey	No	2-15
8804150	110	80	65	ABS	Grey	No	2-15
8805056	110	110	65	ABS	Grey	No	2-17
8803000	120	80	90	PC	Transparent	No	2-13
8803050	120	80	90	PC	Grey	No	2-13
8808005	124	125	81	Alu	RAL 7001	No	2-23
8808003	127	82	57	Alu	RAL 7001	No	2-23
8801004	130	80	60	PC	Transparent	No	2-7
8801005	130	80	75	PC	Transparent	No	2-7
8801304	130	80	60	ABS	Transparent	No	2-7
8801305	130	80	75	ABS	Transparent	No	2-7
8801104	130	80	60	PC	Grey	No	2-7
8801105	130	80	75	PC	Grey	No	2-7
8801404	130	80	60	ABS	Grey	No	2-7
8801405	130	80	75	ABS	Grey	No	2-7
8801054	130	80	60	PC	Transparent	Knock outs	2-7
8801055	130	80	75	PC	Transparent	Knock outs	2-7
8801154	130	80	60	PC	Grey	Knock outs	2-7
8801155	130	80	75	PC	Grey	Knock outs	2-7
8801002	130	130	60	PC	Transparent	No	2-8
8801003	130	130	75	PC	Transparent	No	2-8
8801302	130	130	60	ABS	Transparent	No	2-8
8801303	130	130	75	ABS	Transparent	No	2-8
8801102	130	130	60	PC	Grey	No	2-8
8801103	130	130	75	PC	Grey	No	2-8
8801402	130	130	60	ABS	Grey	No	2-8
8801403	130	130	75	ABS	Grey	No	2-8
8801052	130	130	60	PC	Transparent	Knock outs	2-8
8801053	130	130	75	PC	Transparent	Knock outs	2-8
8801152	130	130	60	PC	Grey	Knock outs	2-8
8801153	130	130	75	PC	Grey	Knock outs	2-8
8805057	130	95	65	ABS	Grey	No	2-17
8805058	130	130	75	ABS	Grey	No	2-18
8804001	140	80	65	PC	Transparent	No	2-15
8801101	140	80	65	ABS	Transparent	No	2-15
8804051	140	80	65	PC	Grey	No	2-15
8804151	140	80	65	ABS	Grey	No	2-15
8807000	150	150	110	PC	Transparent	Latch and hinge	2-20
8807050	150	150	110	PC	Grey	Latch and hinge	2-20
8803002	160	120	90	PC	Transparent	No	2-13
8803052	160	120	90	PC	Grey	No	2-13
8808008	162	162	91	Alu	RAL 7001	No	2-23
8804002	170	80	65	PC	Transparent	No	2-15
8804102	170	80	65	ABS	Transparent	No	2-15
8804052	170	80	65	PC	Grey	No	2-15
8804152	170	80	65	ABS	Grey	No	2-15
8804003	170	140	95	PC	Transparent	No	2-15
8804103	170	140	95	ABS	Transparent	No	2-15
8804053	170	140	95	PC	Grey	No	2-15

PART NUMBER	Length	Width	Depth	Material	Lid Type	Other Features	Catalogue Page
8804153	170	140	95	ABS	Grey	No	2-15
8808004	177	82	57	Alu	RAL 7001	No	2-23
8801006	180	130	75	PC	Transparent	No	2-8
8801007	180	130	100	PC	Transparent	No	2-8
8801306	180	130	75	ABS	Transparent	No	2-8
8801307	180	130	100	ABS	Transparent	No	2-8
8801106	180	130	75	PC	Grey	No	2-8
8801107	180	130	100	PC	Grey	No	2-8
8801406	180	130	75	ABS	Grey	No	2-8
8801407	180	130	100	ABS	Grey	No	2-8
8801056	180	130	75	PC	Transparent	Knock outs	2-8
8801057	180	130	100	PC	Transparent	Knock outs	2-8
8801156	180	130	75	PC	Grey	Knock outs	2-8
8801157	180	130	100	PC	Grey	Knock outs	2-8
8801008	180	180	75	PC	Transparent	No	2-9
8801009	180	180	100	PC	Transparent	No	2-9
8801308	180	180	75	ABS	Transparent	No	2-9
8801309	180	180	100	ABS	Transparent	No	2-9
8801108	180	180	75	PC	Grey	No	2-9
8801109	180	180	100	PC	Grey	No	2-9
8801408	180	180	75	ABS	Grey	No	2-9
8801409	180	180	100	ABS	Grey	No	2-9
8801058	180	180	75	PC	Transparent	Knock outs	2-9
8801059	180	180	100	PC	Transparent	Knock outs	2-9
8801158	180	180	75	PC	Grey	Knock outs	2-9
8801159	180	180	100	PC	Grey	Knock outs	2-9
8805000	187	122	90	ABS	Transparent	No	2-18
8805050	187	122	90	ABS	Grey	No	2-18
8802000	188	188	130	PC	Transparent	No	2-11
8802100	188	188	130	ABS	Transparent	No	2-11
8802050	188	188	130	PC	Grey	No	2-11
8802150	188	188	130	ABS	Grey	No	2-11
8803003	200	120	75	PC	Transparent	No	2-14
8803053	200	120	75	ABS	Grey	No	2-14
8803004	200	120	90	PC	Transparent	No	2-14
8803054	200	120	90	ABS	Grey	No	2-14
8805001	201	163	98	ABS	Transparent	No	2-18
8805051	201	163	98	ABS	Grey	No	2-18
8808006	224	125	81	Alu	RAL 7001	No	2-23
8804004	230	80	65	PC	Transparent	No	2-16
8804104	230	80	65	ABS	Transparent	No	2-16
8804054	230	80	65	PC	Grey	No	2-16
8804154	230	80	65	ABS	Grey	No	2-16
8804005	230	140	95	PC	Transparent	No	2-16
8804105	230	140	95	ABS	Transparent	No	2-16
8804055	230	140	95	PC	Grey	No	2-16
8804155	230	140	95	ABS	Grey	No	2-16
8808011	234	204	111	Alu	RAL 7001	No	2-23
8805002	240	191	107	ABS	Transparent	No	2-18
8805052	240	191	107	ABS	Grey	No	2-18
8801010	255	180	75	PC	Transparent	No	2-9
8801011	255	180	700	PC	Transparent	No	2-9
8801310	255	180	75	ABS	Transparent	No	2-9
8801311	255	180	700	ABS	Transparent	No	2-9
8801110	255	180	75	PC	Grey	No	2-9
8801111	255	180	700	PC	Grey	No	2-9
8801410	255	180	75	ABS	Grey	No	2-9
8801411	255	180	700	ABS	Grey	No	2-9
8801060	255	180	75	PC	Transparent	Knock outs	2-9
8801061	255	180	700	PC	Transparent	Knock outs	2-9
8801160	255	180	75	PC	Grey	Knock outs	2-9
8801161	255	180	700	PC	Grey	Knock outs	2-9
8808009	263	162	91	Alu	RAL 7001	No	2-23
8802001	278	188	130	PC	Transparent	No	2-11
8802101	278	188	130	ABS	Transparent	No	2-11
8802051	278	188	130	PC	Grey	No	2-11
8802151	278	188	130	ABS	Grey	No	2-11

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PART NUMBER	Length	Width	Depth	Material	Lid Type	Other Features	Catalogue Page
8802002	278	278	130	PC	Transparent	No	2-11
8802102	278	278	130	ABS	Transparent	No	2-11
8802052	278	278	130	PC	Grey	No	2-11
8802152	278	278	130	ABS	Grey	No	2-11
8805003	289	239	107	ABS	Transparent	No	2-18
8805053	289	239	107	ABS	Grey	No	2-18
8807001	300	200	180	PC	Transparent	Latch and hinge	2-20
8807051	300	200	180	PC	Grey	Latch and hinge	2-20
8807009	300	200	180	PC	Transparent	Lock and hinge	2-20
8807059	300	200	180	PC	Grey	Lock and hinge	2-20
8807002	300	300	180	PC	Transparent	Latch and hinge	2-20
8807052	300	300	180	PC	Grey	Latch and hinge	2-20
8807010	300	300	180	PC	Transparent	Lock and hinge	2-20
8807060	300	300	180	PC	Grey	Lock and hinge	2-20
8807006	300	200	180	PC	Transparent	Latch and hinge	2-21
8807056	300	200	180	PC	Grey	Latch and hinge	2-21
8808012	330	230	110	Alu	RAL 7001	No	2-23
8805004	344	289	117	ABS	Transparent	No	2-19
8805054	344	289	117	ABS	Grey	No	2-19
8808007	362	125	81	Alu	RAL 7001	No	2-23
8808010	364	162	91	Alu	RAL 7001	No	2-23
8802003	378	188	130	PC	Transparent	No	2-11
8802103	378	188	130	ABS	Transparent	No	2-11
8802053	378	188	130	PC	Grey	No	2-11
8802153	378	188	130	ABS	Grey	No	2-11
8802004	378	278	130	PC	Transparent	No	2-12
8802104	378	278	130	ABS	Transparent	No	2-12
8802054	378	278	130	PC	Grey	No	2-12
8802154	378	278	130	ABS	Grey	No	2-12
8807003	400	300	180	PC	Transparent	Latch and hinge	2-20
8807053	400	300	180	PC	Grey	Latch and hinge	2-20
8807011	400	300	180	PC	Transparent	Lock and hinge	2-20
8807061	400	300	180	PC	Grey	Lock and hinge	2-20
8807007	400	300	180	PC	Transparent	Latch and hinge	2-21
8807057	400	300	180	PC	Grey	Latch and hinge	2-21
8807008	400	500	200	PC	transparent	Latch and hinge	2-21
8807058	400	500	200	PC	Grey	Latch and hinge	2-21
8807004	500	400	200	PC	Transparent	Latch and hinge	2-21
8807054	500	400	200	PC	Grey	Latch and hinge	2-21
8807012	500	400	200	PC	Transparent	Lock and hinge	2-21
8807062	500	400	200	PC	Grey	Lock and hinge	2-21
8802005	558	278	130	PC	Transparent	No	2-12
8802105	558	278	130	ABS	Transparent	No	2-12
8802055	558	278	130	PC	Grey	No	2-12
8802155	558	278	130	ABS	Grey	No	2-12
8807005	600	400	220	PC	Transparent	Latch and hinge	2-21
8807055	600	400	220	PC	Grey	Latch and hinge	2-21
8807013	600	400	220	PC	Transparent	Lock and hinge	2-21
8807063	600	400	220	PC	Grey	Lock and hinge	2-21







Material Key	
PC	Polycarbonate
ABS	Acrylonitrile Butadiene Styrene
ALU	Cast Aluminium

For futher information, performance data or drawings for each enclosure, please refer to the catalogue page listed against the part number above or view online at www.optimascomponents.com searching by part number.



DIN Rail Standard Height Module Box Kits

- Snap fit modular design for ease of assembly and custom kitting
- Base fits 35mm DIN rail or directly to flat surface
- Carries up to 3 PCB's horizontally or 2 vertically
- Front panel ideal for screen printing and recessed solid top for labels and membranes

Specifications: RoHS ✓

Material: Polycarbonate
Colour: Light Grey
Flammability: UL94V-0

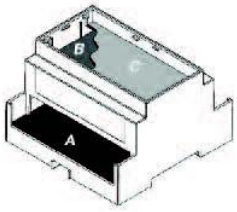
Kit Contents:
Each kit contains one grey panel cover, DIN rail clips, sufficient perforated terminal guards for the whole enclosure, and, in the case of two - open - side boxes, additional solid terminal guards to blank off one side.

For full assembly instructions, visit **www.optimascomponents.com.**

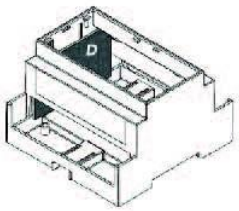
PART NUMBER	Box length	Horizontal PCB Sizes			Vertical PCB Size		PCB Fixing Boss		Unit Quantity
		A	B	C	D	E	X	Y	
8800001	17.5	86.5 x 14	57 x 14	41.8 x 14	34 x 59.6	40 x 14.8	6.2	18.3	10
8800002	36	86.5 x 33	57 x 32	42 x 32	34 x 59.6	40 x 33	6.2	18.3	10
8800003	53	86.5 x 50	57 x 49	42 x 49	34 x 59.6	40 x 50	8.8	18.3	10
8800004	71	86.5 x 68	57 x 67	42 x 67	34 x 59.6	40 x 68	8.8	18.3	10
8800005	88	86.5 x 84	57 x 83	42 x 83	34 x 59.6	40 x 84	8.8	18.3	10
8800006	106	86.5 x 103	57 x 102	42 x 102	34 x 59.6	40 x 103	8.9	18.3	10
8800009	159	86.5 x 156	57 x 155.5	42 x 155	34 x 59.6	40 x 155	8.9	18.3	10
8800012	212	86.5 x 208	57 x 207	42 x 207	34 x 59.6	40 x 208	8.9	18.3	10

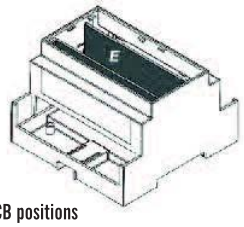


Horizontal PCB positions

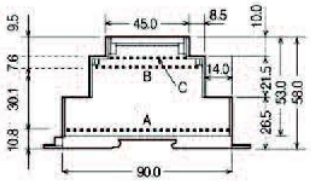


Vertical PCB positions



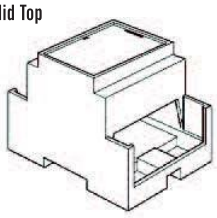


Vertical PCB positions



Horizontal PCB sizes

Solid Top



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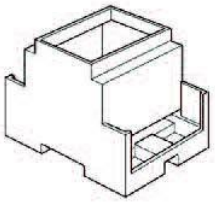
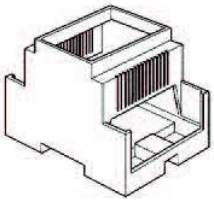
Extended Walls



Vented Sides



1000 Series (FIBOX MNX) Enclosures - General Information

1000 series enclosures utilise world-class injection moulding technology. They are designed to house and protect all kinds of electrical and electronic components in the most demanding applications.

Property:	Polycarbonate	ABS
Ingress Protection (EN 60529)	IP 66/IP 67	IP 66/IP 67
Impact Resistance (EN 62262)	IK 08	IK 07
Temperature Range Celsius (Short term)	-40° to 120°C	-40° to 80°C
Temperature Range Celsius (Continuous)	-40° to 80°C	-40° to 60°C
Enclosure Flammability Rating	UL 94-5V	UL 94HB
Glow Wire Test (IEC 695-2-1) Self-extinguishing (PC)	960°C	650°C
Non-toxicity	Halogen Free RoHS Directive 2002/95/EC compliant	Halogen Free RoHS Directive 2002/95/EC compliant
UV Resistance	UL 508 720 hours in "Weather-ometer"	-

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Approvals:

USA: Enclosures for Electrical Equipment
PC: UL Type 1, 4, 4X, 6 (12 or 13); UL File E75645 Vol 1 Sec 7; UL 746C-5VA flame test (UL 50/508)
ABS: NEMA 1, 4, 4X, 6 (12 or 13)
Canada: Industrial Control Equipment. Enclosures for Electrical Equipment/ULc
Europe: Empty enclosures for low-voltage switchgear and controlgear assemblies EN 62208:2003 (50298:1999), Safety of Information Technology Equipment EN 60950
Russia: GostR - Gost Russian certificate of conformity

T: +44 (0) 1202 865222
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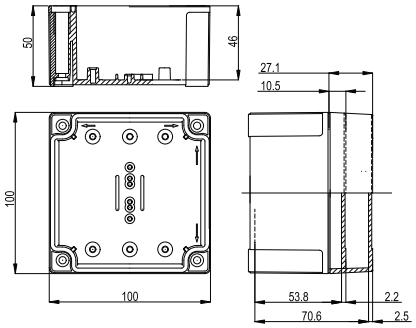
1000 Series (FIBOX MNX) - 100 x 100 Enclosures



Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-4 for technical information on this product.

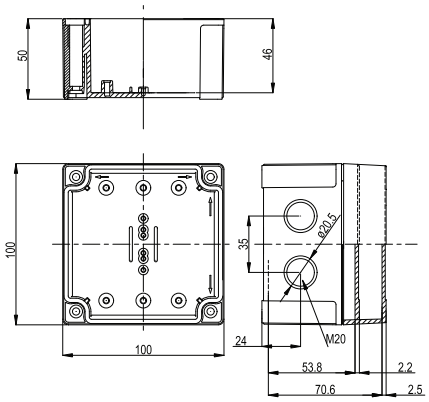
- Versatile general purpose enclosure
- Designed to house and protect all kinds of electrical and electronic components
- Lid design includes a recess area for overlays and membrane key pads



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8801000	100 x 100 x 60	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801001	100 x 100 x 75	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801300	100 x 100 x 60	ABS	Grey RAL7035	Smoked transparent with black cover screws	1
8801301	100 x 100 x 75	ABS	Grey RAL7035	Smoked transparent with black cover screws	1
8801100	100 x 100 x 60	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801101	100 x 100 x 75	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801400	100 x 100 x 60	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801401	100 x 100 x 75	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

FIBOX
Enclosing innovations

1000 Series (FIBOX MNX) - 100 x 100 Enclosures - with metric knock-outs



Specifications: RoHS ✓

Each box includes: Base with metric knock-outs and Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-4 for technical information on this product.

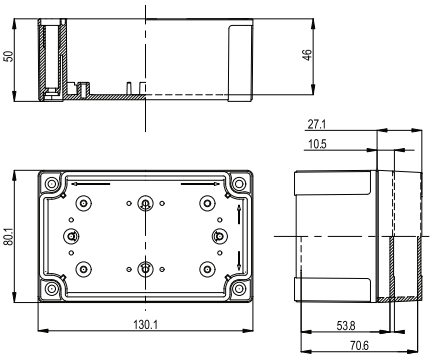
- Versatile general purpose enclosure
- Designed to house and protect all kinds of electrical and electronic components
- Lid design includes a recess area for overlays and membrane key pads
- Preformed knock-outs for easy installation of cable glands



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8801050	100 x 100 x 60	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801051	100 x 100 x 75	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801150	100 x 100 x 60	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801151	100 x 100 x 75	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1

FIBOX
Enclosing innovations

1000 Series (FIBOX MNX) - 130 x 80 Enclosures



Specifications: RoHS ✓

Each box includes: Base with TPE gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-4 for technical information on this product.

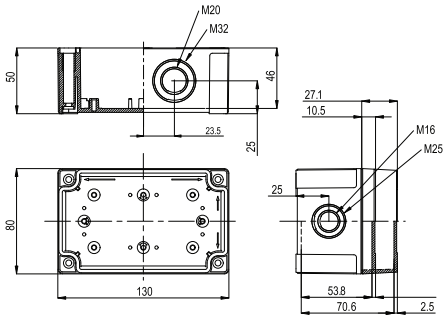
- Versatile general purpose enclosure
- Designed to house and protect all kinds of electrical and electronic components
- Lid design includes a recess area for overlays and membrane key pads



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8801004	130 x 80 x 60	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801005	130 x 80 x 75	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801304	130 x 80 x 60	ABS	Grey RAL7035	Smoked transparent with black cover screws	1
8801305	130 x 80 x 75	ABS	Grey RAL7035	Smoked transparent with black cover screws	1
8801104	130 x 80 x 60	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801105	130 x 80 x 75	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801404	130 x 80 x 60	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801405	130 x 80 x 75	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

FIBOX
Enclosing innovations

1000 Series (FIBOX MNX) - 130 x 80 Enclosures - with metric knock-outs



Specifications: RoHS ✓

Each box includes: Base with metric knock-outs and TPE gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-4 for technical information on this product.

- Versatile general purpose enclosure
- Designed to house and protect all kinds of electrical and electronic components
- Lid design includes a recess area for overlays and membrane key pads
- Preformed knock-outs for easy installation of cable glands



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8801054	130 x 80 x 60	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801055	130 x 80 x 75	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801154	130 x 80 x 60	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801155	130 x 80 x 75	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1



1000 Series (FIBOX MNX) - 130 x 130 Enclosures

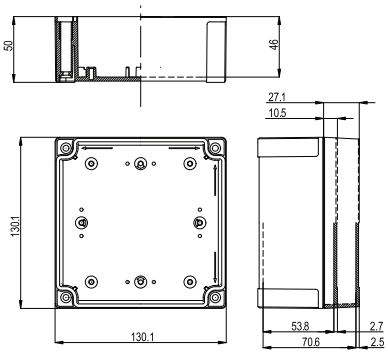
FIBOX Enclosing innovations

- Versatile general purpose enclosure
- Designed to house and protect all kinds of electrical and electronic components
- Lid design includes a recess area for overlays and membrane key pads

Specifications: RoHS ✓

Each box includes: Base with TPE gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-4 for technical information on this product.



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8801002	130 x 130 x 60	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801003	130 x 130 x 75	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801302	130 x 130 x 60	ABS	Grey RAL7035	Smoked transparent with black cover screws	1
8801303	130 x 130 x 75	ABS	Grey RAL7035	Smoked transparent with black cover screws	1
8801102	130 x 130 x 60	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801103	130 x 130 x 75	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801402	130 x 130 x 60	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801403	130 x 130 x 75	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1



1000 Series (FIBOX MNX) - 130 x 130 Enclosures - with metric knock-outs

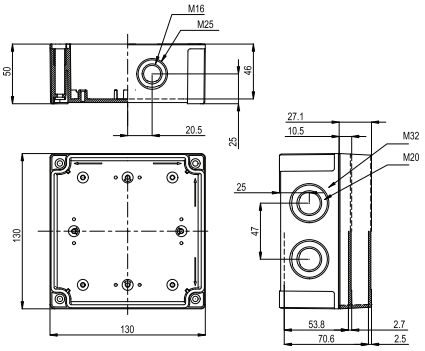
FIBOX Enclosing innovations

- Versatile general purpose enclosure
- Designed to house and protect all kinds of electrical and electronic components
- Lid design includes a recess area for overlays and membrane key pads
- Pre formed knock-outs for easy installation of cable glands

Specifications: RoHS ✓

Each box includes: Base with metric knock-outs and TPE gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-4 for technical information on this product.



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8801052	130 x 130 x 60	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801053	130 x 130 x 75	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801152	130 x 130 x 60	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801153	130 x 130 x 75	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1



1000 Series (FIBOX MNX) - 180 x 130 Enclosures

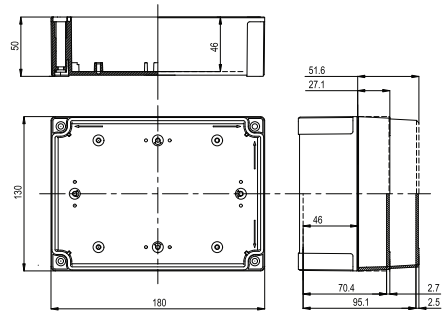
FIBOX Enclosing innovations

- Versatile general purpose enclosure
- Designed to house and protect all kinds of electrical and electronic components
- Lid design includes a recess area for overlays and membrane key pads

Specifications: RoHS ✓

Each box includes: Base with TPE gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-4 for technical information on this product.



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8801006	180 x 130 x 75	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801007	180 x 130 x 100	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801306	180 x 130 x 75	ABS	Grey RAL7035	Smoked transparent with black cover screws	1
8801307	180 x 130 x 100	ABS	Grey RAL7035	Smoked transparent with black cover screws	1
8801106	180 x 130 x 75	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801107	180 x 130 x 100	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801406	180 x 130 x 75	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801407	180 x 130 x 100	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1



1000 Series (FIBOX MNX) - 180 x 130 Enclosures - with metric knock-outs

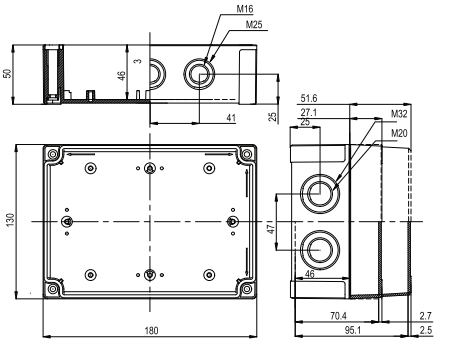
FIBOX Enclosing innovations

- Versatile general purpose enclosure
- Designed to house and protect all kinds of electrical and electronic components
- Lid design includes a recess area for overlays and membrane key pads
- Pre-formed knock-outs for easy installation of cable glands

Specifications: RoHS ✓

Each box includes: Base with metric knock-outs and TPE gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-4 for technical information on this product.



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8801056	180 x 130 x 75	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801057	180 x 130 x 100	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801156	180 x 130 x 75	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801157	180 x 130 x 100	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1

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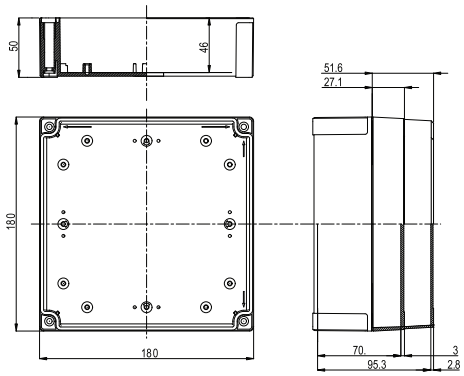
1000 Series (FIBOX MNX) - 180 x 180 Enclosures



Specifications: RoHS ✓

Each box includes: Base with TPE gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-4 for technical information on this product.

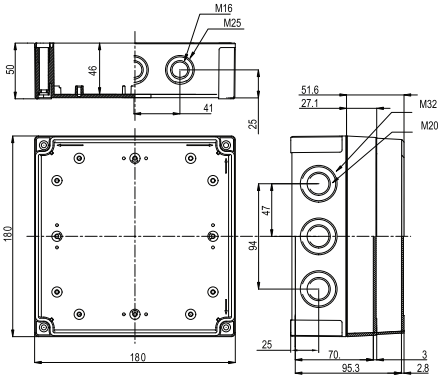
- Versatile general purpose enclosure
- Designed to house and protect all kinds of electrical and electronic components
- Lid design includes a recess area for overlays and membrane key pads



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8801008	180 x 180 x 75	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801009	180 x 180 x 100	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801308	180 x 180 x 75	ABS	Grey RAL7035	Smoked transparent with black cover screws	1
8801309	180 x 180 x 100	ABS	Grey RAL7035	Smoked transparent with black cover screws	1
8801108	180 x 180 x 75	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801109	180 x 180 x 100	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801408	180 x 180 x 75	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801409	180 x 180 x 100	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

FIBOX
Enclosing innovations

1000 Series (FIBOX MNX) - 180 x 180 Enclosures - with metric knock-outs

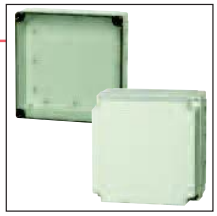


Specifications: RoHS ✓

Each box includes: Base with metric knock-outs and TPE gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-4 for technical information on this product.

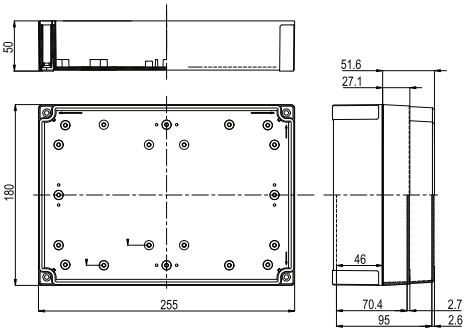
- Versatile general purpose enclosure
- Designed to house and protect all kinds of electrical and electronic components
- Lid design includes a recess area for overlays and membrane key pads
- Pre formed knock-outs for easy installation of cable glands



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8801058	180 x 180 x 75	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801059	180 x 180 x 100	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801158	180 x 180 x 75	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801159	180 x 180 x 100	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1

FIBOX
Enclosing innovations

1000 Series (FIBOX MNX) - 255 x 180 Enclosures



Specifications: RoHS ✓

Each box includes: Base with TPE gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-4 for technical information on this product.

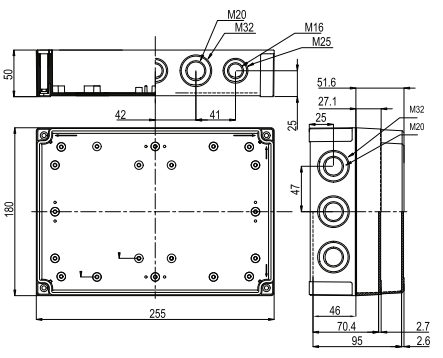
- Versatile general purpose enclosure
- Designed to house and protect all kinds of electrical and electronic components
- Lid design includes a recess area for overlays and membrane key pads



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8801010	255 x 180 x 75	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801011	255 x 180 x 100	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801310	255 x 180 x 75	ABS	Grey RAL7035	Smoked transparent with black cover screws	1
8801311	255 x 180 x 100	ABS	Grey RAL7035	Smoked transparent with black cover screws	1
8801110	255 x 180 x 75	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801111	255 x 180 x 100	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801410	255 x 180 x 75	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801411	255 x 180 x 100	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

FIBOX
Enclosing innovations

1000 Series (FIBOX MNX) - 255 x 180 Enclosures - with metric knock-outs



Specifications: RoHS ✓

Each box includes: Base with metric knock-outs and TPE gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

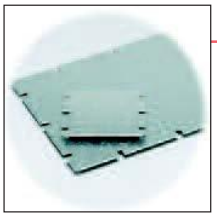
See page 2-4 for technical information on this product.

- Versatile general purpose enclosure
- Designed to house and protect all kinds of electrical and electronic components
- Lid design includes a recess area for overlays and membrane key pads
- Pre-formed knock-outs for easy installation of cable glands



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8801060	255 x 180 x 75	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801061	255 x 180 x 100	Polycarbonate	Grey RAL7035	Smoked transparent with black cover screws	1
8801160	255 x 180 x 75	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8801161	255 x 180 x 100	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1

Internal Mounting Plates For 1000 Series (FIBOX MNX) Enclosures



- For mounting internal components in the 1000 series enclosures

Specifications: RoHS ✓

Material: Galvanised Steel.

PART NUMBER	Plate Dimensions	To Fit Enclosure Size	Unit Quantity
8806000	66 x 80 x 1.5	100 x 100	1
8806001	98 x 48 x 1.5	130 x 80	1
8806002	98 x 98 x 1.5	130 x 130	1
8806003	148 x 98 x 1.5	180 x 130	1
8806004	148 x 148 x 1.5	180 x 180	1
8806005	223 x 148 x 1.5	255 x 180	1

Hinges And Wall Mounting For 1000 Series (FIBOX MNX) Enclosures



RoHS ✓

PART NUMBER	Description	Unit Quantity
8806050	Grey plastic hinges (2 pcs) • incl. mounting screws	1
8806051	Black plastic hinges (2 pcs) • incl. mounting screws	1
8806052	Grey blind plug • Use with Grey hinges	1
8806053	Black blind plug • Use with Black hinges	1
8806054	Wall fastening lug (4 pcs) • incl. screws	1
8806055	Wall fastening lug (2 pcs) • incl. screws	1

2000 Series (FIBOX SOLID) Enclosures - General Information

2000 series enclosures are an excellent choice to house electronic and electrical components. They are an ideal alternative to Polyester enclosures.

Property:	Polycarbonate	ABS
Ingress Protection (EN 60529)	IP 66/IP 67	IP 66/IP 67
Impact Resistance (EN 62262)	IK 08 (side surface), IK09 (front surface)	IK 08
Temperature Range Celsius (Short term)	-40° to 120°C	-40° to 80°C
Temperature Range Celsius (Continuous)	-40° to 80°C	-40° to 60°C
Enclosure Flammability Rating	UL 94-5V	UL 94HB
Glow Wire Test (IEC 695-2-1) Self-extinguishing (PC)	960°C	650°C
Non-Toxicity	Halogen Free RoHS Directive 2002/95/EC compliant	Halogen Free RoHS Directive 2002/95/EC compliant
UV Resistance	UL 508 720 hours in "Weather-ometer"	-

Approvals:

USA: UL Type 1, 3, 3S, 4, 4X, 6, 6P or 12; UL File E75645 Vol 1 Sec 2; UL 746C-5VA flame test (UL 50/508)
Canada: Industrial Control Equipment. Enclosures for Electrical Equipment/ULc
Europe: Empty enclosures for low-voltage switchgear and controlgear assemblies EN 62208:2003 (50298:1999). Safety of Information Technology Equipment EN 60950
Russia: GostR - Gost Russian certificate of conformity



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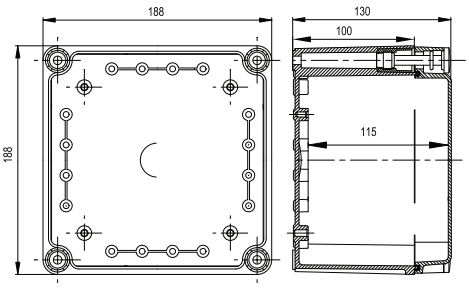
2000 Series (FIBOX SOLID) - 188 x 188 Enclosures



Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-8 for technical information on this product.

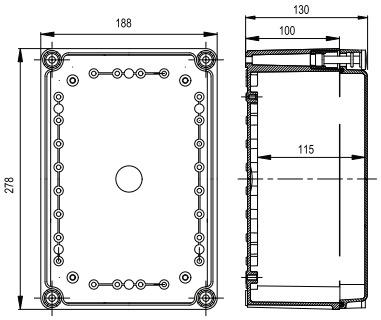
- Ideal alternative to Polyester enclosures
- Designed to house and protect all kinds of electrical and electronic components



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8802000	188 x 188 x 130	Polycarbonate	Grey RAL7035	Transparent with grey cover screws	1
8802100	188 x 188 x 130	ABS	Grey RAL7035	Transparent with grey cover screws	1
8802050	188 x 188 x 130	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8802150	188 x 188 x 130	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

FIBOX
Enclosing innovations

2000 Series (FIBOX SOLID) - 278 x 188 Enclosures



Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-8 for technical information on this product.

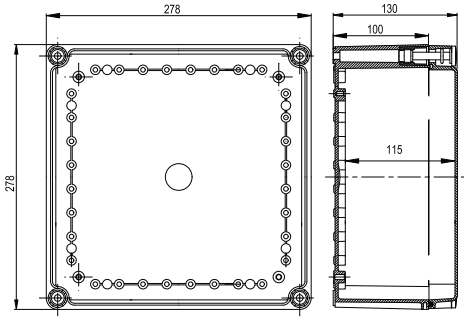
- Ideal alternative to Polyester enclosures
- Designed to house and protect all kinds of electrical and electronic components



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8802001	278 x 188 x 130	Polycarbonate	Grey RAL7035	Transparent with grey cover screws	1
8802101	278 x 188 x 130	ABS	Grey RAL7035	Transparent with grey cover screws	1
8802051	278 x 188 x 130	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8802151	278 x 188 x 130	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

FIBOX
Enclosing innovations

2000 Series (FIBOX SOLID) - 278 x 278 Enclosures



Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-8 for technical information on this product.

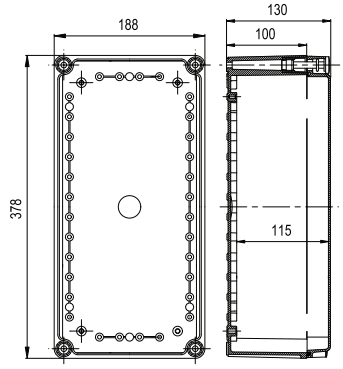
- Ideal alternative to Polyester enclosures
- Designed to house and protect all kinds of electrical and electronic components



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8802002	278 x 278 x 130	Polycarbonate	Grey RAL7035	Transparent with grey cover screws	1
8802102	278 x 278 x 130	ABS	Grey RAL7035	Transparent with grey cover screws	1
8802052	278 x 278 x 130	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8802152	278 x 278 x 130	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

FIBOX
Enclosing innovations

2000 Series (FIBOX SOLID) - 378 x 188 Enclosures



Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-8 for technical information on this product.

- Ideal alternative to Polyester enclosures
- Designed to house and protect all kinds of electrical and electronic components



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8802003	378 x 188 x 130	Polycarbonate	Grey RAL7035	Transparent with grey cover screws	1
8802103	378 x 188 x 130	ABS	Grey RAL7035	Transparent with grey cover screws	1
8802053	378 x 188 x 130	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8802153	378 x 188 x 130	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

2000 Series (FIBOX SOLID) - 378 x 278 Enclosures

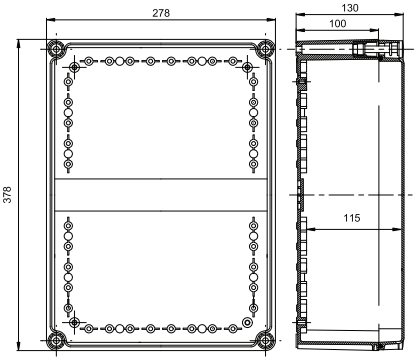


- Ideal alternative to Polyester enclosures
- Designed to house and protect all kinds of electrical and electronic components

Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-8 for technical information on this product.



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8802004	378 x 278 x 130	Polycarbonate	Grey RAL7035	Transparent with grey cover screws	1
8802104	378 x 278 x 130	ABS	Grey RAL7035	Transparent with grey cover screws	1
8802054	378 x 278 x 130	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8802154	378 x 278 x 130	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

2000 Series (FIBOX SOLID) - 558 x 278 Enclosures

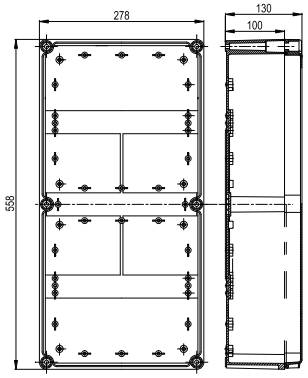


- Ideal alternative to Polyester enclosures
- Designed to house and protect all kinds of electrical and electronic components

Specifications: RoHS ✓

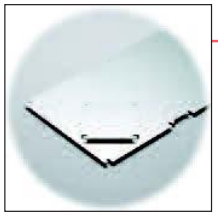
Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-8 for technical information on this product.



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8802005	558 x 278 x 130	Polycarbonate	Grey RAL7035	Transparent with grey cover screws	1
8802105	558 x 278 x 130	ABS	Grey RAL7035	Transparent with grey cover screws	1
8802055	558 x 278 x 130	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8802155	558 x 278 x 130	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

Internal Mounting Plates For 2000 Series (FIBOX SOLID) Enclosures



- For mounting internal components in the 2000 series enclosures

Specifications: RoHS ✓

Material: Galvanised Steel.

PART NUMBER	Plate Dimensions	To Fit Enclosure Size	Unit Quantity
8806006	148 x 148	188 x 188	1
8806007	238 x 148	278 x 188	1
8806008	238 x 238	278 x 278	1
8806009	338 x 148	378 x 188	1
8806010	388 x 238	378 x 278	1
8806011	518 x 238	558 x 278	1

Hinges And Wall Mounting For 2000 Series (FIBOX SOLID) Enclosures



RoHS ✓

PART NUMBER	Description	Unit Quantity
8806056	PC hinge set, 1 pair including screws and drill template	1
8806057	PA hinge set, 1 pair including screws	1
8806058	Hinge set, metal	1
8806059	Blind plug for cover corner on hinged side when cover screws are not used	1
8806060	Wall fastening lug (4 pcs) including screws	1
8806055	Wall fastening lug (2 pcs) including screws	1

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The 3000 enclosure range is designed to house DIN-rail mounted terminal blocks and various types of sensors.

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The 3000 range of enclosures is also available in ABS, Polyester and Aluminium!

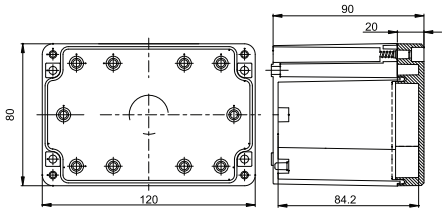
Property:	Polycarbonate
Ingress Protection (EN 60529)	IP 66/IP 67
Impact Resistance (EN 62262)	IK 07 (side surface), IK08 (front surface)
Temperature Range Celsius (short term)	-40° to 120°C
Temperature Range Celsius (continuous)	-40° to 80°C
Enclosure Flammability Rating	UL 94-5V
Glow Wire Test (IEC 695-2-1) Self-extinguishing (PC)	960°C
Non-toxicity	Halogen Free RoHS Directive 2002/95/EC compliant
UV resistance	UL 508 720 hours in "Weather-ometer"

Approvals:

USA: UL Type 1, 4, 4X, 12 or 13; UL File E75645 Vol 1 Sec 6; UL 746C-5VA flame test (UL 50/508)
Canada: Industrial Control Equipment. Enclosures for Electrical Equipment/ULc
Europe: Empty enclosures for low-voltage switchgear and controlgear assemblies EN 62208:2003 (50298:1999). Safety of Information Technology Equipment EN 60950
Russia: GostR - Gost Russian certificate of conformity

FIBOX
Enclosing innovations

3000 Series (FIBOX EURONORD) - 120 x 80 Enclosures



Specifications: RoHS ✓
Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with ferritic stainless steel cover screws.

See page 2-11 for technical information on this product.

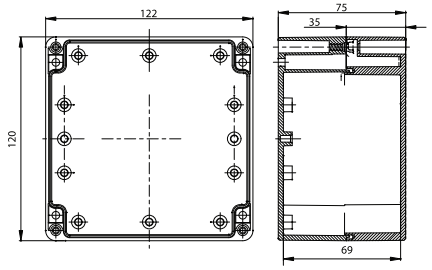
- Designed to house DIN-rail mounted terminal blocks and various types of sensors



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8803000	120 x 80 x 90	Polycarbonate	Grey RAL7035	Transparent with stainless steel cover screws	1
8803050	120 x 80 x 90	Polycarbonate	Grey RAL7035	Grey RAL7035 with stainless steel cover screws	1

FIBOX
Enclosing innovations

3000 Series (FIBOX EURONORD) - 122 x 120 Enclosures



Specifications: RoHS ✓
Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with ferritic stainless steel cover screws.

See page 2-11 for technical information on this product.

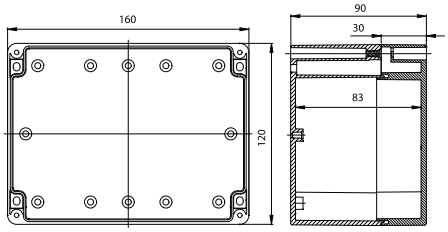
- Designed to house DIN-rail mounted terminal blocks and various types of sensors



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8803001	122 x 120 x 75	Polycarbonate	Grey RAL7035	Transparent with stainless steel cover screws	1
8803051	122 x 120 x 75	Polycarbonate	Grey RAL7035	Grey RAL7035 with stainless steel cover screws	1

FIBOX
Enclosing innovations

3000 Series (FIBOX EURONORD) - 160 x 120 Enclosures



Specifications: RoHS ✓
Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with ferritic stainless steel cover screws.

See page 2-11 for technical information on this product.

- Designed to house DIN-rail mounted terminal blocks and various types of sensors



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8803002	160 x 120 x 90	Polycarbonate	Grey RAL7035	Transparent with stainless steel cover screws	1
8803052	160 x 120 x 90	Polycarbonate	Grey RAL7035	Grey RAL7035 with stainless steel cover screws	1

3000 Series (FIBOX EURONORD) - 200 x 120 Enclosures

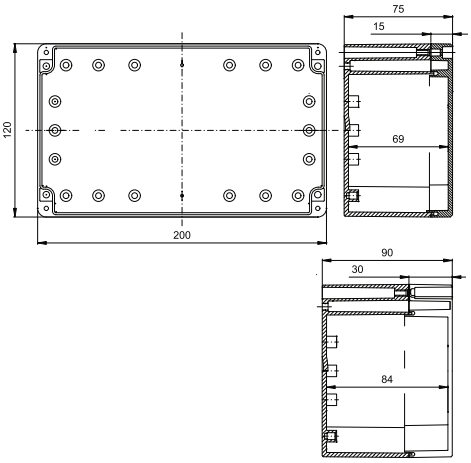


- Designed to house DIN-rail mounted terminal blocks and various types of sensors

Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with ferritic stainless steel cover screws.

See page 2-11 for technical information on this product.



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8803003	200 x 120 x 75	Polycarbonate	Grey RAL7035	Transparent with stainless steel cover screws	1
8803053	200 x 120 x 75	Polycarbonate	Grey RAL7035	Grey RAL7035 with stainless steel cover screws	1
8803004	200 x 120 x 90	Polycarbonate	Grey RAL7035	Transparent with stainless steel cover screws	1
8803054	200 x 120 x 90	Polycarbonate	Grey RAL7035	Grey RAL7035 with stainless steel cover screws	1

Internal Mounting Plates For 3000 Series (FIBOX EURONORD) Enclosures



- For mounting internal components in the 3000 Series enclosures

Specifications: RoHS ✓

Material: Galvanised Steel.

PART NUMBER	Plate Dimensions	To Fit Enclosure Size	Unit Quantity
8806012	71 x 94	120 x 180	1
8806013	96 x 111	122 x 120	1
8806014	111 x 134	160 x 120	1
8806015	111 x 174	200 x 120	1

Hinges And Wall Mounting For 3000 Series (FIBOX EURONORD) Enclosures



RoHS ✓

PART NUMBER	Description	Unit Quantity
8806050	Grey plastic hinges (2 pcs) • incl. mounting screws	1
8806061	Wall fastening lug set • incl. screws	1

4000 Series (FIBOX PICCOLO) Enclosures - General Information

The 4000 Enclosure range is especially designed to house push buttons, terminal blocks, motor starters and electronic devices. They are also ideal for mounting and protecting process control sensors and switches.

Property:	Polycarbonate	ABS
Ingress Protection (EN 60529)	IP 66/IP 67	IP 66/IP 67
Impact Resistance (EN 62262)	IK 08	IK 07
Temperature Range Celsius (short term)	-40° to 120°C	-40° to 80°C
Temperature Range Celsius (continuous)	-40° to 80°C	-40° to 60°C
Enclosure Flammability Rating	UL 94-5V	UL 94HB
Glow Wire Test (IEC 695-2-1) Self-extinguishing (PC)	960°C	650°C
Non-toxicity	Halogen Free RoHS Directive 2002/95/EC compliant	Halogen Free RoHS Directive 2002/95/EC compliant
UV resistance	UL 508 720 hours in "Weather-ometer"	-



Approvals:

USA: UL Type 1, 4X, 6, 12 or 13; UL File E75645 Vol 1 Sec 3; UL 746C-5VA flame test (UL 50/508)
Canada: Industrial Control Equipment. Enclosures for Electrical Equipment/ULc
Europe: Empty enclosures for low-voltage switchgear and controlgear assemblies EN 62208:2003 (50298:1999)
Safety of Information Technology Equipment EN 60950
Russia: GostR - Gost Russian certificate of conformity

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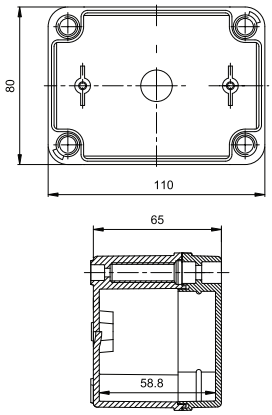
4000 Series (FIBOX PICCOLO) - 110 x 80 Enclosures



Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-12 for technical information on this product.

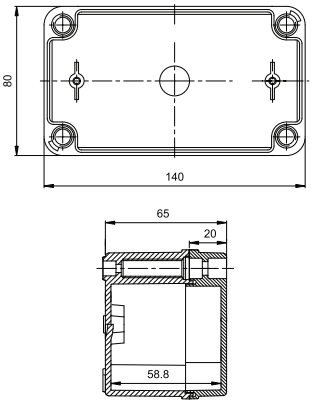
- Designed to house push buttons, terminal blocks, motor starters and electronic devices
- Also ideal for mounting and protecting process control sensors and switches



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8804000	110 x 80 x 65	Polycarbonate	Grey RAL7035	Transparent with grey cover screws	1
8804100	110 x 80 x 65	ABS	Grey RAL7035	Transparent with grey cover screws	1
8804050	110 x 80 x 65	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8804150	110 x 80 x 65	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

FIBOX
Enclosing innovations

4000 Series (FIBOX PICCOLO) - 140 x 80 Enclosures



Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-12 for technical information on this product.

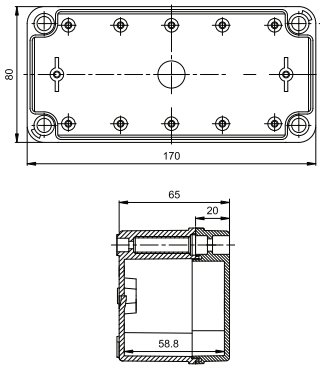
- Designed to house push buttons, terminal blocks, motor starters and electronic devices
- Also ideal for mounting and protecting process control sensors and switches



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8804001	140 x 80 x 65	Polycarbonate	Grey RAL7035	Transparent with grey cover screws	1
8804101	140 x 80 x 65	ABS	Grey RAL7035	Transparent with grey cover screws	1
8804051	140 x 80 x 65	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8804151	140 x 80 x 65	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

FIBOX
Enclosing innovations

4000 Series (FIBOX PICCOLO) - 170 x 80 Enclosures



Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-12 for technical information on this product.

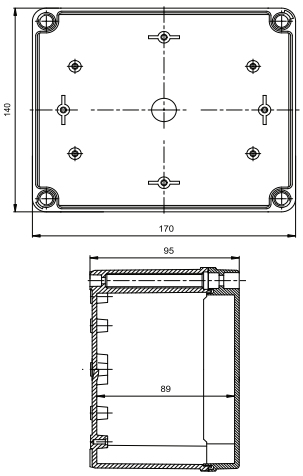
- Designed to house push buttons, terminal blocks, motor starters and electronic devices
- Also ideal for mounting and protecting process control sensors and switches



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8804002	170 x 80 x 65	Polycarbonate	Grey RAL7035	Transparent with grey cover screws	1
8804102	170 x 80 x 65	ABS	Grey RAL7035	Transparent with grey cover screws	1
8804052	170 x 80 x 65	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8804152	170 x 80 x 65	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

FIBOX
Enclosing innovations

4000 Series (FIBOX PICCOLO) - 170 x 140 Enclosures



Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-12 for technical information on this product.

- Designed to house push buttons, terminal blocks, motor starters and electronic devices
- Also ideal for mounting and protecting process control sensors and switches



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8804003	170 x 140 x 95	Polycarbonate	Grey RAL7035	Transparent with grey cover screws	1
8804103	170 x 140 x 95	ABS	Grey RAL7035	Transparent with grey cover screws	1
8804053	170 x 140 x 95	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8804153	170 x 140 x 95	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

4000 Series (FIBOX PICCOLO) - 230 x 80 Enclosures

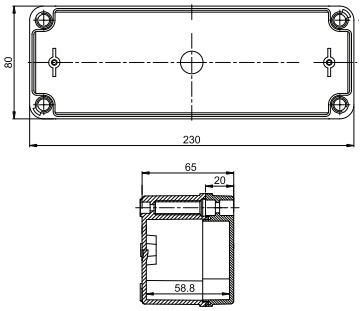


- Designed to house push buttons, terminal blocks, motor starters and electronic devices
- Also ideal for mounting and protecting process control sensors and switches

Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-12 for technical information on this product.



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8804004	230 x 80 x 65	Polycarbonate	Grey RAL7035	Transparent with grey cover screws	1
8804104	230 x 80 x 65	ABS	Grey RAL7035	Transparent with grey cover screws	1
8804054	230 x 80 x 65	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8804154	230 x 80 x 65	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

4000 Series (FIBOX PICCOLO) - 230 x 140 Enclosures

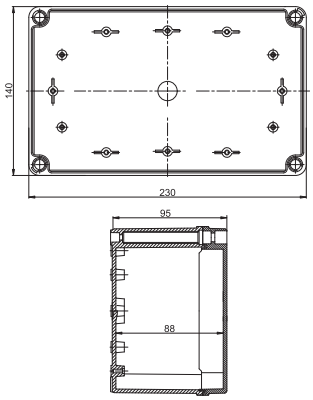


- Designed to house push buttons, terminal blocks, motor starters and electronic devices
- Also ideal for mounting and protecting process control sensors and switches

Specifications: RoHS ✓

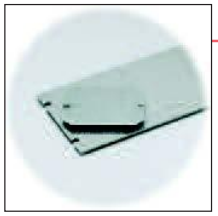
Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-12 for technical information on this product.



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8804005	230 x 140 x 95	Polycarbonate	Grey RAL7035	Transparent with grey cover screws	1
8804105	230 x 140 x 95	ABS	Grey RAL7035	Transparent with grey cover screws	1
8804055	230 x 140 x 95	Polycarbonate	Grey RAL7035	Grey RAL7035 with grey cover screws	1
8804155	230 x 140 x 95	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

Internal Mounting Plates For 4000 Series (FIBOX PICCOLO) Enclosures



- For mounting internal components in the 4000 series enclosures

Specifications: RoHS ✓

Material: Galvanised Steel.

PART NUMBER	Plate Dimensions	To Fit Enclosure Size	Unit Quantity
8806016	80 x 54	110 x 80	1
8806017	100 x 54	140 x 80	1
8806018	140 x 54	170 x 80	1
8806019	200 x 54	230 x 80	1
8806020	125 x 94	170 x 140	1
8806021	185 x 94	230 x 140	1

Hinges And Wall Mounting For 4000 Series (FIBOX PICCOLO) Enclosures



RoHS ✓

PART NUMBER	Description	Unit Quantity
8806062	Hinges (2 pcs) • incl. screws	1
8806050	Grey plastic hinges (2 pcs) • incl. mounting screws	1
8806063	Wall fastening lug (2 pcs) • incl. screws	1
8806054	Wall fastening lug (4 pcs) • incl. screws	1

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The 5000 series enclosures are easy to use because they are designed to save time and money in assembly and installation. Enclosures are fully compatible with the most common types of standard enclosure market. Plain cover offers lots of space for printing and labels.The 3000 enclosure range is designed to house DIN-rail mounted terminal blocks and various types of sensors.

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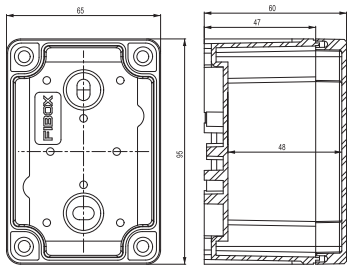
Property:	ABS
Ingress Protection (EN 60529)	IP 65
Impact Resistance (EN 62262)	IK 07
Temperature Range Celsius (Short term)	-40° to 80°C
Temperature Range Celsius (Continuous)	-40° to 60°C
Enclosure Materials	Base & opaque cover: ABS Transparent Cover: Polycarbonate
Enclosure Flammability Rating	UL 94HB
Glow Wire Test (IEC 695-2-1) Self-extinguishing (PC)	650°C
Non-Toxicity	Halogen Free RoHS Directive 2002/95/EC compliant

Approvals:

Europe: Empty enclosures for low-voltage switchgear and controlgear assemblies EN 62208:2003 (50298:1999)

FIBOX
Enclosing innovations

5000 Series (FIBOX TEMPO) Enclosures - 95 x 65



Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-15 for technical information on this product.

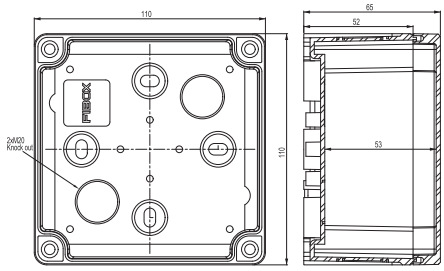
- Designed to save time and money in assembly and installation
- Plain cover offers lots of space for printing and labels



PART NUMBER	Dimensions	Base Material	Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8805055	95 x 65 x 60	ABS	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

FIBOX
Enclosing innovations

5000 Series (FIBOX TEMPO) Enclosures - 110 x 110



Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-15 for technical information on this product.

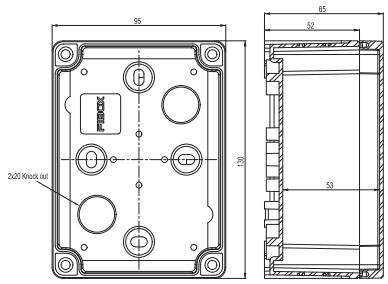
- Designed to save time and money in assembly and installation
- Plain cover offers lots of space for printing and labels



PART NUMBER	Dimensions	Base Material	Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8805056	110 x 110 x 65	ABS	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

FIBOX
Enclosing innovations

5000 Series (FIBOX TEMPO) Enclosures - 130 x 95



Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-15 for technical information on this product.

- Designed to save time and money in assembly and installation
- Plain cover offers lots of space for printing and labels



PART NUMBER	Dimensions	Base Material	Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8805057	130 x 95 x 65	ABS	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

5000 Series (FIBOX TEMPO) Enclosures - 130 x 130



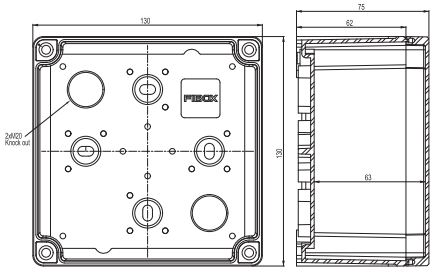
- Designed to save time and money in assembly and installation
- Plain cover offers lots of space for printing and labels

Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws.

See page 2-15 for technical information on this product.

PART NUMBER	Dimensions	Base Material	Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8805058	130 x 130 x 75	ABS	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1



5000 Series (FIBOX TEMPO) Enclosures - 187 x 122



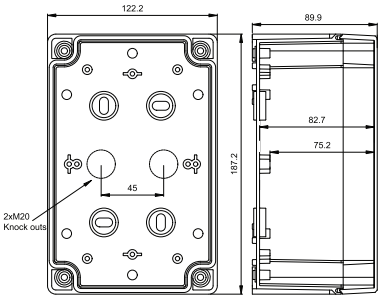
- Designed to save time and money in assembly and installation
- Plain cover offers lots of space for printing and labels
- Includes a "Quick-to-install" hinge

Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws and plastic hinges.

See page 2-15 for technical information on this product.

PART NUMBER	Dimensions	Base Material	Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8805000	187 x 122 x 90	ABS	Polycarbonate	Grey RAL7035	Transparent with grey cover screws	1
8805050	187 x 122 x 90	ABS	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1



5000 Series (FIBOX TEMPO) Enclosures - 201 x 163



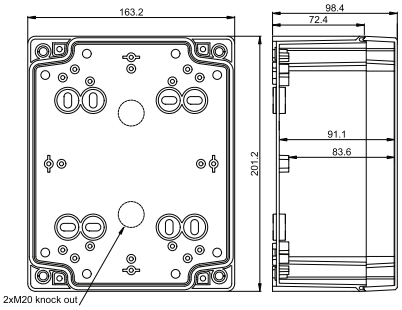
- Designed to save time and money in assembly and installation
- Plain cover offers lots of space for printing and labels
- Includes a "Quick-to-install" hinge

Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws and plastic hinges.

See page 2-15 for technical information on this product.

PART NUMBER	Dimensions	Base Material	Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8805001	201 x 163 x 98	ABS	Polycarbonate	Grey RAL7035	Transparent with grey cover screws	1
8805051	201 x 163 x 98	ABS	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1



5000 Series (FIBOX TEMPO) Enclosures - 240 x 191



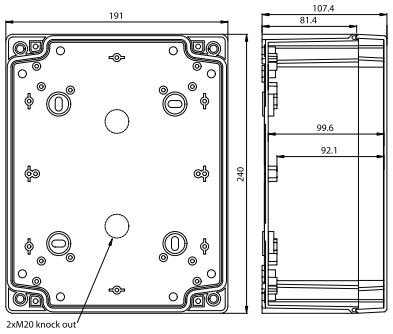
- Designed to save time and money in assembly and installation
- Plain cover offers lots of space for printing and labels
- Includes a "Quick-to-install" hinge

Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws and plastic hinges.

See page 2-15 for technical information on this product.

PART NUMBER	Dimensions	Base Material	Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8805002	240 x 191 x 107	ABS	Polycarbonate	Grey RAL7035	Transparent with grey cover screws	1
8805052	240 x 191 x 107	ABS	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1



5000 Series (FIBOX TEMPO) Enclosures - 289 x 239



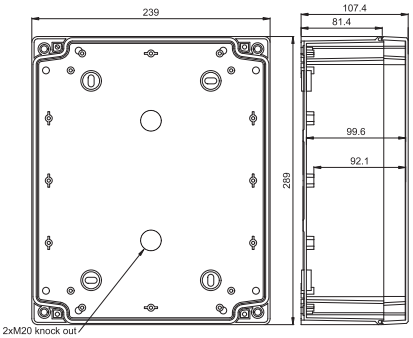
- Designed to save time and money in assembly and installation
- Plain cover offers lots of space for printing and labels
- Includes a "Quick-to-install" hinge

Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws and plastic hinges.

See page 2-15 for technical information on this product.

PART NUMBER	Dimensions	Base Material	Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8805003	289 x 239 x 107	ABS	Polycarbonate	Grey RAL7035	Transparent with grey cover screws	1
8805053	289 x 239 x 107	ABS	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1



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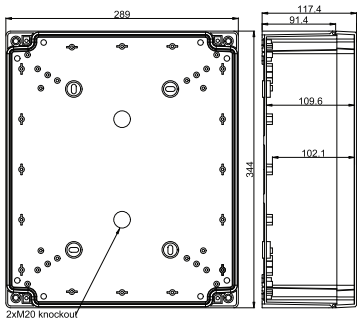
5000 Series (FIBOX TEMPO) Enclosures - 344 x 289



Specifications: RoHS ✓

Each box includes: Base with Polyurethane gasket, screws for mounting plate/DIN rail and cover with Nylon cover screws and plastic hinges.

See page 2-15 for technical information on this product.

- Designed to save time and money in assembly and installation
- Plain cover offers lots of space for printing and labels
- Includes a "Quick-to-install" hinge



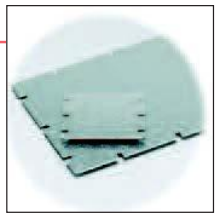
PART NUMBER	Dimensions	Base Material	Cover Material	Base Colour	Lid & Cover Screws Colour	Unit Quantity
8805004	344 x 289 x 117	ABS	Polycarbonate	Grey RAL7035	Transparent with grey cover screws	1
8805054	344 x 289 x 117	ABS	ABS	Grey RAL7035	Grey RAL7035 with grey cover screws	1

Internal Mounting Plates For 5000 Series (FIBOX TEMPO) Enclosures

Specifications: RoHS ✓

Material: Galvanised Steel.

- For mounting internal components in the 5000 series enclosures



PART NUMBER	Plate Dimensions	To Fit Enclosure Size	Unit Quantity
8806027	60 x 44	95 x 65	1
8806028	90 x 85	110 x 110	1
8806029	105 x 70	130 x 95	1
8806030	108 x 108	130 x 130	1
8806022	140 x 100	187 x 122	1
8806023	155 x 140	201 x 163	1
8806024	210 x 160	240 x 191	1
8806025	265 x 215	289 x 239	1
8806026	315 x 265	344 x 289	1

Hinges And Wall Mounting For 5000 Series (FIBOX TEMPO) Enclosures

PART NUMBER	Description	Unit Quantity
8806064	Hinges (2 pcs) • incl. screws	1
8806055	Wall fastening lug (2 pcs) • incl. screws	1
8806065	Wall fastening cover plug	1



RoHS ✓

6000 Series (FIBOX CAB PC) Enclosures - General Information

The 6000 Series enclosures are produced with hinged covers. Transparent cover options allow easy viewing of installed equipment and indicators.



Property:	Polycarbonate
Ingress Protection (EN 60529)	IP 65
Impact Resistance (EN 62262)	IK 08
Temperature Range Celsius (Short term)	-40° to 120°C
Temperature Range Celsius (Continuous)	-40° to 80°C
Enclosure Material	Polycarbonate
Enclosure Flammability Rating	UL 94-5V
Glow Wire Test (IEC 695-2-1) Self-extinguishing (PC)	960°C
Non-Toxicity	Halogen Free RoHS Directive 2002/95/EC compliant
UV resistance	UL 508 720 hours in "Weather-ometer"

Approvals:

USA Enclosures for Electrical Equipment, UL Type 1, 4, 4X, 12 or 13; UL File E75645 Vol 1 Sec 6; UL 746C-5VA flame test (UL 50/508)
Canada Industrial Control Equipment, Enclosures for Electrical Equipment/ULc
Europe Empty enclosures for low-voltage switchgear and controlgear assemblies EN 62208:2003 (50298:1998), Safety of Information Technology Equipment EN 60950
Russia GostR - Russian certificate of conformity

6000 Series (FIBOX CAB PC) Enclosures - 150 x 150

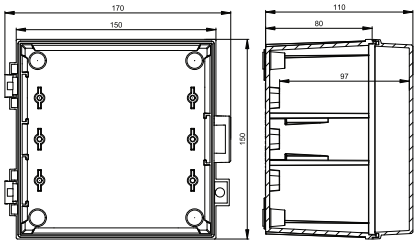


- Includes latch on short side of enclosure
- Hinged cover

Specifications: RoHS ✓

Each box includes: Cabinet base, door with EPDM gasket, latches, screws for mounting plate/DIN-rail and corner plugs.

See page 2-17 for technical information on this product.



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Colour	Unit Quantity
8807000	150 x 150 x 110	Polycarbonate	Grey RAL7035	Smoked Transparent	1
8807050	150 x 150 x 110	Polycarbonate	Grey RAL7035	Grey RAL7035	1

6000 Series (FIBOX CAB PC) Enclosures - 300 x 200

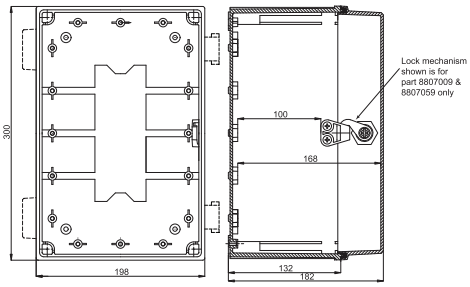


- Includes latch/lock on long side of enclosure
- Hinged cover
- **8807009 & 8807059** include a 3mm double bit lock with key

Specifications: RoHS ✓

Each box includes: Cabinet base, door with EPDM gasket, latches, screws for mounting plate/DIN-rail and corner plugs.

See page 2-17 for technical information on this product.



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Colour	Latch or Lock	Unit Quantity
8807001	300 x 200 x 180	Polycarbonate	Grey RAL7035	Smoked Transparent	Latch	1
8807051	300 x 200 x 180	Polycarbonate	Grey RAL7035	Grey RAL7035	Latch	1
8807009	300 x 200 x 180	Polycarbonate	Grey RAL7035	Smoked Transparent	Lock	1
8807059	300 x 200 x 180	Polycarbonate	Grey RAL7035	Grey RAL7035	Lock	1

6000 Series (FIBOX CAB PC) Enclosures - 300 x 300

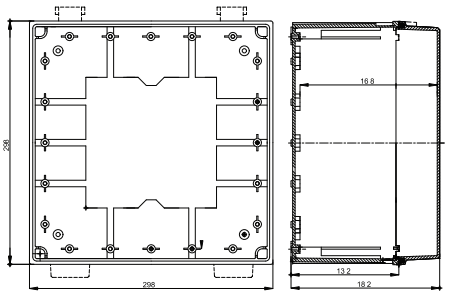


- Includes latch/lock on side of enclosure
- Hinged cover
- **8807010 & 8807060** include a 3mm double bit lock with key

Specifications: RoHS ✓

Each box includes: Cabinet base, door with EPDM gasket, latches, screws for mounting plate/DIN-rail and corner plugs.

See page 2-17 for technical information on this product.



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Colour	Latch or Lock	Unit Quantity
8807002	300 x 300 x 180	Polycarbonate	Grey RAL7035	Smoked Transparent	Latch	1
8807052	300 x 300 x 180	Polycarbonate	Grey RAL7035	Grey RAL7035	Latch	1
8807010	300 x 300 x 180	Polycarbonate	Grey RAL7035	Smoked Transparent	Lock	1
8807060	300 x 300 x 180	Polycarbonate	Grey RAL7035	Grey RAL7035	Lock	1

6000 Series (FIBOX CAB PC) Enclosures - 400 x 300

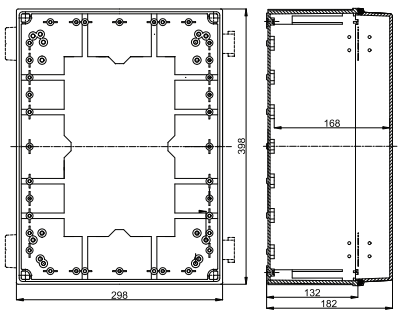


- Includes latch/lock on long side of enclosure
- Hinged cover
- **8807011 & 8807061** include 2 x 3mm double bit locks with key

Specifications: RoHS ✓

Each box includes: Cabinet base, door with EPDM gasket, latches, screws for mounting plate/DIN-rail and corner plugs.

See page 2-17 for technical information on this product.



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Colour	Latch or Lock	Unit Quantity
8807003	400 x 300 x 180	Polycarbonate	Grey RAL7035	Smoked Transparent	Latch	1
8807053	400 x 300 x 180	Polycarbonate	Grey RAL7035	Grey RAL7035	Latch	1
8807011	400 x 300 x 180	Polycarbonate	Grey RAL7035	Smoked Transparent	Lock	1
8807061	400 x 300 x 180	Polycarbonate	Grey RAL7035	Grey RAL7035	Lock	1

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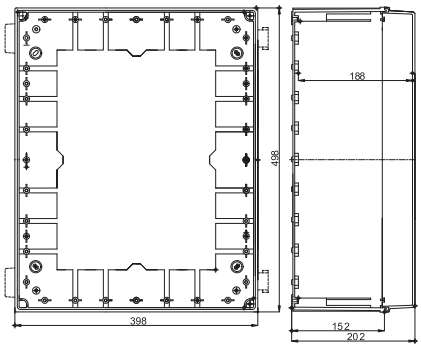
Enclosing innovations

6000 Series (FIBOX CAB PC) Enclosures - 500 x 400



Specifications: RoHS ✓
Each box includes: Cabinet base, door with EPDM gasket, latches, screws for mounting plate/DIN-rail and corner plugs.

See page 2-17 for technical information on this product.

- Includes latch/lock on long side of enclosure
- Hinged cover
- **8807012 & 8807062** include 2 x 3mm double bit locks with key



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Colour	Latch or Lock	Unit Quantity
8807004	500 x 400 x 200	Polycarbonate	Grey RAL7035	Smoked Transparent	Latch	1
8807054	500 x 400 x 200	Polycarbonate	Grey RAL7035	Grey RAL7035	Latch	1
8807012	500 x 400 x 200	Polycarbonate	Grey RAL7035	Smoked Transparent	Lock	1
8807062	500 x 400 x 200	Polycarbonate	Grey RAL7035	Grey RAL7035	Lock	1

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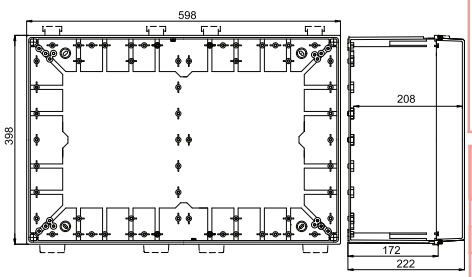
6000 Series (FIBOX CAB PC) Enclosures - 600 x 400



Specifications: RoHS ✓
Each box includes: Cabinet base, door with EPDM gasket, latches, screws for mounting plate/DIN-rail and corner plugs.

See page 2-17 for technical information on this product.

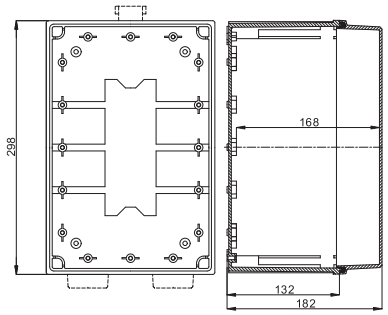
- Includes latch/lock on long side of enclosure
- Hinged cover
- **8807013 & 8807063** include 2 x 3mm double bit locks with key



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Colour	Latch or Lock	Unit Quantity
8807005	600 x 400 x 220	Polycarbonate	Grey RAL7035	Smoked Transparent	Latch	1
8807055	600 x 400 x 220	Polycarbonate	Grey RAL7035	Grey RAL7035	Latch	1
8807013	600 x 400 x 220	Polycarbonate	Grey RAL7035	Smoked Transparent	Lock	1
8807063	600 x 400 x 220	Polycarbonate	Grey RAL7035	Grey RAL7035	Lock	1

FIBOX
Enclosing innovations

6000 Series (FIBOX CAB PC) Enclosures - 200 x 300



Specifications: RoHS ✓
Each box includes: Cabinet base, door with EPDM gasket, latches, screws for mounting plate/DIN-rail and corner plugs.

See page 2-17 for technical information on this product.

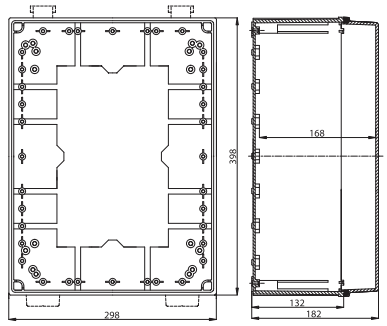
- Includes latch on short side of enclosure
- Hinged cover



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Colour	Unit Quantity
8807006	300 x 200 x 180	Polycarbonate	Grey RAL7035	Smoked Transparent	1
8807056	300 x 200 x 180	Polycarbonate	Grey RAL7035	Grey RAL7035	1

FIBOX
Enclosing innovations

6000 Series (FIBOX CAB PC) Enclosures - 300 x 400



Specifications: RoHS ✓
Each box includes: Cabinet base, door with EPDM gasket, latches, screws for mounting plate/DIN-rail and corner plugs.

See page 2-17 for technical information on this product.

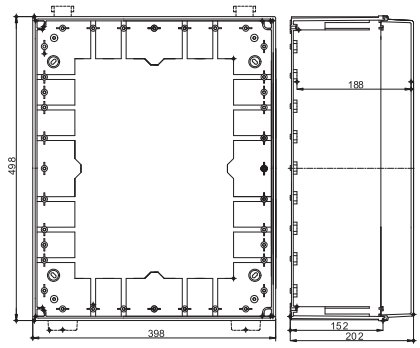
- Includes latch on short side of enclosure
- Hinged cover



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Colour	Unit Quantity
8807007	400 x 300 x 180	Polycarbonate	Grey RAL7035	Smoked Transparent	1
8807057	400 x 300 x 180	Polycarbonate	Grey RAL7035	Grey RAL7035	1

FIBOX
Enclosing innovations

6000 Series (FIBOX CAB PC) Enclosures - 400 x 500



Specifications: RoHS ✓
Each box includes: Cabinet base, door with EPDM gasket, latches, screws for mounting plate/DIN-rail and corner plugs.

See page 2-17 for technical information on this product.

- Includes latch on short side of enclosure
- Hinged cover



PART NUMBER	Dimensions	Base & Cover Material	Base Colour	Lid & Cover Colour	Unit Quantity
8807008	400 x 500 x 200	Polycarbonate	Grey RAL7035	Smoked Transparent	1
8807058	400 x 500 x 200	Polycarbonate	Grey RAL7035	Grey RAL7035	1

Internal Mounting Plates For 6000 Series (FIBOX CAB) Enclosures



- For mounting internal components in the 6000 Series enclosures

Specifications: RoHS ✓

Material: Galvanised Steel.

PART NUMBER	Plate Dimensions	To Fit Enclosure Size	Unit Quantity
8806031	125 x 125	150 x 150	1
8806032	270 x 170	300 x 200	1
8806033	270 x 270	300 x 300	1
8806034	370 x 270	400 x 300	1
8806036	470 x 370	500 x 400	1
8806039	570 x 370	600 x 400	1

Front Plates and Plate Accessories For 6000 Series (FIBOX CAB) Enclosures



RoHS ✓

PART NUMBER	Description	To Fit Enclosure Size	Unit Quantity
8806067	Swing Door Kit	All	1
8806068	Holder for Front Plate	All	1
8806072	166 x 268 Door Front Plate - 1.5mm Aluminium	300 x 200	1
8806073	266 x 268 Door Front Plate - 1.5mm Aluminium	300 x 300	1
8806074	266 x 368 Door Front Plate - 1.5mm Aluminium	400 x 300	1
8806076	468 x 366 Door Front Plate - 1.5mm Aluminium	500 x 400	1
8806078	568 x 366 Door Front Plate - 1.5mm Aluminium	600 x 400	1

Hinges and Wall Mounting For 6000 Series (FIBOX CAB) Enclosures



RoHS ✓

PART NUMBER	Description	Unit Quantity
8806069	Wall Fastening Lug (2pcs)	1
8806070	Wall Fastening Lug (2pcs)	1
8806071	Hinges (2pcs)	1

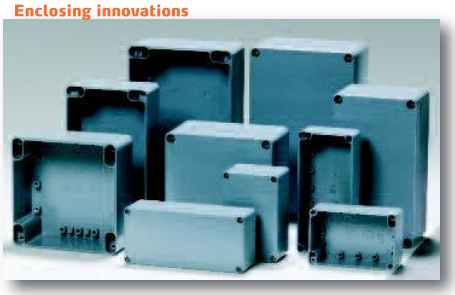
7000 Series (FIBOX EURONORD ALN) Aluminium Enclosures - General Information

Aluminium enclosures provide rigid construction, high impact resistance and they can be used in a wide range of operating temperatures. They provide excellent protection against petroleum, hydraulic oils, alcohols and solvents. Aluminium enclosures are electrically conductive. EMC shielding is provided with a special gasket.

Property:	ALUMINIUM
Ingress Protection (EN 60529)	IP 66/IP 67/IP 68
Impact Resistance (EN 62262)	IK 08
NEMA Class:	NEMA 1, 4, 4X, 12, 13
Temperature Range (short term)	-50° to 140°C
Temperature Range (continuous)	-50° to 80°C

Approvals:

Underwriters Laboratories
Fimko
UL Canada
Gost R





Wall mounting holes outside gasket area: maintaining water tight seal



Painted finish provides good chemical resistance



Enclosures can be custom designed

T: +44 (0) 1202 865222
E: sales@optimascomponents.com

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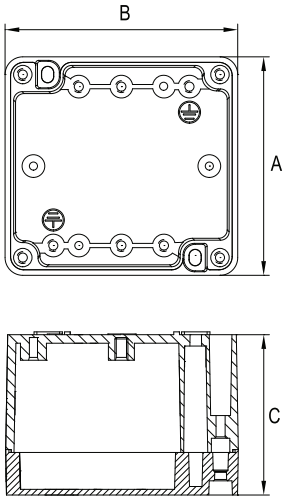
Enclosing innovations

7000 Series (FIBOX EURONORD ALN) Aluminium Enclosures



Specifications: RoHS ✓

Material: Aluminium
Base & Cover Colour: RAL 7001 (Powder Coated)
Each box includes: Base with screws for mounting plate/DIN rail, cover with PUR gasket and stainless steel cover screws.

- Provide rigid construction, high impact resistance
- Electrically conductive
- Provide excellent protection against petroleum, hydraulic oils, alcohols and solvents



PART NUMBER	A	B	C	Unit Quantity
8808000	60	66	46	1
8808001	100	66	46	1
8808002	77	82	57	1
8808003	127	82	57	1
8808004	177	82	57	1
8808005	124	125	81	1
8808006	224	125	81	1
8808007	362	125	81	1
8808008	162	162	91	1
8808009	263	162	91	1
8808010	364	162	91	1
8808011	234	204	111	1
8808012	330	230	110	1

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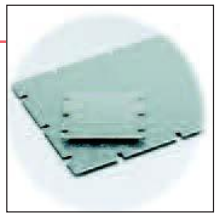
Internal Mounting Plates For 7000 Series (FIBOX EURONORD ALN) Enclosures

Specifications: RoHS ✓

Material: Galvanised Steel.

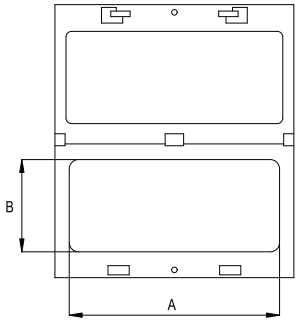
- For mounting internal components in the 7000 series enclosures



PART NUMBER	To Fit Enclosure Size	Unit Quantity
8806100	77 x 82	1
8806101	127 x 82	1
8806102	177 x 82	1
8806103	124 x 125	1
8806104	224 x 125	1
8806105	362 x 125	1
8806106	162 x 162	1
8806107	263 x 162	1
8806108	364 x 162	1
8806109	234 x 204	1
8806110	330 x 230	1

FIBOX
Enclosing innovations

Inspection Windows



Drawing is for basic illustration only.
For a more detailed drawing, please contact our Sales Dept.

Specifications: RoHS ✓

Material: Polycarbonate
Temperature Range:
Short term: -40° to 120°C
Long term: -40° to 80°C
Ingress Protection (EN 60529): See Table

- Ideal for use with PC/ABS enclosures
- Kit includes fixing instructions, screws and hole cutting template



PART NUMBER	Dimensions	Description	IP Rating	A	B	Unit Quantity
8809000	96 x 77	Window for 4 modules • Clear cover	IP54	78	50	1
8809001	130 x 77	Window for 6 modules • Clear cover	IP54	114	50	1
8809002	199 x 77	Window for 10 modules • Clear cover	IP54	183	50	1
8809003	248 x 128	Window for 12 modules • Smoked transparent cover	IP65	213	93	1
8809004	257 x 108	Window for 13 modules • Clear cover	IP65	243	46	1
8809005	248 x 218	Window for 24 modules • Smoked transparent cover	IP65	213	183	1
8809006	331 x 277	Window for 26 modules • Smoked transparent cover	IP65	295	241	1
8809007	377 x 331	Window for 36 modules • Smoked transparent cover	IP65	295	341	1

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This series of enclosures is very easy to assemble. By using the hinged quick-release catch, the enclosures can easily be closed by hand – use a standard screwdriver to open (size 3).



The lids of the enclosures have an area recessed 2mm for the mounting of membrane keypads (exceptions: 96031115, 96031114, 96011115, 96011114, 96021115, 96021114, 0.5 mm recess).



With the hinged quick-release catch, the lid can be opened to the left or right, as required. This simplifies mounting, and allows access to the electronics even during later use.



Instead of the hinged quick-release catch, the enclosures can be screwed (Suitable screws are available as accessories and are concealed by the hinged catch)



The wall brackets can be used for all Bocube sizes. They are screwed to the drill holes in the base of enclosure and are available in both enclosure colours.



The blanking plugs allow the hinged side to be selected as required.



The Bocube with a PC UL 94 V0 crystal-clear lid is ideal for use as a display enclosure because it provides a permanent view of the front panel.



The Bocube has a rectangular mounting space for grooved PCBs and rectangular mounting panels. These can be mounted in the lid and the base.



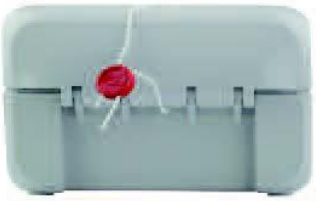
The Bocube is a mono-material plastic enclosure, so it is especially suitable for recycling.



Large areas guarantee enough space for the mounting of cable glands, D-sub-connectors, etc.



Coloured catches can be matched to the customer's designs.



A lead seal can be fitted and protects against unauthorised access. We can supply lead seals on request.



Bocube Enclosures - ABS with Grey Lid

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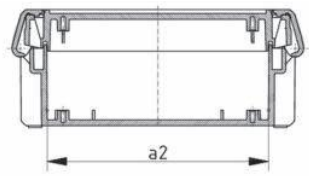
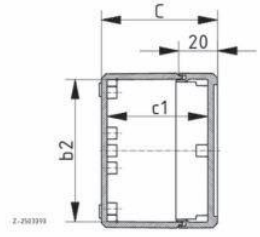
- Hinged quick release catches allow the enclosure to be closed by hand, no tools required
- Lid released with standard screwdriver
- The lid can be opened on the left or right side and remains captive
- Recessed area of 2mm for mounting of membrane keypads
- PCB's can be mounted in the base or the lid
- Alternative colour catches and wall brackets are available

Specifications: RoHS ✓
Material: ABS UL94-V0
Gasket: Polyurethane Foam
Colour: See Table

Seal: IP 66/ IP 67 DIN 60529

NEW





Colour		Part Dimensions								Unit Quantity
Light Grey	Graphite Grey	A Overall Length	B Overall Width	C Overall Height	a1 Lid Recess Length	a2 Internal Length	b1 Lid Recess Width	b2 Internal Width	c1 Internal Height	
96031115	96031114	89.0	80.0	47.0	50.0	52.6	68.0	73.6	40.5	1
96032125	96032124	113.0	80.0	60.0	74.0	76.4	68.0	73.4	52.0	1
96032135	96032134	113.0	80.0	90.0	74.0	75.9	68.0	72.9	82.0	1
96033145	96033144	151.0	80.0	40.0	112.0	114.8	68.0	73.8	32.0	1
96033125	96033124	151.0	80.0	60.0	112.0	114.4	68.0	73.4	52.0	1
96033135	96033134	151.0	80.0	90.0	112.0	113.9	68.0	72.9	82.0	1
96033225	96033224	151.0	125.0	60.0	112.0	114.4	113.0	118.4	52.0	1
96033235	96033234	151.0	125.0	90.0	112.0	113.9	113.0	117.9	82.0	1
96034125	96034124	191.0	80.0	60.0	152.0	154.4	68.0	73.4	52.0	1
96034245	96034244	191.0	125.0	40.0	152.0	154.6	113.0	118.8	32.0	1
96034225	96034224	191.0	125.0	60.0	152.0	154.4	113.0	118.4	52.0	1
96034235	96034234	191.0	125.0	90.0	152.0	154.1	113.0	117.9	82.0	1
96035245	96035244	231.0	125.0	40.0	192.0	194.6	113.0	118.8	32.0	1
96035225	96035224	231.0	125.0	60.0	192.0	194.4	113.0	118.4	52.0	1
96035235	96035234	231.0	125.0	90.0	192.0	194.1	113.0	117.9	82.0	1
96036345	96036344	271.0	170.0	40.0	232.0	234.8	158.0	163.8	31.5	1
96036325	96036324	271.0	170.0	60.0	232.0	234.4	158.0	163.4	51.5	1
96036335	96036334	271.0	170.0	90.0	232.0	234.1	158.0	163.1	81.5	1
96037665	96037664	284.0	364.0	120.0	231.0	233.1	352.0	353.5	109.0	1

OPTIMAS
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E: sales@optimascomponents.com

BOPLA
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Bocube Enclosures - Polycarbonate with Grey Lid

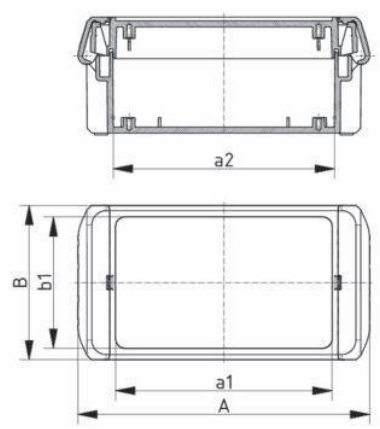


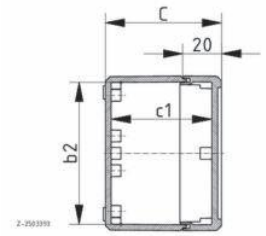
Specifications: RoHS ✓

Material: Polycarbonate UL94-V0 -Material is suitable for outdoor use(f1-listing according to UL 746C)
Gasket: Polyurethane Foam
Colour: See Table
Seal: IP 66/ IP 67 DIN 60529

- Hinged quick release catches allow the enclosure to be closed by hand, no tools required
- Lid released with standard screwdriver
- The lid can be opened on the left or right side and remains captive
- Recessed area of 2mm for mounting of membrane keypads
- PCB's can be mounted in the base or the lid
- Alternative colour catches and wall brackets are available

NEW





Colour		Part Dimensions								Unit Quantity
Light Grey	Graphite Grey	A Overall Length	B Overall Width	C Overall Height	a1 Lid Recess Length	a2 Internal Length	b1 Lid Recess Width	b2 Internal Width	c1 Internal Height	
96011115	**96011114**	89.0	80.0	47.0	50.0	52.6	68.0	73.6	40.5	1
96012125	**96012124**	113.0	80.0	60.0	74.0	76.4	68.0	73.4	52.0	1
96012135	**96012134**	113.0	80.0	90.0	74.0	75.9	68.0	72.9	82.0	1
96013145	**96013144**	151.0	80.0	40.0	112.0	114.8	68.0	73.8	32.0	1
96013125	**96013124**	151.0	80.0	60.0	112.0	114.4	68.0	73.4	52.0	1
96013135	**96013134**	151.0	80.0	90.0	112.0	113.9	68.0	72.9	82.0	1
96013225	**96013224**	151.0	125.0	60.0	112.0	114.4	113.0	118.4	52.0	1
96013235	**96013234**	151.0	125.0	90.0	112.0	113.9	113.0	117.9	82.0	1
96014125	**96014124**	191.0	80.0	60.0	152.0	154.4	68.0	73.4	52.0	1
96014245	**96014244**	191.0	125.0	40.0	152.0	154.6	113.0	118.8	32.0	1
96014225	**96014224**	191.0	125.0	60.0	152.0	154.4	113.0	118.4	52.0	1
96014235	**96014234**	191.0	125.0	90.0	152.0	154.1	113.0	117.9	82.0	1
96015245	**96015244**	231.0	125.0	40.0	192.0	194.6	113.0	118.8	32.0	1
96015225	**96015224**	231.0	125.0	60.0	192.0	194.4	113.0	118.4	52.0	1
96015235	**96015234**	231.0	125.0	90.0	192.0	194.1	113.0	117.9	82.0	1
96016345	**96016344**	271.0	170.0	40.0	232.0	234.8	158.0	163.8	31.5	1
96016325	**96016324**	271.0	170.0	60.0	232.0	234.4	158.0	163.4	51.5	1
96016335	**96016334**	271.0	170.0	90.0	232.0	234.1	158.0	163.1	81.5	1
96017665	**96017664**	284.0	364.0	120.0	231.0	233.1	352.0	353.5	109.0	1

BOPLA
A Phoenix Mecano Company

Bocube Enclosures - Polycarbonate with Crystal-Clear Lid

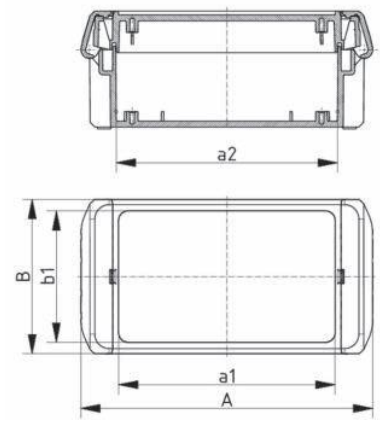


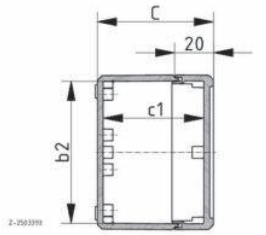
Specifications: RoHS ✓

Material: Polycarbonate UL94-V0 -Material is suitable for outdoor use(f1-listing according to UL 746C)
Gasket: Polyurethane Foam
Colour: See Table
Seal: IP 66/ IP 67 DIN 60529

- Hinged quick release catches allow the enclosure to be closed by hand, no tools required
- Lid released with standard screwdriver
- The lid can be opened on the left or right side and remains captive
- Recessed area of 2mm for mounting of membrane keypads
- PCB's can be mounted in the base or the lid
- Alternative colour catches and wall brackets are available

NEW





Colour		Part Dimensions								Unit Quantity
Light Grey	Graphite Grey	A Overall Length	B Overall Width	C Overall Height	a1 Lid Recess Length	a2 Internal Length	b1 Lid Recess Width	b2 Internal Width	c1 Internal Height	
96021115	**96021114**	89.0	80.0	47.0	50.0	52.6	68.0	73.6	40.5	1
96022125	**96022124**	113.0	80.0	60.0	74.0	76.4	68.0	73.4	52.0	1
96022135	**96022134**	113.0	80.0	90.0	74.0	75.9	68.0	72.9	82.0	1
96023145	**96023144**	151.0	80.0	40.0	112.0	114.8	68.0	73.8	32.0	1
96023125	**96023124**	151.0	80.0	60.0	112.0	114.4	68.0	73.4	52.0	1
96023135	**96023134**	151.0	80.0	90.0	112.0	113.9	68.0	72.9	82.0	1
96023225	**96023224**	151.0	125.0	60.0	112.0	114.4	113.0	118.4	52.0	1
96023235	**96023234**	151.0	125.0	90.0	112.0	113.9	113.0	117.9	82.0	1
96024125	**96024124**	191.0	80.0	60.0	152.0	154.4	68.0	73.4	52.0	1
96024245	**96024244**	191.0	125.0	40.0	152.0	154.6	113.0	118.8	32.0	1
96024225	**96024224**	191.0	125.0	60.0	152.0	154.4	113.0	118.4	52.0	1
96024235	**96024234**	191.0	125.0	90.0	152.0	154.1	113.0	117.9	82.0	1
96025245	**96025244**	231.0	125.0	40.0	192.0	194.6	113.0	118.8	32.0	1
96025225	**96025224**	231.0	125.0	60.0	192.0	194.4	113.0	118.4	52.0	1
96025235	**96025234**	231.0	125.0	90.0	192.0	194.1	113.0	117.9	82.0	1
96026345	**96026344**	271.0	170.0	40.0	232.0	234.8	158.0	163.8	31.5	1
96026325	**96026324**	271.0	170.0	60.0	232.0	234.4	158.0	163.4	51.5	1
96026335	**96026334**	271.0	170.0	90.0	232.0	234.1	158.0	163.1	81.5	1
96027665	**96027664**	284.0	364.0	120.0	231.0	233.1	352.0	353.5	109.0	1



Euromas Polymas - Enclosures with Moulded on Glands

- Moulded on cable gland
- Reduces process and assembly time
- * Parts use quick release fasteners
- Transparent Lids available on request
- Special colours available on request

Specifications: RoHS ✓

Material: Nylon 6 30% Glass Bead Filled
Gasket: Chloroprene Rubber
Colour: Silver Grey, Simular to RAL 7001

Seal: IP 65 DIN 60529

NEW

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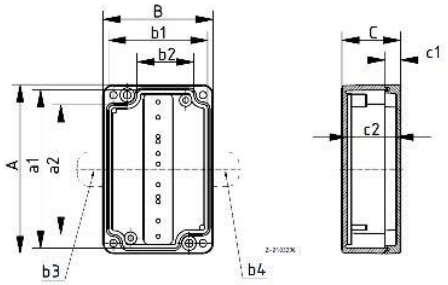
Part Number	Number of Glands		Cable Diameter Range	Part Dimensions									Unit Quantity
	b3 Face	b4 Face		A Overall Length	B Overall Width	C Overall Height	a1 Internal Length Max	a2 Internal Length Min	b1 Internal Width Max	b2 Internal Width Min	c1 Lid Height	c2 Internal Height	
38101100	0	1	8.0 to 10.0	58.0	64.0	34.0	51.4	34.0	57.4	24.0	9.0	28.5	1
38101600*	0	1	8.0 to 10.0	58.0	64.0	34.0	51.4	34.0	57.4	24.0	9.0	28.5	1
38101200	1	1	8.0 to 10.0	58.0	64.0	34.0	51.4	34.0	57.4	24.0	9.0	28.5	1
38102200	0	2	8.0 to 10.0	98.0	64.0	34.0	91.4	74.0	57.4	24.0	9.0	28.5	1
38101700*	1	1	8.0 to 10.0	58.0	64.0	34.0	51.4	34.0	57.4	24.0	9.0	28.5	1
38102700*	0	2	8.0 to 10.0	98.0	64.0	34.0	91.4	74.0	57.4	24.0	9.0	28.5	1
38102400	2	2	8.0 to 10.0	98.0	64.0	34.0	91.4	74.0	57.4	24.0	9.0	28.5	1
38102900*	2	2	8.0 to 10.0	98.0	64.0	34.0	91.4	74.0	57.4	24.0	9.0	28.5	1









ARCA IEC Electrical Cabinets



Specifications: RoHS ✓

Material: UV Stabilised Polycarbonate
Base & Cover Colour: Grey
Each box includes: Cabinet base, door with PUR gasket, mounting plate, screws for mounting plate, 3mm double bit lock with key
Ingress Protection Rating: IP66
Impact Protection Rating: IK10

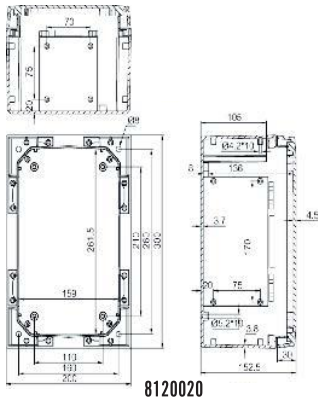
- Non corrosive for demanding enviroments
- Cost effective alturnative to sheet steel cabinets
- All the qualities of steel with the benefits of high grade Thermoplastic
- Hinge on long side (Portrait)
- 1-Point locking
- Can be safely machined without conductive swarf residue
- Smooth surface for graphics and components

NEW



Customisation Available
Please call our sales department for more information

PART NUMBER	Length	Width	Depth	Unit Quantity
8120020	300	200	150	1
8120006	400	300	150	1
8120007	400	300	210	1
8120011	500	400	210	1
8120012	600	400	210	1
8120017	700	500	300	1
8120019	800	600	300	1



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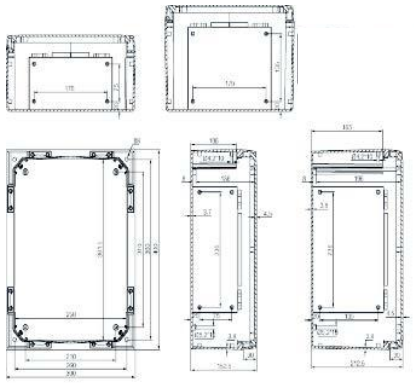
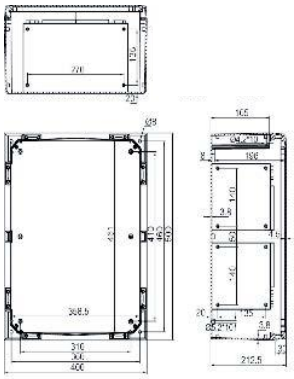


8120006 / 8120007



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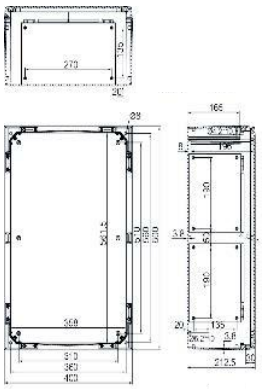

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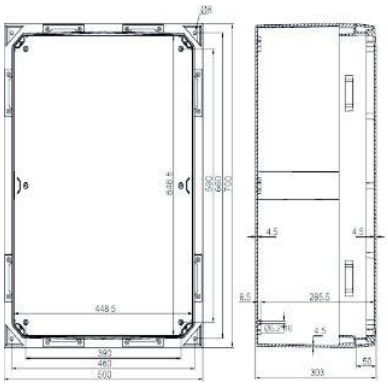

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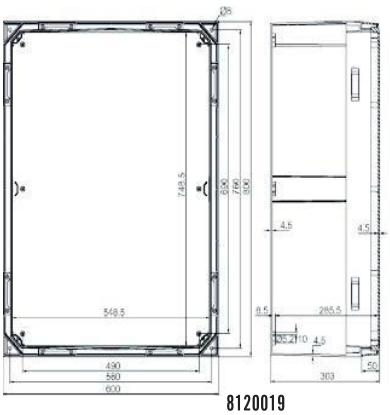


8120019

ARCA IEC DIN Rail Frame Sets



Specifications: RoHS ✓

Materials: DIN rail and frame - Galvanised Steel
Front plate - Polycarbonate
Corner brackets - Polycarbonate

- Set includes; DIN rail frame, front plate, corner brackets and screws for installation
- Patent pending

NEW

PART NUMBER	Number of Rows	Number of Modules	To Suit Cabinet Size	Unit Quantity
8120760	1	5	300 x 200 x 150	1
8120764	2	10	400 x 300 x 150	1
8120765	2	10	400 x 300 x 210	1
8120769	3	16	500 x 400 x 210	1
8120770	3	16	600 x 400 x 210	1

More sizes and accessories available
Please call our Sales office for more information



ARCA IEC Inner Door Set

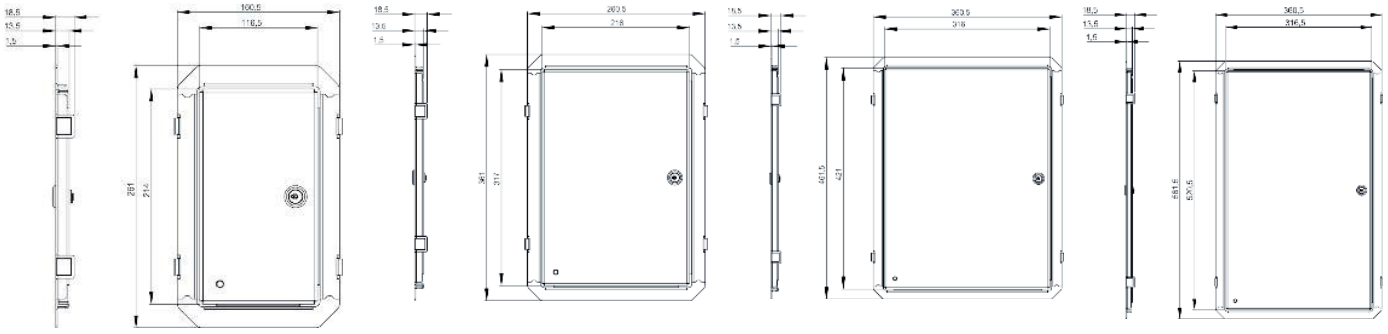
FIBOX Enclosing innovations

- No tooling needed for installation
- Lockable for increased security
- Fitted with plastic front 3 bit lock
- Patent pending

NEW

Specifications: RoHS ✓
Material: Mild Steel
Colour: Painted to RAL 7035

PART NUMBER	To Suit Cabinet Size	Unit Quantity
8120711	300 x 200 x 150	1
8120713	400 x 300 x 150/210	1
8120715	500 x 400 x 210	1
8120716	600 x 400 x 210	1



8120711 8120713 8120715 8120716



ARCA IEC Pole Mounting Kits

FIBOX Enclosing innovations

- Kit includes; 2 mounting bars, connection clips, and 2 adjustable metal fixing straps

NEW

Specifications: RoHS ✓
Material: Mounting Bars - Galvanised Steel
Connection Clips - Galvanised Steel
Metal fixing straps - High Tensile Stainless Steel

PART NUMBER	To Suit Cabinet Size	Unit Quantity
8120842	400 x 300 x 150/210	1
8120843	500 x 400 x 210	1



ARCA IEC Wall Mounting Lug Set

FIBOX Enclosing innovations

- Pack of 4 lugs and fixings

NEW

Specifications: RoHS ✓
Material: 316 Stainless Steel
Colour: Painted to RAL 7035



PART NUMBER	Description	Unit Quantity
8120830	10mm spacing between wall and cabinet	1

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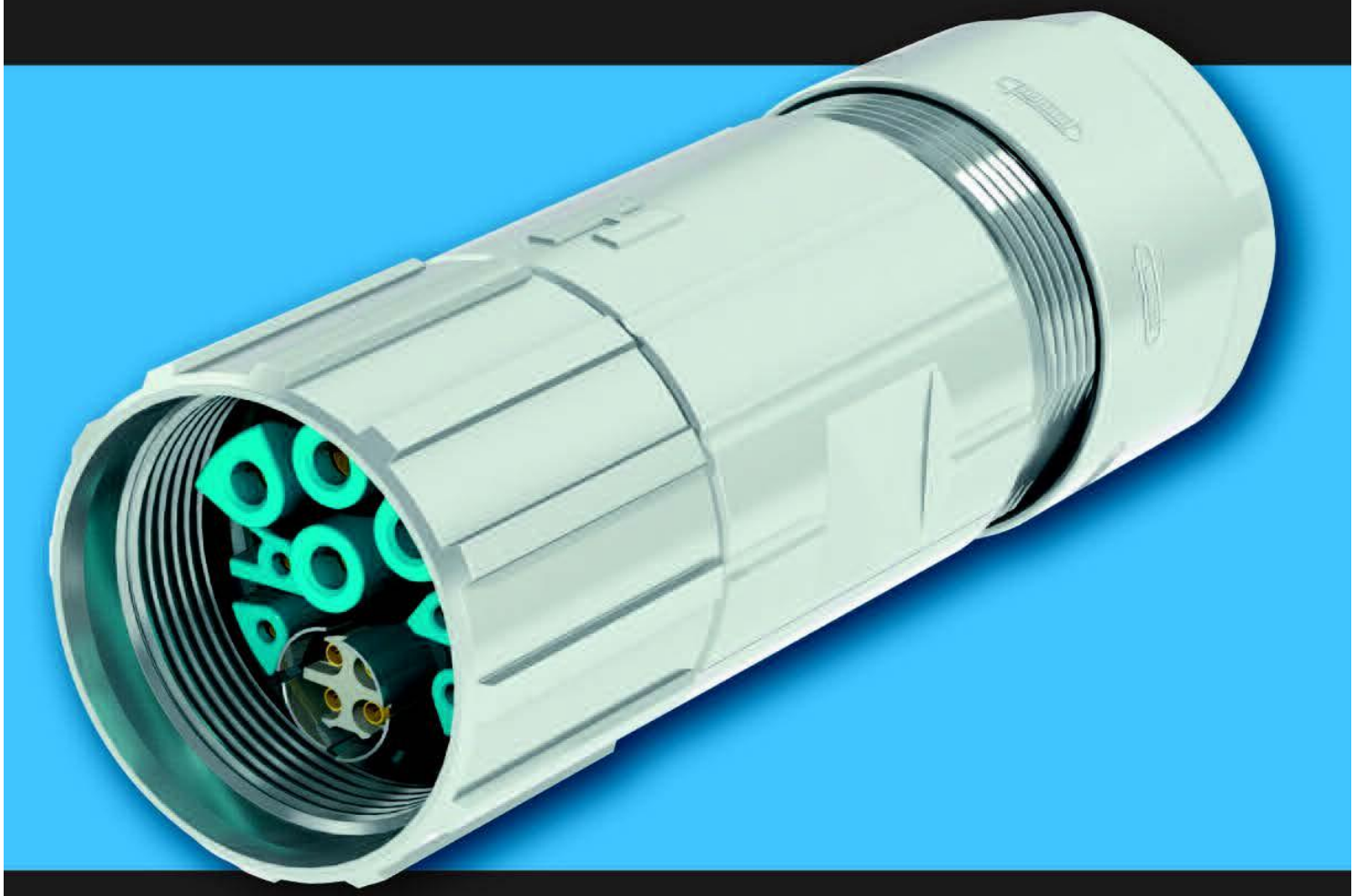
CHAPTER 3

CABLE GLANDS



M23 HYBRID CONNECTOR



THE HYBRID CONNECTOR FOR SINGLE CABLE SOLUTIONS

Hummel's new all-in-one compact M23 Hybrid Connector allows transmitting of Power, Signals and Ethernet. It permits transmitting high speed data per CAT 5e standards.

KEY FEATURES:

- **HOUSING:** die cast Copper / Zinc Alloy, Nickel plated
- **INSERTS:** moulded in Nylon / PBT (UL94V-0)
- **CONTACTS:** constructed from Brass Alloy, Nickel and Gold plated
- Cable diameter range: 3-17mm
- IP67/69 K ingress protection per EN 60529 (connected)

KEY BENEFITS:

- Simple and cost effective assembly
- Secure 360° EMI shielding
- Individual shielded options prevent cross talking
- Fully protected inserts allow robust handling

FOR FURTHER INFORMATION ON M23 HYBRID CONNECTOR PLEASE CALL US ON: +44 (0) 1202 865222

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OPTIMAS


VET Type Snap-In Protection Grommets
P3-3


Snap-In EPDM Protection Grommets
P3-3


Snap-In Protection Grommets - Silicone
P3-4


Click Fit Snap-In Protection Grommets
P3-4


Low Profile Snap-In Protection Grommets
P3-5



Liquid Tight Break-Thru Plugs
P3-5


Membrane Spouts, 2 Component Cable Entry
P3-5


Ventilation/Pressure Balance Plugs - Nylon
P3-6


Ventilation/Pressure Balance Plugs - Stainless Steel
P3-6



Nylon Snap in Vent Plugs
P3-6



HEYClean™ Liquid Tight Threaded Vent Plugs
P3-7



HEYClean™ Brass Pressure and Drain Plugs
P3-7



HEYClean™ Drain Plug locking Nut
P3-7


Metric Thread Cable Glands (UL94V-0)
P3-8



Metric Thread Cable Glands (UL94V-0) Elongated threads
P3-8


Metric Locknuts
P3-9, 11, 12, 22



Heyco®-Tite Liquid Tight Cordgrips - Straight-Thru, Metric Hubs P3-9


Metric Thread Cable Glands With Locknuts (UL94V-2)
P3-9



Split Glands for Pre-assembled Cables - Metric Hubs
P3-10

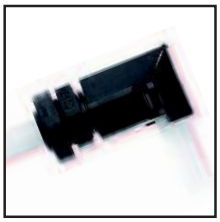

Heyco Metric Locknuts - Nylon
P3-10


Flex-Protecting Metric Thread Cable Glands
P3-10


Flex-Protecting Metric Thread Cable Glands With Locknuts
P3-11


Elbow Metric Thread Cable Glands
P3-11


Elbow Flex-Protecing Metric Thread Cable Glands
P3-11


Heyco-Tite Liquid Tight Cordgrips Metric Right Angle
P3-12


Pg & NPT Thread Cable Glands (UL94V-0)
P3-13


Pg & NPT Locknuts
P3-13, 14, 20



Pg & NPT Thread Cable Glands (UL94V-0) Elongated
P3-14



Heyco®-Tite Liquid Tight Cordgrips - Straight-Thru, Pg Hubs P3-16



Heyco® Original Series-35 Liquid Tight Cordgrips, PG Hubs P3-16


Pg Thread Cable Glands With Locknuts (UL94V-2)
P3-17



Split Glands for Pre-assembled Cables - Pg Hubs
P3-17


Heyco Pg Locknuts - Nylon
P3-17



Heyco®-Tite Liquid Tight Cordgrips NPT Hubs
P3-18



Heyco® Original Series-35 Liquid Tights, NPT Hubs
P3-18


Heyco NPT Straight Locknuts - Nylon
P3-18, 19

Liquid Tight Fittings Product Locator



Split Glands for Pre-assembled Cables - NPT Hubs
P3-19



Flex-Protecting Pg & NPT Thread Cable Glands
P3-20



Heyco® Original Series-35 Liquid Tight Cordgrips Pigtail, PG Hubs P3-21



Flex-Protecting Pg Thread Cable Glands With Locknuts- P3-21



Heyco® Original Series-35 Liquid Tight Cordgrips - Pigtail, NPT Hubs P3-21



Heyco-Tite Liquid Tight Cordgrips Pg Right Angle
P3-22



Heyco-Tite Liquid Tight Cordgrips NPT Right Angle
P3-22



Heyco®-Tite Snap-In-2® Liquid Tight Snap-In Hubs
P3-23



Heyco®-Tite Snap-In-2® Liquid Tight Flex Protect
P3-23



Metric Thread Ex Series Cable Glands
P3-24



Ex Active Series Cable Glands (UL94V-0)
P3-24



Miniature Metric Thread Metal Cable Glands
P3-25



Metric Thread Metal Cable Glands
P3-25



Metric Thread Metal Locknuts
P3-25



Pg Thread Metal Cable Glands
P3-26



Pg Thread Metal Locknuts
P3-26



Metric & Pg Thread EMC-D Series Cable Glands
P3-27



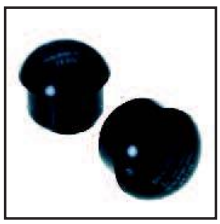
Metric & Pg Thread Metal Locknuts for EMC-D Cable Glands
P3-27



Multi-Hole Inserts for Cable Glands
P3-28



Double Ended Blanking Plugs for Cable Glands
P3-28



Blanking Plugs for Cable Glands
P3-28



HEYbrid™ Stainless Steel Liquid Tight Cordgrips
P3-29



HEYbrid™ Brass/Nylon Liquid Tight Cordgrips
P3-30



Heyco®-Tite Brass Lazy Bend Liquid Tight Cordgrips
P3-31



Metric Cable Glands - Hygienic Design
P3-31



Heyco®Metal Locknuts
P3-32



Hose Clamps HEYCO
P3-33



Premium Nylon Hose Clamps
P3-33



Modular Gland Plates - Preconfigured Kits
P3-34



Modular Gland Plates - Frames & Inserts
P3-34

OPTIMAS

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VET Type Snap-In Protection Grommets

Approvals:

FIMKO approved

NEMKO approved

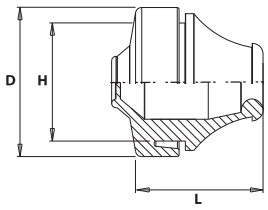
Specifications: RoHS ✓

Material service temperature
(Unstressed material): -40°C to 100°C

Seal: IP enclosure class IP67

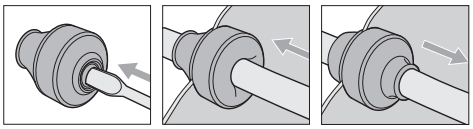
- New multi operational design
- The new design provides even better clamping
- Can also be used as a plug
- Seals cable and conduit in unthreaded holes
- Quick and easy installation without tools
- Other colours also available





Part Number, Material & Colour			Cable Diameter Range	Panel Dimensions		Component Dimensions			Unit Quantity
TPE Grey (RAL 7042)	TPE Grey (RAL 7035) UL94V-0	TPE Black (RAL 9005) UL94V-0		Hole Dia.	Thickness	D Head Diameter	H	L Length	
33488000	33488035	33488070	3.0 to 5.0	13.0	1.0 - 4.0	20.0	13.0	17.0	200
33488005	33488040	33488075	5.0 to 7.0	16.0	1.0 - 4.0	20.0	16.0	19.0	200
33488010	33488045	33488080	7.0 to 10.0	19.0	1.0 - 4.0	24.0	19.0	21.0	100
33488015	33488050	33488085	10.0 to 14.0	23.0	1.0 - 4.0	29.0	23.0	23.0	100
33488020	33488055	33488090	14.0 to 20.0	29.0	1.0 - 4.0	34.0	29.0	26.0	100
33488025	33488060	33488095	20.0 to 26.0	38.0	1.0 - 4.0	46.0	38.0	30.0	50
33488030	33488065	33488100	26.0 to 35.0	48.0	1.0 - 4.0	57.5	48.0	33.0	50





Pierce front diaphragm | Mount in panel then insert cable | Pull back cable to form seal

Snap-In Protection Grommets - EPDM

Approvals:

Metric Range: Semko report No. 306388

Pg Range: Semko report No. 1009414

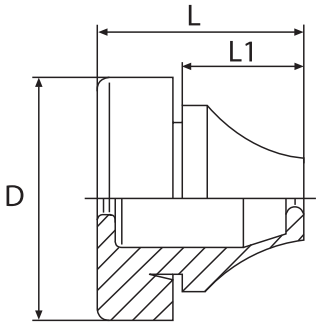
Specifications: RoHS ✓

Material: EPDM
Hardness: 56 Shore A

Working Temperature: -40°C to 110°C
Seal: IP enclosure class IP67

- Unique design incorporates a "Pushout" membrane with 0.25 mm thickness
- Produced in halogen-free EPDM
- Can be assembled from either end depending upon the application
- Suits material thickness 0.5 - 4 mm both in plastic and metal





Part Number & Colour			Cable Diameter Range	Size	Panel Dimensions		Component Dimensions			Unit Quantity
Grey (RAL 7001)	Grey (RAL 7035)	Black (RAL 9005)			Hole Dia.	Thickness	D	L	L1	
33488300	33488400	33488500	4.0 to 7.0	M12	12.5	0.5 - 2.0	20.0	12.8	5.6	500
33488305	33488405	33488505	5.0 to 9.0	M16	16.5	1.0 - 4.0	21.0	17.7	11.0	500
33488310	33488410	33488510	8.0 to 13.0	M20	20.5	1.0 - 4.0	25.5	20.0	13.4	500
33488315	33488415	33488515	11.0 to 17.0	M25	25.5	1.0 - 4.0	30.5	21.3	15.3	200
33488320	33488420	33488520	15.0 to 20.0	M32	32.5	1.0 - 4.0	38.5	24.6	18.6	100
33488325	33488425	33488525	19.0 to 28.0	M40	40.5	1.0 - 4.0	48.5	29.5	21.7	50
33488330	33488430	33488530	27.0 to 35.0	M50	50.5	1.0 - 4.0	60.5	34.8	25.0	50
33488332	33488432	33488532	34.0 to 45.0	M63	63.5	1.0 - 4.0	73.5	40.0	28.9	5
33488335	33488435	33488535	3.0 to 5.0	Pg7	13.0	0.5 - 2.0	20.0	12.6	5.6	500
33488340	33488440	33488540	5.0 to 7.0	Pg9	16.0	1.0 - 4.0	21.0	17.8	10.3	500
33488345	33488445	33488545	7.0 to 10.0	Pg11	19.0	1.0 - 4.0	24.0	19.8	12.7	500
33488350	33488450	33488550	10.0 to 14.0	Pg16	23.0	1.0 - 4.0	28.0	21.6	14.7	200
33488355	33488455	33488555	14.0 to 20.0	Pg21	29.0	1.0 - 4.0	35.0	24.6	17.6	100
33488360	33488460	33488560	20.0 to 26.0	Pg29	38.0	1.0 - 4.0	46.0	28.5	20.0	50
33488365	33488465	33488565	26.0 to 35.0	Pg36	48.0	1.0 - 4.0	58.0	34.9	23.9	50



Push the grommet into the hole. | Pierce the grommet with the cable. | The grommet is locked in position by pulling it back about a 10mm.



Snap-In Protection Grommets - Silicone

- Seals cable and conduit in unthreaded holes
- Protects against ingress of dust and water to IP67
- Quick and easy installation without tools
- Suitable as blind plug for fitting of additional equipment later
- Provides light strain relief for cable anchorage

Specifications: RoHS ✓

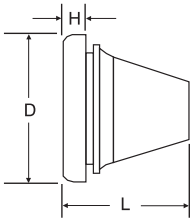
Material: Silicone

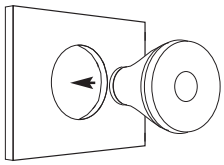
Seal: IP enclosure class IP67

Colour: Black - RAL 9011

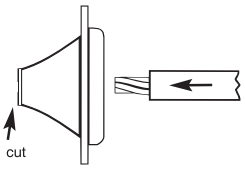
Material service temperature (unstressed material): -50°C to 170°C

PART NUMBER	Cable Diameter Range	Size	Panel Dimensions		Component Dimensions			Unit Quantity
			Hole Dia.	Thickness	D Head Diameter	H	L	
33487500	3.0 to 5.0	M12	12	1.3 - 5.0	19.0	6.5	18.5	1,000
33487505	5.0 to 7.0	M16	16	1.3 - 5.0	23.0	6.5	18.5	1,000
33487510	7.0 to 10.0	M20	20	1.3 - 5.0	27.0	6.5	19.5	1,000
33487515	10.0 to 14.0	M25	25	1.3 - 5.0	32.0	6.5	19.5	1,000
33487520	14.0 to 20.0	M32	32	1.3 - 5.0	39.0	6.5	21.5	500
33487525	20.0 to 26.0	M40	40	1.3 - 5.0	47.0	6.5	24.0	500
33487530	26.0 to 35.0	M50	50	1.3 - 5.0	58.0	6.5	30.0	250
33486500	3.0 to 5.0	PG7	13.2	1.0 - 4.0	20.0	7.0	12.8	1,000
33486505	5.0 to 7.0	PG9	16	1.0 - 4.0	20.0	7.0	18.5	1,000
33486510	7.0 to 10.0	PG11	19	1.0 - 4.0	24.0	7.0	20.5	1,000
33486515	8.0 to 14.0	PG16	23	1.0 - 4.0	28.0	7.0	22.5	1,000
33486520	14.0 to 20.0	PG21	29	1.0 - 4.0	34.5	7.0	25.2	500
33486525	20.0 to 26.0	PG29	38	1.0 - 4.0	46.0	6.5	28.5	500
33486530	26.0 to 35.0	PG36	48	1.0 - 4.0	58.0	6.5	31.5	250

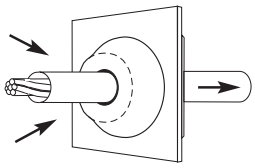




Snap Into Panel



Cut As Shown and Insert Cable



Pull Back Cable to Form Seal



Click Fit Snap-In Protection Grommets

- Seals cable in unthreaded holes
- Protects against ingress of dust and water up to IP67
- Quick and easy installation without tools
- Suitable as blind plug
- Integral cable anchorage provides strain relief for cable

Specifications: RoHS ✓

Material: TPE and Nylon 6,6 (Halogen Free)

Seal: IP65/IP67 (see table)

Material service temperature: -20°C to 125°C

Approvals:

Test Standards:

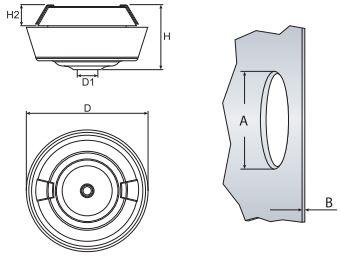
EN60529: 1191+A1

EN50262: 1998

EMKO-TUI (03-SEC) FI001/84

Semko Report: 606620

PART NUMBER	Colour	Size	Cable Diameter Range		Panel Dimensions			Component Dimensions				Unit Quantity
			To achieve IP67 & Anchorage Type A*	To achieve IP65	(A) Hole Dia.	(B) Thk.	(B) Thk. for IP65/67	H	H2	D1	D***	
33488107	Grey (RAL 7035)	M20	7.0 to 11.0	4.0 to 11.0	20.5	0.7 to 3.0	0.7 to 3.0	17 to 20	5.5	4.0	34.2 to 37.2	500
33488108	Black (RAL 9005)	M20	7.0 to 11.0	4.0 to 11.0	20.5	0.7 to 3.0	0.7 to 3.0	17 to 20	5.5	4.0	34.2 to 37.2	500
33488109	White (RAL 9010)	M20	7.0 to 11.0	4.0 to 11.0	20.5	0.7 to 3.0	0.7 to 3.0	17 to 20	5.5	4.0	34.2 to 37.2	500
33488101	Grey (RAL 7035)	M20	7.0 to 11.0	4.0 to 11.0	20.5	1.5 to 5.0	2.0 to 5.0	17 to 20	5.5	4.0	29.3 to 34.5	100
33488102	Black (RAL 9005)	M20	7.0 to 11.0	4.0 to 11.0	20.5	1.5 to 5.0	2.0 to 5.0	17 to 20	5.5	4.0	29.3 to 34.5	100
33488103	White (RAL 9010)	M20	7.0 to 11.0	4.0 to 11.0	20.5	1.5 to 5.0	2.0 to 5.0	17 to 20	5.5	4.0	29.3 to 34.5	100
33488110	Grey (RAL 7035)	M25	7.0 to 13.0**	4.0 to 13.0	25.5	0.7 to 3.0	0.7 to 3.0	17 to 20	5.7	5.0	39.2 to 42.2	500
33488111	Black (RAL 9005)	M25	7.0 to 13.0**	4.0 to 13.0	25.5	0.7 to 3.0	0.7 to 3.0	17 to 20	5.7	5.0	39.2 to 42.2	500
33488112	White (RAL 9010)	M25	7.0 to 13.0**	4.0 to 13.0	25.5	0.7 to 3.0	0.7 to 3.0	17 to 20	5.7	5.0	39.2 to 42.2	500
33488104	Grey (RAL 7035)	M25	7.0 to 13.0**	4.0 to 13.0	25.5	1.5 to 5.0	2.0 to 5.0	17 to 20	5.7	5.0	34.3 to 40.0	100
33488105	Black (RAL 9005)	M25	7.0 to 13.0**	4.0 to 13.0	25.5	1.5 to 5.0	2.0 to 5.0	17 to 20	5.7	5.0	34.3 to 40.0	100
33488106	White (RAL 9010)	M25	7.0 to 13.0**	4.0 to 13.0	25.5	1.5 to 5.0	2.0 to 5.0	17 to 20	5.7	5.0	34.3 to 40.0	100

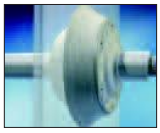




Center the grommet in the opening (from the inside), push evenly with both thumbs until it clicks into place.



Insert the cable from the side with the polyamide tabs.



* Cable Anchorage Type A, according to EN 50262.

** 8,1 - 8,9 mm only approved for tension relief.

*** Varies depending on the thickness of material installed in.

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Low Profile Snap-In Protection Grommets



Approvals:

Test Standards:

EN60529: 1191+A1 EMKO-TUI (03-SEC) FI001/84

Semko Report:

M16 - 708555-1 M20 - 708555-2

M25 - 708555-3 M32 - 708555-4

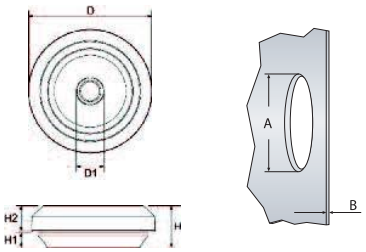
Specifications: RoHS ✓

Material: TPE

Working Temperature: -50°C to 125°C

Seal: IP enclosure class IP67

- Quick and simple to install without the use of tools
- Produced in halogen-free TPE
- Can be used also as a blanking plug
- Suits a wide range of cable sizes



PART NUMBER & COLOUR			Cable Diameter Range	Size	Panel Dimensions		Component Dimensions					Unit Quantity
Grey (RAL 7035)	Black (RAL 9005)	White (RAL 9010)			(A) Hole Dia.	(B) Thickness	*D	D1	H	H1	H2*	
33488200	33488204	33488208	5.0 to 10.0	M16	16.5	0.5 to 3.0	23.5	4.0	11.0	4.0	6.75	1,000
33488201	33488205	33488209	6.0 to 13.0	M20	20.5	0.5 to 3.0	27.5	5.0	11.0	4.0	6.45	1,000
33488202	33488206	33488210	5.0 to 17.0	M25	25.5	0.5 to 3.5	32.5	7.0	11.0	4.0	6.75	1,000
33488203	33488207	33488211	12.0 to 24.0	M32	32.5	0.5 to 4.5	39.5	11.0	11.0	4.0	6.75	1,000

* Varies depending on the thickness of material installed in

HEYCO® *Genuine HEYCO® Parts!*

HEYCo-molded™ Liquid Tight Break-Thru Plugs



Approvals:

Recognized under the Component Program of Underwriters' Laboratories File E15331

Specifications: RoHS ✓

Material: TPE and Nylon 6,6

Colour: Black

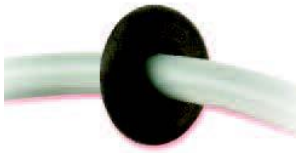
Flammability: UL94HB

Temperature Rating: -40°C to 100°C

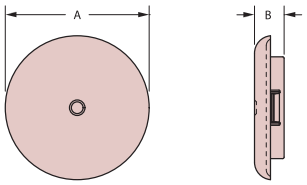
IP rating: 67/68

NEW

- Liquid Tight Break-Thru Plugs insulate and mechanically protect electrical and telecommunications cable, tubing, hose, rope, and utility lines.
- Locking fingers snap into holes with fingertip pressure
- Withstand a push back force of greater than 155N
- Certified by UL under UL 635



These co-molded nylon and elastomer parts function as Liquid Tight Plugs with an IP 67/68 rating, yet can be pierced by round wire, cable or tubing to function as Liquid Tight Bushings with the same resulting IP 67/68 rating

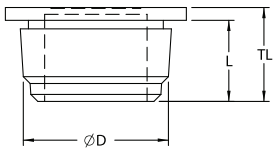


PART NUMBER	Panel Dimensions		Cable Diameter Range	Description	Part Dimensions		Unit Quantity
	To Suit Panel Thickness	Mounting Hole Diameter			A Head Diameter	B Overall Height	
334C2008	0.5, 0.8, 1.0, 1.2, 1.6	12.7	2.0 - 5.1	LTBP 500-063	23.4	8.1	100
334C2012		15.9	3.3 - 9.5	LTBP 625-063	26.2	8.1	100
334C2016		19.1	4.4 - 10.2	LTBP 750-063	29.2	8.1	100
334C2020		22.2	3.3 - 11.4	LTBP 875-063	32.5	8.1	100
334C2022		25.4	5.1 - 18.2	LTBP 1000-063	36.3	8.1	100
334C2024		27.8	6.4 - 19.4	LTBP 1093-063	38.9	8.1	100
334C2058	1.6, 2.0, 2.4, 3.2, 4.0, 5.1	12.7	2.0 - 5.1	LTBP 500-250	23.4	15.9	1,000
334C2062		15.9	3.3 - 9.5	LTBP 625-250	26.2	15.9	1,000
334C2066		19.1	4.4 - 10.2	LTBP 750-250	29.2	15.9	1,000
334C2070		22.2	3.3 - 11.4	LTBP 875-250	32.5	15.9	1,000
334C2072		25.4	5.1 - 18.2	LTBP 1000-250	36.3	15.9	1,000
334C2074		27.8	6.4 - 19.4	LTBP 1093-250	38.9	15.9	1,000

Membrane Spouts, 2 Component Cable Entry







Specifications: RoHS ✓

Materials: Polyethylene/Thermoplastic Elastomer

Protection Degree: IP66

Working Temp: -40°C to 80°C

- Dust Tight
- Quick and easy mounting
- Suitable for enclosures with more than 2mm wall thickness

PART NUMBER	Dimensions				Unit Quantity
	Cable Capacity	D	L	TL	
33480000	1.0 to 9.0	16.0	9.5	11.0	100
33480001	1.0 to 13.0	20.0	9.5	11.0	100
33480002	1.0 to 18.0	25.0	9.5	11.0	100
33480003	1.0 to 25.0	32.0	9.5	11.0	100

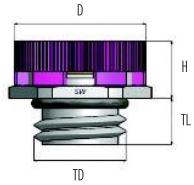


Ventilation/Pressure Balance Plugs - Nylon

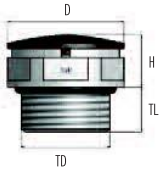
- Membrane Feature: Hydrophobic - Oleophobic
- Prevents pressure increase inside enclosure
- Limits temperature increase
- Prevents water suction into the system
- Prevents exposure to hot, humid or compressed gases

Specifications: RoHS ✓
Materials: Housing - Nylon 6, '0' Ring - Nitrile Rubber, Membrane - Acrylic co-polymer on nylon support
Flammability: UL94V-2
Protection Degree: IP68/IP69K
Working Temp: -40°C to 105°C

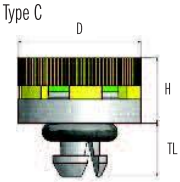
Type A



Type B



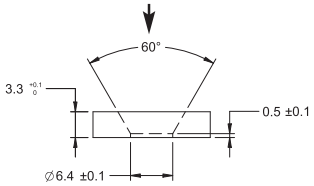
Type C



PART NUMBER & COLOUR			Dimensions						Air Permeability (litres/hour) (ΔP @ 70 mbar)	Water Intrusion pressure (Bar)	Mounting Hole Dia.	Plug Type	Unit Quantity
Grey RAL 7001	Grey RAL 7035	Black RAL 9005	Thread Size	TD	TL	H	D	SW					
4452050-S	4452052-S	4452054-S	M12 x 1.0	12	6.6	7.5	17	17	16	0.9	12.5	A	100
4452050-M	4452052-M	4452054-M	M12 x 1.0	12	6.6	7.5	17	17	45	0.5	12.5	A	100
4452050-H	4452052-H	4452054-H	M12 x 1.0	12	6.6	7.5	17	17	120	0.2	12.5	A	100
4452050-UH	4452052-UH	4452054-UH	M12 x 1.0	12	6.6	7.5	17	17	220	0.1	12.5	A	100
4452051-S	4452053-S	4452055-S	M12 x 1.5	12	6	7.5	17	17	16	0.9	12.5	A	100
4452051-M	4452053-M	4452055-M	M12 x 1.5	12	6	7.5	17	17	45	0.5	12.5	A	100
4452051-H	4452053-H	4452055-H	M12 x 1.5	12	6	7.5	17	17	120	0.2	12.5	A	100
4452051-UH	4452053-UH	4452055-UH	M12 x 1.5	12	6	7.5	17	17	220	0.1	12.5	A	100
4452056-S	4452061-S	4452057-S	M20 x 1.5	20	9.5	12.5	24	24	42	0.9	20.5	B	100
4452056-M	4452061-M	4452057-M	M20 x 1.5	20	9.5	12.5	24	24	120	0.5	20.5	B	100
4452056-H	4452061-H	4452057-H	M20 x 1.5	20	9.5	12.5	24	24	450	0.2	20.5	B	100
4452056-UH	4452061-UH	4452057-UH	M20 x 1.5	20	9.5	12.5	24	24	750	0.1	20.5	B	100
4452058-S	4452059-S	4452060-S	Quick Fit	-	7.5	9.2	17	-	16	0.9	See Diagram	C	100
4452058-M	4452059-M	4452060-M	Quick Fit	-	7.5	9.2	17	-	45	0.5	See Diagram	C	100
4452058-H	4452059-H	4452060-H	Quick Fit	-	7.5	9.2	17	-	120	0.2	See Diagram	C	100
4452058-UH	4452059-UH	4452060-UH	Quick Fit	-	7.5	9.2	17	-	220	0.1	See Diagram	C	100

Hole Profile for Quick Fit (Type C) Plugs

Plug inserted from this side

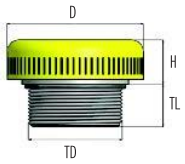




Ventilation/Pressure Balance Plugs - Stainless Steel

- Membrane Feature: Hydrophobic - Oleophobic
- Prevents pressure increase inside enclosure
- Limits temperature increase
- Prevents water suction into the system
- Prevents exposure to hot, humid or compressed gases

Specifications: RoHS ✓
Materials: Housing - Stainless Steel - Grade 303, '0' Ring - Nitrile Rubber, Membrane - Acrylic co-polymer on nylon support
Protection Degree: IP68/IP69K
Working Temp: -40°C to 105°C



PART NUMBER	Dimensions						Air Permeability (litres/hour) (ΔP @ 70 mbar)	Water Intrusion pressure (Bar)	Mounting Hole Dia.	Unit Quantity
	Thread Size	TD	TL	H	D	SW				
4452100-S	M12 x 1.5	12	10	11	17	17	16	0.9	12.5	100
4452100-M	M12 x 1.5	12	10	11	17	17	45	0.5	12.5	100
4452100-H	M12 x 1.5	12	10	11	17	17	120	0.2	12.5	100
4452100-UH	M12 x 1.5	12	10	11	17	17	220	0.1	12.5	100
4452101-S	M16 x 1.5	16	6	12.4	17	17	16	0.9	16.5	100
4452101-M	M16 x 1.5	16	6	12.4	17	17	45	0.5	16.5	100
4452101-H	M16 x 1.5	16	6	12.4	17	17	120	0.2	16.5	100
4452101-UH	M16 x 1.5	16	6	12.4	17	17	220	0.1	16.5	100
4452102-S	M20 x 1.5	20	6	13.5	17	22	16	0.9	20.5	100
4452102-M	M20 x 1.5	20	6	13.5	17	22	45	0.5	20.5	100
4452102-H	M20 x 1.5	20	6	13.5	17	22	120	0.2	20.5	100
4452102-UH	M20 x 1.5	20	6	13.5	17	22	220	0.1	20.5	100



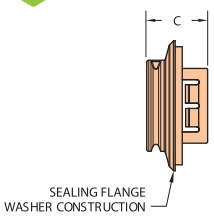
Heyco® Nylon Snap in Vent Plugs

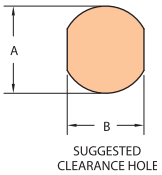
Genuine HEYCO® Parts! HEYCO®

- Quick and easy Snap-in installation into clearance holes
- Integral sealing ring ensures a superior seal at mounting hole location
- Allow the passage of air for ventilation and heat dissipation
- Rotation prevented when used in Double D mounting holes

Specifications: RoHS ✓
Materials: Nylon 66 - Body, Acrylic Copolymer Filter
Colour: Black
Flammability: UL94V-2
Temperature Rating: -40°C to 105°C
IP Rating: IP 65/67/68
Maximum Airflow: >16.6 LPM/3.7cm2 @ 13.5 psi

NEW





Part Number	A Mounting Hole Diameter	Description	Part Dimensions		Unit Quantity
			B To Prevent Rotation	C Length	
4453481VB	12.7	LTSV 500	11.4	15.2	100
4453486VB	22.2	LTSV 875	19.6	15.7	100
4453488VB	28.6	LTSV 1125	25.4	16.8	100

Snap into a range of panel thickness up to 3.2mm with no tools

OPTIMAS

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E: sales@optimascomponents.com

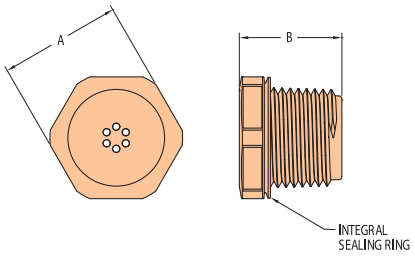
HEYClean™ Liquid Tight Threaded Vent Plugs

NEW

Specifications: RoHS ✓
Materials: Nylon 66 - Body, Acrylic Copolymer Filter
Flammability: UL94V-2
Temperature Rating: -40°C to 105°C
IP Rating: IP 67/68 (* IP 65 rated)
Maximum Airflow: >16.6 LPM/3.7cm2 @ 13.5 psi

- Integral sealing ring ensures a superior seal at mounting hole location
- Allow the passage of air for ventilation and heat dissipation
- Hex shaped head for wrench installation
- Integral sealing ring ensures a superior seal at mounting hole location





Approximate Head Thickness: 5.3 mm

Part Number		Thread Size	Description	Part Dimensions		Unit Quantity
Black	Grey			A Wrenching Flats	B Overall Length	
4463544VB	4463544V	NPT 1/4	LTTVP NPT 1/4	16.0	16.8	100
4463545VB	4463545V	NPT 3/8	LTTVP NPT 3/8	21.0	17.5	100
4463546VB	4463546V	NPT 1/2	LTTVP NPT 1/2	24.9	20.6	100
4463547VB*	4463547V*	NPT 3/4	LTTVP NPT 3/4	32.8	21.8	100
4463574VB	4463574V	Pg 7	LTTVP Pg 7	16.0	13.5	100
4463575VB	4463575V	Pg 9	LTTVP Pg 9	21.0	13.5	100
4463576VB	4463576V	Pg 13.5	LTTVP Pg 13.5	24.9	15.8	100
4463401VB	4463401V	Pg 21	LTTVP Pg 21	32.8	19.3	100
4463582VB	4463582V	M12	LTTVP M12	16.0	13.5	100
4463583VB	4463583V	M16	LTTVP M16	21.0	13.5	100
4463584VB	4463584V	M20	LTTVP M20	24.9	15.8	100

HEYClean® Brass Pressure Equalization Plugs

Specifications: RoHS ✓
Material: Nickel-Plated Brass
Liquid Tight Membrane: Polyethersulfone (PES)
Sintered Disc: Bronze

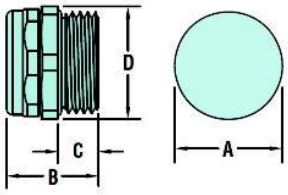
Temperature Range: -40°C to 110°C

- Allow the passage of air for ventilation and heat dissipation, yet prevent moisture intrusion.
- Filter membrane prevents moisture and particulate contamination in electronic enclosures.
- Pressure compensating seal prevents build up of pressure inside of electronic enclosures due to environmental temperature cycling.
- Quick installation into Clearance or Threaded Holes.
- Nickel-plated finish over brass provides excellent corrosion resistance and durability.
- Hex shaped body for wrench installation.
- PES membrane for Liquid Tight Pressure Equalization Plug
- Sintered Disk to Maximise airflow for extreme pressure and moisture fluctuations



Head Thickness: 9,5 mm to 10 mm

NEW



Part Number	Thread Size	Description	Part Dimensions				IP Class	Filter Element	Unit Quantity
			A Clearance Hole	B Overall Length	C Thread Length	D Wrench Flats			
4464350	M12	BRASS LTPEP M12	12.0	17.5	8.0	18.0	IP 66, 67, 68	PES Membrane	25
4464351	M16	BRASS LTPEP M16	16.0	17.5	8.0	18.0	IP 66, 67, 68	PES Membrane	20
4464352	M20	BRASS LTPEP M20	20.0	18.0	8.0	22.0	IP 66, 67, 68	PES Membrane	20
4464354	M12	BRASS LRPEP M12	12.0	17.5	8.0	18.0	IP 55, x9K	Sintered Disc	25
4464355	M16	BRASS LRPEP M16	16.0	17.5	8.0	18.0	IP 55, x9K	Sintered Disc	20
4464356	M20	BRASS LRPEP M20	20.0	18.0	8.0	22.0	IP 55, x9K	Sintered Disc	20

HEYClean® Brass Drain Plugs

NEW

Specifications: RoHS ✓
Material: Nickel-Plated Brass

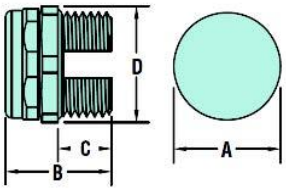
Temperature Range : -40°C to 110°C

IP Rating: Drainage Element - IP4X

- Drainage Plugs are ideal for applications where condensation is expected.
- Stainless steel mesh allows water to drain quickly, but protects enclosure from bugs and dust.
- Feature a "cut out"section to allow water to completely drain from enclosure
- Hex shaped body for wrench installation.
- DFARS Compliant



Head Thickness: 9.5 mm to 10 mm



Should be installed at enclosure's lowest point.

Part Number	Thread Size	Description	Part Dimensions				Unit Quantity
			A Clearance Hole	B Overall Length	C Thread Length	D Wrenching Flats	
4464357	M12	BRASS TDP M12	12.0	19.5	10.0	18.0	25
4464358	M16	BRASS TDP M16	16.0	19.5	10.0	18.0	20
4464359	M20	BRASS TDP M20	20.0	20.0	10.0	22.0	20

HEYClean® Drain Plug Brass Locknuts

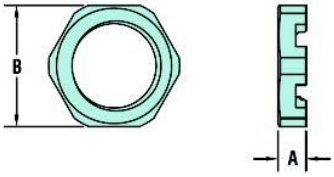
NEW

Specifications: RoHS ✓
Materials: Nickel Plated Brass

Temperature Rating: -40°C to 110°C

- Quick and easy installation into Clearance Holes only.
- Locknuts feature special "cutout" to allow water to completely drain from enclosure, when used with HEYClean™ Threaded Drain Plugs.
- DFARS Compliant





Part Number	Thread Size	Description	Part Dimensions		Unit Quantity
			A Thickness	B Wrenching Flats	
4464360	M12	BRASS DPLN M12	4.5	15.0	25
4464361	M16	BRASS DPLN M16	5.5	19.0	20
4464362	M20	BRASS DPLN M20	5.5	24.0	20



Metric Thread Cable Glands (UL94V-0)

- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon
Sealing Gland - Buna - N
Flammability: UL94V-0
Operating temperature: -40°C to 100°C

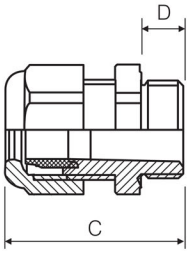
Approvals/Test Standards:

Protection (EN 60529) IP68 - 10 bar/IP69K within clamping range only with optional '0' Ring - see page 13-38

in black color ULf1

PART NUMBER AND COLOUR		** Diameter of Cables/Tubing to be Accommodated	Dimensions					Unit Quantity
Black RAL 9005	Grey RAL 7035		Mounting Thread Size and Pitch	Chassis Clearance Hole +0.3 / -0.0	Body and Sealing Nut			
					C Max. Overall Length	D Thread Length	Wrenching Flats	
33087000	33087001	3.0 to 6.5	M12 x 1.5	12.0	29.0	8.0	15.0	50
33087005	33087006	2.0 to 5.0	M12 x 1.5	12.0	29.0	8.0	15.0	50
33088000	33088001	4.0 to 8.0	M16 x 1.5	16.0	30.0	8.0	19.0	50
33088005	33088006	2.0 to 6.0	M16 x 1.5	16.0	30.0	8.0	19.0	50
33088010	33088011	6.0 to 12.0	M20 x 1.5	20.0	36.0	9.0	24.0	50
33088015	33088016	5.0 to 9.0	M20 x 1.5	20.0	36.0	9.0	24.0	50
33088020	33088021	13.0 to 18.0	M25 x 1.5	25.0	41.0	11.0	33.0	50
33088025	33088026	9.0 to 16.0	M25 x 1.5	25.0	41.0	11.0	33.0	50
33088030	33088031	18.0 to 25.0	M32 x 1.5	32.0	49.0	11.0	42.0	25
33088035	33088036	13.0 to 20.0	M32 x 1.5	32.0	49.0	11.0	42.0	25
33088100	33088101	19.0 to 27.0	M40 x 1.5	40.0	60.0	13.0	46.0	10
33088102	33088103	22.0 to 32.0	M40 x 1.5	40.0	61.0	13.0	53.0	10
33088104	33088105	20.0 to 26.0	M40 x 1.5	40.0	61.0	13.0	53.0	10
33088106	33088107	32.0 to 38.0	M50 x 1.5	50.0	62.0	13.0	60.0	5
33088108	33088109	25.0 to 31.0	M50 x 1.5	50.0	62.0	13.0	60.0	5
33088110	33088111	37.0 to 44.0	M63 x 1.5	63.0	63.0	14.0	65.0/68.0	5
33088112	33088113	29.0 to 35.0	M63 x 1.5	63.0	63.0	14.0	65.0/68.0	5

** We recommend using the fitting with the smallest maximum diameter that will fit your application



Locknuts sold separately



Metric Thread Cable Glands (UL94V-0) - Elongated Threads

- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon
Sealing Gland - Buna - N
Flammability: UL94V-0
Operating temperature: -40°C to 100°C

Approvals/Test Standards:

Protection (EN 60529) IP68 - 10 bar/IP69K within clamping range only with optional '0' Ring - see page 13-38

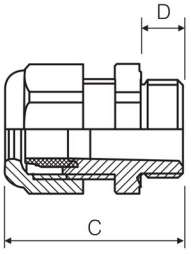
in black color ULf1

PART NUMBER AND COLOUR		** Diameter of Cables/Tubing to be Accommodated	Dimensions					Unit Quantity
Black RAL 9005	Grey RAL 7035		Mounting Thread Size and Pitch	Chassis Clearance Hole +0.3 / -0.0	Body and Sealing Nut			
					C Max. Overall Length	D Thread Length	Wrenching Flats	
33088120	33088121	3.0 to 6.5	M12 x 1.5	12.0	36.0	15.0	15.0	50
33088122	33088123	2.0 to 5.0	M12 x 1.5	12.0	36.0	15.0	15.0	50
33088124	33088125	4.0 to 8.0	M16 x 1.5	16.0	40.0	15.0	19.0	50
33088126	33088127	2.0 to 6.0	M16 x 1.5	16.0	40.0	15.0	19.0	50
33088128	33088129	6.0 to 12.0	M20 x 1.5	20.0	42.0	15.0	24.0	50
33088130	33088131	5.0 to 9.0	M20 x 1.5	20.0	42.0	15.0	24.0	50
33088132	33088133	13.0 to 18.0	M25 x 1.5	25.0	46.0	15.0	33.0	50
33088134	33088135	9.0 to 16.0	M25 x 1.5	25.0	46.0	15.0	33.0	50
33088136	33088137	18.0 to 25.0	M32 x 1.5	32.0	54.0	15.0	42.0	50
33088138	33088139	13.0 to 20.0	M32 x 1.5	32.0	54.0	15.0	42.0	50
33088140	33088141	22.0 to 32.0	M40 x 1.5	40.0	66.0	18.0	53.0	50
33088142	33088143	20.0 to 26.0	M40 x 1.5	40.0	66.0	18.0	53.0	50
33088144	33088145	32.0 to 38.0	M50 x 1.5	50.0	67.0	18.0	60.0	50
33088146	33088147	25.0 to 31.0	M50 x 1.5	50.0	67.0	18.0	60.0	50
33088148	33088149	37.0 to 44.0	M63 x 1.5	63.0	67.0	18.0	65.0/68.0	50
33088150	33088151	29.0 to 35.0	M63 x 1.5	63.0	67.0	18.0	65.0/68.0	50

** We recommend using the fitting with the smallest maximum diameter that will fit your application

** We recommend using the fitting with the smallest maximum diameter that will fit your application

NEW

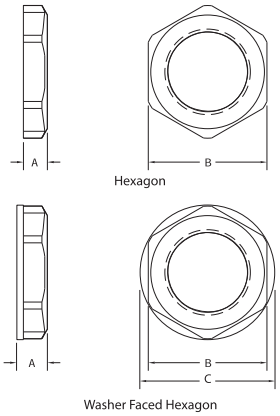


Locknuts sold separately

T: +44 (0) 1202 865222
E: sales@optimascomponents.com

Metric Locknuts - Nylon





Part Number & Colour		Thread Type and Size	Part Dimensions			Unit Quantity	Material	Body Style
Black	Grey		A - Overall Thickness	B - Wrenching Flats	C - Washer Diameter			
34588347	34588348	M12 x 1.5	5.0	17.0	-	100	Nylon 6 (UL94V-0)	Hexagon
34588351	34588352	M16 x 1.5	5.0	22.0	-	100		
34588356	34588357	M20 x 1.5	6.0	27.0	-	100		
*34588361	*34588362	M25 x 1.5	6.5	32.0	-	100		
34588366	34588367	M32 x 1.5	7.0	41.0	-	50		
34588410	34588411	M40 x 1.5	7.0	50.0	-	25		
34588415	34588416	M50 x 1.5	8.0	60.0	-	25		
34588420	34588421	M63 x 1.5	8.0	75.0	-	25		
34588370	34588371	M16 x 1.5	6.7	19.0	22.0	100	Nylon 66	Washer Faced Hexagon
34588375	34588376	M20 x 1.5	8.0	23.0	27.0	100		
34588380	34588381	M25 x 1.5	9.0	28.0	32.0	100		
34588390	34588391	M32 x 1.5	9.0	36.5	42.0	100		

HEYCO® *Genuine HEYCO® Parts!*

Heyco®-Tite Liquid Tight Cordgrips - Straight-Thru, Metric Hubs



Approvals/Test Standards:

Listed/* Recognized under Underwriters' Laboratories File E51579

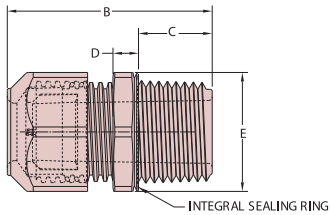
Certified By Canadian Standard Association File 93876C

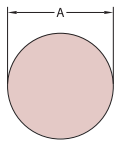
Marks License #136681

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon 66
Sealing Gland - Buna N or TPE
Flammability: UL94V-2
Operating temperature: Static -40°C to 115°C
Dynamic -20°C to 100°C
IP Rating: IP 68 (70 psi, 5 bar)

- IP68 rated
- Approved for NEMA 6 and 6P applications
- Acme threads on body prevent skipping and speeds installation
- All nylon construction with Buna N or TPE sealing gland resists salt water, weak acids, gasoline, alcohol, oil, grease, and common solvents





SUGGESTED CLEARANCE HOLE FOR NON-THREADED MOUNTING

Unassembled Nylon Locknuts INCLUDED

Part Number & Colour		** Diameter of Cables/Tubing to be Accommodated		Description and Thread Size	Part Dimensions					Unit Quantity
Black RAL 9005	Grey RAL 7035	Min	Max		A Clearance Hole Dia	B Max O.A Length	C Thread Length	D Wrenching Nut Thickness	E Wrenching Nut Flat Size	
66134330*	66134331*	1.7	5.3	RLTCG M12	12.0	29.5	8.1	5.3	16.0	2,000
66134332*	66134333*	2.9	6.4	LTCG M12	12.0	29.5	8.1	5.3	16.0	2,000
66134334*	66134335*	1.7	5.8	RLTCG M16	16.0	31.8	8.1	5.3	21.1	2,000
66134336*	66134337*	2.7	8.0	LTCG M16	16.0	31.8	8.1	5.3	21.1	2,000
66134338	66134339	2.4	7.4	RLTCG M20	20.0	37.8	10.4	5.3	24.9	1,500
66134340	66134341	4.3	11.4	LTCG M20	20.0	37.8	10.4	5.3	24.9	1,500
66134342	66134343	6.4	12.4	RLTCG M25	25.0	48.0	13.2	6.4	33.0	500
66134344	66134345	11.0	17.9	LTCG M25	25.0	48.0	13.2	6.4	33.0	500
66134346	66134347	12.4	19.9	RLTCG M32	32.0	56.6	14.7	7.6	43.9	250
66134348	66134349	15.0	25.4	LTCG M32	32.0	56.6	14.7	7.6	43.9	250
66134350	66134351	20.0	26.0	RLTCG M40	40.0	60.7	12.2	7.6	52.1	50
66134352	66134353	22.0	32.0	LTCG M40	40.0	60.7	12.2	7.6	52.1	50

** We recommend using the fitting with the smallest maximum diameter that will fit your application

Metric Thread Cable Glands (UL94V-2) - with Locknuts



Approvals/Test Standards:

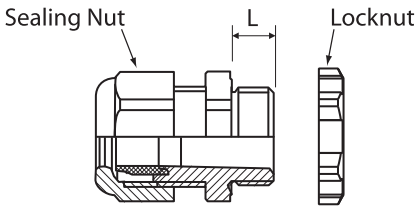
Protection (EN 60529) IP68 within clamping range

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon
Sealing Gland - Nitrile Butadiene Rubber
Flammability: UL94V-2
Operating temperatures: Static: -40°C to 100°C
Dynamic: -20°C to 80°C

- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust
- Waterproof & dustproof
- Available in 4 colours
- Glands are supplied complete with locknuts

These cable glands are supplied complete with locknut.



PART NUMBER AND COLOUR				** Diameter of Cables/Tubing to be Accommodated	Dimensions					Unit Quantity
Black RAL 9005	Grey RAL 7035	Red RAL 3000	White RAL 9010		Mounting Thread Size and Pitch	Chassis Clearance Hole +0.3 / -0.0	L Thread Length	Locknut Wrenching Flats	Sealing Nut Wrenching Flats	
3492012	3491012	3493012	3494012	3.0 to 6.5	M12 x 1.5	12.0	9.0	18.0	16.0	1,000
3492016	3491016	3493016	3494016	4.0 to 8.0	M16 x 1.5	16.0	9.0	22.0	19.0	1,000
3492017	3491017	3493017	3494017	2.0 to 6.0	M16 x 1.5	16.0	9.0	22.0	19.0	1,000
3492020	3491020	3493020	3494020	6.0 to 11.0	M20 x 1.5	20.0	10.0	27.0	24.0	1,000
3492021	3491021	3493021	3494021	5.0 to 9.0	M20 x 1.5	20.0	10.0	27.0	24.0	1,000
3492025	3491025	3493025	3494025	12.0 to 15.0	M25 x 1.5	25.0	11.0	31.0	28.0	500
3492026	3491026	3493026	3494026	10.0 to 12.0	M25 x 1.5	25.0	11.0	31.0	28.0	500
3492032	3491032	3493032	3494032	13.0 to 18.0	M32 x 1.5	32.0	12.0	38.0	35.0	500
3492040	3491040	3493040	3494040	22.0 to 32.0	M40 x 1.5	40.0	15.0	52.0	52.0	500
3492050	3491050	3493050	3494050	25.0 to 31.0	M50 x 1.5	50.0	18.0	62.0	58.0	100

** We recommend using the fitting with the smallest maximum diameter that will fit your application



Split glands for Pre-assembled Cables - Metric Hubs

Genuine HEYCO® Parts!

- For use with pre-terminated/pre-assembled cables; e.g. RJ45 cables
- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust
- Integral Sealing Ring ensures a superior seal at the clearance or threaded mounting hole location, every time.

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon 66
Sealing Gland - TPE
Flammability: UL94V-2
Operating temperature: Static -40°C to 115°C
Dynamic -20°C to 100°C
IP Rating: IP 68 (70 psi, 5 bar)

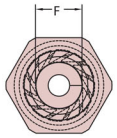
Approvals/Test Standards:

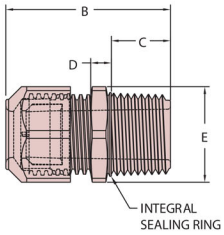
Recognized under the Component Program of Underwriters' Laboratories File E51579 to both Canadian and U.S. Requirements

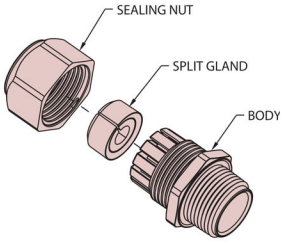
Part Number & Colour		Diameter of Cables/Tubing to be Accommodated		Mounting Thread Size and Type	Description	Part Dimensions						Unit Quantity
Black	Grey	Min	Max			A Clearance Hole Dia	B Max O.A Length	C Thread Length	D Wrenching Nut Thickness	E Wrenching Nut Flat Size	F Sealing Nut Inside Diameter	
M3198GBH	M3199GBH	5.3	8.5	M20	LTCG LL M20 8.5MM Split	20.0	41.9	10.4	6.4	26.9	14.2	50
M4344GBH	M4345GBH	5.3	8.5	M25	LTCG M25 8.5MM Split	25.0	48.0	13.2	6.4	33.0	18.3	50
M4348GBH	M4349GBH	6.4	8.5	M32	LTCG M32 8.5MM Split	32.0	56.6	14.7	7.6	43.9	25.7	25
M4352GBH	M4353GBH	6.4	8.5	M40	LTCG M40 8.5MM Split	40.0	60.7	11.9	7.9	52.7	32.3	10

Locknuts Included

NEW







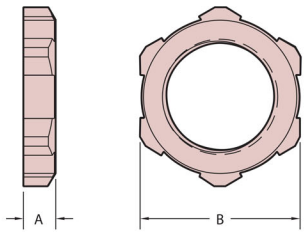


Metric Locknuts - Nylon

Genuine HEYCO® Parts!

NEW

PART NUMBER AND COLOUR		Thread Type and Size	Description	Part Dimensions		Unit Quantity
Black	Grey			A - Overall Thickness	B - Wrenching Flats	
66129130	66129131	M12	NLN M12	5.5	19.1	2,000
66129132	66129133	M16	NLN M16	5.5	22.1	2,500
66129134	66129135	M20	NLN M20	6.2	27.0	1,500
66129136	66129137	M25	NLN M25	7.1	35.0	800
66129138	66129139	M32	NLN M32	7.1	41.0	1,000
66129140	66129141	M40	NLN M40	7.1	50.0	500
66129148	66129149	M50	NLN M50	8.1	69.9	150
66129154	66129155	M63	NLN M63	9.5	72.4	100





Flex-Protecting Metric Thread Cable Glands

- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust
- Extension supports and prevents cable from bending sharply

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon
Sealing Gland - Buna - N
Flammability: UL94V-2
Operating temperature: -40°C to 100°C

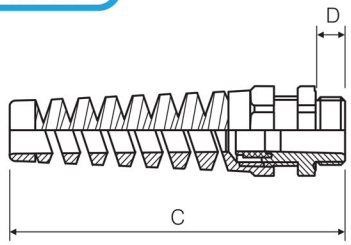
Approvals/Test Standards:

Protection (EN 60529) IP68 - 10 bar/IP69K within clamping range only with optional '0' Ring - see page 13-38

in black color ULf1

PART NUMBER AND COLOUR		** Diameter of Cables/Tubing to be Accommodated	Dimensions					Unit Quantity
Black RAL 9005	Grey RAL 7035		Mounting Thread Size and Pitch	Chassis Clearance Hole +0.3 / -0.0	Body and Sealing Nut			
					C Max. Overall Length	D Thread Length	Wrenching Flats	
33188098	33188096	3.0 to 6.5	M12 x 1.5	12.0	62.0	8.0	15.0	50
33188099	33188097	2.0 to 5.0	M12 x 1.5	12.0	62.0	8.0	15.0	50
33188100	33188101	4.0 to 8.0	M16 x 1.5	16.0	67.0	8.0	19.0	50
33188105	33188106	2.0 to 6.0	M16 x 1.5	16.0	67.0	8.0	19.0	50
33188110	33188111	6.0 to 12.0	M20 x 1.5	20.0	90.0	9.0	24.0	50
33188115	33188116	5.0 to 9.0	M20 x 1.5	20.0	90.0	9.0	24.0	50
33188120	33188121	13.0 to 18.0	M25 x 1.5	25.0	122.0	11.0	33.0	50
33188125	33188126	9.0 to 16.0	M25 x 1.5	25.0	122.0	11.0	33.0	50

HUMMEL®



Locknuts sold separately

** We recommend using the fitting with the smallest maximum diameter that will fit your application

OPTIMAS
T: +44 (0) 1202 865222
E: sales@optimascomponents.com

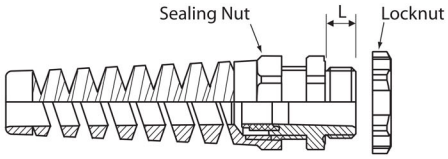
Flex-Protecting Metric Thread Cable Glands - with Locknuts



Approvals/Test Standards:
Protection (EN 60529) IP68 within clamping range

Specifications: RoHS ✓
Materials: Body & Sealing Nut - Nylon
Sealing Gland - Nitrile Butadiene Rubber
Flammability: UL94V-2
Operating temperatures: Static: -40°C to 100°C
Dynamic: -20°C to 80°C

- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust
- Extension supports and prevents cable from bending sharply
- Glands are supplied complete with locknuts



These cable glands are supplied complete with locknut.

Part Number & Colour		** Diameter of Cables/Tubing to be Accommodated	Dimensions					Unit Quantity
Black RAL 9005	Grey RAL 7035		Mounting Thread Size and Pitch	Chassis Clearance Hole +0.3 / -0.0	L Thread Length	Locknut Wrenching Flats	Sealing Nut Wrenching Flats	
3492512	3491512	3.0 to 6.5	M12 x 1.5	12.0	9.0	18.0	16.0	1,000
3492516	3491516	4.0 to 8.0	M16 x 1.5	16.0	9.0	22.0	19.0	1,000
3492520	3491520	6.0 to 12.0	M20 x 1.5	20.0	10.0	27.0	24.0	1,000
3492525	3491525	9.0 to 16.0	M25 x 1.5	25.0	12.0	35.0	33.0	500

** We recommend using the fitting with the smallest maximum diameter that will fit your application

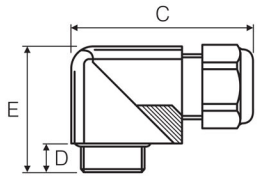
Elbow Metric Thread Cable Glands



Approvals/Test Standards:
Protection (EN 60529) IP68

Specifications: RoHS ✓
Materials: Body & Sealing Nut - Nylon
Sealing Gland - Buna - N
Flammability: Not rated
Operating temperature: -40°C to 100°C

- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust
- 90° Elbow can be straightened for easy cable insertion



Locknuts sold separately

PART NUMBER AND COLOUR		** Diameter of Cables/Tubing to be Accommodated	Dimensions						Unit Quantity
Black RAL 9005	Grey RAL 7035		Mounting Thread Size and Pitch	Chassis Clearance Hole +0.3 / -0.0	Body and Sealing Nut				
					C Max. Overall Length	D Thread Length	E Max. Overall Height	Wrenching Flats	
33288200	33288201	4.0 to 8.0	M16 x 1.5	16.0	45.5	8.0	31.0	19.0	25
33288205	33288206	2.0 to 6.0	M16 x 1.5	16.0	45.5	8.0	31.0	19.0	25
33288210	33288211	6.0 to 12.0	M20 x 1.5	20.0	57.0	9.0	39.5	24.0	25
33288215	33288216	5.0 to 9.0	M20 x 1.5	20.0	57.0	9.0	39.5	24.0	25
33288220	33288221	13.0 to 18.0	M25 x 1.5	25.0	73.0	11.0	51.0	33.0	20
33288225	33288226	9.0 to 16.0	M25 x 1.5	25.0	73.0	11.0	51.0	33.0	20
33288230	33288231	18.0 to 25.0	M32 x 1.5	32.0	91.0	11.0	62.0	42.0	5
33288235	33288236	13.0 to 20.0	M32 x 1.5	32.0	91.0	11.0	62.0	42.0	5

** We recommend using the fitting with the smallest maximum diameter that will fit your application

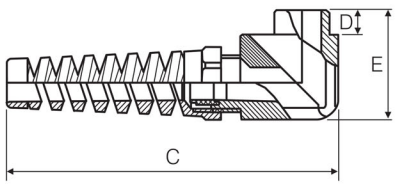
Flex-Protecting Elbow Metric Thread Cable Glands



Approvals/Test Standards:
Protection (EN 60529) IP68

Specifications: RoHS ✓
Materials: Body & Sealing Nut - Nylon
Sealing Gland - Buna - N
Flammability: Not rated
Operating temperature: -40°C to 100°C

- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust
- 90° Elbow can be straightened for easy cable insertion



Locknuts sold separately

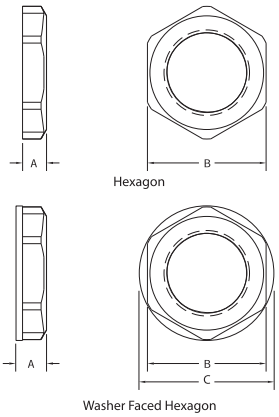
PART NUMBER AND COLOUR		** Diameter of Cables/Tubing to be Accommodated	Dimensions						Unit Quantity
Black RAL 9005	Grey RAL 7035		Mounting Thread Size and Pitch	Chassis Clearance Hole +0.3 / -0.0	Body and Sealing Nut				
					C Max. Overall Length	D Thread Length	E Max. Overall Height	Wrenching Flats	
33388300	33388301	4.0 to 8.0	M16 x 1.5	16.0	85.0	8.0	31.0	19.0	20
33388305	33388306	2.0 to 6.0	M16 x 1.5	16.0	85.0	8.0	31.0	19.0	20
33388310	33388311	6.0 to 12.0	M20 x 1.5	20.0	112.0	9.0	39.5	24.0	20
33388315	33388316	5.0 to 9.0	M20 x 1.5	20.0	112.0	9.0	39.5	24.0	20
33388320	33388321	13.0 to 18.0	M25 x 1.5	25.0	155.0	11.0	51.0	33.0	10
33388325	33388326	9.0 to 16.0	M25 x 1.5	25.0	155.0	11.0	51.0	33.0	10

** We recommend using the fitting with the smallest maximum diameter that will fit your application



Metric Locknuts - Nylon

PART NUMBER AND COLOUR		Thread Type and Size	Part Dimensions			Unit Quantity	Material	Body Style
Black	Grey		A - Overall Thickness	B - Wrenching Flats	C - Washer Diameter			
34588347	34588348	M12 x 1.5	5.0	17.0	-	100	Nylon 6 (UL94V-0)	Hexagon
34588351	34588352	M16 x 1.5	5.0	22.0	-	100		
34588356	34588357	M20 x 1.5	6.0	27.0	-	100		
*34588361	*34588362	M25 x 1.5	6.5	32.0	-	100		
34588366	34588367	M32 x 1.5	7.0	41.0	-	50		
34588410	34588411	M40 x 1.5	7.0	50.0	-	25		
34588415	34588416	M50 x 1.5	8.0	60.0	-	25		
34588420	34588421	M63 x 1.5	8.0	75.0	-	25		
34588370	34588371	M16 x 1.5	6.7	19.0	22.0	100	Nylon 66	Washer Faced Hexagon
34588375	34588376	M20 x 1.5	8.0	23.0	27.0	100		
34588380	34588381	M25 x 1.5	9.0	28.0	32.0	100		
34588390	34588391	M32 x 1.5	9.0	36.5	42.0	100		





Heyco®-Tite Liquid Tight Cordgrips - Metric Right Angle

Genuine HEYCO® Parts!

- Cordgrip is molded in the open position for ease of installation. After cable insertion, the fitting snaps closed, bending the cable without damage. This assembly method saves considerable time and money.
- Part design provides liquid tight integrity even in the open position.
- Approved for NEMA 4, 4X, 6 and 6P applications.
- Acme threads on body prevent skipping and speed installation.

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon 66
Sealing Gland - TPE
Flammability: UL94V-2
Operating temperature: Static -40°C to 115°C
Dynamic -20°C to 100°C
IP Rating: IP 68 (70 psi, 5 bar)

Approvals/Test Standards:

Listed under Underwriters' Laboratories File E51579

* Recognized under the Component Program of Underwriters' Laboratories File E51579 (Not UL Listed)

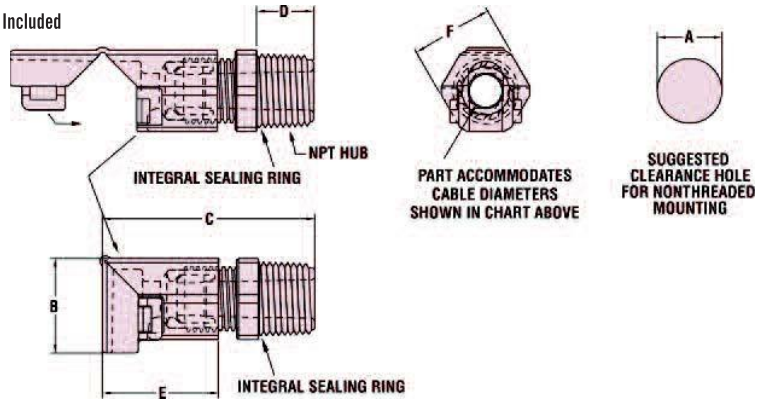
Certified By Canadian Standard Association File 93876C

License 13668

Part Number AND COLOUR		Diameter of Cables/Tubing to be Accommodated		Mounting Thread Size and Type	Description	Part Dimensions						Unit Quantity
Black	Grey	Min	Max			A Clearance Hole Dia	B Right Angle Height	C Max Length (closed)	D Thread Length	E Sealing Nut Length	F Wrenching Nut Flat Size	
66134560*	66134561*	1.7	5.3	M12	RLTCG M12 90	12.0	17.5	38.8	8.1	22.0	16.0	100
66134562*	66134563*	2.9	6.4	M12	LTCG M12 90	12.0	17.5	38.8	8.1	22.0	16.0	100
66138560*	66138561*	1.7	5.8	M16	RLTCG M16 90	16.0	22.3	44.9	8.1	27.1	21.0	100
66138562*	66138563*	2.7	8.0	M16	LTCG M16 90	16.0	22.3	44.9	8.1	27.1	21.0	100
66134564	66134565	2.4	7.4	M20	RLTCG M20 90	20.0	26.9	56.1	10.4	35.1	24.9	100
66138564	66138565	4.3	11.4	M20	LTCG M20 90	20.0	26.9	56.1	10.4	35.1	24.9	100

Locknuts Included

NEW



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E: sales@optimascomponents.com

Pg & NPT Thread Cable Glands (UL94V-0)



Approvals/Test Standards:
Protection (EN 60529) IP68 - 10 bar/IP69K within clamping range only with optional '0' Ring - see page 13-38

in black color ULf1

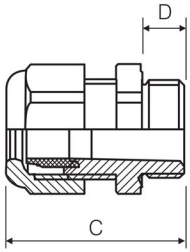
Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon
Sealing Gland - Buna - N
Flammability: UL94V-0
Operating temperature: -40°C to 100°C

- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust

HUMMEL®

** We recommend using the fitting with the smallest maximum diameter that will fit your application



Locknuts sold separately



PART NUMBER AND COLOUR		** Diameter of Cables/Tubing to be Accommodated	Dimensions					Unit Quantity
			Mounting Thread Type	Chassis Clearance Hole +0.3 -0.0	Body and Sealing Nut			
Black RAL 9005	Grey RAL 7035				C Max. Overall Length	D Thread Length	Wrenching Flats	
3425000	3425001	3.0 to 6.5	Pg 7	12.5	28.0	8.0	15.0	50
3425003	3425004	2.0 to 5.0	Pg 7	12.5	28.0	8.0	15.0	50
3425009	3425010	4.0 to 8.0	Pg 9	15.2	30.0	8.0	19.0	50
3425012	3425013	2.0 to 6.0	Pg 9	15.2	30.0	8.0	19.0	50
3425018	3425019	5.0 to 10.0	Pg 11	18.6	32.0	8.0	22.0	50
3425021	3425022	3.0 to 7.0	Pg 11	18.6	32.0	8.0	22.0	50
3425027	3425028	6.0 to 12.0	Pg 13.5	20.4	36.0	9.0	24.0	50
3425030	3425031	5.0 to 9.0	Pg 13.5	20.4	36.0	9.0	24.0	50
3425036	3425037	10.0 to 14.0	Pg 16	22.6	38.0	10.0	27.0	50
3425039	3425040	7.0 to 12.0	Pg 16	22.6	38.0	10.0	27.0	50
3425045	3425046	13.0 to 18.0	Pg 21	28.4	41.0	11.0	33.0	50
3425048	3425049	9.0 to 16.0	Pg 21	28.4	41.0	11.0	33.0	50
3425054	3425055	18.0 to 25.0	Pg 29	37.0	49.0	11.0	42.0	25
3425057	3425058	13.0 to 20.0	Pg 29	37.0	49.0	11.0	42.0	25
3425063	3425064	22.0 to 32.0	Pg 36	47.0	48.0	13.0	53.0	10
3425066	3425067	20.0 to 26.0	Pg 36	47.0	48.0	13.0	53.0	10
3425071	3425072	32.0 to 38.0	Pg 42	54.0	60.0	13.0	60.0	5
3425074	3425075	25.0 to 31.0	Pg 42	54.0	60.0	13.0	60.0	5
3425080	3425081	37.0 to 44.0	Pg 48	59.3	61.0	14.0	65.0	5
3425083	3425084	29.0 to 35.0	Pg 48	59.3	61.0	14.0	65.0	5
3425200	3425201	4.0 to 8.0	⅜" NPT	17.0	37.0	15.0	22.0 & 19.0	50
3425207	3425208	2.0 to 6.0	⅜" NPT	17.0	37.0	15.0	22.0 & 19.0	50
3425213	3425214	6.0 to 12.0	½" NPT	22.2	40.0	13.0	24.0	50
3425216	3425217	5.0 to 9.0	½" NPT	22.2	40.0	13.0	24.0	50
3425222	3425223	10.0 to 14.0	½" NPT-16	22.2	41.0	13.0	27.0	50
3425225	3425226	7.0 to 12.0	½" NPT-16	22.2	41.0	13.0	27.0	50
3425231	3425232	13.0 to 18.0	¾" NPT	27.1	43.0	13.0	33.0	50
3425237	3425238	9.0 to 16.0	¾" NPT	27.1	43.0	13.0	33.0	50
3425242	3425243	18.0 to 25.0	1" NPT	35.0	57.0	19.0	42.0	25
3425245	3425246	13.0 to 20.0	1" NPT	35.0	57.0	19.0	42.0	25
3425251	3425252	18.0 to 25.0	1¼" NPT	43.0	54.0	16.0	46.0 & 42.0	10
3425257	3425258	13.0 to 20.0	1¼" NPT	43.0	54.0	16.0	46.0 & 42.0	10
3425262	3425263	22.0 to 32.0	1½" NPT	49.0	65.0	20.0	53.0	5
3425265	3425266	20.0 to 26.0	1½" NPT	49.0	65.0	20.0	53.0	5

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If you cannot find the exact part to suit your requirements in our standard catalogue range, we have a team on hand dedicated to sourcing the product that you need, thus giving you all the benefits of a single source component supply.

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Pg & NPT Locknuts - Nylon



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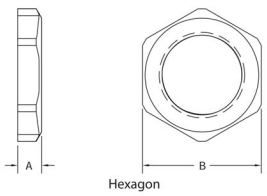


PART NUMBER AND COLOUR		Thread Type and Size	Part Dimensions		Unit Quantity	Material	Body Style
Black	Grey		A - Overall Thickness	B - Wrenching Flats			
34888880	34888881	Pg 7	5.0	19.0	100	Nylon 6 (UL94V-0)	Hexagon
34888882	34888883	Pg 9	5.0	22.0	100		
34888884	34888885	Pg 11	5.0	24.0	100		
34888886	34888887	Pg 13.5	6.0	27.0	100		
34888888	34888889	Pg 16	6.0	30.0	100		
34888890	34888891	Pg 21	7.0	36.0	100		
34888892	34888893	Pg 29	7.0	46.0	50		
34888900	34888901	Pg 36	8.0	60.0	25		
34888904	34888905	Pg 42	8.0	65.0	25		
34888908	34888909	Pg 48	8.0	70.0	25		
34889100	34889101	⅜" NPT	7.0	24.0	100	Nylon 6 (UL94V-0)	Hexagon
34889102	34889103	½" NPT	7.0	27.0	100		
34889104	34889105	¾" NPT	7.0	33.0	100		
34889106	34889107	1" NPT	7.0	41.0	50		



Pg Thread Cable Glands (UL94V-0) - Elongated Threads

- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust

Specifications: RoHS ✓

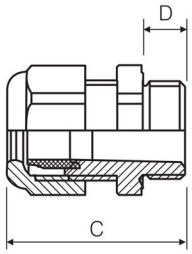
Materials: Body & Sealing Nut - Nylon
Sealing Gland - Buna - N
Flammability: UL94V-0
Operating temperature: -40°C to 100°C

Approvals/Test Standards:

Protection (EN 60529) IP68 - 10 bar/IP69K within clamping range only with optional '0' Ring - see page 13-38

in black color

PART NUMBER AND COLOUR		** Diameter of Cables/Tubing to be Accommodated	Dimensions					Unit Quantity
			Mounting Thread Type	Chassis Clearance Hole +0.3 -0.0	Body and Sealing Nut			
Black RAL 9005	Grey RAL 7035				C Max. Overall Length	D Thread Length	Wrenching Flats	
33088152	33088153	3.0 to 6.5	Pg 7	12.5	36.0	15.0	15.0	50
33088154	33088155	2.0 to 5.0	Pg 7	12.5	36.0	15.0	15.0	50
33088156	33088157	4.0 to 8.0	Pg 9	15.2	37.0	15.0	19.0	50
33088158	33088159	2.0 to 6.0	Pg 9	15.2	37.0	15.0	19.0	50
33088160	33088161	5.0 to 10.0	Pg 11	18.6	40.0	15.0	22.0	50
33088162	33088163	3.0 to 7.0	Pg 11	18.6	40.0	15.0	22.0	50
33088164	33088165	6.0 to 12.0	Pg 13.5	20.4	42.0	15.0	24.0	50
33088166	33088167	5.0 to 9.0	Pg 13.5	20.4	42.0	15.0	24.0	50
33088168	33088169	10.0 to 14.0	Pg 16	22.6	43.0	15.0	27.0	50
33088170	33088171	7.0 to 12.0	Pg 16	22.6	43.0	15.0	27.0	50
33088172	33088173	13.0 to 18.0	Pg 21	28.4	46.0	15.0	33.0	50
33088174	33088175	9.0 to 16.0	Pg 21	28.4	46.0	15.0	33.0	50
33088176	33088177	18.0 to 25.0	Pg 29	37.0	54.0	15.0	42.0	25
33088178	33088179	13.0 to 20.0	Pg 29	37.0	54.0	15.0	42.0	25
33088180	33088181	22.0 to 32.0	Pg 36	47.0	66.0	18.0	53.0	10
33088182	33088183	20.0 to 26.0	Pg 36	47.0	66.0	18.0	53.0	10
33088184	33088185	32.0 to 38.0	Pg 42	54.0	67.0	18.0	60.0	5
33088186	33088187	25.0 to 31.0	Pg 42	54.0	67.0	18.0	60.0	5
33088188	33088189	37.0 to 44.0	Pg 48	59.3	67.0	18.0	65.0	5
33088190	33088191	29.0 to 35.0	Pg 48	59.3	67.0	18.0	65.0	5



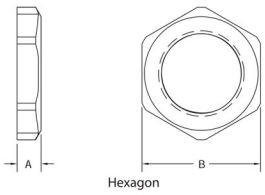
Locknuts sold separately

** We recommend using the fitting with the smallest maximum diameter that will fit your application



Pg Locknuts - Nylon

PART NUMBER AND COLOUR		Thread Type and Size	Part Dimensions		Unit Quantity	Material	Body Style
Black	Grey		Overall Thickness	Wrenching Flats			
34888880	34888881	Pg 7	5.0	19.0	100	Nylon 6 (UL94V-0)	Hexagon
34888882	34888883	Pg 9	5.0	22.0	100		
34888884	34888885	Pg 11	5.0	24.0	100		
34888886	34888887	Pg 13.5	6.0	27.0	100		
34888888	34888889	Pg 16	6.0	30.0	100		
34888890	34888891	Pg 21	7.0	36.0	100		
34888892	34888893	Pg 29	7.0	46.0	50		
34888900	34888901	Pg 36	8.0	60.0	25		
34888904	34888905	Pg 42	8.0	65.0	25		
34888908	34888909	Pg 48	8.0	70.0	25		



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Genuine HEYCO® Parts! HEYCO®

- IP68 rated
- Approved for NEMA 6 and 6P applications
- Acme threads on body prevent skipping and speeds installation
- All nylon construction with Buna N or TPE sealing gland resists salt water, weak acids, gasoline, alcohol, oil, grease, and common solvents

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon
Sealing Gland - Buna N or TPE
Flammability: UL94V-2
Operating temperature: Static -40°C to 115°C
Dynamic -20°C to 100°C
IP Rating: IP 68 (70 psi, 5 bar)

Approvals/Test Standards:

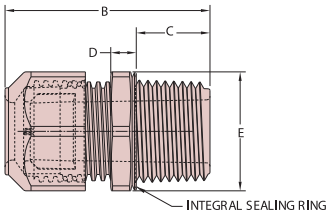
Listed under Underwriters' Laboratories File E51579

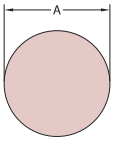
* Recognized under the Component Program of Underwriters' Laboratories File E51579

Certified By Canadian Standard Association File 93876C

Part Number AND COLOUR		** Diameter of Cables/Tubing to be Accommodated		Description and Thread Size	Part Dimensions					Unit Quantity
Black RAL 9005	Grey RAL 7035	Min	Max		A Clearance Hole Dia	B Max O.A Length	C Thread Length	D Wrenching Nut Thickness	E Wrenching Nut Flat Size	
66133444*	66133445*	1.7	5.6	RLTCG 7	12.5	29.5	8.1	5.3	16.0	2,000
66133207*	66133208*	2.9	6.4	LTCG 7	12.5	29.5	8.1	5.3	16.0	2,000
66133446*	66133447*	1.7	4.7	RLTCG 9	15.2	31.8	8.1	5.3	21.0	2,000
66133210*	66133211*	2.7	7.9	LTCG 9	15.2	31.8	8.1	5.3	21.0	2,000
66133448*	66133449*	1.8	6.6	RLTCG 11	18.6	37.6	9.7	5.3	23.9	1,500
66133213*	66133214*	5.8	10.0	LTCG 11	18.6	37.6	9.7	5.3	23.9	1,500
66134500	66134501	2.4	6.6	RLTCG 13.5	20.4	38.1	10.4	5.3	24.9	1,500
66133216	66133217	4.3	11.4	LTCG 13.5	20.4	38.1	10.4	5.3	24.9	1,500
66134502	66134503	4.6	11.2	RLTCG 16	22.5	42.7	11.2	6.4	26.9	500
66133219	66133220	5.8	13.9	LTCG 16	22.5	42.7	11.2	6.4	26.9	500
66133454ST	66133455ST	6.4	12.3	RLTCG 21 ST	28.3	45.7	10.9	6.4	33.0	500
66133222ST	66133223ST	12.3	18.0	LTCG 21 ST	28.3	45.7	10.9	6.4	33.0	500
66133454	66133455	6.4	12.3	RLTCG 21	28.3	48.0	13.2	6.4	33.0	500
66133222	66133223	12.3	18.0	LTCG 21	28.3	48.0	13.2	6.4	33.0	500
66134504	66134505	12.4	20.0	RLTCG 29	37.7	56.6	14.7	7.6	43.9	250
66133225	66133226	15.0	25.4	LTCG 29	37.7	56.6	14.7	7.6	43.9	300
66133206	66133205	20.0	25.9	RLTCG 36	47.6	69.1	11.9	7.6	52.1	50
66133204	66133203	22.0	32.0	LTCG 36	47.6	69.1	11.9	7.6	52.1	50
66133218	66133215	25.4	31.5	RLTCG 42	54.1	63.5	11.4	9.1	63.0	50
66133212	66133209	31.2	38.1	LTCG 42	54.1	63.5	11.4	9.1	63.0	50
66133283	66133284	29.5	34.3	RLTCG 48	59.4	66.7	12.4	10.7	69.9	50
66133281	66133282	36.8	44.0	LTCG 48	59.4	66.7	12.4	10.7	69.9	50

NEW





SUGGESTED CLEARANCE HOLE
FOR NON-THREADED MOUNTING

Unassembled Nylon Locknuts INCLUDED

** We recommend using the fitting with the smallest maximum diameter that will fit your application



Heyco® Original Series-35 Liquid Tight Cordgrips, PG Hubs

Genuine HEYCO® Parts! HEYCO®

- IP68 rated
- Acme threads on body prevent skipping and speeds installation
- All nylon construction with TPE sealing gland resists salt water, weak acids, gasoline, alcohol, oil, grease, and common, solvents

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon 66
Sealing Gland - TPE
Flammability: UL94V-2
Operating temperature: Static -40°C to 115°C
Dynamic -20°C to 100°C
IP Rating: IP 68 (70 psi, 5 bar)

Approvals/Test Standards:

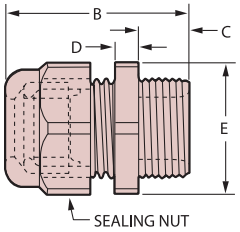
Listed under Underwriters' Laboratories File E51579

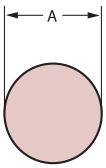
* Recognized under the Component Program of Underwriters' Laboratories File E51579

Certified By Canadian Standard Association File 93876C

Part Number and colour		** Diameter of Cables/Tubing to be Accommodated		Description and Thread Size	Part Dimensions					Unit Quantity
Black RAL 9005	Grey RAL 7035	Min	Max		A Clearance Hole Dia	B Max O.A Length	C Thread Length	D Wrenching Nut Thickness	E Wrenching Nut Flat Size	
66123444*	66123445*	1.6	5.3	RLTF 7	12.5	29.7	8.4	5.1	15.0	2,000
66123207*	66123208*	2.9	6.4	LTF 7	12.5	29.7	8.4	5.1	15.0	2,000
66123446*	66123447*	1.8	4.7	RLTF 9	15.2	33.0	8.6	5.1	19.1	2,000
66123210*	66123211*	4.6	7.9	LTF 9	15.2	33.0	8.6	5.1	19.1	2,000
66123448*	66123449*	1.8	6.6	RLTF 11	18.6	37.1	9.9	5.1	21.8	1,500
66123213*	66123214*	5.8	10.0	LTF 11	18.6	37.1	9.9	5.1	21.8	1,500
66123216	66123217	4.3	11.4	LTF 13.5	20.4	38.9	10.4	5.1	24.1	1,500
66123219	66123220	5.8	13.9	LTF 16	22.5	42.2	11.4	5.8	26.7	500
66123454	66123455	6.4	12.4	RLTF 21	28.3	47.5	13.2	5.8	33.0	500
66123222	66123223	11.4	17.9	LTF 21	28.3	47.5	13.2	5.8	33.0	500
66123225	66123226	15.0	25.1	LTF 29	37.3	56.6	15.0	7.1	42.2	300

NEW





SUGGESTED CLEARANCE HOLE
FOR NONTHREADED MOUNTING

** We recommend using the fitting with the smallest maximum diameter that will fit your application

Unassembled Nylon Locknuts INCLUDED

OPTIMAS

T: +44 (0) 1202 865222
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Pg Thread Cable Glands (UL94V-2) - with Locknuts



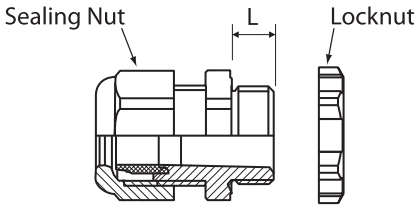
Approvals/Test Standards:
Protection (EN 60529) IP68 within clamping range

(except Pg7)

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon
Sealing Gland - Nitrile Butadiene Rubber
Flammability: UL94V-2
Operating temperatures: Static: -40°C to 100°C
Dynamic: -20°C to 80°C

- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust
- Waterproof & dustproof
- Available in 4 colours
- Glands are supplied complete with locknuts



These cable glands are supplied complete with locknut.

Part Number & Colour				** Diameter of Cables/Tubing to be Accommodated	Dimensions					Unit Quantity
Black RAL 9005	Grey RAL 7035	Red RAL 3000	White RAL 9010		Mounting Thread Size and Pitch	Chassis Clearance Hole +0.3 / -0.0	L Thread Length	Locknut Wrenching Flats	Sealing Nut Wrenching Flats	
3492007	3491007	3493007	3494007	3.0 to 6.5	Pg 7	12.5	9.0	18.0	16.0	1,000
3492009	3491009	3493009	3494009	4.0 to 8.0	Pg 9	15.2	9.0	22.0	19.0	1,000
3492011	3491011	3493011	3494011	5.0 to 10.0	Pg 11	18.6	9.0	24.0	22.0	1,000
3492013	3491013	3493013	3494013	6.0 to 11.0	Pg 13.5	20.4	10.0	27.0	24.0	1,000
3492116	3491116	3493116	3494116	10.0 to 13.0	Pg 16	22.5	10.0	30.0	27.0	500
3492121	3491121	3493121	3494120	13.0 to 18.0	Pg 21	28.3	12.0	35.0	33.0	500
3492029	3491029	3493029	3494029	18.0 to 25.0	Pg 29	37.0	12.0	45.0	42.0	500

** We recommend using the fitting with the smallest maximum diameter that will fit your application

HEYCO® *Genuine HEYCO® Parts!*

Split glands for Pre-assembled Cables - PG Hubs



Approvals/Test Standards:
Recognized under the Component Program of Underwriters' Laboratories File E51579 to both Canadian and U.S. Requirements

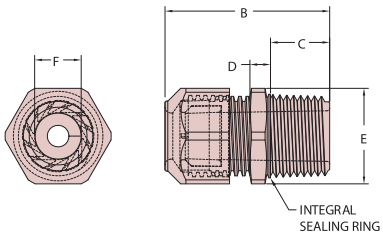
Specifications: RoHS ✓

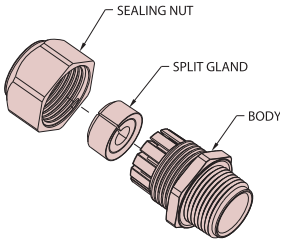
Materials: Body & Sealing Nut - Nylon 66
Sealing Gland - TPE
Flammability: UL94V-2
Operating temperature: Static -40°C to 115°C
Dynamic -20°C to 100°C
IP Rating: IP 68 (70 psi, 5 bar)

- For use with pre-terminated/pre-assembled cables; e.g. RJ45 cables
- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust
- Integral Sealing Ring ensures a superior seal at the clearance or threaded mounting hole location,every time.

Part Number & Colour		** Diameter of Cables/Tubing to be Accommodated		Mounting Thread Size and Type	Description	Part Dimensions						Unit Quantity
Black	Grey	Min	Max			A Clearance Hole Dia	B Max O.A Length	C Thread Length	D Wrenching Nut Thickness	E Wrenching Nut Flat Size	F Sealing Nut Inside Diameter	
M3219GBH	M3220GBH	5.3	8.5	PG16	LTCG 16 8.5MM Split	22.5	42.7	11.2	6.4	27.0	14.2	50
M3222GBH	M3223GBH	5.3	8.5	PG21	LTCG 21 8.5MM Split	28.3	48.0	13.2	6.4	33.0	18.3	50
M3225GBH	M3226GBH	6.4	8.5	PG29	LTCG 29 8.5MM Split	37.3	56.6	14.5	7.6	43.9	25.7	25
M3204GBH	M3203GBH	6.4	8.5	PG36	LTCG 36 8.5MM Split	47.6	60.7	11.9	7.9	52.7	32.3	10

Locknuts Included



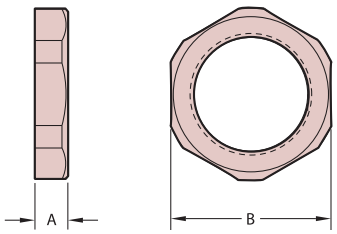


NEW

HEYCO® *Genuine HEYCO® Parts!*

PG Locknuts - Nylon





PART NUMBER AND COLOUR		Thread Type and Size	Description	Part Dimensions		Unit Quantity
Black	Grey			A - Overall Thickness	B - Wrenching Flats	
66123165	66123166	PG 7	NLN PG 7	5.5	19.1	4,000
66123167	66123168	PG 9	NLN PG 9	5.5	21.8	3,000
66123169	66123170	PG 11	NLN PG 11	5.5	23.8	2,500
66123171	66123172	PG 13.5	NLN PG 13.5	6.4	27.0	1,500
66123173	66123174	PG 16	NLN PG 16	6.4	29.7	1,000
66123175	66123176	PG 21	NLN PG 21	7.1	35.7	500
66123177	66123178	PG 29	NLN PG 29	7.1	46.0	500
66129146	66129147	PG 36	NLN PG 36	7.1	56.9	300
66129152	66129153	PG 42	NLN PG 42	8.1	69.9	150
66129158	66129159	PG 48	NLN PG 48	9.5	72.0	100

NEW

Heyco®-Tite Liquid Tight Cordgrips - Straight-Thru, NPT Hubs

Genuine HEYCO® Parts! HEYCO®



- IP68 rated
- Approved for NEMA 6 and 6P applications
- Acme threads on body prevent skipping and speeds installation
- All nylon construction with Buna N or TPE sealing gland resists salt water, weak acids, gasoline, alcohol, oil, grease, and common solvents

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon
Sealing Gland - Buna N or TPE
Flammability: UL94V-2
Operating temperature: Static -40°C to 115°C
Dynamic -20°C to 100°C
IP Rating: IP 68 (70 psi, 5 bar)

Approvals/Test Standards:

Listed under Underwriters' Laboratories File E51579

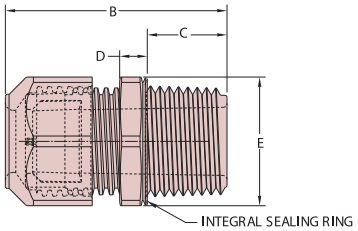
* Recognized under the Component Program of Underwriters' Laboratories File E51579

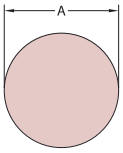
Certified By Canadian Standard Association File 93876C

Part Number & Colour		** Diameter of Cables/Tubing to be Accommodated		Description and Thread Size	Part Dimensions					Unit Quantity
Black RAL 9005	Grey RAL 7035	Min	Max		A Clearance Hole Dia	B Max O.A Length	C Thread Length	D Wrenching Nut Thickness	E Wrenching Nut Flat Size	
66134514*	66134515*	1.7	5.6	RLTCG 1/4	13.7	32.8	11.4	5.3	16.0	2,000
66134516*	66134517*	2.9	6.4	LTCG 1/4	13.7	32.8	11.4	5.3	16.0	2,000
66133458	66133459	1.7	5.8	RLTCG 3/8	17.3	35.8	12.4	5.3	21.1	2,000
66133228	66133229	2.7	7.9	LTCG 3/8	17.3	35.8	12.4	5.3	21.1	2,000
66134518	66134519	2.4	7.4	RLTCG 1/2	22.2	43.2	15.5	5.3	24.9	1,500
66133231	66133232	4.3	11.4	LTCG 1/2	22.2	43.2	15.5	5.3	24.9	1,500
66134520	66134521	4.6	11.2	RLTCG LL 1/2	22.2	42.7	11.2	6.4	26.9	1,000
66133200	66133201	5.8	13.5	LTCG LL 1/2	22.2	42.7	11.2	6.4	26.9	1,000
66133460	66133461	6.5	12.4	RLTCG 3/4	26.4	50.8	15.7	6.4	33.0	500
66133234	66133235	11.0	17.9	LTCG 3/4	26.4	50.8	15.7	6.4	33.0	500
66138439	66138440	12.4	20.0	RLTCG 1	33.7	61.2	19.3	7.6	43.9	300
66138437	66138438	15.0	25.4	LTCG 1	33.7	61.2	19.3	7.6	43.9	300
66134522	66134523	20.0	25.9	RLTCG 1-1/4	42.7	68.3	19.8	7.6	52.1	50
66134524	66134525	22.2	32.0	LTCG 1-1/4	42.7	68.3	19.8	7.6	52.1	50
66133319	66133320	25.4	31.5	RLTCG 1-1/2	48.8	71.3	19.3	9.1	63.0	50
66133317	66133318	31.2	38.1	LTCG 1-1/2	48.8	71.3	19.3	9.1	63.0	50
66133323	66133324	29.5	34.3	RLTCG 2	60.8	74.3	20.1	10.7	69.9	50
66133321	66133322	36.8	44.0	LTCG 2	60.8	74.3	20.1	10.7	69.9	50

NEW

** We recommend using the fitting with the smallest maximum diameter that will fit your application





SUGGESTED CLEARANCE HOLE FOR NON-THREADED MOUNTING

Locknuts not Included

Heyco® Original Series-35 Liquid Tight Cordgrips, NPT Hubs

Genuine HEYCO® Parts! HEYCO®



- IP68 rated
- Acme threads on body prevent skipping and speeds installation
- All nylon construction with TPE sealing gland resists salt water, weak acids, gasoline, alcohol, oil, grease, and common, solvents

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon 66
Sealing Gland - TPE
Flammability: UL94V-2
Operating temperature: -30°C to 100°C
IP Rating: IP 68 (70 psi, 5 bar)

Approvals/Test Standards:

Listed under Underwriters' Laboratories File E51579

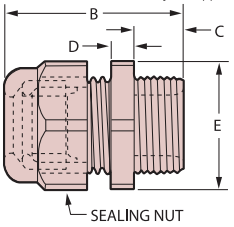
* Recognized under the Component Program of Underwriters' Laboratories File E51579

Certified By Canadian Standard Association File 93876C

Part Number & Colour		** Diameter of Cables/Tubing to be Accommodated		Description and Thread Size	Part Dimensions					Unit Quantity
Black RAL 9005	Grey RAL 7035	Min	Max		A Clearance Hole Dia	B Max O.A Length	C Thread Length	D Wrenching Nut Thickness	E Wrenching Nut Flat Size	
66123458*	66123459*	1.8	4.7	RLTF 3/8	17.0	37.8	13.5	5.1	19.1	2,000
66123228*	66123229*	2.9	7.9	LTF 3/8	17.0	37.8	13.5	5.1	19.1	2,000
66123231	66123232	4.3	11.4	LTF 1/2	22.2	43.7	15.7	5.1	24.1	1,500
66123200	66123201	5.8	13.9	LTF LL 1/2	22.2	46.5	15.7	5.8	26.7	1,000
66123460	66123461	6.4	12.3	RLTF 3/4	27.1	50.0	16.0	5.8	33.0	500
66123234	66123235	11.4	18.0	LTF 3/4	27.1	50.0	16.0	5.8	33.0	500
66128437	66128438	15.0	25.4	LTF 1	34.3	61.5	19.1	7.1	41.9	300

NEW

** We recommend using the fitting with the smallest maximum diameter that will fit your application



Locknuts not Included

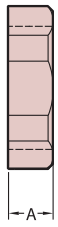
NPT Thread–Straight NPS Threads - Nylon

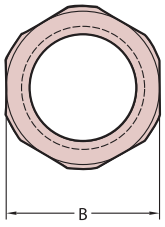
Genuine HEYCO® Parts! HEYCO®



NEW

Part Number & Colour		Thread Type and Size	Description	Part Dimensions		Unit Quantity
Black	Grey			A - Overall Thickness	B - Wrenching Flats	
66129142	66129143	1/4 NPT	NLN 1/4 NPT	6.7	19.0	2,000
66128461	66128462	3/8 NPT	NLN 3/8 NPT	6.7	26.9	1,000
66128463	66128464	1/2 NPT	NLN 1/2 NPT	6.7	26.9	1,500
66128465	66128466	3/4 NPT	NLN 3/4 NPT	6.7	33.3	1,000
66128467	66128468	1 NPT	NLN 1 NPT	6.7	40.8	1,000
66129144	66129145	1-1/4 NPT	NLN 1-1/4 NPT	7.1	50.0	500
66129150	66129151	1-1/2 NPT	NLN 1-1/2 NPT	8.1	69.5	150
66129156	66129157	2 NPT	NLN 2 NPT	9.5	72.0	100





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E: sales@optimascomponents.com

HEYCO® Genuine HEYCO® Parts!

Split glands for Pre-assembled Cables - NPT Hubs



Approvals/Test Standards:

Recognized under the Component Program of Underwriters' Laboratories File E51579 to both Canadian and U.S. Requirements

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon 66
Sealing Gland - TPE
Flammability: UL94V-2
Operating temperature: Static -40°C to 115°C
Dynamic -20°C to 100°C
IP Rating: IP 68 (70 psi, 5 bar)

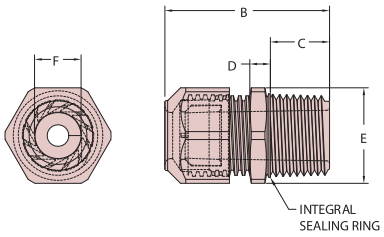
- For use with pre-terminated/pre-assembled cables; e.g. RJ45 cables
- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust
- Integral Sealing Ring ensures a superior seal at the clearance or threaded mounting hole location,every time.

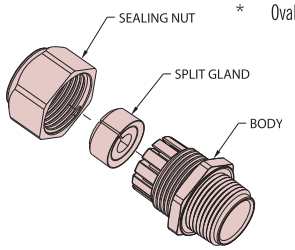
Part Number & Colour		** Diameter of Cables/Tubing to be Accommodated		Mounting Thread Size and Type	Description	Part Dimensions						Unit Quantity
Black	Grey	Min	Max			A Clearance Hole Dia	B Max O.A Length	C Thread Length	D Wrenching Nut Thickness	E Wrenching Nut Flat Size	F Sealing Nut Inside Diameter	
M3200GBH	M3201GBH	5.3	8.4	1/2" NPT	LTCG LL 1/2 NPT 8.5 MM Split	22.2	42.7	11.2	6.4	27.0	14.2	50
M3234GBH	M3235GBH	5.3	8.4	3/4" NPT	LTCG 3/4 NPT 8.5 MM Split	26.4	50.8	15.7	6.4	33.0	18.3	50
M3234GBJ	M3235GBJ	3.5	15.5	3/4" NPT	LTCG 3/4 Split Oval*	26.4	50.8	15.7	6.4	33.0	18.3	50
M8437GBH	M8438GBH	6.4	8.4	1 NPT	LTCG 1 NPT 8.5 MM Split	33.7	61.2	19.3	7.6	43.9	25.7	50
M4524GBH	M4525GBH	6.4	8.4	1-1/4" NPT	LTCG 1-1/4 NPT 8.5 MM Split	42.7	68.3	19.8	7.6	52.1	32.3	50

* Oval shaped gland opening; UL not Recognized

Locknuts not Included

NEW

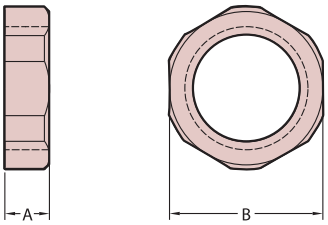




HEYCO® Genuine HEYCO® Parts!

NPT Thread–Straight NPS Threads - Nylon





Part Number & Colour		Thread Type and Size	Description	Part Dimensions		Unit Quantity
Black	Grey			A - Overall Thickness	B - Wrenching Flats	
66129142	66129143	1/4 NPT	NLN 1/4 NPT	6.7	19.0	2,000
66128461	66128462	3/8 NPT	NLN 3/8 NPT	6.7	26.9	1,000
66128463	66128464	1/2 NPT	NLN 1/2 NPT	6.7	26.9	1,500
66128465	66128466	3/4 NPT	NLN 3/4 NPT	6.7	33.3	1,000
66128467	66128468	1 NPT	NLN 1 NPT	6.7	40.8	1,000
66129144	66129145	1-1/4 NPT	NLN 1-1/4 NPT	7.1	50.0	500
66129150	66129151	1-1/2 NPT	NLN 1-1/2 NPT	8.1	69.5	150
66129156	66129157	2 NPT	NLN 2 NPT	9.5	72.0	100

NEW



Flex-Protecting Pg & NPT Thread Cable Glands

- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust
- Extension supports and prevents cable from bending sharply

HUMMEL®

Specifications: RoHS ✓

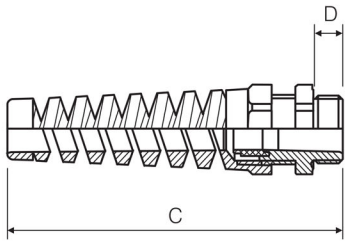
Materials: Body & Sealing Nut - Nylon
Sealing Gland - Buna - N
Flammability: UL94V-2
Operating temperature: -40°C to 100°C

Approvals/Test Standards:

Protection (EN 60529) IP68 - 10 bar/IP69K within clamping range only with optional '0' Ring - see page 13-38

in black color ULf1

Part Number & Colour		** Diameter of Cables/Tubing to be Accommodated	Dimensions					Unit Quantity
					Body and Sealing Nut			
Black RAL 9005	Grey RAL 7035		Mounting Thread Type	Chassis Clearance Hole +0.3/-0.0	C Max. Overall Length	D Thread Length	Wrenching Flats	
3435400	3435401	3.0 to 6.5	Pg 7	12.5	57.0	8.0	15.0	50
3435402	3435403	2.0 to 5.0	Pg 7	12.5	57.0	8.0	15.0	50
3435407	3435408	4.0 to 8.0	Pg 9	15.2	67.0	8.0	19.0	50
3435409	3435410	2.0 to 6.0	Pg 9	15.2	67.0	8.0	19.0	50
3435414	3435415	5.0 to 10.0	Pg 11	18.6	79.0	8.0	22.0	50
3435416	3435417	3.0 to 7.0	Pg 11	18.6	79.0	8.0	22.0	50
3435421	3435422	6.0 to 12.0	Pg 13.5	20.4	90.0	9.0	24.0	50
3435423	3435424	5.0 to 9.0	Pg 13.5	20.4	90.0	9.0	24.0	50
3435427	3435428	10.0 to 14.0	Pg 16	22.6	103.0	10.0	27.0	25
3435429	3435430	7.0 to 12.0	Pg 16	22.6	103.0	10.0	27.0	25
3435434	3435435	13.0 to 18.0	Pg 21	28.4	122.0	11.0	33.0	20
3435436	3435437	9.0 to 16.0	Pg 21	28.4	122.0	11.0	33.0	20
3435600	3435601	4.0 to 8.0	⅜" NPT	17.0	74.0	15.0	22.0 & 19.0	50
3435602	3435603	2.0 to 6.0	⅜" NPT	17.0	74.0	15.0	22.0 & 19.0	50
3435607	3435608	6.0 to 12.0	½" NPT	22.2	94.0	13.0	24.0	50
3435609	3435610	5.0 to 9.0	½" NPT	22.2	94.0	13.0	24.0	50
3435611	3435612	10.0 to 14.0	½" NPT-16	22.2	106.0	13.0	27.0	50
3435613	3435614	7.0 to 12.0	½" NPT-16	22.2	106.0	13.0	27.0	50
3435618	3435619	13.0 to 18.0	¾" NPT	27.1	124.0	13.0	33.0	20
3435620	3435621	9.0 to 16.0	¾" NPT	27.1	124.0	13.0	33.0	20



** We recommend using the fitting with the smallest maximum diameter that will fit your application

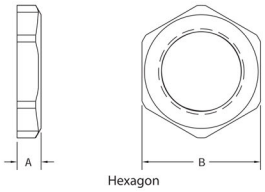
Locknuts sold separately



HUMMEL®

Pg & NPT Locknuts - Nylon

Part Number & Colour		Thread Type and Size	Part Dimensions		Unit Quantity	Material	Body Style
Black	Grey		Overall Thickness	Wrenching Flats			
34888880	34888881	Pg 7	5.0	19.0	100	Nylon 6 (UL94V-0)	Hexagon
34888882	34888883	Pg 9	5.0	22.0	100		
34888884	34888885	Pg 11	5.0	24.0	100		
34888886	34888887	Pg 13.5	6.0	27.0	100		
34888888	34888889	Pg 16	6.0	30.0	100		
34888890	34888891	Pg 21	7.0	36.0	100		
34888892	34888893	Pg 29	7.0	46.0	50		
34888900	34888901	Pg 36	8.0	60.0	25		
34888904	34888905	Pg 42	8.0	65.0	25		
34888908	34888909	Pg 48	8.0	70.0	25		
34889100	34889101	⅜" NPT	7.0	24.0	100	Nylon 6 (UL94V-0)	Hexagon
34889102	34889103	½" NPT	7.0	27.0	100		
34889104	34889105	¾" NPT	7.0	33.0	100		
34889106	34889107	1" NPT	7.0	41.0	50		



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E: sales@optimascomponents.com

HEYCO® Genuine HEYCO® Parts!

Heyco® Original Series-35 Liquid Tight Cordgrips Pigtail, PG Hubs

Approvals/Test Standards:

Listed under Underwriters' Laboratories File E51579

* Recognized under the Component Program of Underwriters' Laboratories File E51579

Certified By Canadian Standard Association File 93876C

Specifications: RoHS ✓

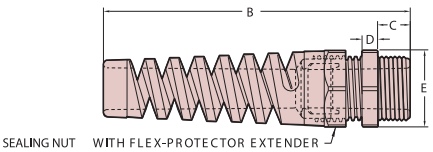
Materials: Body & Sealing Nut - Nylon 66
Sealing Gland - TPE
Flammability: UL94V-2
Operating temperature: Static -40°C to 115°C
Dynamic -20°C to 100°C
IP Rating: IP 68 (70 psi, 5 bar)

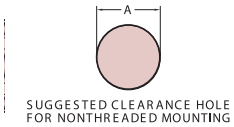
- IP68 rated
- Flexible Pigtail™ extender prevents sharp bends and extends cable life
- Acme threads on body prevent skipping and speeds installation
- All nylon construction with Buna N or TPE sealing gland resists salt water, weak acids, gasoline, alcohol, oil, grease, and common solvents



NEW

** We recommend using the fitting with the smallest maximum diameter that will fit your application





Unassembled Nylon Locknuts INCLUDED

Part Number & Colour		** Diameter of Cables/Tubing to be Accommodated		Description and Thread Size	Part Dimensions					Unit Quantity
Black RAL 9005	Grey RAL 7035	Min	Max		A Clearance Hole Dia	B Max O.A Length	C Thread Length	D Wrenching Nut Thickness	E Wrenching Nut Flat Size	
66123464*	66123465*	1.6	5.3	FLEX RLTF 7	12.5	62.0	8.4	5.1	15.0	2,000
66123237*	66123238*	2.9	6.4	FLEX LTF 7	12.5	62.0	8.4	5.1	15.0	2,000
66123466*	66123467*	1.8	4.7	FLEX RLTF 9	15.2	70.4	8.6	5.1	19.1	1,000
66123240*	66123241*	4.6	7.9	FLEX LTF 9	15.2	70.4	8.6	5.1	19.1	1,000
66123468*	66123469*	1.8	6.6	FLEX RLTF 11	18.6	87.4	9.9	5.1	21.8	1,000
66123243*	66123244*	5.8	10.0	FLEX LTF 11	18.6	87.4	9.9	5.1	21.8	1,000
66123246	66123247	4.3	11.4	FLEX LTF 13.5	20.4	98.6	10.4	5.1	24.1	500
66123249	66123250	5.8	13.9	FLEX LTF 16	22.5	110.7	11.4	5.8	26.7	500
66123478	66123479	6.4	12.3	FLEX RLTF 21	28.3	127.8	13.2	5.8	33.0	250
66123245	66123248	11.4	18.0	FLEX LTF 21	28.3	127.8	13.2	5.8	33.0	250

Flex-Protecting Pg Thread Cable Glands - with Locknuts

Approvals/Test Standards:

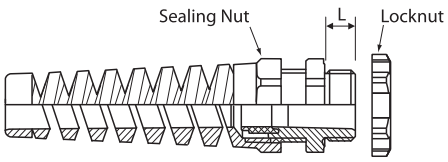
Protection (EN 60529) IP68 within clamping range

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon
Sealing Gland - Nitrile Butadiene Rubber
Flammability: UL94V-2
Operating temperatures: Static: -40°C to 100°C
Dynamic: -20°C to 80°C

- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust
- Extension supports and prevents cable from bending sharply
- Glands are supplied complete with locknuts





These cable glands are supplied complete with locknut.

Part Number & Colour		** Diameter of Cables/Tubing to be Accommodated	Dimensions					Unit Quantity
Black RAL 9005	Grey RAL 7035		Mounting Thread Size and Pitch	Chassis Clearance Hole +0.3/-0.0	L Thread Length	Locknut Wrenching Flats	Sealing Nut Wrenching Flats	
3492507	3491507	3.0 to 6.5	Pg 7	12.5	9.0	18.0	16.0	1,000
3492509	3491509	4.0 to 8.0	Pg 9	15.2	9.0	22.0	19.0	1,000
3492511	3491511	5.0 to 10.0	Pg 11	18.6	9.0	24.0	22.0	1,000
3492513	3491513	6.0 to 12.0	Pg 13.5	20.4	10.0	27.0	24.0	1,000
3492616	3491616	10.0 to 14.0	Pg 16	22.5	10.0	30.0	27.0	500
3492521	3491521	13.0 to 18.0	Pg 21	28.3	12.0	35.0	33.0	500

HEYCO® Genuine HEYCO® Parts!

Heyco® Original Series-35 Liquid Tight Cordgrips - Pigtail, NPT Hubs

Approvals/Test Standards:

Listed under Underwriters' Laboratories File E51579

* Recognized under the Component Program of Underwriters' Laboratories File E51579

Certified By Canadian Standard Association File 93876C

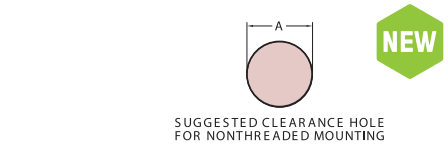
Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon
Sealing Gland - TPE
Flammability: UL94V-2
Operating temperature: Static -40°C to 115°C
Dynamic -20°C to 100°C
IP Rating: IP 68 (70 psi, 5 bar)

- IP68 rated
- Flexible Pigtail™ extender prevents sharp bends and extends cable life
- Acme threads on body prevent skipping and speed installation
- All nylon construction with Buna N or TPE sealing gland resists salt water, weak acids, gasoline, alcohol, oil, grease, and common solvents



NEW



Locknuts not included

Part Number & Colour		** Diameter of Cables/Tubing to be Accommodated		Description and Thread Size	Part Dimensions					Unit Quantity
Black RAL 9005	Grey RAL 7035	Min	Max		A Clearance Hole Dia	B Max O.A Length	C Thread Length	D Wrenching Nut Thickness	E Wrenching Nut Flat Size	
66123474*	66123475*	1.8	4.7	FLEX RLTF 3/8	17.0	75.4	13.5	5.1	19.1	1,000
66123254*	66123255*	4.6	7.9	FLEX LTF 3/8	17.0	75.4	13.5	5.1	19.1	2,000
66123251	66123252	4.3	11.9	FLEX LTF 1/2	22.2	103.9	15.7	5.1	24.1	500
66123266	66123267	5.8	13.9	FLEX LTF LL 1/2	22.2	115.3	15.7	5.8	26.7	500
66123462	66123463	6.4	12.3	FLEX RLTF 3/4	27.1	130.6	16.0	5.8	33.0	250
66123239	66123242	11.4	18.0	FLEX LTF 3/4	27.1	130.6	16.0	5.8	33.0	250

** We recommend using the fitting with the smallest maximum diameter that will fit your application



Heyco®-Tite Liquid Tight Cordgrips - Pg Right Angle

Genuine HEYCO® Parts!

- Cordgrip is molded in the open position for ease of installation. After cable insertion, the fitting snaps closed, bending the cable without damage. This assembly method saves considerable time and money.
- Part design provides liquid tight integrity even in the open position.
- Approved for NEMA 4, 4X, 6 and 6P applications.
- Acme threads on body prevent skipping and speed installation.

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon 66
Sealing Gland - TPE
Flammability: UL94V-2
Operating temperature: Static -40°C to 115°C
Dynamic -20°C to 100°C
IP Rating: IP 68 (70 psi, 5 bar)

Approvals/Test Standards:

Listed under Underwriters' Laboratories File E51579

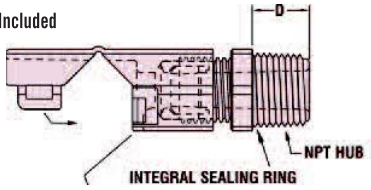
* Recognized under the Component Program of Underwriters' Laboratories File E51579 (Not UL Listed)

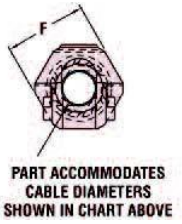
Certified By Canadian Standard Association File 93876C

Part Number & Colour		Diameter of Cables/Tubing to be Accommodated		Mounting Thread Size and Type	Description	Part Dimensions						Unit Quantity
Black	Grey	Min	Max			A Clearance Hole Dia	B Right Angle Height	C Max Length (closed)	D Thread Length	E Sealing Nut Length	F Wrenching Nut Flat Size	
66138530*	66138531*	1.7	5.3	Pg7	RLTCG 7 90	12.5	17.5	38.8	8.1	21.8	16.0	100
66138532*	66138533*	2.9	6.4	Pg7	LTCG 7 90	12.5	17.5	38.8	8.1	21.8	16.0	100
66138534*	66138535*	1.7	5.8	Pg9	RLTCG 9 90	15.2	22.3	44.9	8.1	27.1	21.0	100
66138536*	66138537*	2.7	8.0	Pg9	LTCG 9 90	15.2	22.3	44.9	8.1	27.1	21.0	100
66138538*	66138539*	1.8	6.6	Pg11	RLTCG 11 90	18.6	25.1	51.0	9.7	31.2	23.9	100
66138540*	66138541*	5.8	10.2	Pg11	LTCG 11 90	18.6	25.1	51.0	9.7	31.2	23.9	100
66134542	66134543	2.4	7.4	Pg13.5	RLTCG 13.5 90	20.4	26.9	56.1	10.4	35.1	24.9	100
66138542	66138543	4.3	11.4	Pg13.5	LTCG 13.5 90	20.4	26.9	56.1	10.4	35.1	24.9	100

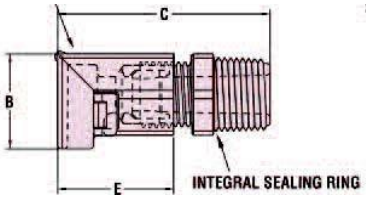
Locknuts Included

NEW











Heyco®-Tite Liquid Tight Cordgrips - NPT Right Angle

Genuine HEYCO® Parts!

- Cordgrip is molded in the open position for ease of installation. After cable insertion, the fitting snaps closed, bending the cable without damage. This assembly method saves considerable time and money.
- Part design provides liquid tight integrity even in the open position.
- Approved for NEMA 4, 4X, 6 and 6P applications.
- Acme threads on body prevent skipping and speed installation.

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon 66
Sealing Gland - TPE
Flammability: UL94V-2
Operating temperature: Static -40°C to 115°C
Dynamic -20°C to 100°C
IP Rating: IP 68 (70 psi, 5 bar)

Approvals/Test Standards:

Listed under Underwriters' Laboratories File E51579

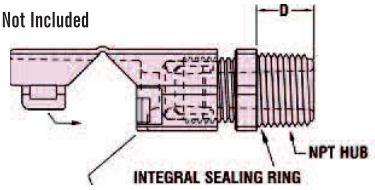
* Recognized under the Component Program of Underwriters' Laboratories File E51579 (Not UL Listed)

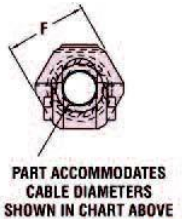
Certified By Canadian Standard Association File 93876C

Part Number & Colour		Diameter of Cables/Tubing to be Accommodated		Mounting Thread Size and Type	Description	Part Dimensions						Unit Quantity
Black	Grey	Min	Max			A Clearance Hole Dia	B Right Angle Height	C Max Length (closed)	D Thread Length	E Sealing Nut Length	F Wrenching Nut Flat Size	
66134560*	66134561*	1.7	5.3	1/4 NPT	RLTCG 1/4 90	13.7	17.5	42.5	11.4	22.0	16.0	100
66134562*	66134563*	2.9	6.4	1/4 NPT	LTCG 1/4 90	13.7	17.5	42.5	11.4	22.0	16.0	100
66138560*	66135861*	1.7	5.8	3/8 NPT	RLTCG 3/8 90	17.3	22.3	48.9	12.4	27.1	21.0	100
66138562*	66138563*	2.7	8.0	3/8 NPT	LTCG 3/8 90	17.3	22.3	48.9	12.4	27.1	21.0	100
66134564	66134565	2.4	7.4	1/2 NPT	RLTCG 1/2 90	22.2	26.9	61.2	15.5	35.1	24.9	100
66138564	66138565	4.3	11.4	1/2 NPT	LTCG 1/2 90	22.2	26.9	61.2	15.5	35.1	24.9	100

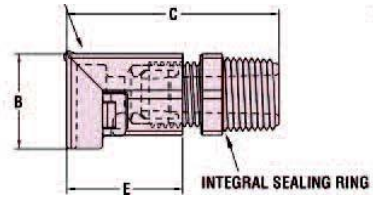
Locknuts Not Included

NEW









OPTIMAS
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Heyco®-Tite Snap-In-2® Liquid Tight Straight-Thru, Snap-In Hubs

Approvals/Test Standards:

Recognized under the Component Program of Underwriters' Laboratories File E51579

Certified By Canadian Standard Association File 93876C

Specifications: RoHS ✓

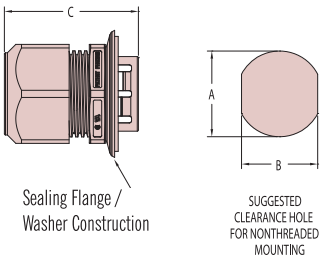
Materials: Body & Sealing Nut - Nylon 66
Sealing Gland - Buna N or TPE
Colour: Black
Flammability: UL94V-2
Temperature Rating: -30°C to 100°C
IP Rating: IP 65 / 67

NEW

- Sealing flange ensures a liquid tight IP 65 and IP 67 seal
- Easy installation–unique fingers securely snap into a range of panel thicknesses – up to 3,2 mm with no tools or locknuts required
- Perfect for low clearance installation where locking nut access is limited
- Rotation prevented when used in "Double D" mounting holes



Suitable for up to 3.2mm panel thickness



** We recommend using the fitting with the smallest maximum diameter that will fit your application

Part Number	Diameter of Cables/Tubing to be Accommodated		Description	Part Dimensions			Unit Quantity
	Min	Max		A Mounting Hole Dia	B To Prevent Rotation	C Max O.A Length	
66133802	1.7	5.6	LTRSCG 500	12.7	11.4	30.7	2,000
66133800	2.9	6.4	LTSCG 500	12.7	11.4	30.7	2,000
66133808	1.7	4.8	LTRSCG 625	15.9	14.0	33.0	2,000
66133806	2.7	7.9	LTSCG 625	15.9	14.0	33.0	2,000
66133814	1.8	6.4	LTRSCG 750	19.1	16.8	37.6	1,500
66133812	5.8	10.0	LTSCG 750	19.1	16.8	37.6	1,500
66133820	2.4	6.6	LTRSCG 875	22.2	19.6	37.1	1,500
66133818	4.3	11.4	LTSCG 875	22.2	19.6	37.1	1,500
66133826	4.6	11.2	LTRSCG 1000	25.4	22.2	41.1	500
66133824	6.6	13.9	LTSCG 1000	25.4	22.2	41.1	500
66133838	6.4	12.3	LTRSCG 1125	28.6	25.4	44.5	500
66133836	12.3	18.0	LTSCG 1125	28.6	25.4	44.5	500
66133844	12.4	20.0	LTRSCG 1250	31.8	28.6	52.1	300
66133842	15.0	23.4	LTSCG 1250	31.8	28.6	52.1	300
66133850	12.4	20.0	LTRSCG 1375	34.9	31.8	52.1	300
66133848	15.0	25.4	LTSCG 1375	34.9	31.8	52.1	300

HEYCO® Genuine HEYCO® Parts!

Heyco®-Tite Snap-In-2® Liquid Tight Straight-Thru, Flex Protect

Approvals/Test Standards:

Recognized under the Component Program of Underwriters' Laboratories File E51579

Certified By Canadian Standard Association File 93876C

Specifications: RoHS ✓

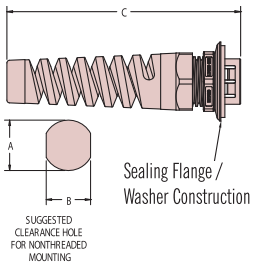
Materials: Body & Sealing Nut - Nylon 66
Sealing Gland - Buna N or TPE
Colour: Black
Flammability: UL94V-2
Temperature Rating: -30°C to 100°C
IP Rating: IP 65 / 67

NEW

- Sealing flange ensures a liquid tight IP 65 and IP 67 seal
- Easy installation–unique fingers securely snap into a range of panel thicknesses – up to 3,2 mm with no tools or locknuts required
- Perfect for low clearance installation where locking nut access is limited
- Rotation prevented when used in "Double D" mounting holes



Suitable for up to 3.2mm panel thickness



** We recommend using the fitting with the smallest maximum diameter that will fit your application

Part Number	Diameter of Cables/Tubing to be Accommodated		Description	Part Dimensions			Unit Quantity
	Min	Max		A Mounting Hole Dia	B To Prevent Rotation	C Max O.A Length	
3953862	1.7	5.3	Flex LTRSCG 500	12.7	11.4	63.5	50
3953860	2.9	6.4	Flex LTSCG 500	12.7	11.4	63.5	50
3953868	1.7	4.8	Flex LTRSCG 625	15.9	14.0	71.9	50
3953866	2.7	8.0	Flex LTSCG 625	15.9	14.0	71.9	50
3953874	1.8	6.4	Flex LTRSCG 750	19.1	16.8	87.9	50
3953872	5.8	10.0	Flex LTSCG 750	19.1	16.8	87.9	50
3953880	2.4	6.6	Flex LTRSCG 875	22.2	19.6	98.0	50
3953878	4.3	11.4	Flex LTSCG 875	22.2	19.6	98.0	50
3953886	4.6	11.2	Flex LTRSCG 1000	25.4	22.2	109.7	50
3953884	6.6	13.9	Flex LTSCG 1000	25.4	22.2	109.7	50
3953896	12.3	18.0	Flex LTSCG 1125	28.6	25.4	124.5	25



Metric Thread Ex Series Cable Glands (UL94V-0)

- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust
- For standard applications in hazardous location type “e” according to EN 60079-0, and EN 60079-7

Specifications: RoHS ✓

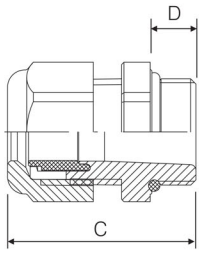
Materials: Body & Sealing Nut - Nylon
Sealing Gland & O Ring - Buna - N
Flammability: UL94V-0
Operating temperature: -20°C to 95°C

Approvals/Test Standards:

Protection (EN 60529) IP68 - 10 bar/IP69K within clamping range

ATEX II 2G 1D

Part Number & Colour		** Diameter of Cables/Tubing to be Accommodated	Dimensions					Unit Quantity
Black RAL 9005	Grey RAL 7035		Mounting Thread Size and Pitch	Chassis Clearance Hole +0.3 / -0.0	Body and Sealing Nut: C Max. Overall Length	Body and Sealing Nut: D Thread Length	Body and Sealing Nut: Wrenching Flats	
33088050	33088040	5.0 to 10.0	M16 x 1.5	16.0	33.0	8.0	22.0	50
33088051	33088041	3.0 to 7.0	M16 x 1.5	16.0	33.0	8.0	22.0	50
33088052	33088042	6.5 to 12.0	M20 x 1.5	20.0	38.0	9.0	24.0	50
33088053	33088043	5.0 to 9.0	M20 x 1.5	20.0	38.0	9.0	24.0	50
33088054	33088044	13.0 to 18.0	M25 x 1.5	25.0	42.0	11.0	33.0	25
33088055	33088045	9.0 to 16.0	M25 x 1.5	25.0	42.0	11.0	33.0	50
33088056	33088046	18.0 to 25.0	M32 x 1.5	32.0	50.0	11.0	42.0	25
33088057	33088047	13.0 to 20.0	M32 x 1.5	32.0	50.0	11.0	42.0	25



** We recommend using the fitting with the smallest maximum diameter that will fit your application

Locknuts sold separately



Ex Active Series Cable Glands (UL94V-0)

- Halogen-Free
- Anti-vibration protection dome nut
- Abrasion resistant labelling
- O-ring fitted as standard
- Appplicable in zone 1 and zone 20
- Passes requirements of EN 60079-0:2012

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Nylon
Sealing Gland & O Ring - Buna - N
Colour: Black
Flammability: UL94V-0
Operating temperature: -20°C to 85°C

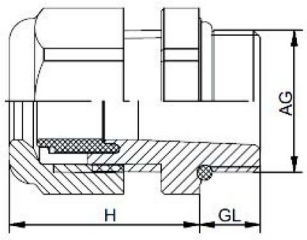
Approvals/Test Standards:

Protection (EN 60529) IP68 - 10 bar

in black color ULf1 ATEX II 2G 1D

Part Number & Colour	** Diameter of Cables/Tubing to be Accommodated	Dimensions					Unit Quantity
		Mounting Thread Size and Pitch	Chassis Clearance Hole +0.3 / -0.0	Body and Sealing Nut: Thread Length GL	Body and Sealing Nut: Wrenching Nut	Body and Sealing Nut: Body Height H	
33010001	3.0 to 6.0	M 12 x 1,5	12.0	8	15	21	50
33010002	2.0 to 5.0	M 12 x 1,5	12.0	8	15	21	50
33010003	4.0 to 8.0	M 16 x 1,5	16.0	8	19	22	50
33010004	3.0 to 6.0	M 16 x 1,5	16.0	8	19	22	50
33010005	5.0 to 10.0	M 16 x 1,5	16.0	8	22	25	50
33010006	3.0 to 7.0	M 16 x 1,5	16.0	8	22	25	50
33010007	6.0 to 12.0	M 20 x 1,5	20.0	9	24	27	50
33010008	5.0 to 9.0	M 20 x 1,5	20.0	9	24	27	50
33010009	10.0 to 14.0	M20 x 1,5	20.0	9	27	28	50
33010010	7.0 to 12.0	M20 x 1,5	20.0	9	27	28	50
33010011	13.0 to 18.0	M 25 x 1,5	25.0	11	33	31	50
33010012	9.0 to 16.0	M 25 x 1,5	25.0	11	33	31	50
33010013	18.0 to 25.0	M 32 x 1,5	32.0	11	42	39	25
33010014	13.0 to 20.0	M 32 x 1,5	32.0	11	42	39	25
33010015	22.0 to 32.0	M 40 x 1,5	40.0	13	53	48	10
33010016	20.0 to 26.0	M 40 x 1,5	40.0	13	53	48	10
33010017	32.0 to 38.0	M 50 x 1,5	50.0	13	60	49	5
33010018	25.0 to 31.0	M 50 x 1,5	50.0	13	60	49	5
33010019	37.0 to 44.0	M 63 x 1,5	63.0	14	65/ 68	49	5
33010020	29.0 to 35.0	M 63 x 1,5	63.0	14	65/ 68	49	5

NEW



Zones:
1, 2, 20, 21, 22

EC-Type Examination Certificate:
BVS 14 ATEX E 025 X

IECEx Certificate of Conformity:
IECEx BVS 14.0020X

Marking:
II 2G Ex e IIC Gb
II 1D Ex ta IIIC Da

According to the latest EN Standards:
EN 60079-0:2012 IEC 60079-0:2011
EN 60079-7:2007 IEC 60079-7:2007
EN 60079-31:2009 IEC 60079-31:2008

The HSK-K-Ex-Active has been developed to meet the stringent requirements of EN 60079-0 : 2012. The cable gland, made of special formulated Fibre glass reinforced polyamide, combines all features of the established HSK-K-Ex series and the latest approvals according to ATEX and IECEx.
The HSK-K-Ex-Active has been designed for applications in electrical equipment, which require types of protection Ex e and Ex ta according to the latest standards EN 60079-0, 60079-7 and 60079-31

** We recommend using the fitting with the smallest maximum diameter that will fit your application

Locknuts sold separately

OPTIMAS

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E: sales@optimascomponents.com

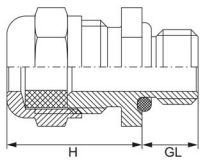
Miniature Metal Metric Thread Cable Glands

Approvals/Test Standards:
Protection (EN 60529) IP68

Specifications: RoHS ✓
Materials: Body & Sealing Nut - Brass Nickel Plated
Sealing Gland - Buna - N
Operating temperature: -20°C to 100°C

- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust
- Perfect for applications where space is restricted or for sealing small wires





Part Number	Diameter of Cables/Tubing to be Accommodated	Dimensions					Unit Quantity
		Mounting Thread Size and Pitch	Chassis Clearance Hole +0.3 -0.0	Body and Sealing Nut			
				H	GL Thread Length	Wrenching Flats	
33888395	2.0 to 3.2	M6 x 1.0	6.0	10.0	6.0	8.0	100
33888396	3.0 to 5.0	M8 x 1.25	8.0	13.0	6.0	11.0	100
33888397	4.0 to 6.0	M10 x 1.5	10.0	14.0	6.0	12.0	50

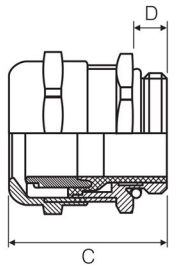
Metal Metric Thread Cable Glands

Approvals/Test Standards:
Protection (EN 60529) IP68 - 10 bar/IP69K within clamping range

Specifications: RoHS ✓
Materials: Body & Sealing Nut: Brass Nickel Plated
Clamping Insert: Nylon
Sealing Gland & O-Ring: Buna - N
Operating temperature: -40°C to 100°C

- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust
- Perfect for applications demanding extra durability such as chemical plant and medical equipment





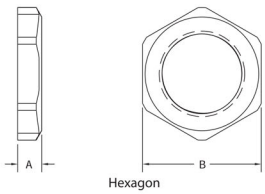
Locknuts sold separately

Part Number	** Diameter of Cables/Tubing to be Accommodated	Dimensions					Unit Quantity
		Mounting Thread Size and Pitch	Chassis Clearance Hole +0.3 -0.0	Body and Sealing Nut			
				C Max. Overall Length	D Thread Length	Wrenching Flats	
33888398	3.0 to 6.5	M12 x 1.5	12.0	25.5	6.5	14.0	50
33888399	2.0 to 5.0	M12 x 1.5	12.0	25.5	6.5	14.0	50
33888400	4.0 to 8.0	M16 x 1.5	16.0	26.0	6.0	17.0	50
33888401	2.0 to 6.0	M16 x 1.5	16.0	26.0	6.0	17.0	50
33888407	6.0 to 12.0	M20 x 1.5	20.0	28.0	6.0	22.0	50
33888408	5.0 to 9.0	M20 x 1.5	20.0	28.0	6.0	22.0	50
33888413	13.0 to 18.0	M25 x 1.5	25.0	32.0	7.0	30.0	25
33888414	9.0 to 16.0	M25 x 1.5	25.0	32.0	7.0	30.0	25
33888419	18.0 to 25.0	M32 x 1.5	32.0	37.0	8.0	40.0	25
33888420	13.0 to 20.0	M32 x 1.5	32.0	37.0	8.0	40.0	25
33888425	22.0 to 32.0	M40 x 1.5	40.0	43.0	8.0	50.0	10
33888426	20.0 to 26.0	M40 x 1.5	40.0	43.0	8.0	50.0	10
33888430	32.0 to 38.0	M50 x 1.5	50.0	46.0	9.0	57.0	5
33888431	25.0 to 31.0	M50 x 1.5	50.0	46.0	9.0	57.0	5
33888440	37.0 to 44.0	M63 x 1.5	63.0	48.0	10.0	68.0	5
33888441	29.0 to 35.0	M63 x 1.5	63.0	48.0	10.0	68.0	5

** We recommend using the fitting with the smallest maximum diameter that will fit your application

Metric Locknuts - Brass Nickel Plated





PART NUMBER	Thread Type and Size	Part Dimensions		Unit Quantity	Material	Body Style
		A - Overall Thickness	B - Wrenching Flats			
34688449	M12 x 1.5	2.8	15.0	100	Brass Nickel Plated	Hexagon
34688450	M16 x 1.5	2.8	19.0	100		
34688451	M20 x 1.5	3.0	23.0	100		
34688452	M25 x 1.5	3.5	30.0	100		
34688453	M32 x 1.5	4.0	36.0	50		
34688454	M40 x 1.5	4.5	45.0	25		
34688456	M50 x 1.5	5.5	55.0	25		
34688458	M63 x 1.5	6.0	70.0	25		



Metal Pg Thread Cable Glands - Standard & Elongated Threads

- Protects and anchors cable at chassis entry
- Protects against ingress of water and dust
- Perfect for applications demanding extra durability such as chemical plant and medical equipment

HUMMEL®

Specifications: RoHS ✓

Materials: Body & Sealing Nut: Brass Nickel Plated
Clamping Insert: Nylon
Sealing Gland & O-Ring: Buna - N

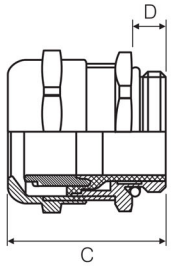
Operating temperature: -40°C to 100°C

Approvals/Test Standards:

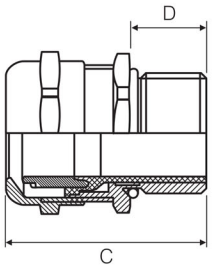
Protection (EN 60529) IP68 - 10 bar/IP69K within clamping range

Part Number	** Diameter of Cables/Tubing to be Accommodated	Dimensions							Unit Quantity
		Mounting Thread				Body and Sealing Nut			
		Type	Major Diameter	Pitch	Chassis Clearance Hole + 0.3 - 0.0	C Max. Overall Length	D Thread Length	Wrenching Flats	
33988600	3.0 to 6.5	Pg 7	12.5	1.27	12.5	24.0	5.0	14.0	50
33988603	2.0 to 5.0	Pg 7	12.5	1.27	12.5	24.0	5.0	14.0	50
33988606	4.0 to 8.0	Pg 9	15.2	1.41	15.2	26.0	6.0	17.0	50
33988609	2.0 to 6.0	Pg 9	15.2	1.41	15.2	26.0	6.0	17.0	50
33988612	5.0 to 10.0	Pg 11	18.6	1.41	18.6	27.0	6.0	20.0	50
33988615	3.0 to 7.0	Pg 11	18.6	1.41	18.6	27.0	6.0	20.0	50
33988618	6.0 to 12.0	Pg 13.5	20.4	1.41	20.4	28.5	6.5	22.0	50
33988621	5.0 to 9.0	Pg 13.5	20.4	1.41	20.4	28.5	6.5	22.0	50
33988623	10.0 to 14.0	Pg 16	22.5	1.41	22.6	29.5	6.5	24.0	50
33988626	7.0 to 12.0	Pg 16	22.5	1.41	22.6	29.5	6.5	24.0	50
33988629	13.0 to 18.0	Pg 21	28.3	1.59	28.4	32.5	7.0	30.0	50
33988632	9.0 to 16.0	Pg 21	28.3	1.59	28.4	32.5	7.0	30.0	50
33988635	18.0 to 25.0	Pg 29	37.0	1.59	37.0	37.0	8.0	40.0	25
33988638	13.0 to 20.0	Pg 29	37.0	1.59	37.0	37.0	8.0	40.0	25
33988641	22.0 to 32.0	Pg 36	47.0	1.59	47.0	43.0	8.0	50.0	10
33988644	20.0 to 26.0	Pg 36	47.0	1.59	47.0	43.0	8.0	50.0	10
33988647	32.0 to 38.0	Pg 42	54.0	1.59	54.0	46.0	9.0	57.0	5
33988650	25.0 to 31.0	Pg 42	54.0	1.59	54.0	46.0	9.0	57.0	5
33988653	37.0 to 44.0	Pg 48	59.3	1.59	59.3	48.0	10.0	64.0	5
33988656	29.0 to 35.0	Pg 48	59.3	1.59	59.3	48.0	10.0	64.0	5
33988700	3.0 to 6.5	Pg 7	12.5	1.27	12.5	29.0	10.0	14.0	50
33988703	2.0 to 5.0	Pg 7	12.5	1.27	12.5	29.0	10.0	14.0	50
33988706	4.0 to 8.0	Pg 9	15.2	1.41	15.2	30.0	10.0	17.0	50
33988709	2.0 to 6.0	Pg 9	15.2	1.41	15.2	30.0	10.0	17.0	50
33988712	5.0 to 10.0	Pg 11	18.6	1.41	18.6	31.0	10.0	20.0	50
33988715	3.0 to 7.0	Pg 11	18.6	1.41	18.6	31.0	10.0	20.0	50
33988718	6.0 to 12.0	Pg 13.5	20.4	1.41	20.4	32.0	10.0	22.0	50
33988721	5.0 to 9.0	Pg 13.5	20.4	1.41	20.4	32.0	10.0	22.0	50
33988724	10.0 to 14.0	Pg 16	22.5	1.41	22.6	33.0	10.0	24.0	50
33988727	7.0 to 12.0	Pg 16	22.5	1.41	22.6	33.0	10.0	24.0	50
33988730	13.0 to 18.0	Pg 21	28.3	1.59	28.4	37.0	12.0	30.0	50
33988733	9.0 to 16.0	Pg 21	28.3	1.59	28.4	37.0	12.0	30.0	50
33988736	18.0 to 25.0	Pg 29	37.0	1.59	37.0	41.0	12.0	40.0	25
33988739	13.0 to 20.0	Pg 29	37.0	1.59	37.0	41.0	12.0	40.0	25
33988742	22.0 to 32.0	Pg 36	47.0	1.59	47.0	50.0	15.0	50.0	10
33988745	20.0 to 26.0	Pg 36	47.0	1.59	47.0	50.0	15.0	50.0	10
33988748	32.0 to 38.0	Pg 42	54.0	1.59	54.0	52.0	15.0	57.0	5
33988751	25.0 to 31.0	Pg 42	54.0	1.59	54.0	52.0	15.0	57.0	5
33988753	37.0 to 44.0	Pg 48	59.3	1.59	59.3	53.0	15.0	64.0	5
33988756	29.0 to 35.0	Pg 48	59.3	1.59	59.3	53.0	15.0	64.0	5

** We recommend using the fitting with the smallest maximum diameter that will fit your application



Locknuts sold separately



Elongated thread type.
Parts 33988700 to 33988756.

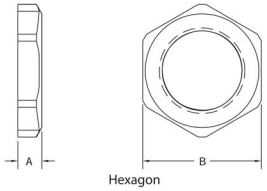
Locknuts sold separately



HUMMEL®

Pg Locknuts - Brass Nickel Plated

Part Number	Thread Type and Size	Part Dimensions		Unit Quantity	Material	Body Style
		A - Overall Thickness	B - Wrenching Flats			
34889000	Pg 7	2.8	15.0	100	Brass Nickel Plated	Hexagon
34889002	Pg 9	2.8	18.0	100		
34889004	Pg 11	3.0	21.0	100		
34889006	Pg 13.5	3.0	23.0	100		
34889008	Pg 16	3.0	26.0	100		
34889010	Pg 21	3.5	32.0	100		
34889012	Pg 29	4.0	41.0	50		
34889014	Pg 36	5.0	51.0	25		
34889016	Pg 42	5.0	60.0	25		
34889018	Pg 48	5.5	64.0	25		



OPTIMAS

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Metal Metric & Pg Thread EMC D-Series Cable Glands



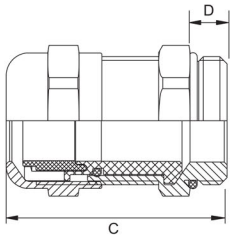
Approvals/Test Standards:
Protection (EN 60529) IP68 - 10 bar/IP69K within clamping range

Specifications: RoHS ✓

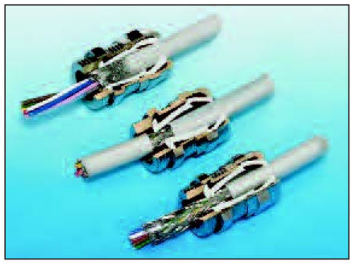
Materials: Body & Sealing Nut:
Brass Nickel Plated
Clamping Insert: Metal Coated Nylon
Sealing Gland & O-Ring: Buna - N

Operating temperature: -40°C to 100°C

- EMI compatible standard strain relief fittings with feed-through suitable for cables with braided or foil shield
- Provides a reliable low-ohm shield
- High pull-out resistances and anti-rotation provision
- Dependable contact with cable shield



Locknuts sold separately



Part Number	** Diameter of Cables/Tubing to be Accommodated	Dimensions					Unit Quantity
		Mounting Thread Size and Pitch	Chassis Clearance Hole +0.3/-0.0	Body and Sealing Nut			
				C Max. Overall Length	D Thread Length	Wrenching Flats	
33888327	3.0 to 6.5	M12 x 1.5	12.0	31.5	6.5	14	50
33888328	5.0 to 10.0	M16 x 1.5	16.0	38.0	6	20	50
33888329	10.0 to 14	M20 x 1.5	20.0	39.0	6	24	50
33888330	13.0 to 18.0	M25 x 1.5	25.0	46.0	7	30	25
33888331	18.0 to 25.0	M32 x 1.5	32.0	53.0	8	40	25
33888332	24.0 to 32.0	M40 x 1.5	40.0	59.0	8	50	10
33888333	32.0 to 38.0	M50 x 1.5	50.0	66.5	9	57	5
33888334	37.0 to 44.0	M63 x 1.5	63.0	62.0	10	64 / 68	5
33888335	3.0 to 6.5	M12 x 1.5	12.0	31.5	10	14	50
33888336	5.0 to 10.0	M16 x 1.5	16.0	38.0	10	20	50
33888337	10.0 to 14	M20 x 1.5	20.0	39.0	10	24	50
33888338	13.0 to 18.0	M25 x 1.5	25.0	46.0	12	30	25
33888339	18.0 to 25.0	M32 x 1.5	32.0	53.0	12	40	25
33888340	24.0 to 32.0	M40 x 1.5	40.0	59.0	15	50	10
33988220	3.0 to 6.5	Pg 7	12.5	29.0	5	14	50
33988221	4.0 to 8.0	Pg 9	15.2	34.0	6	17	50
33988222	5.0 to 10.0	Pg 11	18.6	35.0	6	20	50
33988223	6.0 to 12.0	Pg 13.5	20.4	37.5	6.5	22	50
33988224	10.0 to 14.0	Pg 16	22.6	38.5	6.5	24	50
33988225	13.0 to 18.0	Pg 21	28.4	45.0	7	30	50
33988226	18.0 to 25.0	Pg 29	37.0	51.0	8	40	25
33988227	24.0 to 32.0	Pg 36	47.0	56.0	8	50	25
33988228	32.0 to 38.0	Pg 42	54.0	54.0	9	57	10
33988229	37.0 to 44.0	Pg 48	59.3	56.0	10	64	10

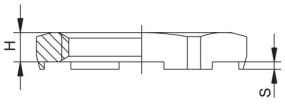
Metal Metric & Pg Thread Locknuts for EMC D-Series Cable Glands



Specifications: RoHS ✓

Material: Brass Nickel Plated

- For use with EMC-D series Cable Glands
- Integral cutting edges
- Suitable for plastic coated metal enclosures



Part Number	Thread Size	Part Dimensions			Unit Quantity
		H	Wrenching Flats	S	
34688320	M12 x 1.5	2.8	15	0.7	50
34688321	M16 x 1.5	2.8	19	0.7	50
34688322	M20 x 1.5	3.0	24	0.7	50
34688323	M25 x 1.5	3.5	30	0.7	50
34688324	M32 x 1.5	4.5	36	0.7	25
34688325	M40 x 1.5	5.0	46	0.7	25
34688326	M50 x 1.5	5.0	60	0.7	10
34688327	M63 x 1.5	6.0	70	0.7	10
34888219	Pg 7	2.8	15	0.7	50
34888220	Pg 9	2.8	18	0.7	50
34888221	Pg 11	3.0	21	0.7	50
34888222	Pg 13.5	3.0	23	0.7	50
34888223	Pg 16	3.0	26	0.7	50
34888224	Pg 21	3.5	32	0.7	50
34888225	Pg 29	4.0	41	0.7	25
34888226	Pg 36	5.0	51	0.7	25
34888227	Pg 42	5.0	60	0.7	10
34888228	Pg 48	5.5	64	0.7	10



Multi-Hole Inserts For Cable Glands

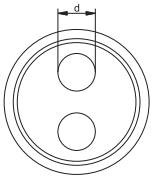
- Ideal for sealing multiple cables through one cable gland
- Other sizes and cable shapes available upon request

Specifications: RoHS ✓
Material: Elastomer
Colour: White
Protection: IP65 (NEMA 4x)

Working temperature -40°C to 100°C

Approvals/Test Standards:
Protection (EN 60529): IP65 (NEMA 4x)

Part Number	To Fit Liquid Tight Fitting Mounting Thread Size	Number of Holes	d	Unit Quantity
3290001	Pg7, Pg9, Pg11, M16 x 1.5, 3/8" NPT	4	1.4	100
3290002	Pg7, Pg9, Pg11, M16 x 1.5, 3/8" NPT	2	3.0	100
3290003	Pg9, M16 x 1.5, 3/8" NPT	5	1.6	100
3290004	Pg9, M16 x 1.5, 3/8" NPT	10	1.4	100
3290005	Pg11	2	3.0	100
3290006	Pg11	3	3.0	100
3290007	Pg11	2	4.0	100
3290008	Pg11	3	1.5	100
3290009	Pg13.5, M20 x 1.5, 1/2" NPT	3	2.0	100
3290010	Pg13.5, M20 x 1.5, 1/2" NPT	6	3.0	100
3290011	Pg13.5, M20 x 1.5, 1/2" NPT	3	4.0	100
3290012	Pg13.5, M20 x 1.5, 1/2" NPT	2	5.0	100
3290013	Pg16, 1/2" NPT/16	4	4.0	100
3290014	Pg16, 1/2" NPT/16	5	4.0	100
3290015	Pg16, 1/2" NPT/16	6	4.0	100
3290016	Pg16, 1/2" NPT/16	2	6.0	100
3290017	Pg21 , M25 x 1.5, 3/4" NPT	4	6.0	50
3290018	Pg21 , M25 x 1.5, 3/4" NPT	3	7.0	50
3290019	Pg21 , M25 x 1.5, 3/4" NPT	2	8.0	50
3290020	Pg21 , M25 x 1.5, 3/4" NPT	4	5.0	50
3290021	Pg29, M32 x 1.5, 1" NPT, 1.1/4" NPT	6	6.5	50
3290022	Pg29, M32 x 1.5, 1" NPT, 1.1/4" NPT	4	9.0	50
3290023	Pg36, M40 x 1.5, 1.1/2" NPT	5	9.0	25
3290024	Pg36, M40 x 1.5, 1.1/2" NPT	7	9.0	25
3290025	Pg36, M40 x 1.5, 1.1/2" NPT	6	8.0	25
3290026	Pg36, M40 x 1.5, 1.1/2" NPT	2	15.0	25
3290028	Pg48, M63 x 1.5	8	10.0	10
3290029	Pg48, M63 x 1.5	6	12.0	10



Note: Cable diameter should not be less than 20% of the hole diameter and the difference between cable diameter and hole should never exceed 1.0mm.



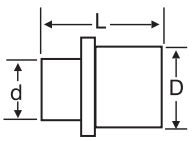
Double Ended Blanking Plugs For Cable Glands

- Assembles into liquid tight gland to provide seal
- Allows later assembly of cable into installed fitting

Specifications: RoHS ✓
Material: Nylon 6
Colour: Black
Operating temperature: -20°C to 65°C

Tolerances: D, d & L = ± .50

Part Number	Suitable For Use With These Sizes of Cable Glands			D	d	L	Unit Quantity
	Pg	Metric	NPT				
33586100	7	M12 x 1.5	-	6.0	4.5	15.0	100
33586103	9	M16 x 1.5	3/8	7.5	5.5	17.0	100
33586104	11	M16 x 1.5	-	9.5	6.5	19.0	100
33586107	13.5	M20 x 1.5	1/2	11.5	8.5	19.0	100
33586110	16	M20 x 1.5	1/2	13.5	11.5	19.5	100
33586113	21	M25 x 1.5	3/4	17.5	15.5	23.5	50
33586116	29	M32 x 1.5	1 & 1¼	24.0	19.0	26.0	50





Blanking Plugs For Cable Glands

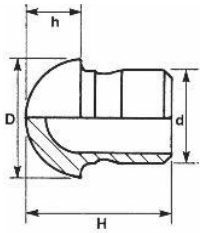
- Assembles into liquid tight gland to provide seal
- Allows later assembly of cable into installed fitting

Specifications: RoHS ✓
Material: Elastomer
Colour: Black

Operating temperature -20°C to 80°C

Tolerances: D, d, H & h = ± .20

Part Number	Suitable For Use With These Sizes of Cable Glands			D	d	H	h	Unit Quantity
	Pg	Metric	NPT					
33586000	7	M12 x 1.5	-	9.5	6.3	11.5	4.5	50
33586003	9	M16 x 1.5	3/8	11.0	7.8	13.5	5.5	50
33586006	11	M16 x 1.5	-	13.5	9.8	14.5	5.5	50
33586009	13.5	M20 x 1.5	1/2	16.0	11.8	18.0	8.0	50
33586012	16	M20 x 1.5	1/2	18.5	13.8	19.0	9.0	50
33586015	21	M25 x 1.5	3/4	22.5	17.8	21.0	10.0	50
33586018	29	M32 x 1.5	1 & 1.1/4	29.0	25.0	25.0	10.0	25



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HEYbrid™ Stainless Steel Liquid Tight Cordgrips



Approvals/Test Standards:

Listed under Underwriters' Laboratories File E51579

* Recognized under the Underwriters' Laboratories File E51579 (Not UL Listed)

Specifications: RoHS ✓

Materials: Body & Sealing Nut - 303 Stainless steel
Sealing Gland - Co=moulded Nylon 66/TPE
Sealing Washer - SBR

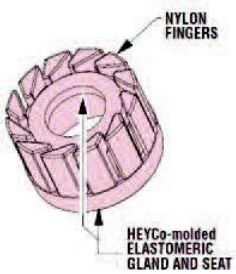
Flammability: UL94V-2
Operating temperature: 20°C to 100°C
IP Rating: IP 68 (70 psi, 5 bar)

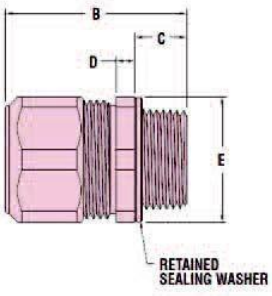
NEW

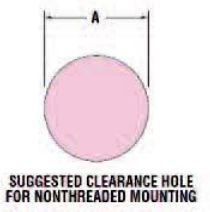
- Rolled threads prevent galling and allow for multiple assemblies and disassemblies. No messy, unsightly thread lubrication required.
- Self-retaining sealing rings eliminate the need for an O-Ring groove, thus reducing cost.
- Typical applications: Control cabinets, marine, car washes, hot tubs, instrumentation, carpet cleaning machines, food processing equipment, underground for direct burial.
- Ideal for corrosive environments.
- Resistant to salt water, acids and most chemicals.
- DFARS Compliant

Part Number	Diameter of Cables/ Tubing to be Accommodated		Mounting Thread Size and Type	Description	Part Dimensions					Unit Quantity
	Min	Max			A Clearance Hole Dia	B Max O.A Length	C Thread Length	D Wrenching Nut Thickness	E Wrenching Nut Flat Size	
347M6060*	1.7	5.3	M12	RSSCG M12	12.0	29.5	8.1	5.1	19.0	10
347M6061*	2.9	6.4	M12	SSCG M12	12.0	29.5	8.1	5.1	19.0	10
347M6062*	1.7	5.8	M16	RSSCG M16	16.0	31.8	8.1	5.1	21.1	10
347M6063*	2.7	8.0	M16	SSCG M16	16.0	31.8	8.1	5.1	21.1	10
347M6066	2.4	7.4	M20	RSSCG M20	20.0	37.8	10.4	5.1	27.0	10
347M6067	4.3	11.4	M20	SSCG M20	20.0	37.8	10.4	5.1	27.0	10
347M6068	4.6	10.2	M20	RSSCG M20	22.0	41.9	10.4	5.1	31.2	10
347M6069	6.6	13.8	M20	SSCG M20	22.0	41.9	10.4	5.1	31.2	10
347M6070	6.4	12.4	M25	RSSCG M25	25.0	48.0	13.2	5.1	33.3	10
347M6071	11.0	17.9	M25	SSCG M25	25.0	48.0	13.2	5.1	33.3	10
347M6072	12.4	19.9	M32	RSSCG M32	32.0	56.6	14.7	5.1	44.4	10
347M6073	15.0	25.4	M32	SSCG M32	32.0	56.6	14.7	5.1	44.4	10
347M6030*	1.7	5.3	Pg7	RSSCG PG7	12.5	29.5	8.1	5.1	19.0	10
347M6031*	2.9	6.4	Pg7	SSCG PG7	12.5	29.5	8.1	5.1	19.0	10
347M6032*	1.7	5.8	Pg9	RSSCG PG9	15.2	31.8	8.1	5.1	21.0	10
347M6033*	2.7	8.0	Pg9	SSCG PG9	15.2	31.8	8.1	5.1	21.0	10
347M6036	2.4	7.4	Pg13.5	RSSCG PG13.5	20.4	38.9	10.4	5.1	27.0	10
347M6037	4.3	11.4	Pg13.5	SSCG PG13.5	20.4	38.9	10.4	5.1	27.0	10
347M6038	4.6	10.2	Pg16	RSSCG PG16	22.5	42.7	11.2	5.1	31.2	10
347M6039	6.6	13.8	Pg16	SSCG PG16	22.5	42.7	11.2	5.1	31.2	10
347M6040	6.4	12.4	Pg21	RSSCG PG21	28.3	48.0	13.2	5.1	33.3	10
347M6041	11.0	17.9	Pg21	SSCG PG21	28.3	48.0	13.2	5.1	33.3	10
347M6042	12.4	19.9	Pg29	RSSCG PG29	37.3	56.6	14.7	5.1	44.4	10
347M6043	15.0	25.4	Pg29	SSCG PG29	37.3	56.6	14.7	5.1	44.4	10
347M6000*	1.7	5.3	1/4 NPT	RSSCG 1/4	13.7	32.8	11.4	5.1	19.0	10
347M6001*	2.9	6.4	1/4 NPT	SSCG 1/4	13.7	32.8	11.4	5.1	19.0	10
347M6002*	1.7	5.8	3/8 NPT	RSSCG 3/8	17.3	35.8	12.4	5.1	21.1	10
347M6003*	2.7	8.0	3/8 NPT	SSCG 3/8	17.3	35.8	12.4	5.1	21.1	10
347M6006	2.4	7.4	1/2 NPT	RSSCG 1/2	22.2	43.2	15.5	5.1	27.0	10
347M6007	4.3	11.4	1/2 NPT	SSCG 1/2	22.2	43.2	15.5	5.1	27.0	10
347M6008	4.6	10.1	1/2 NPT	RSSCG 1/2	22.2	42.7	11.2	5.1	31.2	10
347M6009	6.6	13.8	1/2 NPT	SSCG 1/2	22.2	42.7	11.2	5.1	31.2	10
347M6010	6.4	12.4	3/4 NPT	RSSCG 3/4	28.2	50.8	15.7	5.1	33.3	10
347M6011	11.0	17.9	3/4 NPT	SSCG 3/4	28.2	50.8	15.7	5.1	33.3	10
347M6012	12.4	19.9	1 NPT	RSSCG 1	34.9	61.2	19.3	5.1	44.4	10
347M6013	15.0	25.4	1 NPT	SSCG 1	34.9	61.2	19.3	5.1	44.4	10

Locknuts sold separately









HEYbrid™ Brass/Nylon Liquid Tight Cordgrips

Genuine HEYCO® Parts!

NEW

- When tightening the compression nut of the cordgrip, the segmented finger design compresses around the gland and wire to provide a torsion proof seal.
- Nickel-plated brass construction for superior protection of flexible cables with excellent corrosion resistance and durability.
- For use in clearance or threaded holes.
- DFARS Compliant

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Brass Nickel Plate
Sealing Gland - TPE
Finger Insert - Nylon 6
Oring - Buna-N
Operating temperature: -40°C to 100°C
IP Rating: IP 68, 69K

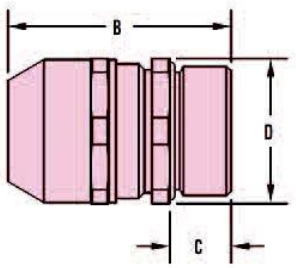
Approvals/Test Standards:

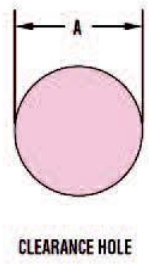
Recognized under the Underwriters' Laboratories File E51579, Metric only

Approved, Metric only

Part Number	Diameter of Cables/Tubing to be Accommodated		Mounting Thread Size and Type	Part Dimensions				Unit Quantity
	Min	Max		A Clearance Hole Dia	B Max O.A Length	C Thread Length	D Wrenching Nut Flat Size	
3474472	1.0	5.0	M12 x 1.5	12.5	29.0	12.0	15.0	50
3474473	3.0	7.0	M12 x 1.5	12.5	29.0	12.0	15.0	50
3474474	2.0	6.0	M16 x 1.5	16.5	32.0	12.0	18.0	50
3474475	4.5	10.0	M16 x 1.5	16.5	32.0	12.0	18.0	50
3474476	3.5	8.0	M20 x 1.5	20.5	37.0	12.0	22.0	50
3474477	7.0	13.0	M20 x 1.5	20.5	37.0	12.0	22.0	50
3474478	5.0	11.0	M25 x 1.5	25.4	43.0	12.0	28.0	25
3474479	10.0	17.0	M25 x 1.5	25.4	43.0	12.0	28.0	25
3474480	7.0	15.0	M32 x 1.5	32.3	48.0	15.0	36.0	25
3474481	13.0	21.0	M32 x 1.5	32.3	48.0	15.0	36.0	25
3474482	15.0	23.0	M40 x 1.5	40.5	55.0	15.0	46.0	10
3474483	19.0	28.0	M40 x 1.5	40.5	55.0	15.0	46.0	10
3474484	20.0	29.0	M50 x 1.5	50.5	55.0	15.0	55.0	5
3474485	25.0	35.0	M50 x 1.5	50.5	55.0	15.0	55.0	5
3474486	28.0	39.0	M63 x 1.5	63.2	58.0	15.0	70.0	5
3474487	35.0	48.0	M63 x 1.5	63.2	58.0	15.0	70.0	5
3474488	44.0	55.0	M63 x 1.5	63.2	58.0	15.0	80.0	5
3474450	1.0	5.0	PG 7	12.7	22.0	5.0	15.0	50
3474451	3.0	7.0	PG 7	12.7	22.0	5.0	15.0	50
3474452	2.0	6.0	PG 9	15.5	26.0	6.0	18.0	50
3474453	4.5	10.0	PG 9	15.5	26.0	6.0	18.0	50
3474454	3.5	8.0	PG 11	19.0	31.0	6.0	22.0	50
3474455	7.0	13.0	PG 11	19.0	31.0	6.0	22.0	50
3474456	3.5	8.0	PG 13.5	21.1	31.5	6.5	22.0	50
3474457	7.0	13.0	PG 13.5	21.1	31.5	6.5	22.0	50
3474458	3.5	8.0	PG 16	23.1	31.5	6.5	24.0	50
3474459	7.0	13.0	PG 16	23.1	31.5	6.5	24.0	50
3474460	5.0	11.0	PG 16	23.1	37.5	6.5	28.0	25
3474461	10.0	17.0	PG 16	23.1	37.5	6.5	28.0	25
3474462	7.0	15.0	PG 21	29.0	40.0	7.0	36.0	25
3474463	13.0	21.0	PG 21	29.0	40.0	7.0	36.0	25
3474464	15.0	23.0	PG 29	37.6	48.0	8.0	46.0	10
3474465	19.0	28.0	PG 29	37.6	48.0	8.0	46.0	10

Locknuts sold separately





OPTIMAS
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Heyco®-Tite Brass Lazy Bend Liquid Tight Cordgrips



Approvals/Test Standards:

Recognized under the Underwriters' Laboratories File E51579

Specifications: RoHS ✓

Materials: Body & Sealing Nut - Brass Nickel Plate
Sealing Gland & Oring - NBR
Nozzel - EPDM

Operating temperature: 40°C to 100°C

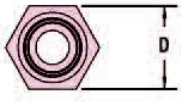
IP Rating: IP 68, 69K

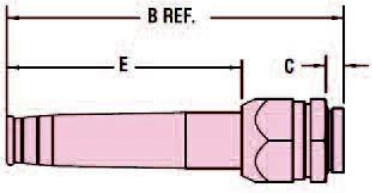
- EPDM Nozzle eases the cable into a lazy bend; prevents sharp bending and assures longest cable and product life.
- Adds reliability, longevity, and safety to your application.
- Protects the lifeline of your electric/electronic products by absorbing the forces of pull, push, twist, and flex.
- Securely anchors, insulates, and protects cables at panel entry points.
- DFARS Compliant

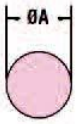
NEW

Part Number	Diameter of Cables/Tubing to be Accommodated		Mounting Thread Size and Type	Part Dimensions					Unit Quantity
	Min	Max		A Clearance Hole Dia	B Max O.A Length	C Thread Length	D Wrenching Nut Flat Size	E Lazy Bend Nozzle Length	
33814670	3.8	4.8	M8 x 1.25	8.0	43.0	6.0	11.0	25.0	50
33814671	4.0	6.0	M10 x 1.5	10.0	61.0	6.0	16.0	35.0	50
33814672	4.0	6.0	M12 x 1.5	12.0	61.0	6.0	16.0	35.0	50
33814673	6.0	8.8	M16 x 1.5	16.0	75.0	6.0	20.0	45.0	50
33814674	9.0	11.0	M20 x 1.5	20.0	99.0	6.0	24.0	65.0	25
33814675	10.5	13.0	M20 x 1.5	20.0	109.0	6.0	24.0	73.0	25
33814676	13.0	16.5	M25 x 1.5	25.0	132.0	7.0	32.0	92.0	10

Locknuts sold separately







Suggested Clearance Hole For Nonthreaded Mounting

Metric Cable Glands - Hygienic Design



Approvals/Test Standards:

FDA Conforming Materials

EHEDG Conforming Materials (European Hygienic Engineering & Design Group)

Specifications: RoHS ✓

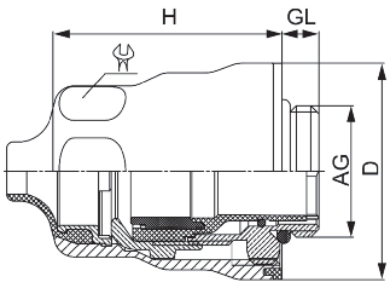
Materials: Hygienic Shell - 316L Stainless Steel
Hygienic Seal - VMQ (Silicone) - Blue

IP rating: IP66, IP68

Operating temperature: -40°C to 120°C

- Easy and efficient to clean, surface roughness of $< 0.8\mu m$
- Designed for use in Food preperation, pharmaceutical and chemical industries, biotechnology and clean room areas
- EMC protection
- Fast and simple installation
- High chemical and thermal resistance

NEW



Part Number	** Diameter of Cables/Tubing to be Accommodated	Part Dimensions						Unit Quantity
		AG Mounting Thread Size and Pitch	Chassis Clearance Hole +0.3 / -0.0	Body and Sealing Nut				
				H Shell Height	GL Thread Length	D Outside Diameter	Wrenching Flats	
33088500	3.5 to 6.5	M12 x 1.5	12.0	30.0	6.0	21.0	14	10
33088501	5.0 to 10.0	M16 x 1.5	16.0	34.0	6.0	27.0	18/20	10
33088502	10.0 to 14.0	M20 x 1.5	20.0	35.5	6.0	33.0	24	5
33088503	13.0 to 18.0	M25 x 1.5	25.0	41.5	6.0	40.0	27/30	5

** We recommend using the fitting with the smallest maximum diameter that will fit your application

Locknuts sold separately



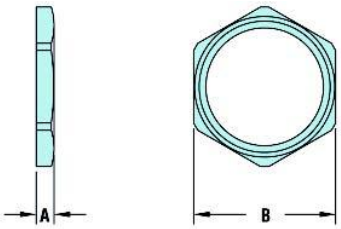
Heyco®Metal Locknuts - Metric

Specifications: RoHS ✓

Materials: Brass Nickel Plate

NEW

Part Number	Thread Type and Size	Description	Part Dimensions		Unit Quantity
			A - Overall Thickness	B - Wrenching Flats	
66122243	M6 x 1	Brass LN M6	2.8	9.0	100
66122244	M8 x 1,25	Brass LN M8	2.8	11.0	100
66122245	M10 x 1,5	Brass LN M10	2.8	13.0	100
66122246	M12 x 1,5	Brass LN M12	3.0	15.0	100
66122247	M16 x 1,5	Brass LN M16	3.0	19.0	100
66122248	M20 x 1,5	Brass LN M20	3.5	24.0	50
66122249	M25 x 1,5	Brass LN M25	3.5	30.0	50
66122253	M32 x 1,5	Brass LN M32	4.5	36.0	25
66122254	M40 x 1,5	Brass LN M40	4.5	46.0	10
66122255	M50 x 1,5	Brass LN M50	5.5	55.0	10





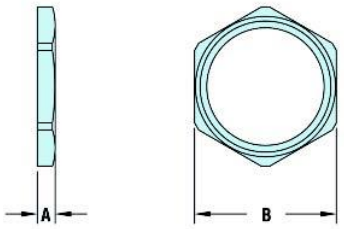
Heyco®Metal Locknuts - Pg

Specifications: RoHS ✓

Materials: Brass Nickel Plate

NEW

Part Number	Thread Type and Size	Description	Part Dimensions		Unit Quantity
			A - Overall Thickness	B - Wrenching Flats	
66122257	PG 7	Brass LN PG 7	2.8	15.0	100
66122258	PG 9	Brass LN PG 9	2.8	18.0	100
66122259	PG 11	Brass LN PG 11	3.0	21.0	100
66122260	PG 13.5	Brass LN PG 13	3.0	23.0	50
66122261	PG 16	Brass LN PG 16	3.0	26.0	50
66122262	PG 21	Brass LN PG 21	3.5	32.0	50
66122263	PG 29	Brass LN PG 29	4.0	41.0	25
66122268	PG 36	Brass LN PG 36	5.0	51.0	10
66122269	PG 42	Brass LN PG 42	5.0	60.0	10





Heyco®Metal Locknuts - NPT

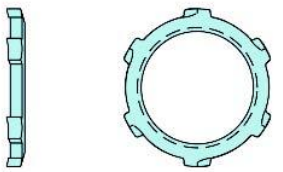
Specifications: RoHS ✓

Materials: Stamped steel or Zinc Die Cast

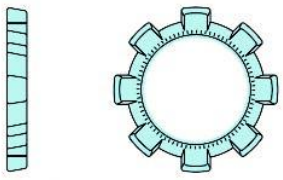
* Wrenching flats are not crenellated

NEW

Stamped Steel	Thread Type and Size	Description	Zinc Die Cast	Thread Type and Size	Description	Unit Quantity
66122238	¼ NPT	LN 1/4*	-	-	-	2,000
66122242	3/8 NPT	LN 3/8*	-	-	-	2,000
66122250	½ NPT	LN ½	**66129800**	½ NPT	LN ½ DC	2,500
66122251	¾ NPT	LN ¾	**66129801**	¾ NPT	LN ¾ DC	1,500
66122252	1 NPT	LN 1	**66129802**	1 NPT	LN 1 DC	1,000
66129806	1-1/4 NPT	LN 1-1/4	**66129803**	1-1/4 NPT	LN 1-1/4 DC	500
66129807	1-1/2 NPT	LN 1-1/2	**66129804**	1-1/2 NPT	LN 1-1/2 DC	500
66129808	2 NPT	LN 2	**66129805**	2 NPT	LN 2 DC	250
66129809	2-1/2 NPT	LN 2-1/2	-	-	-	100
66129810	3 NPT	LN 3	-	-	-	100



Stamped Steel Nut



Zinc Die-cast Nut

OPTIMAS

T: +44 (0) 1202 865222
E: sales@optimascomponents.com

Hose Clamps - HEYCO

HEYCO®

Genuine HEYCO® Parts!

Specifications: RoHS ✓

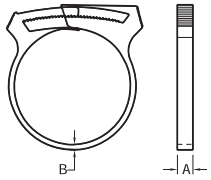
Flammability rating: Nylon 6,6: UL94V-2
Glass Filled Nylon: UL94HB

Material temperature index: 125°C (maximum temperature on part not to exceed 105°C.

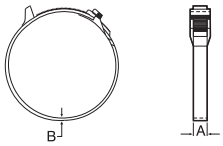
Maximum pressure rating: 125 psi

- Quick & easy installation
- Tightens instantly with hand pliers
- Resistant to corrosion, salt water, weak acids, grease and common solvents
- Outlasts tubing under pressure
- Removable and reusable (except strap type)
- Lightweight





Double Tang



Strap Type

Part Number & Colour		Description	Effective Clamp Range		Dimensions		Unit Quantity	Form & Material
Black	White		Minimum Diameter	Maximum Diameter	A	B		
7002306	7002307	HC 344	8.7	10.3	5.6	1.8	1,000	Double Tang, Nylon 6,6
7002310	7002311	HC 406	10.3	11.9	5.3	1.8	1,000	
7002314	7002315	HC 468	11.9	13.5	5.6	1.8	1,000	
7002318	7002319	HC 531	13.5	15.1	5.6	1.8	1,000	
7002322	7002323	HC 593	15.1	16.7	5.6	1.8	1,000	
7002326	7002327	HC 672	17.0	20.6	5.6	1.8	500	
7002330	7002331	HC 750	19.1	22.2	5.6	1.8	500	
7002334	7002335	HC 875	22.2	25.4	5.6	1.8	500	
7002338	7002339	HC 953	24.2	27.8	7.8	1.8	500	
7002342	7002343	HC 1031	25.5	30.2	7.8	1.8	500	
7002346	7002347	HC 1250	31.7	36.5	9.1	1.8	500	
7002350	7002351	HC 1406	35.7	41.9	9.1	1.8	500	
7002354	7002355	HC 1593	40.5	46.0	9.1	1.8	500	
7002358	7002359	HC 1687	42.9	48.4	9.1	1.8	500	
7002362	7002363	HC 1875	47.6	54.0	10.2	1.8	500	
7002366	7002367	HC 2125	54.0	60.3	10.2	1.8	500	
7002302	-	HC 250	6.3	7.9	3.2	1.0	2,000	Strap Type, Glass Filled Nylon
7002377	-	HC 2.25	57.1	73.0	11.2	2.0	350	
7002380	-	HC 2.75	69.8	92.0	11.2	2.0	100	
7002383	-	HC 3.5	88.9	107.9	11.2	2.0	300	
7002386	-	HC 4.0	101.6	127.0	11.2	2.0	100	

Premium Nylon Hose Clamps



Fitting Tool



Removal Tool

Fitting and Removal tools are available.
Contact our Sales Department for more information.

Specifications: RoHS ✓

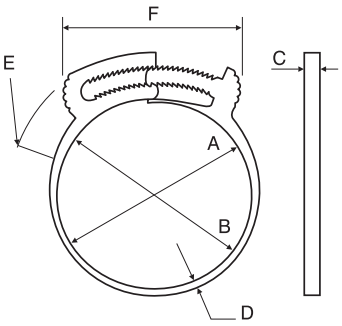
Material: Black: Heat & UV Stabilised Nylon 66
White: Nylon 66

For use with pressures up to 200psi (14 bar)

Operating Temperature: Black: -40°C to 150°C
White: -40°C to 120°C

- Unique interlocking double-toothed jaws
- Ability to fit with hose already in place
- No rust or corrosion - resistant to many chemicals
- Improved safety - no sharp edges
- Minimum leak path (forms a near perfect circle)





When selecting the size of clip, it is important to make allowance for the compression of the hose material and spigot to which it is attached. The diameter range must cater for the final compressed seal size.

Part Number & Colour			A	B	C	D	E	F	Sets of Teeth	Unit Quantity	
Black	White	Clip ID. No.	Min Dia	Max Dia	Band Width	Band Thk	Head Height	Max head Width		Black	White
7004000	7005000	A	5.6	6.5	4.2	1.4	8.3	17.5	8	500	1,000
7004001	7005001	AA	6.5	7.9	4.5	1.6	9.9	20.9	8	500	1,000
7004002	7005002	B	7.9	9.2	4.4	1.6	9.3	20.7	8	500	1,000
7004003	7005003	BB	9.2	10.3	4.5	1.7	10.9	22.2	9	500	1,000
7004004	7005004	C	10.2	11.8	5.8	1.7	12.2	27.9	9	500	1,000
7004005	7005005	CC	11.1	12.9	6.1	1.7	12.3	28.7	9	500	1,000
7004006	7005006	D	12.0	13.8	6.1	1.7	12.9	28.9	9	500	1,000
7004007	7005007	E	13.1	15.1	7.2	2.0	13.6	32.7	11	500	1,000
7004008	7005008	F	15.0	17.1	7.1	2.0	12.9	34.8	11	500	1,000
7004009	7005009	G	16.9	19.1	6.9	2.1	12.5	32.4	11	500	1,000
7004010	7005010	H	18.1	20.6	7.1	2.1	12.7	35.7	11	500	1,000
7004011	7005011	J	20.3	23.0	6.4	2.1	14.2	39.0	11	500	1,000
7004012	7005012	K	22.2	24.9	7.0	2.0	13.0	37.0	11	500	1,000
7004013	7005013	L	24.5	27.6	7.1	2.1	12.5	37.3	11	500	1,000
7004014	7005014	M	26.5	29.5	7.4	2.2	13.4	40.0	11	500	1,000
7004015	7005015	N	28.8	32.2	9.0	2.0	13.4	42.0	11	500	1,000
7004016	7005016	P	32.0	34.8	9.1	1.9	13.8	40.0	11	1,100	2,200
7004017	7005017	Q	34.3	37.9	8.9	2.1	13.5	42.0	12	1,100	2,200
7004018	7005018	R	37.0	40.4	8.9	2.1	13.3	42.2	12	1,000	2,000
7004019	7005019	S	40.1	44.2	9.0	2.2	13.4	42.2	12	1,000	1,700
7004020	7005020	T	43.2	46.2	8.9	2.1	12.8	42.5	12	600	1,800
7004021	7005021	U	45.8	50.4	9.0	2.0	13.9	45.0	12	700	1,400
7004022	7005022	V	48.5	53.8	9.0	2.1	14.4	48.0	12	500	1,300
7004023	7005023	W	53.0	57.0	9.0	2.1	14.7	49.0	12	600	1,200



...more sizes available online at
www.optimascomponents.com



Modular Gland Plate - Preconfigured Kits

- Interchangeable inserts
- Compact design
- IP65, with or without cables
- "Free placement" of openings
- Pop-out" membranes

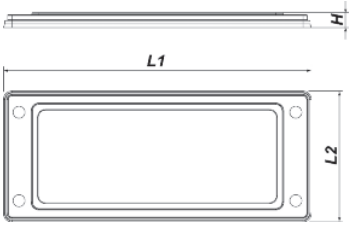
Specifications: RoHS ✓

Materials: Fiberglass re-inforced Polypropylene and TPE
Halogen-Free, UL approved materials
Mode of protection: IP65
Temperature range: -20°C to +125°C
(unstressed material)

Approvals/Test Standards:

EN 60529:1991 + A1
EN 60670-1:2005, EN 50262:1998
EMKO-TUI(03-SEC)FI001/84
Semko report 816003

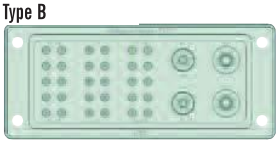
Part Number & Colour		Aperature Size	For Cable/Pipe diameters	Frame Dimensions			Type	Unit Quantity
Grey RAL7035	Black RAL9005			L1	L2	H		
3210101	3210119	FL21	2x 5 to 10 2x 8 to 17 2x 6 to 13 20x 4 to 10	214	90	9	A	1
3210102	3210120	FL21	2x 6 to 13 2x 8 to 17 30x 4 to 10	214	90	9	B	1
3210103	3210121	FL21	18x 7 to 14 10x 4 to 10	214	90	9	C	1
3210105	3210123	FL13	1 x 6 to 13 10x 4 to 10	134	52	6.5	D	1



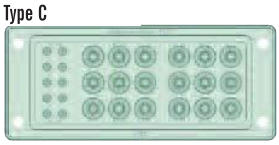
Type A



Type B



Type C



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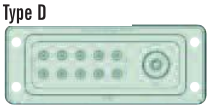
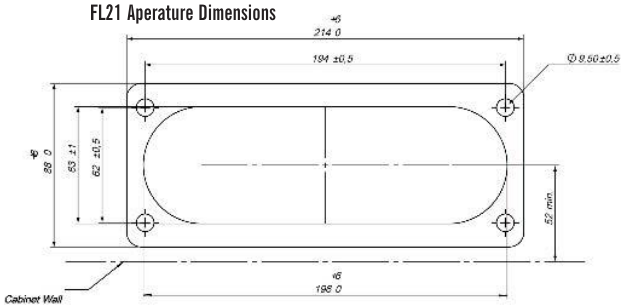
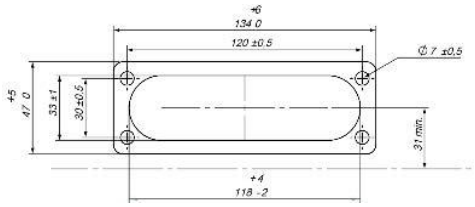


FL21 Aperature Dimensions



FL13 Aperature Dimensions





Modular Gland Plate - Frames & Inserts

- Interchangeable inserts
- Compact design
- IP65, with or without cables
- "Free placement" of openings
- Pop-out" membranes

Specifications: RoHS ✓

Materials: Fiberglass re-inforced Polypropylene and TPE
Halogen-Free, UL approved materials
Mode of protection: IP65
Temperature range: -20°C to +125°C
(unstressed material)

Approvals/Test Standards:

EN 60529:1991 + A1
EN 60670-1:2005, EN 50262:1998
EMKO-TUI(03-SEC)FI001/84
Semko report 816003

Frames

Part Number & Colour		Aperature Size	Frame Dimensions			Unit Quantity
Grey RAL7035	Black RAL9005		L1	L2	H	
3210100	3210118	FL21	214	90	9	1
3210104	3210122	FL13	134	52	6.5	1



Type A



Type B



Type C



Type D



Type E



Type F



Type G



Type H



Type I



Type J



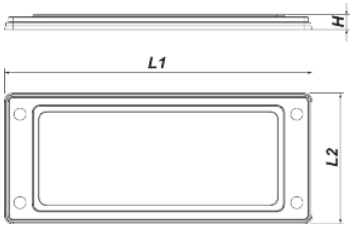
Type K



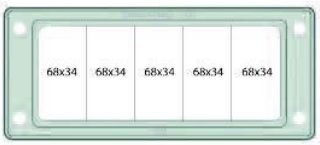
Type L

Inserts

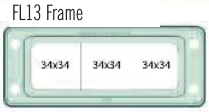
Part Number & Colour		Frame Size	For Cable/Pipe diameters	Insert Size	Type	Unit Quantity
Grey RAL7035	Black RAL9005					
3210106	3210124	FL21	2x 5 to 10 & 2x 8 to 17	68 x 68	A	1
3210107	3210125	FL21	Knockout for M32, M40 & M50 glands	68 x 68	B	1
3210108	3210126	FL21	9x 7 to 14	68 x 68	C	1
3210109	3210127	FL21	2x 20 to 30 & 2x 10 to 20	68 x 68	D	1
3210110	3210128	FL21	1x 30 to 50	68 x 68	E	1
3210111	3210129	FL21	2x 8 to 17	68 x 34	F	1
3210112	3210130	FL21	2x M20	68 x 34	G	1
3210113	3210131	FL21	10x 4 to 10	68 x 34	H	1
3210114	3210132	FL13	2x 8 to 17	34 x 68	I	1
3210115	3210133	FL13	2x M20	34 x 68	J	1
3210116	3210134	FL13	10x 4 to 10	34 x 68	K	1
3210117	3210135	FL13	1x M20	34 x 34	L	1



FL21 Frame



FL13 Frame



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CHAPTER 4

STRAIN RELIEF BUSHINGS



CABLE MANAGEMENT & HOLE BLANKING

HEYCO®

STRAIN RELIEF BUSHINGS

A range of components to anchor your cable into the product chasis.

CHAPTER 4



CABLE PROTECTION

Protection and insulation of cables from raw edged panel holes.

CHAPTER 8



CABLE GLANDS AND LIQUID TIGHT FITTINGS

Ingress protection solutions at point of cable entry.

CHAPTER 3



CONDUIT AND FITTINGS

Flexible conduits and fittings for mechanical and ingress protection of cables and harnesses.

CHAPTER 7



CAPS AND PLUGS

A solution for all of your hole blanking needs.

CHAPTER 10



CABLE MANAGEMENT AND HOLE BLANKING SOLUTIONS

Heyco is the brand synonymous with nylon cable strain relief bushings, cable protection, cable glands, conduit and fittings, caps and plugs.

We carry in stock a huge range of Heyco products and have access to their entire portfolio.

HEYCO PRODUCTS CAN BE FOUND THROUGHOUT THIS CATALOGUE AND AT:

optimascomponents.com

OPTIMAS



RDD Lockit™
Strain Relief Bushings
P4-2, 3



RDD Lockit™ Flex Protecting
Strain Relief Bushings
P4-4



RDD Lockit™ Right Angle
Strain Relief Bushings
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RDD Lockit™ Hand Tooling
P4-5



Lockit™ Strain Relief
Bushing for Flat Cables
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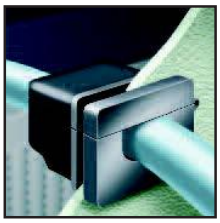

Lockit™ for U Shape
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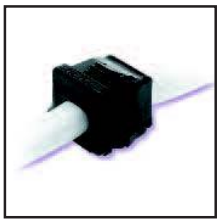
P4-6



Lockit™ Strain Relief
Bushings for Round Cables
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Lockit™ Strain Relief
Pre-Assembley Equipment
P4-7



Lay-In Split Panel
Strain Relief Bushings
P4-8



Snap-In Ratcheting Strain
Relief Bushing
P4-8



AB1 Adjustable
Strain Relief Bushing
P4-8



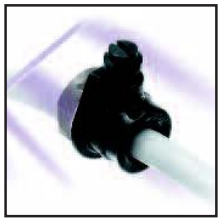
PA-107 Strain Relief Bushing
P4-8



Strain Relief Bushings for
International Requirements
P4-9



Extended Strain Relief
Bushings for International
Requirements
P4-9



USR Series
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Bushings
P4-9



Straight-Thru Strain
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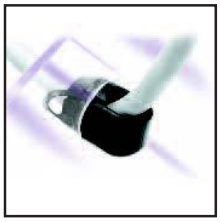
P4-10, 11



Right Angle Strain Relief
Bushings for Round Cables
P4-11



Straight-Thru Strain
Relief Bushings for Flat Cables
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Right Angle Strain Relief
Bushings for Round Cables
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Bell-Mouth
Strain Relief Bushings
P4-13



Flex-Protecting
Strain Relief Bushings
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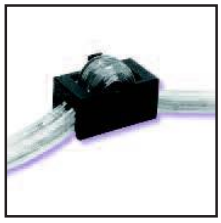


In-Line Strain Relief Bushing
(Heyco® UL Knot)
P4-14



Strain Relief Bushings
Assembly Tools
P4-14



RDD Lockit™ Strain Relief Bushings For Round Cables

Genuine HEYCO® Parts!

- Fits standard round and double "D" strain relief holes
- Can be pre-assembled onto cable
- Greatly reduces the risk of Repetitive Strain Injury
- Far exceeds UL's 35lb (15.7kg) pullout test

Specifications: RoHS ✓

Material: Nylon 66
Flammability: UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E15331

Certified by the Canadian Standards Association File No. LR-8919

PART NUMBER		Description	†† Will fit these cables		Approximate Cable Dimensions	Chassis Dimensions			Type	Unit Quantity
Black	White		UL Type	AWG/ Conductors		Hole Diameter	To Prevent Rotation	Panel Thickness		
3101870	3101871	RDD 101-A	AWM, SJTO & SJ	18/2	3.3 to 5.3	15.9	14.0	0.8, 1.1, 1.2, 1.6, 2.5	Fig 1	500
3101852	3101853	RDD 101	SV & SVT	18/3	5.6 to 7.4	15.9	14.0	0.8, 1.1, 1.2, 1.6, 2.5	Fig 1	500
3101855	3101856	RDD 201-2	SJTO & SEOW	18/2	7.4 to 9.8	22.2	19.6	2.0, 3.5	Fig 2	500
3101857	3101858	RDD 201	SJTO & SEOW	18/3	7.4 to 9.8	22.2	19.6	0.8, 1.6, 2.5, 3.2, 4.0	Fig 2	500
3101859	3101860	RDD 301-2	SJ & SJO	18/2	8.6 to 10.9	22.2	19.6	2.0, 3.5	Fig 2	500
3101861	3101862	RDD 301	SJ & SJO	18/2 - 14/2	8.6 to 10.9	22.2	19.6	0.8, 1.6, 2.5, 3.2, 4.0	Fig 2	500
3101865	3101866	RDD 401	SJT	12/3	10.8 to 12.1	22.2	19.6	0.8, 1.6, 2.5, 3.2, 4.0	Fig 2	500
3101868	3101869	RDD 501	S & SJT	12/3 - 14/3	13.5 to 15.3	28.20	25.40	1.6, 2.5, 3.2, 4.0, 4.8	Fig 3	500

†† When using cable types different to those stated, we recommend that samples be evaluated prior to placing an order



Cable Section

Fig 1

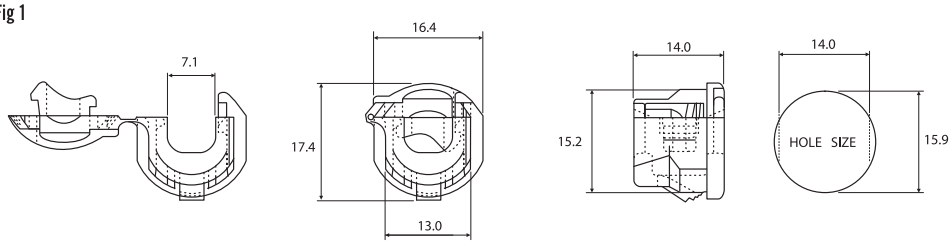


Fig 2

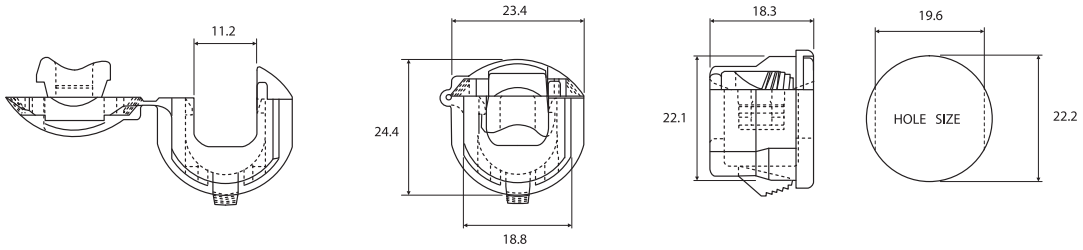
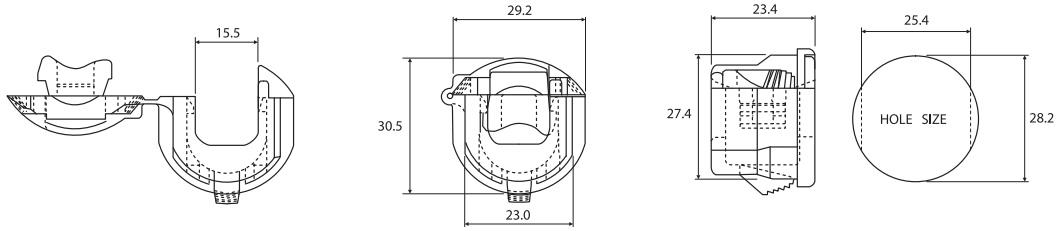


Fig 3



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RDD Lockit™ Strain Relief Bushings For Flat Cables



Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E15331

Certified by the Canadian Standards Association File No. LR-8919

Specifications: RoHS ✓

Material: Nylon 66
Flammability: UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

- Fits standard round and double "D" strain relief holes
- Can be pre-assembled onto cable
- Greatly reduces the risk of Repetitive Strain Injury
- Far exceeds UL's 35lb (15.7kg) pullout test

PART NUMBER		Description	†† Will fit these cables		Approximate Cable Dimensions	Chassis Dimensions			Type	Unit Quantity
Black	White		UL Type	AWG/ Conductors		Hole Diameter	To Prevent Rotation	Panel Thickness		
3101872	3101873	RDD 100A	SPT-1	18/2	2.5 x 7.8	15.9	14.0	0.8, 1.1, 1.2, 1.6, 2.5	Fig 4	1,000
				18/3	3.0 x 7.8					
3101874	3101875	RDD 100	SPT-2	18/2	3.0 x 7.8	15.9	14.0	0.8, 1.1, 1.2, 1.6, 2.5	Fig 4	1,000
			HPN	16/2	4.1 x 7.8					
3101878	3101879	RDD 200	HPN	16/3	4.1 x 9.4	22.2	19.6	0.8, 1.6, 2.5, 3.2, 4.0	Fig 5	500
			SPT-2	18/3	3.8 x 10.2					
				16/3	4.1 x 10.4					
			SPT-3	18/2	4.8 x 8.9					
				18/3	4.8 x 9.9					
				16/2	5.1 x 9.4					
				16/3	5.1 x 10.9					
				14/2	6.1 x 10.7					
3101876	3101877	RDD 200-2	HPN	16/3	4.1 x 9.4	22.2	19.6	2.0, 3.5	Fig 5	500
			SPT-2	18/3	3.8 x 10.2					
				16/3	4.1 x 10.4					
			SPT-3	18/2	4.8 x 8.9					
				18/3	4.8 x 9.9					
				16/2	5.1 x 9.4					
				16/3	5.1 x 10.9					
				14/2	6.1 x 10.7					

†† When using cable types different to those stated, we recommend that samples be evaluated prior to placing an order

Cable Section

Fig 4

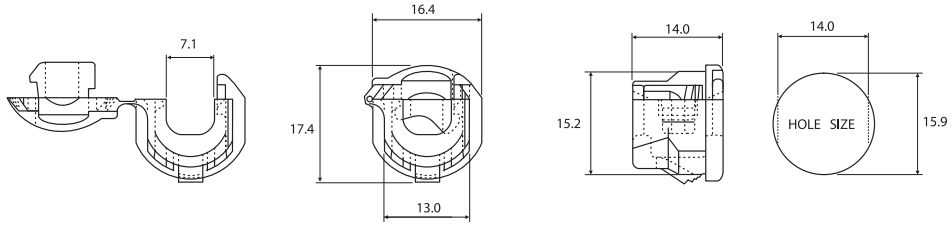
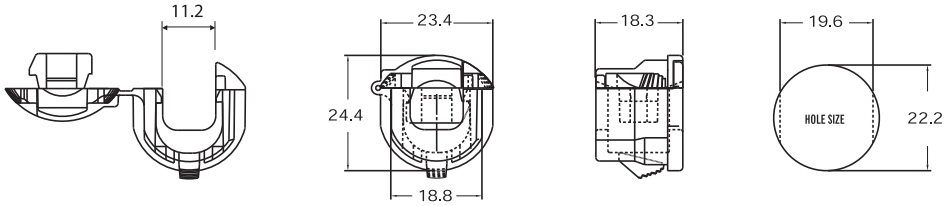


Fig 5



See Page 4-5 for assembly tools



RDD Lockit™ Flex Protecting Strain Relief Bushings

Genuine HEYCO® Parts! HEYCO®

- Fits standard round and double "D" strain relief holes
- Prevents cable from bending sharply
- Can be pre-assembled onto cable
- Designed to pass CSA's 50,000 cycle "vacuum cleaner" test and UL's 859 spec for Household Electric Personal Grooming Appliances

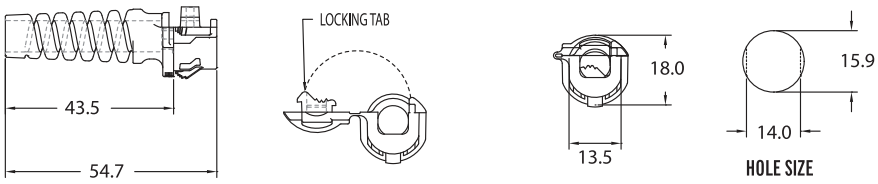
Specifications: RoHS ✓
Material: Nylon 66
Flammability: UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E15331
Certified by the Canadian Standards Association File No. LR-8919

PART NUMBER		Description	†† Will fit these cables		Approximate Cable Dimensions	Chassis Dimensions			Cable Section	Unit Quantity
Black	White		UL Type	AWG/ Conductors		Hole Diameter	To Prevent Rotation	Panel Thickness		
3101769	3101770	RDD 100A-7	SPT-1	18/2	2.7 x 5.6	15.9	14.0	0.8, 1.1, 1.2, 1.6, 2.5	Flat	500
			SPT-1	18/3	2.9 x 8.0					
3101771	3101772	RDD 100-7	SPT-2	18/2	2.9 x 8.0	15.9	14.0	0.8, 1.1, 1.2, 1.6, 2.5	Flat	500
			HPN	16/2	4.1 x 7.6					
3101773	3101774	RDD 101-7	SPT & SVT	18/2	5.6 to 7.4	15.9	14.0	0.8, 1.1, 1.2, 1.6, 2.5	Round	500

†† When using cable types different to those stated, we recommend that samples be evaluated prior to placing an order

& Cable Section





RDD Lockit™ Right Angle Strain Relief Bushings For Round Cables

Genuine HEYCO® Parts! HEYCO®

- Right Angle design eases the cable into the bend, thus preventing kinking
- Fits standard round and double "D" strain relief holes
- Can be pre-assembled onto cable
- Far exceeds UL's 35lb (15.7kg) pullout test

Specifications: RoHS ✓
Material: Nylon 66
Flammability: UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E15331
Certified by the Canadian Standards Association File No. LR-8919

PART NUMBER		Description	†† Will fit these cables		Approximate Cable Dimensions	Chassis Dimensions			Type	Unit Quantity
Black	White		UL Type	AWG/ Conductors		Hole Diameter	To Prevent Rotation	Panel Thickness		
3101816	3101817	RDD 101A-90	AWM, SJTO & SJ	18/2	3.3 to 5.3	15.9	14.0	0.8, 1.1, 1.2, 1.6, 2.5	Fig 1	500
3101818	3101819	RDD 101-90	SV & SVT	18/3	5.6 to 7.4	15.9	14.0	0.8, 1.1, 1.2, 1.6, 2.5	Fig 1	500
3101820	3101821	RDD 201-90	SJTO & SEO	18/2 & 18/3	7.4 to 9.8	22.2	19.6	0.8, 1.6, 2.5, 3.2, 4.0	Fig 2	500
3101824	3101825	RDD 301-90	SJ & SJO	18/2 & 14/2	8.6 to 10.9	22.2	19.6	0.8, 1.6, 2.5, 3.2, 4.0	Fig 3	500

†† When using cable types different to those stated, we recommend that samples be evaluated prior to placing an order

Cable Section

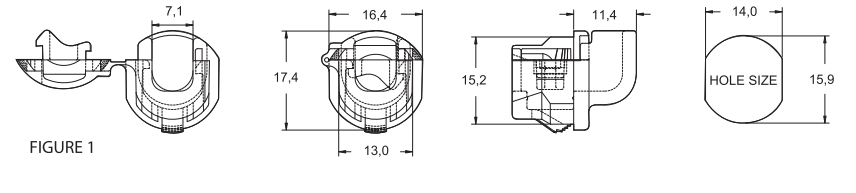


FIGURE 1

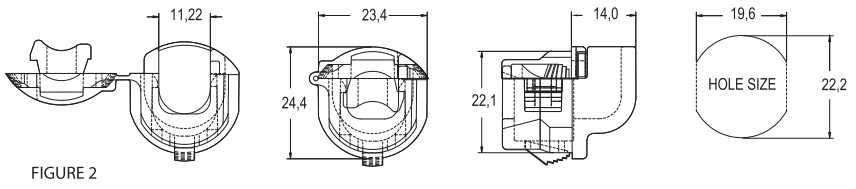


FIGURE 2

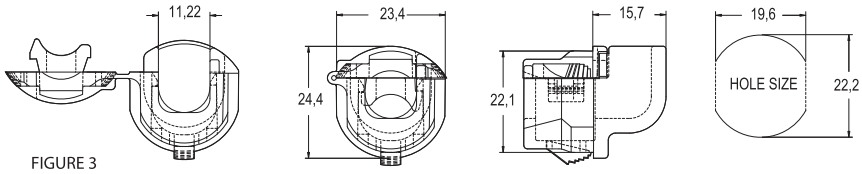


FIGURE 3

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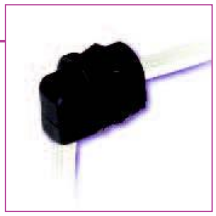
RDD Lockit™ Right Angle Strain Relief Bushings For Flat Cables



Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E15331

Certified by the Canadian Standards Association File No. LR-8919

Specifications: RoHS ✓

Material: Nylon 66
Flammability: UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

- Right Angle design eases the cable into the bend thus preventing kinking
- Fits standard round and double "D" strain relief holes
- Can be pre-assembled onto cable
- Far exceeds UL's 35lb (15.7kg) pullout test

PART NUMBER		Description	†† Will fit these cables		Approximate Cable Dimensions	Chassis Dimensions			Type	Unit Quantity
Black	White		UL Type	AWG/ Conductors		Hole Diameter	To Prevent Rotation	Panel Thickness		
3101806	3101807	RDD 100A-90	SPT-1	18/2	2.5 x 5.6	15.9	14.0	0.8, 1.1, 1.2, 1.6, 2.5	Fig 1	500
				18/3	2.9 x 8.0					
3101808	3101809	RDD 100-90	SPT-1 & SPT-2	18/2 & 18/3	2.9 x 8.0	15.9	14.0	0.8, 1.1, 1.2, 1.6, 2.5	Fig 1	500
			HPN	16/3	4.1 x 7.6					
3101810	3101811	RDD 200-90	HPN	16/3	4.1 x 7.6	22.2	19.6	0.8, 1.6, 2.5, 3.2, 4.0	Fig 2	500
			SPT-2	18/3	6.1 x 10.7					
			SPT-3	14/2	6.1 x 10.7					

†† When using cable types different to those stated, we recommend that samples be evaluated prior to placing an order

Cable Section

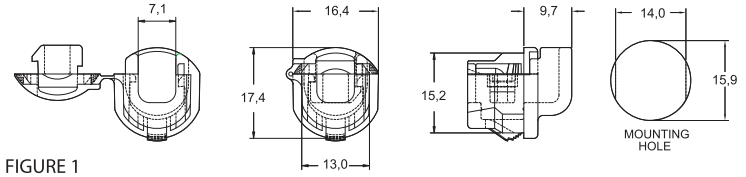


FIGURE 1

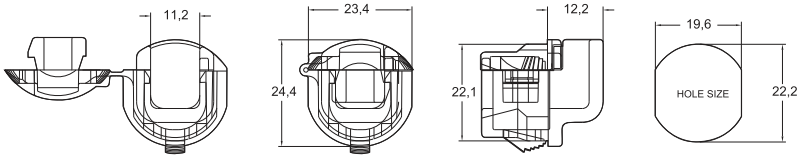


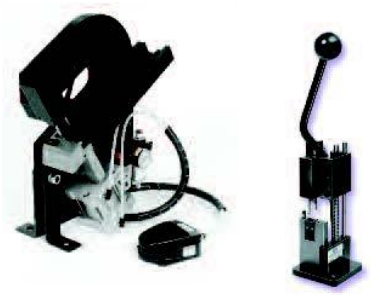
FIGURE 2

RDD Lockit™ Hand Tooling



- Designed to assist in the application of RDD Strain Relief Bushings
- Greatly reduces the risk of Repetitive Strain Injury
- Semi-Automated systems also available

For information on other types of application tooling (including tooling to suit the RDD501 bushing), please contact our Technical Department on +44 (0)1202 865222

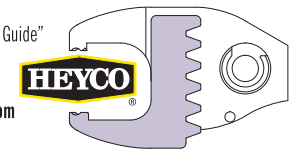


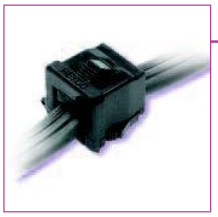


PART NUMBER	Description	Use with RDD Lockit part numbers	Unit Quantity
8000026	RDD 100 Series Hand Plier	3101769, 3101770, 3101771, 3101772, 3101773, 3101774, 3101806, 3101807, 3101808, 3101809, 3101816, 3101817, 3101818, 3101819, 3101852, 3101853, 3101870, 3101871, 3101872, 3101873, 3101874, 3101875	1
8000032	RDD 200, 300 & 400 Series Hand Plier	3101810, 3101811, 3101820, 3101821, 3101824, 3101825, 3101855, 3101856, 3101857, 3101858, 3101859, 3101860, 3101861, 3101862, 3101865, 3101866, 3101876, 3101877, 3101878, 3101879	1

NEW HEYCO "Strain Relief Assembly Guide"

To download your copy go to
www.optimascomponents.com





Lockit™ Pre-Assembly Strain Relief Bushings For Flat Cables

Genuine HEYCO® Parts!

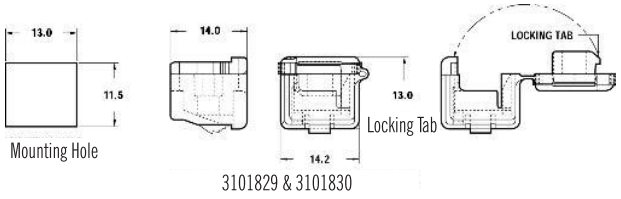
- Anchors and protects cable at chassis entry
- Can be pre-assembled onto cable
- Greatly reduces the risk of Repetitive Strain Injury
- Passes UL pull-out test without chassis support

Specifications: RoHS ✓
Material: Nylon 66
Flammability: UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E15331
Certified by the Canadian Standards Association File No. LR-8919

PART NUMBER		Description	†† Will fit these cables		Approximate Cable Dimensions	Chassis Dimensions		Unit Quantity		Cable Section
Black	White		UL Type Designation	AWG/ Conductors		Mounting Hole Size	Thickness	Black	White	
3101829	3101830	ST-100 N	SPT-1	18/2	3.0 x 5.6	11.5 x 13.0	0.8, 1.0, 1.2, 1.6, 2.5	1,000	5,000	●●●
				18/3	3.0 x 7.6					
			SPT-2 & HPN	18/2	3.8 x 7.1					
				16/2	4.1 x 7.6					
3101834	3101835	ST-200 N	HPN	16/3	4.1 x 9.4	17.5 x 17.5	0.8, 1.6, 2.5, 3.2, 4.0	1,000	1,000	
			SPT-2	18/3	3.8 x 10.2					
				16/3	4.1 x 10.4					
			SPT-3	18/2	4.8 x 8.9					
				18/3	4.8 x 9.9					
				16/2	5.1 x 9.4					
				16/3	5.1 x 10.9					
				14/2	6.1 x 10.7					
3101847	-	ST-100L	SPT-3	16/3	0.8 x 2.5	11.5 x 16.0	0.8, 1.0, 1.2, 1.6, 2.5	1,500	-	
			HPN	18/3	2.69 x 9.65					
			SPT-2	18/2	3.34 x 6.86					

†† When using cable types different to those stated, we recommend that samples be evaluated prior to placing an order



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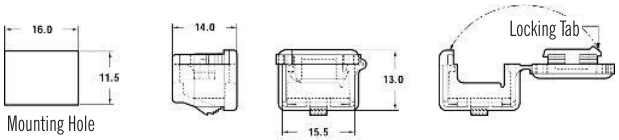
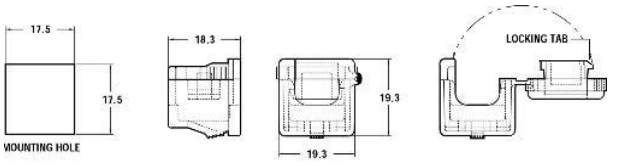
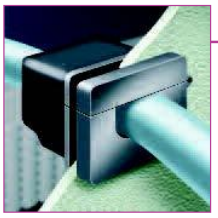


3101847



3101834 & 3101835



Lockit™ For U-Shape Chassis Slot

Genuine HEYCO® Parts!

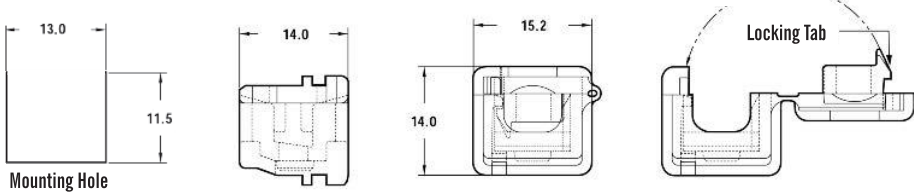
- Designed to be installed in a U-shaped chassis slot
- Protects cable against push, pull and twisting forces
- Lockit Strain Relief Bush self-locks onto cable
- Can be preassembled offline for final assembly at a later time

Specifications: RoHS ✓
Material: Nylon 66
Flammability: UL94V-2
Colour: Black
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E15331
Certified by the Canadian Standards Association File No. LR-8919

PART NUMBER	Description	†† Will fit these cables		Approximate Cable Diameter	Mounting Slot Dimensions	Mounting Chassis Thickness	Unit Quantity	Cable Section
		UL Type Designation	AWG/ Conductors					
3101839	ST-101A	SV & SVT	18/2	5.6 to 6.2	11.5 x 13.0	1.6	500	●●●
			18/3	6.4 to 6.5				
		HPD	18/2	6.9				
			16/2	7.4				

†† When using cable types different to those stated, we recommend that samples be evaluated prior to placing an order



OPTIMAS
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Lockit™ Pre-Assembly Strain Relief Bushings For Round Cables

Approvals:

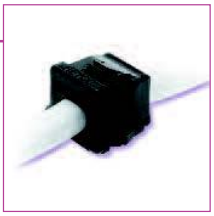
Recognized under the Component Program of Underwriters' Laboratories File No. E15331

Certified by the Canadian Standards Association File No. LR-8919

Specifications: RoHS ✓

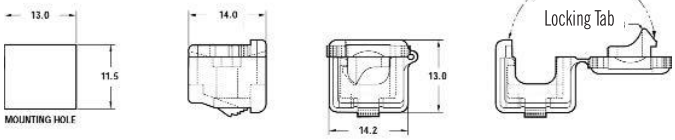
Material: Nylon 66
Flammability: UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

- Anchors and protects cable at chassis entry
- Can be pre-assembled onto cable
- Locks onto cable
- Passes UL pull-out test without chassis support



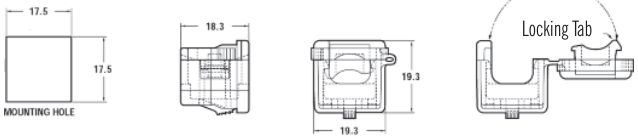
PART NUMBER		Description	†† Will fit these cables		Approximate Cable Dimensions	Chassis Dimensions		Unit Quantity		Cable Section
Black	White		UL Type Designation	AWG/ Conductors		Mounting Hole Size	Thickness	Black	White	
3101832	3101833	ST-101 N	SV & SVT	18/2	5.6 to 6.2	11.5 x 13.0	0.8, 1.0, 1.2, 1.6, 2.5	1,000	5,000	
				18/3	6.4					
				18/3	6.5					
			HPD	18/2	6.9					
				16/2	7.4					
3101836	3101837	ST-201 N	HPD	16/2	7.4	17.5 x 17.5	0.8, 1.6, 2.5, 3.2, 4.0	1,000	3,000	
			SJ, SJO & SJT	18/2	7.6					
				16/2	8.0					
				18/3	8.1					
				16/2	8.2					
				18/3	8.4					
				14/2	8.9					
				16/3	9.0					
				18/4	9.1					
3101848	-	ST-301 N	SJT	14/2	9.0	17.5 x 17.5	0.8, 1.6, 2.5, 3.2, 4.0	1,000	-	
			STO	16/3	9.9					
			SEOW-A	16/4	10.6					

Mounting Hole



3101832 & 3101833

Mounting Hole



3101836, 3101837 & 3101848

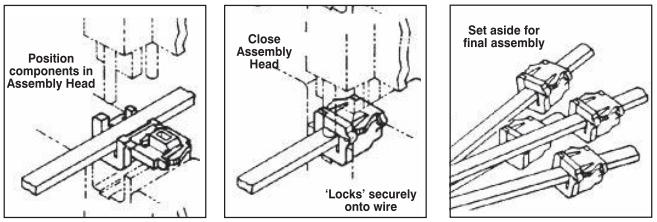
Lockit™ Strain Relief Pre-Assembly Equipment

- Designed to assist in the application of Lockit Strain Relief Bushings
- Greatly reduces the risk of Repetitive Strain Injury
- Semi-Automated systems also available



8000020, 8000023 & 8000025 Hand Pliers

PART NUMBER	Description	Use with Lockit part numbers
8000065	Headlock™ 100	3101829, 3101830, 3101832, 3101833
8000042	Headlock™ 200	3101834, 3101835, 3101836, 3101837, 3101848
8000020	Hand Plier R100	3101829, 3101830, 3101832, 3101833
8000023	Hand Plier R100A/AT	3101839
8000025	Hand Plier R100L/W	3101847



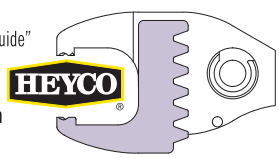
Easy to assemble! Simply place bushing into the "U" opening of the Lockit Assembly Head, then place the cable into the bushing body and close the head to snap Lockit permanently onto the wire. This completed sub assembly can then be installed with fingertip pressure into the chassis mounting hole at a later time. Lockit bushings may also be assembled using specially designed hand pliers.



8000065 & 8000042 Headlock™

NEW HEYCO "Strain Relief Assembly Guide"

To download your copy goto www.optimascomponents.com



Lay-In Split Panel Strain Relief Bushings

Genuine HEYCO® Parts!

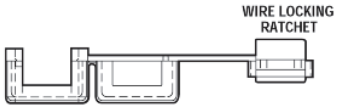


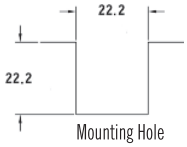
- Designed to be installed in a "U" shaped chassis slot
- Protects cable against push, pull and twisting forces
- Unique wire locking ratchet allows for generous wire range
- Can be used for single or bundles of cables

Specifications: RoHS ✓
Material: Nylon 66
Flammability: UL94V-2
Colour: Black
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

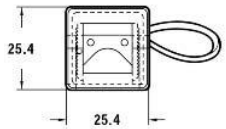
Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E15331
Certified by the Canadian Standards Association File No. LR-8919

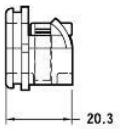
PART NUMBER	Description	Approximate Cable Dimensions	Mounting Slot Size	Mounting Chassis Thickness	Unit Quantity	Cable Section
3101266	SR 8R-200	6.4 to 15.2	22.2 x 22.2	2.5	500	

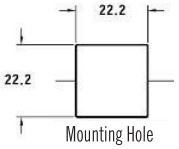




Mounting Hole "U" Chassis







Mounting Hole Split Chassis

Snap-In Ratcheting Strain Relief Bushing

Genuine HEYCO® Parts!

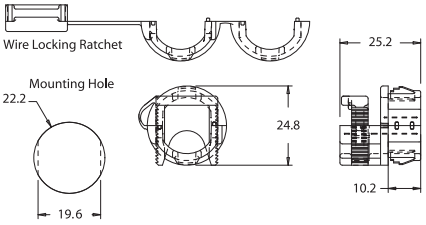


- Anchors and protects cable at chassis entry
- Can be pre-assembled onto cable prior to installation
- Locks onto cable
- Installs easily with fingertip pressure into a standard round or Double "D" hole

Specifications: RoHS ✓
Material: Nylon 66
Flammability: UL94V-2
Colour: Black
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E15331
Certified by the Canadian Standards Association File No. LR-8919

PART NUMBER	Description	Approximate Cable Dimensions	Chassis			Body Length	Unit Quantity	Cable Section
			A Mounting Hole Diameter	B To Prevent Rotation	Max Chassis Thickness			
3101280	RSR-875	2.9 to 14.6	22.2	19.6	3.2	25.4	1,500	



AB1 Adjustable Strain Relief Bushing

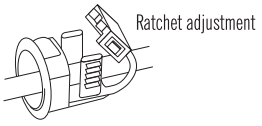


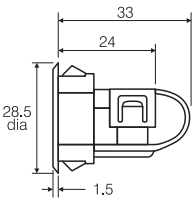
- Anchors and protects cable at chassis entry
- Snap locks into chassis with fingertip pressure
- No screws or special assembly tool required
- Remains in position during cable change
- Easy cable release

Specifications: RoHS ✓
Material: Nylon 66
Flammability: UL94V-2
Colour: Black
Material temperature index: 125°C
Maximum temperature on part not to exceed 85°C

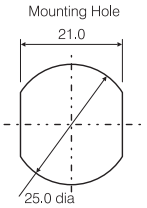
Approvals:
Designed and tested to BS EN60335-1 (BS 3456 Pt 1) applications

PART NUMBER		Description	Will Fit Cable Dimensions Between	Maximum Chassis Thickness	Unit Quantity	Cable Section
Black	White					
3137000	3137001	AB1	3.5 to 10.5	3.2	200	



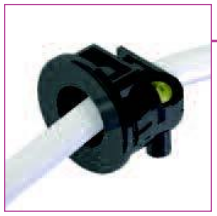


Bushing



Antirotation

PA 107 Strain Relief Bushing

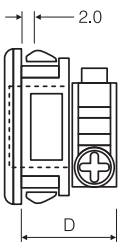


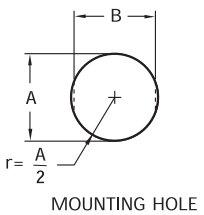
- Anchors and protects cable at chassis entry
- Snap locks into chassis with fingertip pressure
- Easy cable release

Specifications: RoHS ✓
Material: Nylon 6
Flammability: UL94V-2
Colour: Black
Recommended torque for clamping screw: 0.8 Nm.
Screw sold separately - see part number 9990277

Approvals:
CSA approved

PART NUMBER	Description	Approximate Cable Dimensions	Chassis			D Length Inside Chassis	Unit Quantity	Cable Section
			A Mounting Hole Diameter	B To Prevent Rotation	Max Chassis Thickness			
3151566	PA107 Bushing	7.8 to 10.0	26.0	23.0	2.0	17.8	100	
9990277	Clamping Screws 3.5 x 16	-	-	-	-	-	100	-





MOUNTING HOLE

OPTIMAS
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E: sales@optimascomponents.com

Strain Relief Bushings For International Requirements

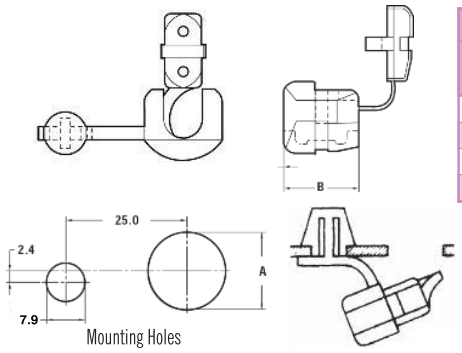
Approvals:

† These parts only are UL & CSA approved

Specifications: RoHS ✓
Material: Nylon 66
Flammability: UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C
Tolerance: B: ± 0.41

- Same protection as straight-thru type
- Remains attached to chassis during cable removal or replacement
- Integral flexible button locks and anchors bushing to chassis

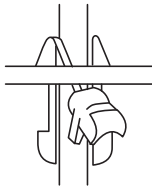


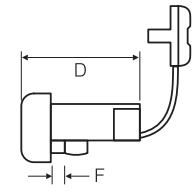


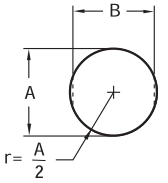
PART NUMBER		Description	Approximate Cable Diameter	Chassis Hole	B Overall Length	Max Chassis Thickness	Unity Quantity		Cable Section
Black	White			A‡ Hole Dia			Black	White	
3056050	3056051	CEE SR6P50	5.8 to 7.0	15.9	17.1	3.2	1,000	1,000	
†3053772	†3053773	CEE SR6P10	7.6	15.9	17.1	3.2	200	200	
3056010	3056011	CEE SR6P1T*	8.0	16.2	17.1	3.2	1,000	1,000	
†3053776	†3053777	CEE SR6P30	8.3 to 9.1	15.9	15.9	3.2	200	200	

‡ Chassis hole selection should be based on sample evaluation as cable construction will influence optimum hole size
* This component differs from the CEE SR6P10 by the addition of two small internal ribs to give additional grip with braid covered cables

Extended Strain Relief Bushings For International Requirements


Bushing remains secured to chassis





Mounting Hole

Specifications: RoHS ✓
Material: Nylon 66
Flammability: UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 85°C
Tolerance: D & F: ± 0.41

- Same protection as straight-thru type
- Bushing remains attached to chassis during cable removal or replacement
- Single mounting hole required



PART NUMBER		Description	Approximate Cable Diameter	Chassis Holes		D Overall Length	F Max Chassis Thickness	Unit Quantity	Cable Section
Black	White			A‡ Hole Dia	B To Prevent Rotation				
3055010	3055011	CEE SR5P1J	6.3 to 7.2	12.7	11.8	22.2	2.5	1,000	
3056151	3056152	CEE SR6P5J	6.3	15.9	14.5	28.6	3.2	1,000	
3056111	3056112	CEE SR6P1J	7.6	15.9	14.5	28.6	3.2	1,000	
3054010	3054011	CEE SR4P1J	5.6 x 3.0	12.7	11.8	22.2	2.5	1,000	

‡ Chassis hole selection should be based on sample evaluation, as cable construction will influence optimum hole size

HEYCO® *Genuine HEYCO® Parts!*

USR Series Strain Relief Bushings

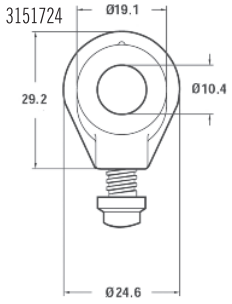
Approvals:

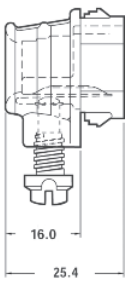
CSA UL VDE DENKO SEV NEMKO SETI

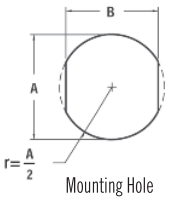
Specifications: RoHS ✓
Material: Nylon 66
Flammability: UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C
Tolerance: B: ± 0.41

- Strain relief remains attached to the chassis during cable removal or replacement
- Reinforcing ribs provide extra strength
- Anchors and protects cable at chassis entry
- Snap locks into chassis with fingertip pressure
- Captive screw cannot be removed from body during cable removal or replacement.

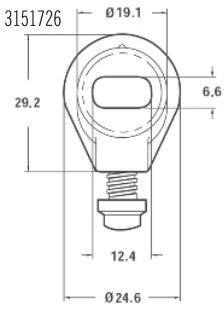








Mounting Hole



PART NUMBER	Description	Will Fit These Cables		A Mounting Hole Dia.	B To Prevent Rotation	Maximum Chassis Thickness	Unit Quantity	Cable Section
		Gauge Conductors	Size Range					
3151724	USR-400	Various	Up to 10.2	22.2	19.6	3.2	100	
3151730*	USR-40	Various	Up to 10.2	22.2	19.6	3.2	1,500	
3151726	USR-401	Various	6.4 x 10.2	22.2	19.6	3.2	500	

*Part 3151730 constructed with steel captive screw



Straight-Thru Strain Relief Bushings For Round Cables

Genuine HEYCO® Parts!

- Anchors and protects cable at chassis entry
- Absorbs push, pull and twist
- Cost-effective single assembly

Cable Section

Specifications: RoHS ✓

Material: Nylon 66
Flammability: UL94V-2
Colour: Black
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

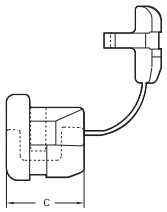
Approvals:

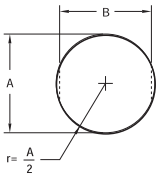
Recognized under the Component Program of Underwriters' Laboratories File No. E15331

Certified by the Canadian Standards Association File No. LR-8919

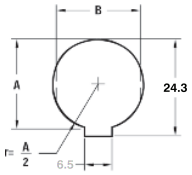
PART NUMBER		Description	†† Will fit these cables		Approx. Cable Dimensions	Chassis Dimensions			C	Unit Quantity	
Black	White		UL Type desig.	AWG/ Conductors		A ‡ Hole Dia.	B (Flats)	Max Panel Thk		Black	White
3001060	3001061	SR-2M-1	AWM	-	3.0 to 4.8	9.5	8.4	1.6	10.3	1,000	1,000
3001157	3001158	SR-5MN-3	SV & SVT	18/2	5.6 to 6.2	12.7	11.4	1.6	11.1	1,000	1,000
3001140	3001141	SR-5M-3	SV & SVT	18/2	5.6 to 6.2	12.7	11.4	2.5	11.1	500	Please Call
3001150	3001151	SR-5N-4	SV & SVT	18/2	6.4	12.7	11.4	1.6	11.1	500	500
				18/3	6.5	12.7 - 13.1					
			HPD	18/2	6.9	12.7					
				16/2	7.4	12.7 - 13.1					
3001147	3001148	SR-5P-4	SV & SVT	18/2	6.4	12.7	11.4	2.5	11.1	500	1,000
				18/3	6.5	12.7 - 13.1					
			HPD	18/2	6.9	12.7					
				16/2	7.4	12.7 - 13.1					
3001154	3001155	SR-5L-1	SV & SVT	18/2	6.4	12.7	11.4	4.0	11.1	500	500
				18/3	6.5	12.7 - 13.1					
			HPD	18/2	6.9	12.7					
				16/2	7.4	12.7 - 13.1					
3001137	3001138	SR-5P3-4	SV & SVT	18/3	6.5	12.7	11.4	2.5	11.1	500	8,500
			HPD	16/2	7.4						
3001184	3001185	SR-6W-1	SJ,SJT,SJO	18/2	7.6	12.7	11.8	2.3	11.1	500	500
3001217	3001218	SR-6N-4	SJ,SJT,SJO	18/2	7.6	15.9	14.0	1.6	14.7	500	500
3001210	3001211	SR-6P-4	SJ,SJT,SJO	18/2	7.6	15.9	14.0	3.2	14.7	500	500
3001200	3001201	SR-6N3-4	SJ,SJT,SJO	16/2	8.3	15.9	14.0	1.6	14.7	500	500
				18/3	8.4						
				14/2	8.9						
				16/3	9.0						
				18/4	9.1						
3001207	3001208	SR-6P3-4	SJ,SJT,SJO	16/2	8.3	15.9	14.0	3.2	14.7	500	500
				18/3	8.4						
				14/2	8.9						
				16/3	9.0						
				18/4	9.1						
3001214	3001215	SR-6L-1	SJ,SJT,SJO	18/2	7.6	15.9	14.0	4.0	17.2	500	5,000
				16/2	8.2	16.7					
				18/3	8.4	16.7					
				16/3	9.0	17.4					
3001240	3001241	SR-7K-2	SJ,SJT, SJO	16/2	8.3	22.2	19.6	3.2	19.1	500	2,500
				18/3	8.4						
				14/2	8.9						
				16/3	9.0						
				18/4	9.1						
3001271	3001272	SR-7KR-2	SJ,SJT, SJO	16/2	8.3	22.2 See drawing	19.6 See drawing	3.2	19.1	500	5,000
				18/3	8.4						
				14/2	8.9						
				16/3	9.0						
				18/4	9.1						
3001244	3001245	SR-7N-2	SJT	18/4	9.1	19.0	16.8	1.6	19.1	200	1,000
				14/3	9.4						
			S & ST	18/2	9.9						
				18/3	10.3						
				16/2	10.3						
				16/3	10.9	19.0 - 19.8					
3001237	3001238	SR-7P-2	SJT	18/4	9.1	19.0	16.8	3.2	19.1	200	500
				14/3	9.4						
			S & ST	18/2	9.9						
				18/3	10.3						
				16/2	10.3						
				16/3	10.9	19.0 - 19.8					
3001247	3001248	SR-7W-2	SJT	14/3	9.4	22.2	19.6	3.2	19.1	500	500
				12/3	10.8						
			S & ST	18/2	9.9						
				18/3	10.3						
				16/2	10.3						
				16/3	10.9						

‡ Chassis hole selection should be based on sample evaluation as cable construction will influence optimum hole size
†† When using cable types different to those stated, we recommend that samples be evaluated prior to placing an order

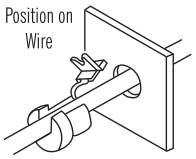


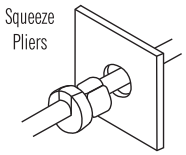


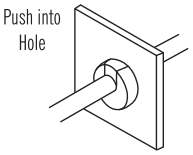
Mounting Holes

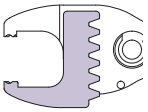


Mounting Hole for SR-7KR-2 only









See Page 4-14 for assembly tools



Fill unneeded strain relief mounting holes with Double 'D' plugs, see page 10-11

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HEYCO® Genuine HEYCO® Parts!

Straight-Thru Strain Relief Bushings For Round Cables

Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E15331

Certified by the Canadian Standards Association File No. LR-8919

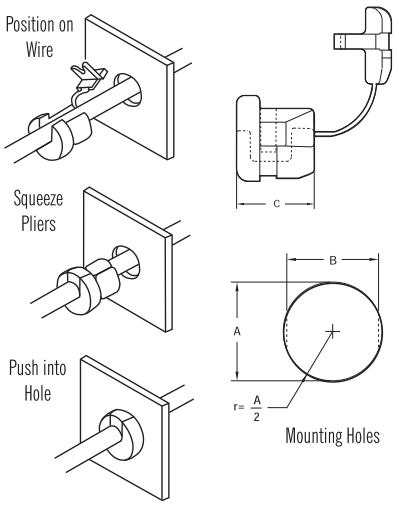
Specifications: RoHS ✓

Material: Nylon 66
Flammability: UL94V-2
Colour: Black
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

- Anchors and protects cable at chassis entry
- Absorbs push, pull and twist
- Cost-effective single assembly

Cable Section





PART NUMBER		Description	†† Will fit these cables		Approximate Cable Dimensions	Chassis Dimensions			C	Unit Quantity	
Black	White		UL Type desig.	AWG/ Conductors		A ‡ Hole Dia.	B (Flats)	Max Panel Thk		Black	White
3001250	3001251	SR-7L-2	SJT	14/3	9.4	22.2	19.6	5.1	19.1	500	2,500
				12/3	10.8						
			S & ST	18/2	9.9						
				18/3	10.3						
				16/2	10.3						
				16/3	10.9						
3001497	3001498	SR-31-2	SJT	12/3	10.8 to 12.1	22.2	21.3	3.2	20.6	500	500
3001254	3001255	SR-8N-2	S & ST	14/2	13.5	22.2	21.3	1.6	21.0	500	2,500
				14/3	14.2						
				12/2	15.3						
3001260	3001261	SR-8P-2	S & ST	14/2	13.5	22.2	21.3	3.2	20.6	500	2,500
				14/3	14.2						
				12/2	15.3						
3001274	3001275	SR-8L-1	S & ST	14/2	13.5	22.2	21.3	5.1	20.6	2,500	2,500
				14/3	14.2						
				12/2	15.3						
3001287	3001288	SR-9P-2	S	12/2	15.2	27.7	25.4	7.1	25.4	1,000	1,000
				12/3	16.1	28.6					
				10/2	16.3	27.7					
			S, ST & SO	10/3	17.5	28.6					

‡ Chassis hole selection should be based on sample evaluation, as cable construction will influence optimum hole size
†† When using cable types different to those stated, we recommend that samples be evaluated prior to placing an order

HEYCO® Genuine HEYCO® Parts!

Right Angle Strain Relief Bushings For Round Cables

Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E15331

Certified by the Canadian Standards Association File No. LR-8919

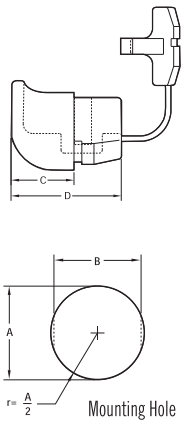
Specifications: RoHS ✓

Material: Nylon 66
Flammability: UL94V-2
Colour: Black
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

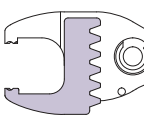
- Same protection as straight-thru type
- Exit cable flush to chassis
- Also acts as back or bottom bumper

Cable Section





PART NUMBER	Description	†† Will fit these cables		Approximate Cable Dimensions	Chassis Dimensions			C	D	Unit Quantity
		UL Type desig.	AWG/ Conductors		A ‡ Hole Dia	B To Prevent Rotation	Max Thickness			
3011374	SR-15-1	SV & SVT	18/2	6.3	12.7	11.4	2.5	9.9	17.5	1,000
			18/3	6.7	12.7-13.1					
		HPD	18/2	6.9	12.7					
			16/2	7.4	12.7-13.1					
3011320	SR-10-2	SJ, SJT & SJO	18/2	7.6	15.9	14.0	3.2	14.3	24.6	500
			16/2	8.3						
			18/3	8.4						
			16/3	8.4						
3011327	SR-11-2	SJ, SJT & SJO	16/2	8.3	15.9	14.0	3.2	14.3	24.6	500
			18/3	8.4						
			16/3	9.0						
3011397	SR-17-2	SJT	18/4	9.1	19.0	16.8	3.2	16.3	27.7	500
			14/3	9.4						
		S & ST	18/2	9.9						
			18/3	10.3						
			16/2	10.3						
			16/3	10.9	19.0-19.8					



See Page 4-14 for assembly tools

‡ Chassis hole selection should be based on sample evaluation as cable construction will influence optimum hole size
†† When using cable types different to those stated, we recommend that samples be evaluated prior to placing an order



Straight-Thru Strain Relief Bushings For Flat Cables

Genuine HEYCO® Parts!

- Anchors and protects cable at chassis entry
- Absorbs push, pull and twist
- Cost-effective single assembly

Cable Section

Specifications: RoHS ✓

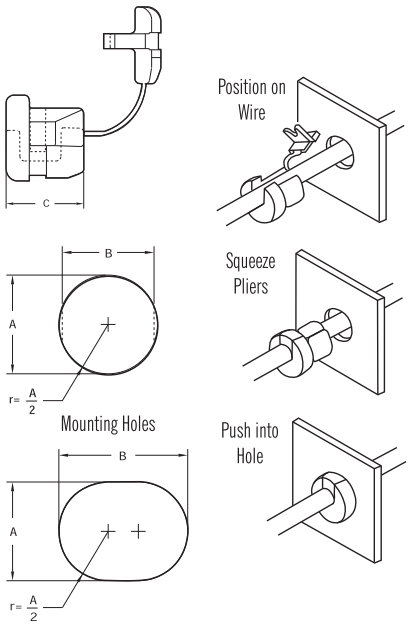
Material: Nylon 66
Flammability: UL94V-2
Colour: Black
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E15331

Certified by the Canadian Standards Association File No. LR-8919

PART NUMBER		Description	†† Will fit these cables		Approximate Cable Dimensions	Chassis Dimensions			C	Unit Quantity	
Black	White		UL Type desig.	AWG/ Conductors		A ‡ Hole Dia.	B (Flats)	Max Panel Thk		Black	White
3001017	3001018	SR-2P-4	CLOCK	20/2	2.3 x 4.6	9.5	8.8	1.6	10.3	1,000	1,000
			SPT-1	18/2	2.8 x 5.3						
3001034	3001035	SR-2L-1	CLOCK	20/2	2.3 x 4.6	9.5	8.8	3.2	10.3	1,000	1,000
			SPT-1	18/2	2.8 x 5.3						
3001074	3001075	SR-3A-4	SPT-1	18/2	3.0 x 5.6	11.0	9.9	1.0 †	10.3	1,000	1,000
3001077	3001078	SR-3P-4	SPT-1	18/2	3.0 x 5.6	11.0	9.9	1.6	10.3	1,000	1,000
3001104	3001105	SR-3W-1	SPT-1	18/2	3.0 x 5.6	11.0	9.9	2.5	10.3	5,000	5,000
3001094	3001095	SR-3L-1	SPT-1	18/2	3.0 x 5.6	11.0	9.9	4.0	10.3	5,000	Please Call
3001130	3001131	SR-4P-4	SPT-1	18/2	3.0 x 5.6	12.7	11.3	2.5	11.2	500	500
3001181	3001182	SR-4A-6	SPT-1	18/3	3.0 x 7.6	12.7	11.8	1.0 †	13.9*	1,000	Please Call
			SPT-2 & HPN	18/2	3.8 x 7.1						
3001187	3001188	SR-4N-6	SPT-1	18/3	3.0 x 7.6	12.7	11.8	1.6	13.9*	1,000	Please Call
			SPT-2 & HPN	18/2	3.8 x 7.1						
3001190	3001191	SR-4K-6	SPT-1	18/3	3.0 x 7.6	12.7	11.8	2.5	13.9*	1,000	Please Call
			SPT-2 & HPN	18/2	3.8 x 7.1						
3001120	3001121	SR-4N-4	SPT-1	18/3	3.0 x 7.6	12.7	11.8	1.6	10.3	500	500
			HPN	18/2	3.8 x 7.1						
3001117	3001118	SR-4K-4	SPT-1	18/3	3.0 x 7.6	12.7	11.8	2.5	10.3	500	500
			HPN	18/2	3.8 x 7.1						
3001127	3001128	SR-4L-4	SPT-1	18/3	3.0 x 7.6	12.7	11.8	4.0	10.3	500	500
			HPN	18/2	3.8 x 7.1						
3001114	3001115	SR-4K-1	SPT-1	18/3	3.0 x 7.6	12.7	11.7	2.4	12.7	1,000	1,000
			SPT-2 & HPN	18/2	3.8 x 7.1						
			HPN	18/3	3.8 x 8.6	12.7-13.1					
			SPT-2 & HPN	16/2	4.1 x 7.6						
3001124	3001125	SR-4L-1	SPT-1	18/3	3.0 x 7.6	12.7	11.7	4.8	12.7	1,000	Please Call
			SPT-2 & HPN	18/2	3.8 x 7.1						
			HPN	18/3	3.8 x 8.6	12.7-13.1					
			SPT-2 & HPN	16/2	4.1 x 7.6						
3001170	3001171	SR-5KN-4	SPT-3	18/2	4.8 x 8.9	14.3	13.4	1.6	15.5	2,500	2,500
				16/2	5.1 x 9.4						
			SPT-2	18/3	3.8 x 10.2						
				16/3	4.1 x 10.4						
3001167	3001168	SR-5K-4	SPT-3	18/2	4.8 x 8.9	14.3	13.4	3.2	15.5	2,500	7,500
				16/2	5.1 x 9.4						
			SPT-2	18/3	3.8 x 10.2						
				16/3	4.1 x 10.4						
3001160	3001161	SR-6N4-4	SPT-2	18/3	3.0 x 7.6	15.9	14.0	1.6	10.3	1,000	1,000
				16/3	4.1 x 10.4						
3001163	3001164	SR-6P4-4	SPT-2	18/3	3.0 x 7.6	15.9	14.0	2.5	10.3	1,000	12,000
				16/3	4.1 x 10.4						
3001174	3001175	SR-5W-1	SPT-2 & HPN	16/3	4.1 x 9.4	14.3	13.5	3.2	15.5	1,000	1,000
				18/3	3.8 x 10.2						
				16/3	4.1 x 10.4						
3001484	3001485	SR-30-1	SPT-2	18/3	3.8 x 10.2	14.2 **	18.5**	3.2	17.1	1,000	20,000
				16/3	4.1 x 10.4						
			SPT-3	18/2	4.8 x 8.9						
				18/3	4.8 x 9.9						
				16/2	5.1 x 9.4						
				16/3	5.1 x 10.9						
3001504	3001505	SR-33-1	SPT-3	16/2	5.1 x 9.4	19.0 **	22.3**	3.2	20.0	500	Please Call
				16/3	5.1 x 10.9						
				14/2	6.1 x 10.7						
				14/3	6.1 x 12.9						
3001517	3001518	SR-34-2	SPT-3	14/2	6.1 x 10.7	22.2	21.3	3.2	20.6	500	5,000
				14/3	6.1 x 12.9						
				12/2	7.4 x 12.9						
				12/3	7.4 x 16.5						
3001497	3001498	SR-31-2	SPT-3	12/3	8.1 x 16.5	22.2	21.3	3.2	20.6	500	500
3001804	3001805	SR-300-1	300 OHM ¤	-	1.5 x 10.2	9.5 **	15.9 - 16.3 **	4.0	11.9	1,000	Please Call
			SPT-1	18/3	3.0 x 7.6	9.5 - 9.9**					
			SPT-2	18/3	3.8 x 10.2	10.5-10.7 **					
				16/3	4.1 x 10.4	10.7-11.1 **					



** Mounting hole for use with SR-30-1, SR-33-1, SR-300-1, and SR-302-1

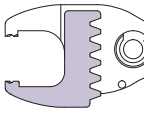
† These parts require thin jaw assembly pliers 291 (Part N°. 8000021) See Page 4-14

‡ Chassis hole selection should be based on sample evaluation as cable construction will influence optimum hole size

†† When using cable types different to those stated, we recommend that samples be evaluated prior to placing an order

* Longer part length allows for flex-protecting internal radii

¤ Wire is not UL/CSA covered



See Page 4-14 for assembly tools

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HEYCO® Genuine HEYCO® Parts!

Right Angle Strain Relief Bushings For Flat Cables

Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E15331

Certified by the Canadian Standards Association File No. LR-8919

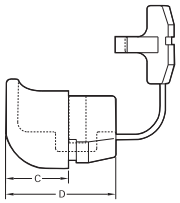
Specifications: RoHS ✓

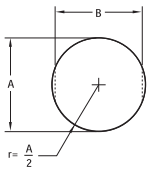
Material: Nylon 66
Flammability: UL94V-2
Colour: Black
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

- Same protection as straight-thru type
- Exit cable flush to chassis
- Also acts as back or bottom bumper

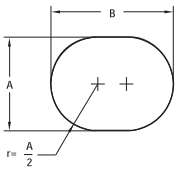
●●● Cable Section







Mounting Hole



** Mounting hole for use with SR-20-1 & SR-23-1

‡ Chassis hole selection should be based on sample evaluation as cable construction will influence optimum hole size

†† When using cable types different to those stated, we recommend that samples be evaluated prior to placing an order

PART NUMBER	Description	†† Will fit these cables		Approximate Cable Dimensions	Chassis Dimensions			C	D	Unit Quantity
		UL Type desig.	AWG/ Conductors		A ‡ Hole Dia	B To Prevent Rotation	Max Thickness			
3011354	SR-13-1	SPT-1	18/2	3.0 x 5.6	11.1	9.9	1.6	6.0	12.7	1,000
3011364	SR-14-1	SPT-1	18/3	3.0 x 7.6	12.7	11.4	2.5	9.9	17.5	1,000
		SPT-2	18/2	3.8 x 7.1						
		HPN	16/2	4.1 x 7.6						
3011384	SR-16-1	SPT-2	18/3	3.8 x 10.2	14.3	13.3	3.2	12.7	22.2	500
		SPT-3	18/2	4.8 x 8.9						
			16/2	5.1 x 9.4						
		HPN	16/3	4.1 x 9.4						
3011424	SR-20-1**	SPT-2	18/3	3.8 x 10.2	14.2 **	18.5 **	2.0	10.3	20.6	1,000
			16/3	4.1 x 10.4						
		SPT-3	18/2	4.8 x 8.9						
			18/3	4.8 x 8.9						
			16/2	5.1 x 9.4						
			16/3	5.1 x 10.9						
3011454	SR-23-1**	SPT-3	16/2	5.1 x 9.4	19.9 **	22.2 **	3.2	12.3	23.8	1,000
			16/3	5.1 x 10.9						
			14/2	6.1 x 10.7						
			14/3	6.1 x 13.0						
3011464	SR-24-1	SPT-3	14/2	6.1 x 10.7	22.2	21.3	3.2	12.7	24.6	1,000
			14/3	6.1 x 13.0						
			12/2	7.4 x 13.0						
			12/3	7.4 x 16.5						
3011440	SR-21-2	SPT-3	10/3	8.0 x 16.8	28.0	25.4	3.2	18.6	36.5	1,000

HEYCO® Genuine HEYCO® Parts!

Bell-Mouth Strain Relief Bushings

Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E15331

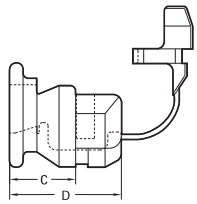
Certified by the Canadian Standards Association File No. LR-8919

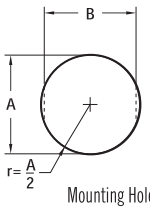
Specifications: RoHS ✓

Material: Nylon 66
Flammability: UL94V-2
Colour: Black
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

- Same protection as straight-thru type
- Flared exit cases cable into lazy bend
- Assures longer life for the cable and product







Mounting Hole

‡ Chassis hole selection should be based on sample evaluation, as cable construction will influence optimum hole size

†† When using cable types different to those stated, we recommend that samples be evaluated prior to placing an order

PART NUMBER	UL/CSA Desc.	†† Will fit these cables		Approximate Cable Dimensions	Chassis Dimensions			C	D	Unit Qty	Cable Section
		UL Type desig.	AWG/ Conductors		A ‡ Hole Dia	B To Prevent Rotation	Max Thickness				
3021143	SR-5N-5	SV & SVT	18/2	6.3	12.7	11.4	1.6	10.3	17.5	2,500	●●●
			18/3	6.5	12.7-13.1						
		HPD	18/2	6.9	12.7						
			16/2	7.4	12.7-13.1						
3021226	SR-6P-5	SJ, SJO & SJT	18/2	7.6	15.9	14.0	3.2	10.7	20.7	500	
3021232	SR-6P2-5	SJ, SJO & SJT	16/2	8.0	15.9	14.0	3.2	10.7	20.7	2,500	
			18/3	8.1							
3021223	SR-6N3-5	SJ, SJO & SJT	16/2	8.2	15.9	14.0	1.6	10.7	20.7	500	
			18/3	8.4							
			14/2	8.9							
			16/3	9.0							
			18/4	9.1							
3021220	SR-6P3-5	SJ, SJO & SJT	16/2	8.2	15.9	14.0	3.2	11.9	20.7	500	
			18/3	8.4							
			14/2	8.9							
			16/3	9.0							
			18/4	9.1							
3021020	SR-2P-5	CLOCK	20/2	2.3 x 4.6	9.5	8.4	1.6	9.5	15.9	500	●●●
		SPT-2	18/2	2.8 x 5.3							
3021080	SR-3P-5	SPT-1	18/2	3.0 x 5.6	11.1	9.9	1.6	9.5	15.9	500	
3021108	SR-4N-5	SPT-1	18/3	3.0 x 7.6	12.7	11.8	1.6	10.3	17.8	500	
		SPT-2 & HPN	18/2	3.8 x 7.1	12.7						
			16/2	4.1 x 7.6	12.1-13.1						
3021229	SR-6K-5	HPN	18/3	3.8 x 8.6	15.9	14.0	3.2	10.3	20.6	500	
			16/3	4.1 x 9.4							
		SPT-2	16/2	4.1 x 7.6							
			16/3	4.1 x 10.4							



Flex-Protecting Strain Relief Bushings

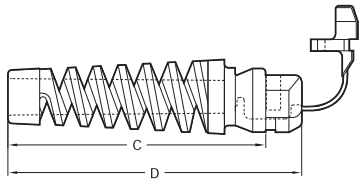
Genuine HEYCO® Parts!

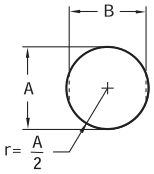
- Same protection as straight-thru type
- Prevents cable from bending sharply
- Cable will not fatigue after many thousands of flexes

Specifications: RoHS ✓
Material: Nylon 66
Flammability: UL94V-2
Colour: Black
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E15331
Certified by the Canadian Standards Association File No. LR-8919

PART NUMBER	Description	†† Will fit these cables		Approximate Cable Dimensions	Chassis Dimensions			C	D	Unit Qty	Cable Section
		UL Type desig.	AWG/ Conductors		A ‡ Hole Dia	B To Prevent Rotation	Max Thickness				
3071590	SR-5N-7	SV & SVT	18/2	6.4	12.7	11.4	1.6	43.3	50.4	500	
			18/3	6.5	12.7-13.1						
		HPD	18/2	6.9	12.7						
			16/2	7.4	12.7-13.1						
3071593	SR-5P-7	SV & SVT	18/2	6.4	12.7	11.4	3.2	43.3	50.4	500	
			18/3	6.5	12.7-13.1						
		HPD	18/2	6.9	12.7						
			16/2	7.4	12.7-13.1						
3071596	SR-6N-7	SJ, SJO & SJT	18/2	7.6	15.9	14.0	1.6	43.6	53.6	500	
3071602	SR-6P-7	SJ, SJO & SJT	18/2	7.6	15.9	14.0	3.2	43.6	53.6	500	
3071599	SR-6N3-7	SJ, SJO & SJT	16/2	8.0	15.9	14.0	1.6	43.6	53.6	500	
			18/3	8.1							
			14/2	8.9							
			16/3	9.0							
			18/4	9.1							
3071605	SR-6P3-7	SJ, SJO & SJT	16/2	8.0	15.9	14.0	3.2	43.6	53.6	200	
			18/3	8.1							
			14/2	8.9							
			16/3	9.0							
			18/4	9.1							
3071611	SR-7P-7	SJT	18/4	9.1	19.0	16.8	3.2	54.9	66.0	200	
			14/3	9.4							
		S & ST	18/2	9.9							
			18/3	10.3							
			16/2	10.3							
			16/3	10.9	19.0 to 19.8						
3071541	SR-4N-7	SPT-1	18/3	3.0 x 7.6	12.7	11.8	1.6	43.6	50.4	3,500	
		SPT-2	18/2	3.8 x 7.1							





Mounting Hole

‡ Chassis hole selection should be based on sample evaluation, as cable construction will influence optimum hole size

†† When using cable types different to those stated, we recommend that samples be evaluated prior to placing an order



In-Line Strain Relief Bushing (Heyco® UL Knot)

Genuine HEYCO® Parts!

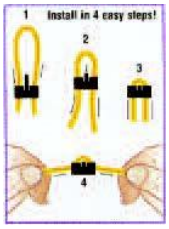
- Prevents cable slipping as with tying a knot
- No cutting tools needed as with metal clamp type strain reliefs
- UL approved for use with SPT-2 Wire

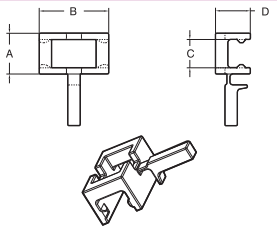
Specifications: RoHS ✓
Material: Nylon 66
Flammability: UL94V-2
Colour: Black
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E15331
Certified by the Canadian Standards Association File No. LR-8919

PART NUMBER	UL/CSA Description	†† Will fit these cables		Approximate Flat Cable Dimensions	Part Dimensions				Unit Quantity
		UL Type Designation	AWG/ Conductors		A	B	C	D	
3141854	ISR 14-27	SPT-2	18/2	3.8 x 7.1	10.4	17.8	7.4	8.9	18,000

†† When using cable types different to those stated, we recommend that samples be evaluated prior to placing an order







Strain Relief Bushings Assembly Tools

Genuine HEYCO® Parts!

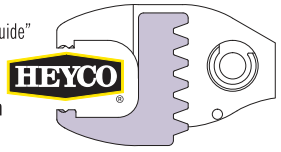
PART NUMBER	Description	Application
8000021	Hand Pliers - No.291	For use with Strain Relief Bushings part numbers 3001074, 3001075, 3001181 and 3001182
8000022	Hand Pliers - No.29	For use with Strain Relief Bushings that assemble into holes up to 22mm diameter
8000028	Hand Pliers - No.R-301	For use with parts 3001244, 3001245, 3001254 and 3001255 only
8000030	Hand Pliers - No.30	For use with Strain Relief Bushings that assemble into 19mm and larger diameter holes. Pliers are adjustable
8000031	Spring	Replacement spring for hand pliers



Pneumatic Hand Tool also available.
Contact our Sales Dept for more information.

NEW HEYCO "Strain Relief Assembly Guide"

To download your copy goto
www.optimascomponents.com



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CHAPTER 5

CABLE CLIPS



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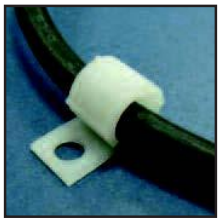
OPTIMAS


Push Lock Cable Clamps
P5-3


Snap Lock Cable Clamps
P5-3


Wire Harness Clamps
P5-3


Wire Saddles
P5-3


HEYClip SunRunner Clips
P5-4, 5



HEYClip™ SunRunner® 2 Series Cable Clips - Nylon
P5-6


Cable Clamps - 'P' Clips Nylon
P5-6



Cable Clamps - 'P' Clips Stainless Steel
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Standoff Cable Loops
P5-7


Pine Tree Mount Cable Loops
WTL Series
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Pine Tree Mount Cable Loops
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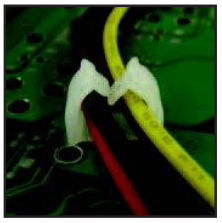
Cable Loops
P5-8

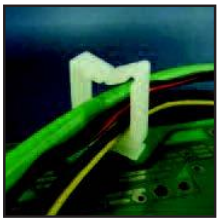

Self Adhesive Cable Loops
P5-8


Wire Holders
P5-8


Standoff Harness Clips
P5-9


Wire Mounts
P5-9


Wire Mounts
P5-9


Wire Mounts
P5-9

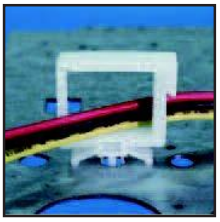

Harness Clips
P5-10

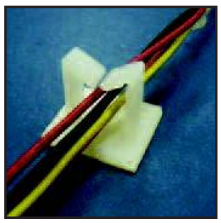

Wire Saddles PLWS Series
P5-10

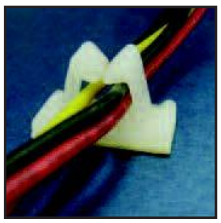

Wire Saddles LWS Series
P5-10


Mini Wire Saddles
P5-10


Locking Wire Mounts
P5-11


Locking Wire Mounts
P5-11

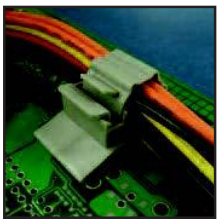

Wire Mounts
P5-11


Wire Mounts
P5-11


Cable Holders
P5-12


Adjustable Cable Clips
P5-13


Self Adhesive Cable Clips
P5-13


Push Mount Cable Clips
P5-13


Easy Lock EB Series Clips
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Easy Lock ES Series Clips
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Push Fit Hinged Cable Clips
P5-14


Mini Clamps
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Wire Holders
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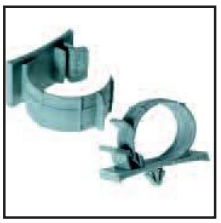
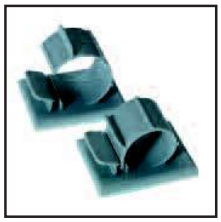
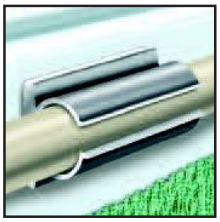

Push Mount Cable Clips
P5-15

Cable Clips Product Locator


Self Adhesive Cable Clips
P5-15


Self Adhesive Cable Clips
P5-15


Self Adhesive Cable Clips
P5-15


Antenna Cable Clips
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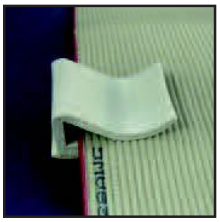
Flat Cable Mounts
P5-16


Flat Cable Mounts
P5-16

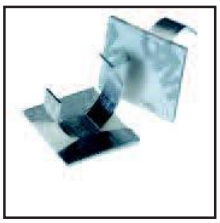

Flat Cable Mounts
P5-17


Flat Cable Clip
P5-17


Self Adhesive Cable Clips
P5-17


Flat Cable Mounts
P5-18


Flat Cable Mounts
P5-18


Self-Adhesive
Aluminium Cable Clips
P5-19


Super Duty Cable Clamps
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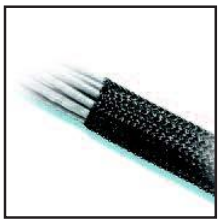
Cable Wrap
P5-20


Braided Sleeving
P5-20


Slit Harness Wrap
P5-21



Double Tube Clip
P5-22



Triple Tube Clip
P5-22



Swivel Cable Clips
P5-23



Plug in Cable Clips
P5-23



Plug in Cable Clip
Swivel Type
P5-24



Plug in Cable Clip
Twin Type
P5-24



Plug in Cable Clip
Twin Swivel Type
P5-25



Plug in Cable Clip
Universal Type
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Plug in Cable Clip
Manual Locking
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Omega Clips
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Push Pin Clips
Single Cable
P5-27



Push Pin Clips
Multiple Cable
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Stud Mount Cable Clip
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Stud Mount Cable Clip
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Adapters P5-30



Edge Mounting Adapters for
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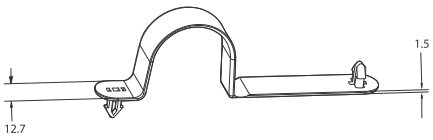
Push Lock Cable Clamps







Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Material temperature index 125°C.
Maximum temperature on the part not to exceed 105°C

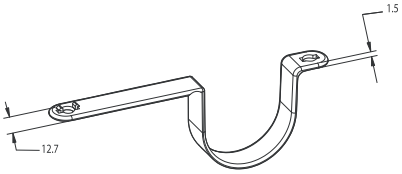
- Quick and easy installation
- For clamping cable or tubing securely in place
- Resists corrosion, salt water, weak acids, grease and common solvents
- Push in arrows for easy installation with no additional hardware

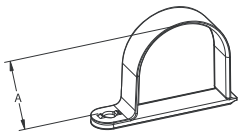
PART NUMBER & COLOUR		Description	Dimensions			Unit Quantity
Black	Natural		Mounting Hole Diameter	Maximum Panel Thickness	A Max Bundle Diameter	
3503730	3503731	PLCC 1125	4.7	3.2	28.6	1,000
3503734	3503735	PLCC 1187	4.7	3.2	30.1	1,000
3503738	3503739	PLCC 1250	4.7	3.2	31.1	1,000
3503742	3503743	PLCC 1375	4.7	3.2	34.9	1,000
3503746	3503747	PLCC 1500	4.7	3.2	38.1	1,000

HEYCO® Genuine HEYCO® Parts!

Snap Lock Cable Clamps





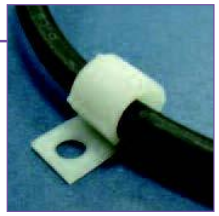


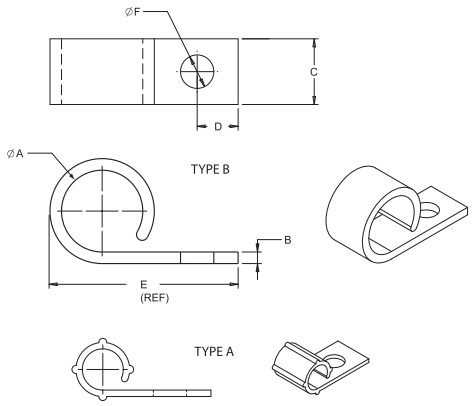
Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Material temperature index 125°C.
Maximum temperature on the part not to exceed 105°C

- Quick and easy installation
- For clamping cable or tubing securely in place
- Resists corrosion, salt water, weak acids, grease and common solvents
- Locks securely but can be removed and reused

PART NUMBER & COLOUR		Description	Dimensions			Unit Quantity
Black	Natural		Screw Size	Mounting Hole Diameter	A Max Bundle Diameter	
3503728	3503729	SLCC 1125	No.10	4.8	28.6	1,000
3503732	3503733	SLCC 1187	No.10	4.8	30.1	1,000
3503736	3503737	SLCC 1250	No.10	4.8	31.1	1,000
3503740	3503741	SLCC 1375	No.10	4.8	34.9	1,000
3503744	3503745	SLCC 1500	No.10	4.8	38.1	1,000

Wire Harness Clamps





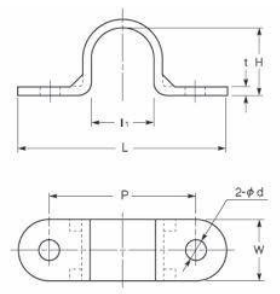
Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

- Cables/wires can be installed or removed without removing the clamp
- Mounts securely with a screw or rivet

PART NUMBER	Dimensions							Unit Quantity
	ØA Clamp Size	B	C	D	E (REF)	ØF Mounting Hole	TYPE	
3631051	6.4	1.0	10.2	6.4	21.1	5.2	A	1,000
3631052	12.7	1.8	10.2	6.4	29.4	5.2	B	1,000
3631053	25.4	2.6	12.7	4.8	37.0	5.2	B	1,000

Wire Saddles





Specifications: RoHS ✓
Material: High Density Polyethylene
Colour: Natural

- Screw mounted saddles that firmly hold wiring bundles and cables.

PART NUMBER	Dimensions							Unit Quantity
	l1	P	L	H	W	Ød	t	
3580000	12.0	24.0	38.0	12.0	15.0	4.0	2.0	1,000
3580001	16.0	36.0	52.0	16.0	15.0	5.0	2.0	1,000
3580002	18.0	38.0	58.0	18.0	20.0	5.0	2.0	1,000
3580003	25.0	50.0	70.0	26.0	20.0	5.0	2.5	1,000



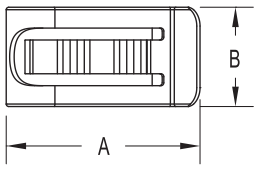
HEYClip™ SunRunner® Cable Clip

Genuine HEYCO® Parts! HEYCO®

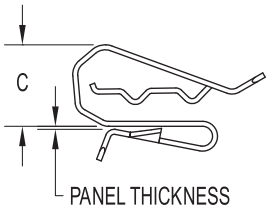
- Robust "double-compression" design securely holds from (1x) 12 gauge USE-2 to (2x) 10 gauge PV-1000 solar wires. Also for use with other cables from 5.0 to 7.6 in diameter

Specifications: RoHS ✓
Material: 24 Gauge Stainless Steel

NEW



PART NUMBER		Wire Diameter Range (Maximum 2 Wires)	Panel Thickness Range	A	B	C	Unit Quantity
304 Stainless Steel	316 Stainless Steel						
650S6405	650S6490	5.0 to 7.6 (each wire)	1.5 to 3.2	24.6	12.7	9.9	500



- Heyco SunRunner clips are designed to provide a better method for PV module wire management and may be used wherever single or multiple cable management is needed
- Smooth clip edges prevent damage to cable insulation
- Locking tabs securely fasten clips to module extrusions, or other panels
- Generous lead-in for installation without tools
- Screwdriver slot for easy removal or movement of clips if necessary
- Neatly dresses cables on PV panel frames or along mounting channels



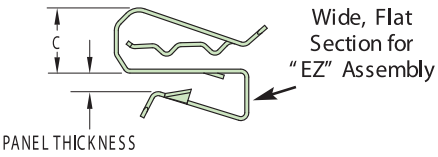
HEYClip™ SunRunner® EZ™ Cable Clip

Genuine HEYCO® Parts! HEYCO®

- Robust "double-compression" design securely holds from (1x) 12 gauge USE-2 to (2x) 10 gauge PV-1000 solar wires. Also for use with other cables from 5.0 to 7.6 in diameter
- SunRunner EZ designed for thicker module frames as well as racking - accommodates profiles up to 6.4mm thick

Specifications: RoHS ✓
Material: 24 Gauge 304 Stainless Steel

NEW



PART NUMBER	Wire Diameter Range (Maximum 2 Wires)	Panel Thickness Range	A	B	C	Unit Quantity
650S6407	2.3 - 6.4	1.4 - 3.2	24.6	12.7	10.4	100

- Heyco SunRunner clips are designed to provide a better method for PV module wire management and may be used wherever single or multiple cable management is needed
- Smooth clip edges prevent damage to cable insulation
- Locking tabs securely fasten clips to module extrusions, or other panels
- Generous lead-in for installation without tools
- Screwdriver slot for easy removal or movement of clips if necessary
- Neatly dresses cables on PV panel frames or along mounting channels



HEYClip™ SunRunner® 90° Cable Clip

Genuine HEYCO® Parts! HEYCO®

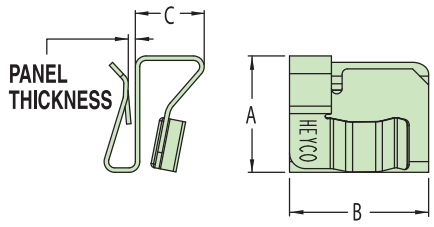
- Designed to mount at a 90° angle to the original SunRunner
- The SunRunner 90 will accommodate a single cable from 5.0 to 7.6mm

Specifications: RoHS ✓
Material: 24 Gauge 304 Stainless Steel

NEW



PART NUMBER	Wire Diameter Range (Maximum 1 Wire)	Panel Thickness Range	A	B	C	Unit Quantity
650S6406	5.0 - 7.6	1.4 - 3.2	16.5	19.8	9.9	500



- SunRunner 90° is designed for use with PV modules mounted in the "landscape" mode. PV modules with shorter than normal junction box cables cannot be dressed out to the sides of the module. The SunRunner 90° will allow the junction box cables to be run to the adjacent modules across the short side of the PV module frame
- Constructed from 304 stainless steel for excellent strength and corrosion protection for outdoor exposure
- Generous lead-in for installation without tools
- Neatly dresses cables on PV panel frames or along mounting channels

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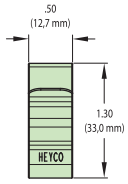
HEYClip™ SunRunner® 2 Series Cable Clips



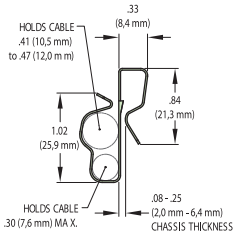


Specifications:	RoHS ✓
Material: 25 Gauge heat treated 410 Stainless Steel	

- Designed to hold Micro-Inverter cables 10.5 to 12,0 mm in diameter
- **SunRunner 2** is designed for solar mounting frames such as the ones used by Unirac, Solar Mount and Mountain Systems.
- **SunRunner 2-R** is designed for racking systems such as the ones used by Haticon Solar.
- **SunRunner 2-U** features a shorter "S" hook for Unirac and other similar frame profiles

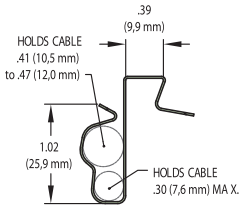
NEW

SunRunner® 2



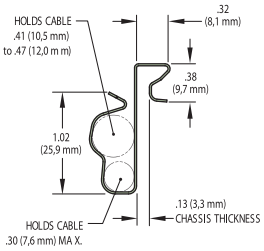
PART NUMBER	Wire Diameter Range (Maximum 2 Wires)	Panel Thickness Range	Footprint	Rear Tab Length	Unit Quantity
650S6404	7.6 - 12.0	2.0 - 6.4	12.7 x 33.0	21.3	100

SunRunner® 2-R



PART NUMBER	Wire Diameter Range (Maximum 2 Wires)	Panel Thickness	Footprint	Rear Tab Length	Unit Quantity
650S6402	7.6 - 12.0	9.7	12.7 x 33.0	10.4	100

SunRunner® 2-U



PART NUMBER	Wire Diameter Range (Maximum 4 Wires)	Panel Thickness	Footprint	Rear Tab Length	Unit Quantity
650S6401	7.6 - 12.0	6.4	12.7 x 33.0	9.7	100

- "S" hook clip design will fit a wide variety of extruded aluminum profiles
- Smooth clip edges prevent damage to cable insulation
- Generous lead-in for installation without tools
- Neatly dresses cables on PV panel frames or along mounting channels
- Constructed from heat treated 410 stainless steel for excellent strength and corrosion protection for outdoor exposure

HEYCO® Genuine HEYCO® Parts!

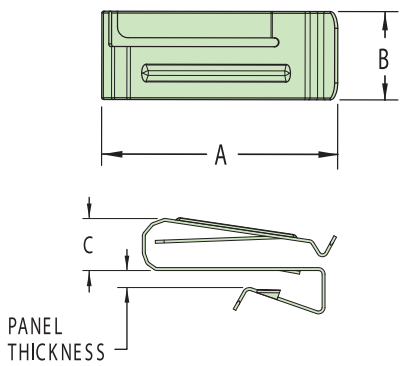
HEYClip™ SunRunner 4™ Cable Clip



Specifications:	RoHS ✓
Material: 25 Gauge heat treated 410 Stainless Steel	

- Designed to hold up to (4) 12 gauge USE-2 or (4) 10 gauge PV-1000V solar wires. Also for use with other cables from 5.1 to 7.6 in diameter

NEW



PART NUMBER	Wire Diameter Range (Maximum 4 Wires)	Panel Thickness Range	A	B	C	Unit Quantity
650S6400	5.1 - 7.6 (each wire)	3.2 - 6.4	34.0	12.7	9.1	100

- Heyco SunRunner clips are designed to provide a better method for PV module wire management and may be used wherever single or multiple cable management is needed
- Smooth clip edges prevent damage to cable insulation
- Generous lead-in for installation without tools
- Neatly dresses cables on PV panel frames or along mounting channels
- SunRunner 4TM Cable Clip is designed to accommodate thicker racking systems up to 6.4mm thick
- Constructed from heat treated 410 stainless steel for excellent strength and corrosion protection for outdoor exposure



HEYClip™ SunRunner® 2 Series Cable Clips - Nylon

Genuine HEYCO® Parts!

- Designed to hold Micro-Inverter cables 10,5 to 12,0mm in diameter.
- Constructed from extended protection nylon UV material for lower cost, excellent strength, and corrosion protection from outdoor exposure.
- Smooth clip edges prevent damage to cable insulation.
- "S" hook clip design will fit a wide variety of extruded aluminum profiles.
- SunRunner 2 UVX is designed for solar mounting frames such as the onesused by Unirac, Solar Mount and Mounting Systems.
- SunRunner 2-R UVX is designed for racking systems such as the ones used by Haticon Solar and S:FLEX.
- SunRunner 2-U UVX features a shorter"S" hook for Unirac and other similar frame profiles.
- Neatly dresses cables on PV panels or along mounting frame channels from 2,0 to .6,4 mm thick.
- Molded from UV/Heat Stabilized Nylon.

Specifications: RoHS ✓

Material: Nylon 6,6 with Extended UV capabilities

Flammability rating: UL94V-2

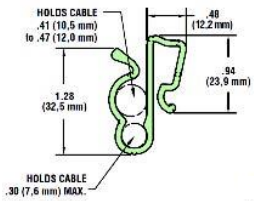
Temperature Range: -18°C to 85°C

NEW

SunRunner 2 UVX

PART NUMBER	Wire Diameter Range	Panel Thickness	Height	Width	Rear Tab Length	Unit Quantity
650S6463	7.6 - 12.0	2.0 - 6.4	36.6	12.7	23.9	100

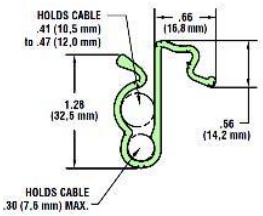
SunRunner 2 UVX



SunRunner 2-R UVX

PART NUMBER	Wire Diameter Range	Panel Thickness	Height	Width	Rear Tab Length	Unit Quantity
650S6462	7.6 - 12.0	9.7	36.6	12.7	14.2	100

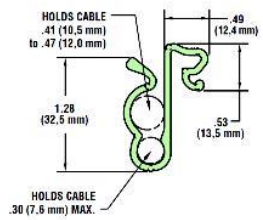
SunRunner 2-R UVX



SunRunner 2-U UVX

PART NUMBER	Wire Diameter Range	Panel Thickness	Height	Width	Rear Tab Length	Unit Quantity
650S6461	7.6 - 12.0	6.4	36.6	12.7	13.5	100

SunRunner 2-U UVX





Cable Clamps - 'P' Clips

Genuine HEYCO® Parts!

- Clamps cable or tubing securely into place
- Moulded open for easy cable entry
- Fully radiused on all inside edges
- All parts size marked
- Resists corrosion, salt water, weak acids, gasoline, alcohol, oil, grease,and common solvents.

Specifications: RoHS ✓

Material: Nylon 66

Flammability rating: UL94V-2 (UL94V-0 see below)

Material temperature index 85°C

(except cable clamps moulded in UL94V-0)

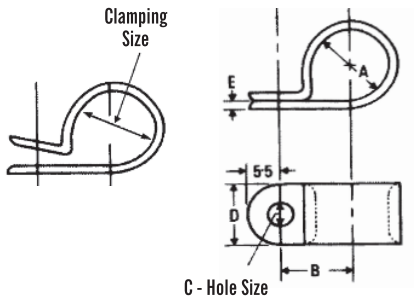
Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E54523

* Part numbers 350 3301 and 350 3351 are NOT recognized by UL

** Unit quantity is 2,500

PART NUMBER		Description	Clamping Size	Dimensions					Unit Quantity
Natural	Black			A	B	C	D	E	
*3503301	*3503351	-	2.0	2.1	7.9	4.75	9.5	1.3	1,000
3503302	3503352	CCL 1/8	3.2	2.9	8.3	5.1	9.5	1.3	1,000
3503312	3503362	CCL 125-170	3.2	2.9	8.7	4.3	9.5	1.3	1,000
3503313	3503363	CCL 187-170	4.8	4.4	9.6	4.3	9.5	1.3	1,000
3503303	3503353	CCL 3/16	4.8	4.4	9.6	5.1	9.5	1.3	1,000
3503314	3503364	CCL 250-170	6.3	5.9	10.4	4.3	9.5	1.3	1,000
3503304	3503354	CCL 1/4	6.3	5.9	10.4	5.1	9.5	1.3	1,000
3503315	3503365	CCL 312-170	7.9	7.5	11.2	4.3	9.5	1.3	1,000
3503305	3503355	CCL 5/16	7.9	7.5	11.2	5.1	9.5	1.3	1,000
3503306	3503356	CCL 3/8	9.5	9.1	12.0	5.1	9.5	1.3	1,000
3503316	3503366	CCL 375-170	9.5	9.1	11.8	4.3	9.5	1.3	1,000
3503307	3503357	CCL 7/16	11.1	10.7	13.2	5.1	9.5	1.3	1,000
3503317	3503367	CCL 437-170	11.1	10.7	12.7	4.3	9.5	1.3	1,000
3503308	3503358	CCL 1/2	12.7	12.3	14.0	5.1	9.5	1.3	1,000
3503318	3503368	CCL 500-170	12.7	12.3	13.5	4.3	9.5	1.3	1,000



PART NUMBER		Description	Clamping Size	Dimensions					Unit Quantity
Natural	Black			A	B	C	D	E	
3503322	3503372	CCH 1/8	3.2	2.9	9.1	5.1	12.7	1.5	1,000
3503323	3503373	CCH 3/16	4.8	4.4	10.7	5.1	12.7	1.5	1,000
3503324	3503374	CCH 1/4	6.3	5.9	11.6	5.1	12.7	1.5	1,000
3503325	3503375	CCH 5/16	7.9	7.5	12.6	5.1	12.7	1.5	1,000
3503326	3503376	CCH 3/8	9.5	9.1	13.4	5.1	12.7	1.5	1,000
3503327	3503377	CCH 7/16	11.1	10.7	14.2	5.1	12.7	1.5	500
3503328	3503378	CCH 1/2	12.7	12.3	15.0	5.1	12.7	1.5	1,000
3503329	3503379	CCH 9/16	14.3	13.9	15.8	5.1	12.7	1.5	1,000
3503330	3503380	CCH 5/8	15.9	15.5	16.6	5.1	12.7	1.5	1,000
3503331	3503381	CCH 11/16	17.4	17.1	19.1	5.1	12.7	1.5	1,000
3503332	3503382	CCH 3/4	19.0	18.6	19.9	5.1	12.7	1.5	500
3503333	3503383	CCH 13/16	20.6	20.2	20.7	5.1	12.7	1.5	1,000
3503334	3503384	CCH 7/8	22.2	21.9	21.5	5.1	12.7	1.5	500
3503340	3503390	CCH 1	25.4	25.0	23.1	5.1	12.7	1.5	500
3503342	3503392	CCH 1-1/8	27.9	28.0	24.6	5.1	12.7	1.5	200
3503343	3503393	CCH 1-3/16	29.5	29.6	25.4	5.1	12.7	1.5	1,000
3503344	3503394	CCH 1-1/4	31.2	31.2	27.0	5.1	12.7	1.5	1,000
3503346	3503396	CCH 1-3/8	34.3	34.3	28.6	5.1	12.7	1.5	1,000
3503348	3503398**	CCH 1-1/2	37.6	37.5	30.1	5.1	12.7	1.5	500

Cable Clamps - 'P' Clips (UL94V-0)

PART NUMBER	Description	Clamping Size	A	B	C	D	E	Unit Quantity
3503873	CCL 1/8	3.2	2.9	8.3	5.1	9.5	1.3	Please Call
3503874	CCL 3/16	4.8	4.7	9.6	5.1	9.5	1.3	Please Call
3503875	CCL 1/4	6.3	5.9	10.4	5.1	9.5	1.3	20,000
3503876	CCL 5/16	7.9	7.5	11.2	5.1	9.5	1.3	20,000
3503877	CCL 3/8	9.5	9.1	12	5.1	9.5	1.3	20,000
3503878	CCL 7/16	11.1	10.7	13.2	5.1	9.5	1.3	20,000
3503879	CCL 1/2	12.7	12.3	14	5.1	9.5	1.3	10,000

OPTIMAS

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Stainless Steel Cable Clamps - 'P' Clips

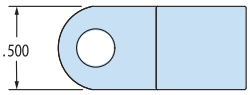


Specifications: RoHS ✓
Material: 304 Stainless Steel

LDPE Coating: Polyolefin

- For clamping cable or tubing securely into place, especially in harsh environments.
- Smooth "coined" clamp edges prevent damage to cable insulation.
- Constructed from corrosion resistant 304 stainless steel.
- LDPE coated parts are constructed from 304 stainless steel and coated with polyolefin, a thermoplastic Co-Polymer that provides a durable non-toxic, odorless coating that has very good low temperature flexibility and excellent electrical properties. This coating also has FDA food contact approval.

NEW





304 Stainless Steel

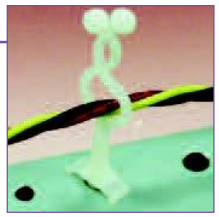
PART NUMBER	Description	A	Unit Quantity
350S3374	CC H 1/4 SS	6.3	500
350S3376	CC H 3/8 SS	9.5	500
350S3378	CC H 1/2 SS	12.7	500
350S3380	CC H 5/8 SS	15.9	500
350S3382	CC H 3/4 SS	19.1	500
350S3384	CC H 7/8 SS	22.2	500

304 Stainless Steel - LDPE Coated

PART NUMBER	Description	A	Unit Quantity
350S3324	CC H 1/4 SSC	6.3	500
350S3326	CC H 3/8 SSC	9.5	500
350S3328	CC H 1/2 SSC	12.7	500
350S3330	CC H 5/8 SSC	15.9	500
350S3332	CC H 3/4 SSC	19.1	500
350S3334	CC H 7/8 SSC	22.2	500

All parts require a 5.2 mm mounting hole suitable for a #10 screw.

Standoff Cable Loops

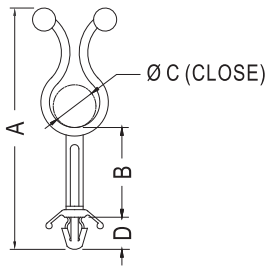


Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E217732 except where marked

* Parts NOT recognized by UL

Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

- Push mount assembly with finger tip pressure



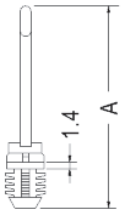
PART NUMBER	Hole Size	Max Panel Thickness	A	B	C	D	ØC (CLOSE)	Unit Quantity
3633020*	4.8	0.8 to 2.0	56.5	21.0	11.8	7.5	10.4	1,000
3633021*	4.8	0.8 to 2.0	59.8	34.0	5.6	7.5	5.0	1,000
3633022*	4.8	0.8 to 2.0	37.7	4.5	12.0	7.5	10.4	1,000
3633023*	4.0	0.8 to 2.0	26.7	3.0	8.8	5.5	7.2	1,000
3633024*	4.8	0.8 to 2.0	78.1	43.5	11.5	7.9	10.1	500
3633025	4.8 to 5.0	1.0 to 3.2	33.8	3.1	7.1	10.6	6.1	1,000
3633026	4.8 to 5.0	1.0 to 3.2	51.0	20.0	7.1	10.6	6.1	1,000
3633027	4.8 to 5.0	1.0 to 3.2	66.0	35.3	7.1	10.6	6.1	1,000
3633028	4.8 to 5.0	1.0 to 3.2	39.6	2.8	10.8	10.6	9.8	1,000
3633029	4.8 to 5.0	1.0 to 3.2	56.8	20.0	10.8	10.6	9.8	1,000
3633030	4.8 to 5.0	1.0 to 3.2	71.5	35.2	10.8	10.6	9.8	1,000
3633031	4.8 to 5.0	1.0 to 3.2	42.0	3.0	15.0	10.6	13.8	1,000
3633032	4.8 to 5.0	1.0 to 3.2	59.3	20.4	15.0	10.6	13.8	1,000
3633033	4.8 to 5.0	1.0 to 3.2	74.7	35.8	15.0	10.6	13.8	1,000
3633034	4.8 to 5.0	1.0 to 3.2	63.5	16.2	20.0	10.6	18.4	1,000
3633035	4.8 to 5.0	1.0 to 3.2	56.8	3.0	24.3	9.8	22.3	1,000
3633036	4.8 to 5.0	1.0 to 3.2	53.1	15.3	11.0	10.8	9.7	1,000
3633037	4.8 to 5.0	1.0 to 3.2	55.3	5.0	20.3	10.6	18.7	1,000
3633038*	4.8 to 5.0	1.0 to 3.2	43.8	10.5	8.0	10.6	6.8	1,000
3633039*	4.8 to 5.0	1.0 to 3.2	34.7	5.6	8.8	10.0	7.0	1,000

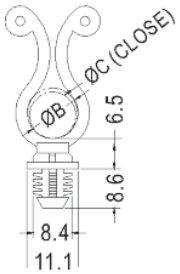
Pine Tree Mount Cable Loops - WTL Series



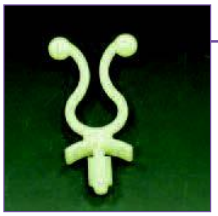
Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

- Push mount assembly with finger tip pressure





PART NUMBER	Hole Size	Max Panel Thk	A	B	ØC (CLOSE)	Unit Quantity
3633040	7.9	6.4	43.7	11.0	10.0	1,000
3633041	7.9	6.4	52.6	19.0	18.0	1,000

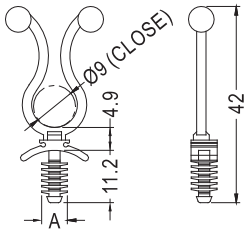


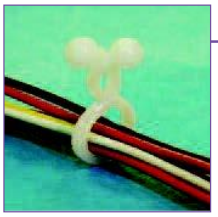
Pine Tree Mount Cable Loops - WKL Series

- Push mount assembly with finger tip pressure

Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

PART NUMBER	Hole Size	Max Panel Thk	A	Unit Quantity
3633042	5.0	11.0	5.5	1,000
3633043	4.5	11.0	5.0	1,000



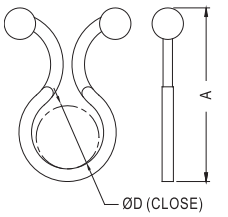


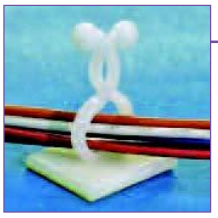
Cable Loops

- Releasable and reusable for easy wire bundling
- Smooth, radiused edges ensure that the cable loops will not cut into the cable insulation or installer's hand
- Locking ends "twist" into place with fingertip pressure

Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

PART NUMBER	A	D	ØD (CLOSE)	Unit Quantity
3632065	17.8	5.1	4.0	1,000
3632066	23.8	8.3	7.3	1,000
3632067	27.5	11.5	10.0	1,000
3632068	30.4	15.4	13.8	1,000
3632069	35.0	18.8	17.2	1,000
3632070	41.4	25.8	24.2	1,000
3632071	42.0	22.0	19.5	1,000
3632072	16.5	5.6	5.0	1,000
3632073	30.0	11.0	9.7	1,000
3632074	32.5	13.2	11.5	1,000
3632075	55.5	29.0	26.8	1,000





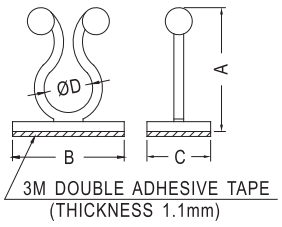
Self Adhesive Cable Loops

- Releasable and reusable for easy wire bundling
- Self adhesive base for secure surface mount
- Locking ends "twist" into place with fingertip pressure

Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E217732

PART NUMBER	UL Description	A	B	C	D	ØD (CLOSE)	Unit Quantity
3633054	KL-1	31.9	20.0	20.0	15.0	13.8	1,000
3633055	KL-2	26.2	20.0	14.0	9.2	8.5	1,000
3633056	KL-2L	27.9	25.0	13.0	9.4	8.2	1,000
3633057	KL-3	28.2	21.0	19.0	11.1	10.0	1,000
3633058	KL-5	56.2	38.0	20.0	36.0	34.0	1,000
3633059	KL-6	27.6	10.0	19.8	6.6	5.8	1,000
3633060	KL-7	21.9	20.0	13.0	8.5	7.2	1,000
3633061	KL-16	37.0	25.0	13.0	18.0	17.0	1,000
3633062	KL-19	39.0	25.0	13.0	21.0	20.0	1,000
3633063	KL-22	41.0	28.0	15.0	24.0	23.0	1,000



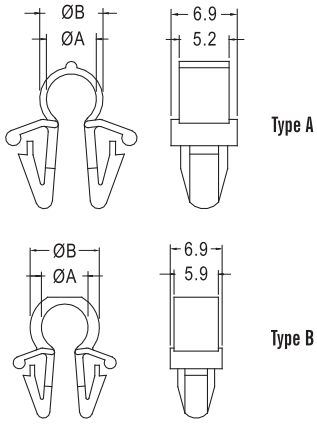


Wire Holders

- Securely holds wire in place
- Push mount with finger tip pressure

Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

PART NUMBER	Mounting Hole Diameter	Panel Thickness	A	B	Type	Unit Quantity
3633050	6.0	2.0	5.2	6.6	A	1,000
3633051	6.0	2.0	6.2	9.2	B	1,000
3633052	6.0	2.0	8.2	11.2	B	1,000
3633053	6.0	2.0	10.2	13.2	B	1,000



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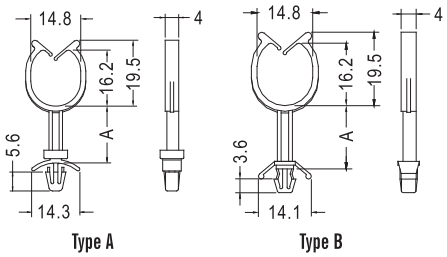
Standoff Harness Clips



Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E217732

Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

- Push mount assembly with finger tip pressure



PART NUMBER	UL Description	Hole Size	Panel Thickness	A	Type	Unit Quantity
3563657	THE-9	4.8 to 5.0	0.5 to 2.3	9.5	A	1,000
3563658	THE-12	4.8 to 5.0	0.5 to 2.3	12.7	B	1,000
3563659	THE-17	4.8 to 5.0	0.5 to 2.3	16.8	B	1,000
3563660	THE-25	4.8 to 5.0	0.5 to 2.3	25.0	B	1,000
3563661	THE-37	4.8 to 5.0	0.5 to 2.3	26.8	B	1,000

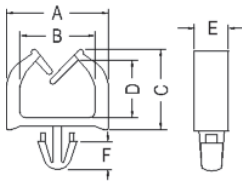
Wire Mounts



Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E217732 (only for parts marked with *)

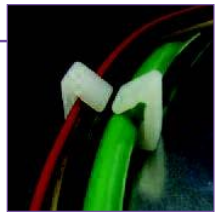
Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

- Push mount assembly with finger tip pressure
- Ideal for fixing wires to PCBs



PART NUMBER	UL Description	Hole Size	Panel Thickness	A	B	C	D	E	F	Unit Quantity
3563640*	MWS-6	3.5	1.0 to 1.6	12.0	8.8	11.5	8.5	4.0	2.8	1,000
3563641*	MWS-7	3.5	1.0 to 1.6	9.2	6.8	7.6	5.0	4.0	2.7	1,000
3563642	-	3.0	0.8 to 1.6	10.5	7.9	9.3	6.4	4.1	2.8	1,000
3563643	-	3.0	1.6	10.7	8.3	9.6	7.0	4.0	3.4	1,000
3563644	-	3.0	1.6	10.7	8.3	9.6	7.0	4.0	2.4	1,000
3563645	-	3.5	1.6	9.0	6.6	7.3	5.15	4.0	3.2	1,000
3563646	-	3.5	1.0	9.0	6.6	7.3	5.15	4.0	2.8	1,000

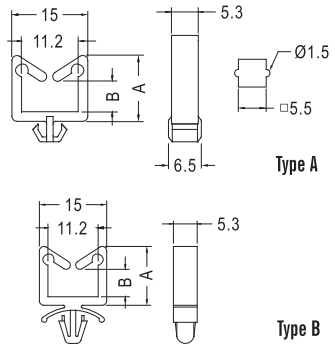
Wire Mounts



Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E217732 except where marked * Parts NOT recognized by UL

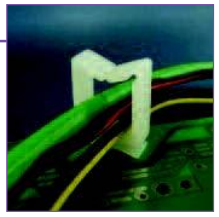
Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

- Push mount assembly with finger tip pressure



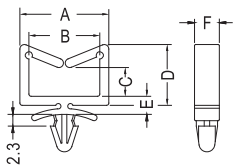
PART NUMBER	UL Description	Hole Size	Panel Thickness	A	B	Type	Unit Quantity
3563647*	CHAB-1	5.5 square (see diagram)	1.0	12.0	5.0	A	1,000
3563648*	CHAB-2	5.5 square (see diagram)	1.0	17.0	10.0	A	1,000
3563649*	CHAB-3	5.5 square (see diagram)	1.0	26.0	19.0	A	1,000
3563650	CHA-1	4.8 to 5.0	0.8 to 2.0	12.0	5.0	B	1,000
3563651	CHA-2	4.8 to 5.0	0.8 to 2.0	17.0	10.0	B	1,000
3563653	CHA-3	4.8 to 5.0	0.8 to 2.0	26.0	19.0	B	1,000
3563654	CHA-4	4.8 to 5.0	0.8 to 2.0	34.0	27.0	B	1,000

Wire Mounts



Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

- Push mount assembly with finger tip pressure
- Ideal for fixing wires to PCBs



PART NUMBER	Hole Size	Panel Thickness	A	B	C	D	E	F	Unit Quantity
3563655	4.8 to 5.0	1.2 to 2.1	19.7	15.7	11.3	18.2	4.1	5.4	1,000
3563656	4.8 to 5.0	1.2 to 2.1	15.0	11.0	10.9	17.0	3.9	5.5	1,000



Harness Clips

- Clips for small power cables and fine power leads
- Compact; do not take up much space

Specifications: RoHS ✓

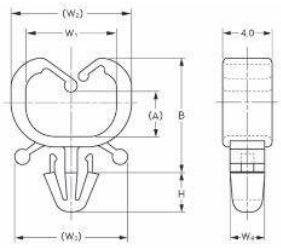
Material / Colours:
Nylon 6 (UL94V-2): Natural
Nylon 66 (UL94V-0): White

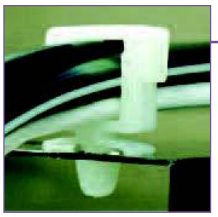
Approvals:

* UL recognised product on File No. E191920

UL file description HC
Rating 80°C

PART NUMBER		Dimensions									Unit Quantity
UL94V-2	UL94V-0	(A)	B	W1	(W2)	(W3)	W4	H	Mounting Hole	Applicable Board T/ness	
3631000*	3631002	3.7	9.3	7.4	9.8	9.2	2.9	3.2	Ø3.0	0.6~1.6	500
3631001	3631003	8.1	15.0	9.4	12.0	12.2	3.4	3.0	Ø3.5	0.6~1.6	500





Wire Saddles PLWS Series

- Fixes into the chassis with a single push
- Uses wire-holding space efficiently; holds wires firmly in place
- Saddle can be mounted sideways or upside-down

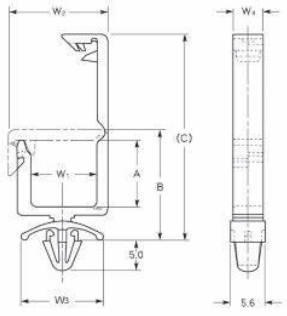
Specifications: RoHS ✓

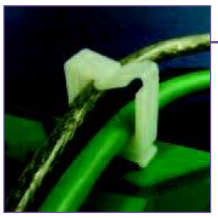
Material: Nylon 66
Colours: UL94V-2: Natural UL94V-0: White

Approvals:

UL recognized product

PART NUMBER		Dimensions									Unit Quantity
UL94V-2	UL94V-0	Mounting Hole Ø	A	B	(C)	W1	W2	(W3)	W4	Applicable Board Thickness	
3562000	3562005	4.8	6.0	13.8	29.6	11.0	16.7	14.2	5.0	0.6~2.0	500
3562001	3562006	4.8	11.1	18.8	35.4	11.4	17.3	14.2	5.0	0.6~2.0	500
3562002	3562007	4.8	16.4	24.8	42.5	12.9	19.0	14.2	5.5	0.6~2.0	500
3562003	3562008	4.8	22.5	32.1	55.3	17.5	24.5	18.2	6.0	0.6~2.0	500
3562004	3562009	4.8	22.5	33.3	56.5	17.5	24.5	18.2	6.0	2.0~3.2	500





Wire Saddles LWS Series

- Simply push the wires in to lock them in place
- Fixes into the chassis with a single push
- The design of the wire locking mechanism allows the saddle to be mounted sideways or upside-down

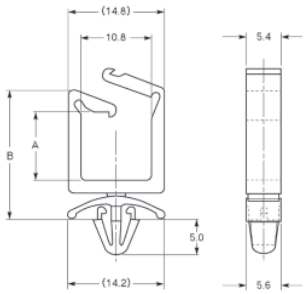
Specifications: RoHS ✓

Material: Nylon 66
Colours: UL94V-2: Natural UL94V-0: White

Approvals:

UL recognized product

PART NUMBER		Dimensions				Unit Quantity
UL94V-2	UL94V-0	A	B	Mounting Hole	Applicable Board Thickness	
3561000	3561004	6.7	16.4	4.8	0.5~2.0	500
3561001	3561005	10.6	20.4	4.8	0.5~2.0	500
3561002	3561006	20.0	29.5	4.8	0.5~2.0	500
3561003	3561007	27.8	37.3	4.8	0.5~2.0	500





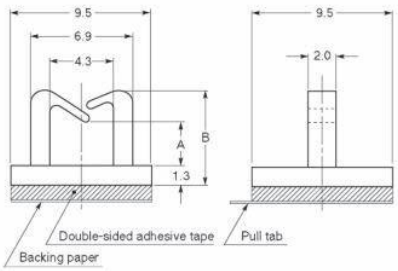
Mini Wire Saddles

- For small power cables and fine power leads
- Compact; do not take up much space
- Double-sided adhesive tape backing allows mounting in position desired
- Pull-tab enables easy removal of backing paper

Specifications: RoHS ✓

Material: Nylon 66
Colours: UL94V-2: Natural UL94V-0: White

PART NUMBER		Dimensions		Unit Quantity
UL94V-2	UL94V-0	A	B	
3563000	3563001	3	6.4	500



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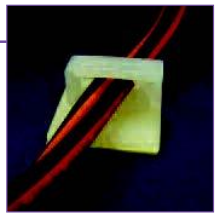
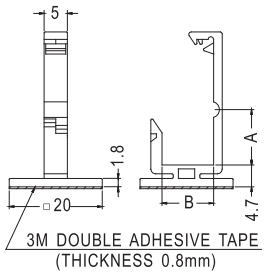
Locking Wire Mounts



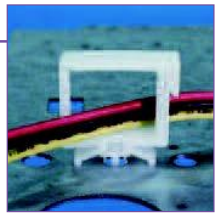


Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

- Releasable and reusable for easy wire bundling
- Self adhesive base for secure surface mount

PART NUMBER	A	B	Unit Quantity
3562020	6.7	11.1	1,000
3562021	11.9	11.1	1,000
3562022	15.7	15.7	1,000

Locking Wire Mounts

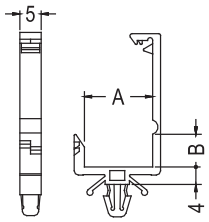


Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E217732 except where marked

* Parts NOT recognized by UL

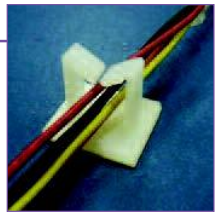
Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

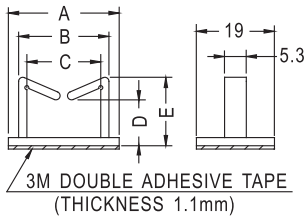
- Push mount assembly with finger tip pressure



PART NUMBER	Mounting Hole Diameter	Panel Thickness	UL Description	A	B	Unit Quantity
3562023*	3.5	0.8 to 2.5	-	11.1	4.9	1,000
3562024*	3.5	0.8 to 2.5	-	11.1	10.1	1,000
3562025	4.8 to 5.0	1.2 to 2.4	CHC-1	16.0	14.0	1,000
3562026	4.8 to 5.0	1.2 to 2.4	CHC-2	11.1	10.2	1,000
3562027	4.8 to 5.0	1.2 to 2.4	CHC-3	11.1	5.0	1,000

Wire Mounts



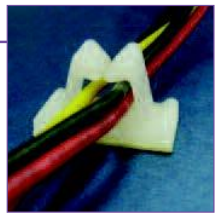


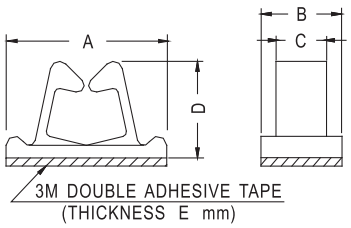
Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

- Releasable and reusable for easy wire bundling
- Self adhesive base for secure surface mount

PART NUMBER	A	B	C	D	E	Unit Quantity
3563002	21.0	15.5	11.5	10.0	17.2	1,000
3563003	27.0	22.0	18.0	11.2	16.7	1,000

Wire Mounts





Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

- Releasable and reusable for easy wire bundling
- Self adhesive base for secure surface mount

PART NUMBER	A	B	C	D	E	Unit Quantity
3563004	17.8	8.9	5.6	10.7	1.1	1,000
3563005	25.5	12.6	5.7	10.8	0.8	1,000



Cable Holders

- Easy cable entry
- Choice of vertical or side entry
- Push mount or self adhesive base
- Push mount assembly with fingertip pressure

Specifications: RoHS ✓

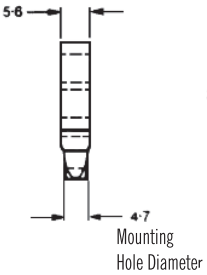
Material: Nylon 66
Colour: White
Flammability: UL94V-2
Temperature Index: 85°C
Tolerances: A, B & C = ± 0.41

Approvals:

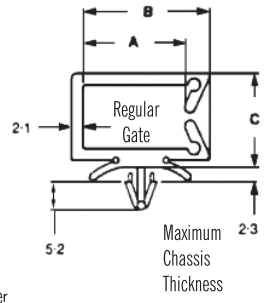
UL recognized product

* Part not recognized by UL

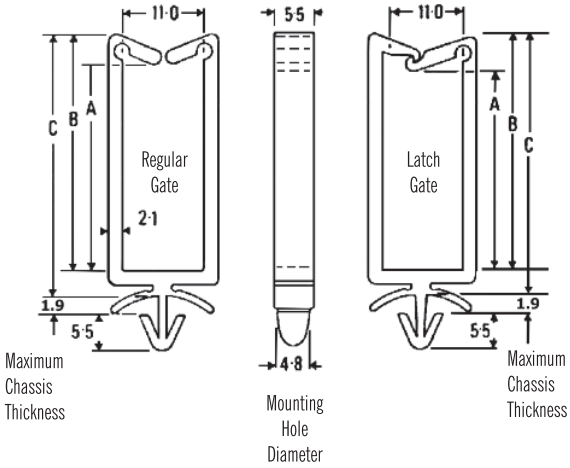
PART NUMBER	Dimensions			Gate Form	Entry Form	Base Form	Unit Quantity
	A	B	C				
3563600*	4.4	8.7	12.3	Regular Gate	Vertical Entry	Push-Mount	1,000
3563605	9.9	14.7	18.2	Regular Gate	Vertical Entry	Push-Mount	1,000
3563615	27.0	31.7	35.0	Regular Gate	Vertical Entry	Push-Mount	1,000
3563625	9.1	14.7	18.2	Latch Gate	Vertical Entry	Push-Mount	1,000
3563630	18.2	23.8	27.0	Latch Gate	Vertical Entry	Push-Mount	1,000
3563635	26.2	31.7	35.0	Latch Gate	Vertical Entry	Push-Mount	1,000
3563652	19.0	23.4	16.7	Regular Gate	Side Entry	Push-Mount	1,000
3563608	11.1	15.9	18.3	Regular Gate	Vertical Entry	Self-Adhesive	500
3563613	19.8	23.36	26.92	Regular Gate	Vertical Entry	Self-Adhesive	500

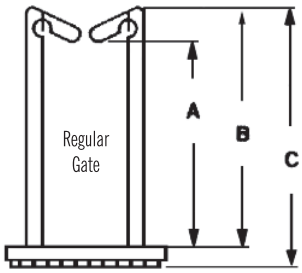


Side Entry



Vertical Entry





OPTIMAS

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E: sales@optimascomponents.com

Adjustable Cable Clips



Approvals:

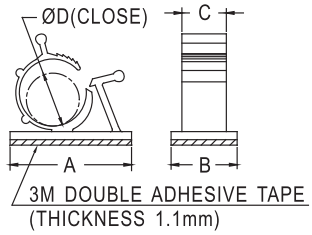
Recognized under the Component Program of Underwriters' Laboratories File No. E217732 except where marked

* Parts NOT recognized by UL

Specifications: RoHS ✓

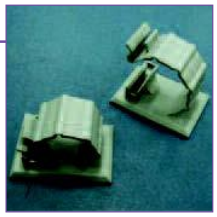
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

- Ratcheting system allows adjustment stages, letting you tighten to the diameter of the wiring bundle
- One-touch ratchet lock release makes maintenance simple
- Double-sided adhesive tape backing allows mounting in position desired



PART NUMBER	UL Description	A	B	C	D	Unit Quantity
0905000*	-	25.4	19.1	10.2	7.8 to 9.8	100
0887010	AWC-1	24.8	18.8	10.2	7.9 to 10.3	250
0887011	AWC-2	25.4	15.0	10.0	11.0 to 13.3	250
0905001*	-	31.8	19.1	10.2	11.4 to 14.3	100
0887012*	-	30.2	15.0	10.0	11.9 to 14.3	250
0887013	AWC-3	34.4	18.8	12.7	14.7 to 19.1	100
0905002	-	38.1	19.1	12.7	15.2 to 19.0	100
0887014	AWC-4	36.0	19.0	12.7	18.0 to 22.0	100
0887015	AWC-5	39.8	19.8	13.0	22.0 to 26.5	100

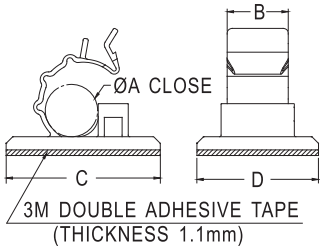
Self Adhesive Cable Clips



Specifications: RoHS ✓

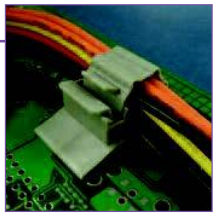
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Grey

- One-touch lock release makes maintenance simple
- Double-sided adhesive tape backing allows mounting in position desired



PART NUMBER	A	B	C	D	Unit Quantity
0890005	6.2	8.6	17.5	20.5	200
0890006	7.0	9.8	25.5	17.5	200
0890007	10.3	12.0	30.3	23.9	200
0890008	14.5	14.0	29.9	23.9	200
0890009	18.5	15.9	35.7	25.2	200

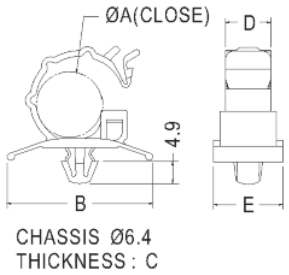
Push Mount Cable Clips



Specifications: RoHS ✓

Material: Nylon 66
Flammability rating: UL94V-2
Colour: Grey

- One-touch lock release makes maintenance simple
- Barbed locking element ensures reliable retention



PART NUMBER	A	B	C	D	E	Unit Quantity
0920000	7.0	27.0	0.8 to 2.3	9.8	15.0	200
0920001	10.3	31.0	0.8 to 2.3	12.0	17.2	200
0920002	13.0	32.0	0.5 to 2.3	13.9	19.2	200
0920003	14.8	32.1	0.8 to 2.3	14.0	19.3	200
0920004	16.0	35.0	0.5 to 2.3	15.8	21.3	200
0920005	20.0	37.5	0.5 to 2.3	18.0	23.2	200
0920006	20.0	37.5	2.3 to 4.1	18.0	23.2	200

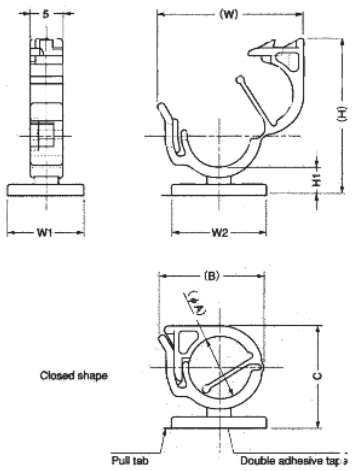
Easy Lock EB Series Clips



Specifications: RoHS ✓

Material: Nylon 66
Colours: UL94V-2: Natural
UL94V-0: White

- The internal spring has outstanding elasticity, and firmly grips cables etc.
- Unique latch mechanism ensures cables are kept securely in place.



PART NUMBER	Dimensions									Unit Quantity
UL94V-2	Bundle ØRange	(ØA)	(B)	C +0.3 -0.3	(W)	W1	W2	(H)	H1	
2102000	4~6	7.6	13.9	13.5	19.2	12.0	12.0	20.6	4.1	500
2102001	6~8	10.0	16.5	16.5	23.2	12.0	15.0	24.9	4.2	500
2102002	8~10	12.4	20.0	19.1	27.6	15.0	17.5	29.4	4.7	500

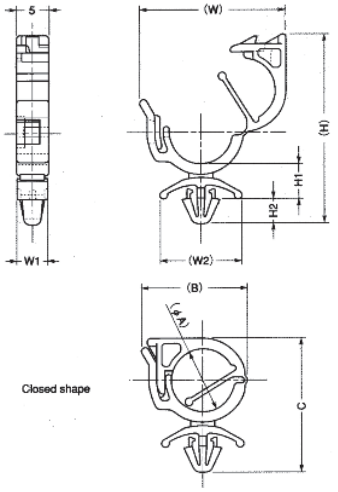
Easy Lock ES Series Clips



- Push mount assembly with finger tip pressure
- The Internal spring has outstanding elasticity, and firmly grips cables etc.
- Unique latch mechanism ensures cables are kept securely in place.

Specifications: RoHS ✓
Material: Nylon 66
Colours: UL94V-2: Natural
UL94V-0: White

PART NUMBER		Dimensions												Unit Quantity
UL94V-2	UL94V-0	Bundle Ø Range	ØA	(B)	C±0.3	(W)	W1	W2	H	H1	H2	Mtg Hole	Board T/ness	
2101000	2101003	4~6	7.6	13.9	19.0	19.2	4.8	(13)	25.9	5.5	4.0	Ø4.0	0.6~1.6	500
2101001	2101004	6~8	10.0	16.5	21.7	23.2	4.8	(13)	30.2	5.6	4.0	Ø4.0	0.6~1.6	500
2101002	2101005	8~10	12.4	20.0	25.6	27.6	5.6	(14.2)	35.4	6.0	5.0	Ø4.8	0.6~2.0	500



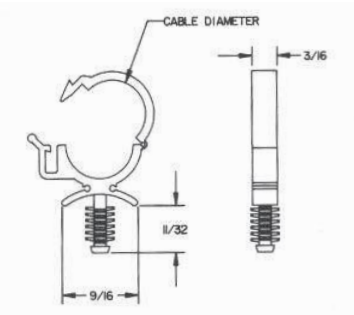
Push Fit Hinged Cable Clips



- Release tab provides easy opening without forcing
- Easy to use

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

PART NUMBER	Part Dimensions					Unit Quantity
	A	B	C	Cable Diameter	Hole Diameter	
3602100	4.76	14.29	8.73	9.52	4.76	1,000
3602200	4.76	14.29	8.73	12.70	4.76	1,000
3602300	9.53	15.88	8.73	25.40	6.35	1,000



Mini Clamps

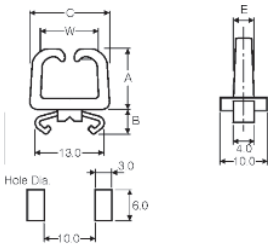


- Easily accepts and holds wires.
- Double clip design to provide anti-rotation.

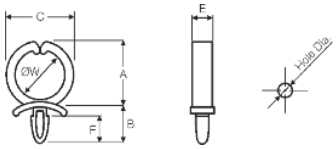
Specifications: RoHS ✓
Material: Nylon 6
Colour: Natural
Flammability: UL94V-2

PART NUMBER	Type	A	B	C	E	F	W	Mounting Hole Diameter	Panel Thickness	Extraction Force	Unit Quantity
0567001	A	12.0	5.0	16.0	4.0	-	11.0	See Diagram	1.0 ~ 1.2	78N	500
0568000	B	10.6	10.0	10.6	3.5	7.5	8.0	3.1	1.0 ~ 2.3	59N	500
0568001	B	14.6	10.0	16.0	4.5	7.5	12.0	3.1	0.8 ~ 1.6	59N	500
0568002	B	10.6	9.5	10.6	3.5	5.5	8.0	3.2	2.0 ~ 3.2	59N	500
0568003	B	15.2	9.0	15.2	4.5	5.5	12.0	3.5	1.8 ~ 2.8	59N	500
0568004	B	18.0	9.5	18.0	5.5	5.5	14.0	3.2	2.0 ~ 3.2	59N	500

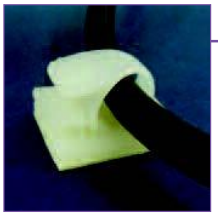
Type A



Type B



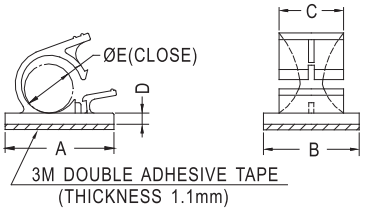
Wire Holders



- One-touch lock release makes maintenance simple
- Double-sided adhesive tape backing allows mounting in position desired

Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

PART NUMBER	A	B	C	D	E	Unit Quantity
0890050	13.0	10.0	6.8	2.0	4.0	1,000
0890051	15.0	13.0	9.0	2.0	6.0	1,000
0890052	21.6	19.0	12.8	2.2	9.0	500
0890053	25.0	20.0	13.2	2.2	11.0	250
0890054	32.0	25.4	16.0	2.1	13.4	200
0890055	35.8	24.8	16.8	2.7	18.0	100



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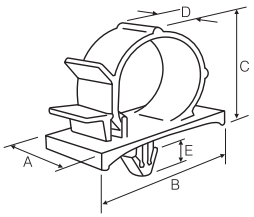
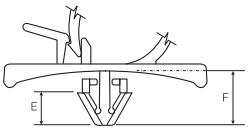
Push Mount Cable Clips





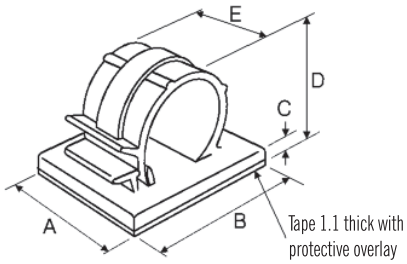
Specifications: RoHS ✓
Material: Nylon 66
Colour: Grey
Flammability: UL94V-2
Maximum service temperature: 93°C
Tolerances: All dimensions = ± 0.76

- Release tab provides easy opening without forcing
- Barbed locking element ensures reliable retention
- Quick lock and release allows fast lock-up and easy access to wire bundle



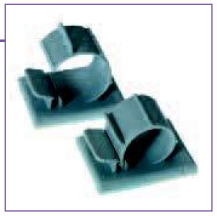
PART NUMBER	Dimensions						Max. Wire Bundle Diameter	Mounting Hole Diameter	Chassis Thickness	Unit Quantity
	A	B	C	D	E	F				
0927046	22.35	35.05	24.64	17.02	5.08	7.62	19.05	6.35	0.51 to 2.03	500
0937054	14.73	25.40	11.18	10.41	5.08	9.40	6.35	6.35	2.29 to 3.81	1,000
0937055	16.51	25.40	13.46	12.70	5.08	9.40	9.52	6.35	2.29 to 3.81	1,000

Self Adhesive Cable Clips



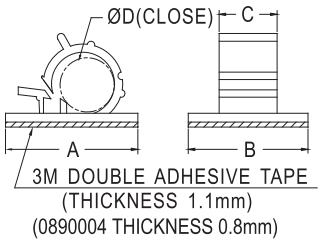
Specifications: RoHS ✓
Colour: Grey
Service temperature range: 4°C to 65°C
Recommended installation temp 15°C to 27°C

- Closure tab speeds cable installation
- Barbed locking element assures load retention
- Rigid base for maximum adhesion
- Release tab allows for easy cable replacement



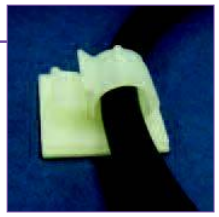
PART NUMBER & MATERIAL		Dimensions					Max. Wire Bundle Diameter	Unit Quantity
Nylon 66 (UL94V-2)	Polypropylene (UL94HB)	A	B	C	D	E		
0887000	**0888100**	18.80	16.00	2.20	8.50	9.70	5.00	1,000
0887001	-	25.40	22.10	2.54	10.67	16.00	6.35	1,000
0887002	-	25.40	25.30	2.60	12.70	16.10	9.53	1,000
0887003	**0888103**	25.40	30.73	2.79	17.27	16.26	12.70	1,000
0887004	**0888104**	29.30	37.00	3.20	25.15	16.90	19.60	500
0887005	-	50.50	57.10	3.90	34.80	31.70	26.80	100

Self Adhesive Cable Clips



Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

- Closure tab speeds cable installation
- Barbed locking element assures load retention
- Rigid base for maximum adhesion
- Release tab allows for easy cable replacement

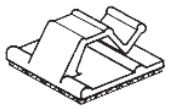


PART NUMBER	A	B	C	D	Unit Quantity
0890000	21.0	19.0	9.2	8.2	500
0890001	25.0	20.0	12.0	9.0	250
0890002	25.0	19.7	12.1	10.6	250
0890003	29.0	20.0	14.0	12.6	250
0890004	21.6	17.0	12.0	10.4	250

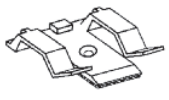
Self Adhesive Cable Clips



Parts 3593629, 3593636 and 3593637



Part 3593638



Part 3593639

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

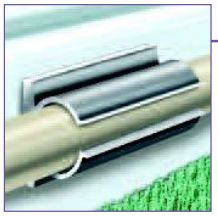
Tolerances: Base & Height = ± 0.41

- Accommodates range of cable sizes and sections
- Easy cable entry

* Suitable for flat ribbon cables. May also be mounted with M3.5 countersunk head screw



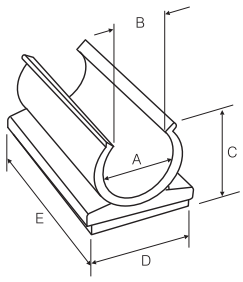
PART NUMBER	Description	Part Dimensions			Unit Quantity
		Base	Bundle Capacity	Overall Height	
3593629	WCA - 43	15.9 x 15.9	Ø4.8	7.9	1,000
3593636	WCA - 44	15.9 x 15.9	Ø6.4	9.5	1,000
3593637	WCA - 46	19.1 x 19.1	Ø9.5	12.7	1,000
3593638	WCA - 4	15.9 x 15.9	3.2 x 6.4	6.4	1,000
***3593639**	WCA - 5	25.5 x 25.6	3.2 x 12.7	7.1	1,000



Antenna Cable Clip

- Economic method of routing cables and tubing
- Snap-in design speeds installation and provides quick access

Specifications: RoHS ✓
Material: ABS
Colour: Black
Operating Temperature: -18°C to 65°C
Storage Temperature: 15°C to 27°C at 50% RH (max)



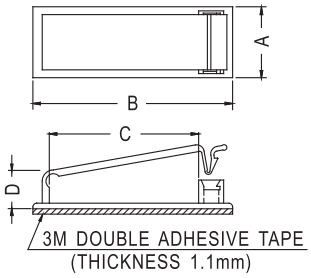
PART NUMBER	Maximum Wire Bundle Diameter	Dimensions					Unit Quantity
		A	B	C	D	E	
1057050	6.35	4.88	3.81	6.91	10.62	15.82	1,000



Flat Cable Mounts

- Releasable and reusable for easy wire bundling
- Self adhesive base for secure surface mount

Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural



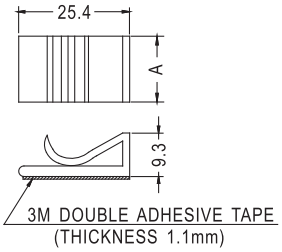
PART NUMBER	A	B	C	D	Unit Quantity
1017150	19.7	77.6	64.0	12.8	100
1017151	19.0	53.5	40.0	11.2	100
1017152	19.0	45.8	32.0	11.2	200
1017153	19.8	45.4	31.8	18.0	200
1017154	19.3	53.5	39.7	14.8	200
1017155	19.3	53.5	39.7	14.5	200



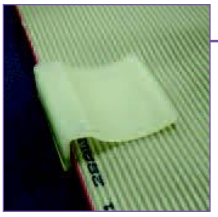
Flat Cable Mounts - PVC

- Securely holds flat wire in place
- Self adhesive base for secure surface mount

Specifications: RoHS ✓
Material: PVC
Colour: Grey



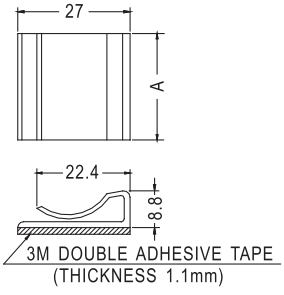
PART NUMBER	A	Unit Quantity
0987104	15.0	500
0987105	20.0	500
0987106	25.0	500



Flat Cable Mounts - Nylon

- Securely holds flat wire in place
- Self adhesive base for secure surface mount

Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural



PART NUMBER	A	Unit Quantity
0987107	15.0	500
0987108	20.0	500
0987109	25.4	500

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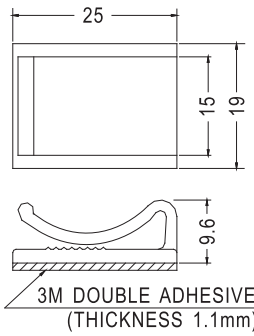
Flat Cable Mount



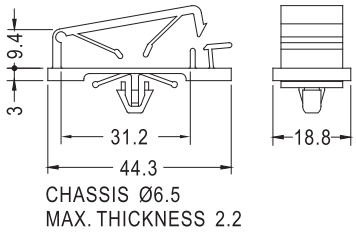
Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

- Securely holds flat wire in place
- Self adhesive base for secure surface mount



PART NUMBER	Unit Quantity
1017156	500

Flat Cable Clip



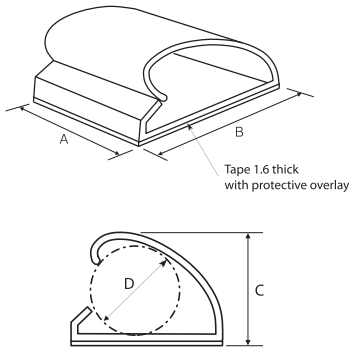
Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

- Securely holds flat wire in place
- Barbed locking element ensures reliable retention



PART NUMBER	Unit Quantity
1007130	100

Self Adhesive Cable Clips



Specifications: RoHS ✓
Material: PVC
Colour: Grey
Flammability: UL94V-0
Service temperature range: 0°C to 50°C

- Extruded body for economy
- Easy cable installation
- Self-closing feature
- Self-extinguishing



PART NUMBER	Dimensions			Max. Wire Bundle Diameter	Unit Quantity
	A	B	C at Max Capacity (REF)	D	
0917036	12.7	12.7	10.2	6.4	1,000
0917037	19.1	19.1	18.5	12.7	1,000
0917038	25.4	28.2	25.9	19.1	500
0917039	31.8	38.1	33.0	25.4	500

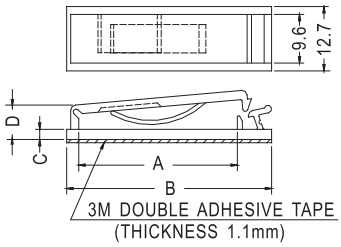


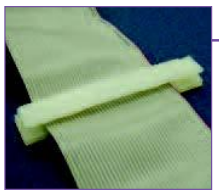
Flat Cable Mounts

- Securely holds flat wire in place
- Self adhesive base for secure surface mount

Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

PART NUMBER	A	B	C	D	Unit Quantity
1017157	31.5	40.7	2.0	6.8	200
1017158	52.0	61.2	2.1	6.9	100



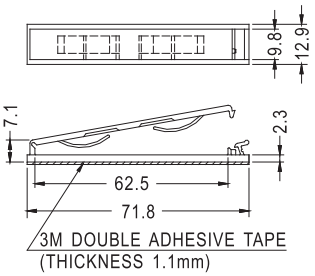


Flat Cable Mounts

- Securely holds flat wire in place
- Self adhesive base for secure surface mount

Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

PART NUMBER	Unit Quantity
1007159	100



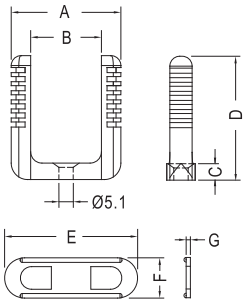


Flat Cable Mounts

- Securely holds flat wire in place
- Self adhesive base for secure surface mount

Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Colour: Natural

PART NUMBER	A	B	C	D	E	F	G	Unit Quantity
0887016	38.9	25.1	5.8	43.7	47.2	14.2	1.5	100
0887017	55.2	37.0	7.9	56.6	62.7	17.8	1.2	100



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Self Adhesive Aluminium Cable Clips



(illustration shows "Round Cable Clip" type)

Specifications: RoHS ✓
Material: Aluminium
Colour: Self
Tolerances: ± .40
Working temperature -40°C to +60°C
* Coated in white matt polyester

- For bundling and clamping wires and cables
- Bends easily to accept cables of different shapes and sizes
- Polyethylene foam coated with rubber based adhesive provides instant tack and high shear adhesion
- Buckle clip for additional security


(illustration shows "Round Cable Clip" type)

Clip Types:


Round Cable Clip


Ribbon Cable Clip


Reversible Bridge Clip


Buckle Clip


Hook Clip

PART NUMBER	Base Dimension	Maximum Cable Size	To Suit Cable	Type	Unit Quantity
3571100	16.0 x 11.0	6.3	Round	Round Cable Clip	1,000
3571101	19.0 x 16.0	10.0	Round	Round Cable Clip	1,000
3571150	14.0 x 9.7	12.7	Ribbon	Ribbon Cable Clip	1,000
3571151	21.0 x 9.7	19.0	Ribbon	Ribbon Cable Clip	1,000
3571152	27.0 x 9.7	25.4	Ribbon	Ribbon Cable Clip	1,000
3571153	33.3 x 9.7	31.7	Ribbon	Ribbon Cable Clip	1,000
3571154	34.6 x 9.7	33.1	Ribbon	Ribbon Cable Clip	1,000
3571155	40.0 x 9.7	38.1	Ribbon	Ribbon Cable Clip	1,000
3571156	44.6 x 9.7	43.3	Ribbon	Ribbon Cable Clip	1,000
3571157	46.4 x 9.7	44.4	Ribbon	Ribbon Cable Clip	1,000
3571158	53.0 x 9.7	50.8	Ribbon	Ribbon Cable Clip	1,000
3571159	59.0 x 9.7	57.1	Ribbon	Ribbon Cable Clip	1,000
3571160	65.6 x 9.7	63.5	Ribbon	Ribbon Cable Clip	1,000
3571161	72.0 x 9.7	69.8	Ribbon	Ribbon Cable Clip	1,000
3571162	78.0 x 9.7	76.2	Ribbon	Ribbon Cable Clip	1,000
3571200	16.2 x 11.0	25.4	Ribbon	Reversible Bridge Clip	1,000
3571201	16.2 x 11.0	33.1	Ribbon	Reversible Bridge Clip	1,000
3571202	16.2 x 11.0	43.3	Ribbon	Reversible Bridge Clip	1,000
3571203	16.2 x 11.0	50.8	Ribbon	Reversible Bridge Clip	1,000
3571250	25.4 x 11.5	13.0	Round	Buckle Clip	1,000
3571251	25.4 x 16.3	19.0	Round	Buckle Clip	1,000
* 3571260	25.4 x 25.4	20.0	Round or Flat	Hook Clip	1,000
* 3571261	16.0 x 16.0	10.0	Round or Flat	Hook Clip	1,000

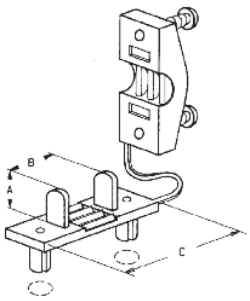
Super Duty Cable Clamps & Screws

Approvals:
Certified by Canadian Standards Association File No. 2070999 (LR 115116)

Specifications: RoHS ✓
Material: Nylon 6
Colour: Black
Flammability Rating: UL94V-2
GWT: 850°C
Working Temperature: -5 to +125°C (short time 155°C)

- Securely clamps round or flat wire and cable to chassis





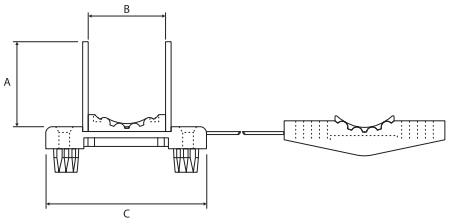
PART NUMBER	Description	Cable Capacity	Chassis Thickness	Two Mounting Holes		Part Dimensions			Unit Quantity
				Hole Dia.	Distance Between Centres	A	B	C	
3541561	Cable Clamp	6 to 16	0.6 to 1.5	8.0	31.0	11.6	16.5	45.0	100
9990277	Clamping Screws 3.5 x 16	-	-	-	-	-	-	-	100
3541564	Cable Clamp	6 to 20	0.6 to 1.5	8.0	31.0	20.0	21.0	45.0	100
9990937	Clamping Screws 3.5 x 25	-	-	-	-	-	-	-	100

PLEASE NOTE:
The above cable clamps are not supplied with screws. The screws need to be ordered separately. Two screws are required per cable clamp.

For example, when ordering 100 x 3541561, please remember to also order 200 x 9990277.

Cable Clamp:	Screw:	Screw Size:	No. of Screws:
3541561	9990277	3.5 x 16	2 per clamp
3541564	9990937	3.5 x 25	2 per clamp

Super Duty Cable Clamps - Without Screws



Specifications: RoHS ✓
Material: Nylon 66

Fixing screws not supplied

- Ideal for power cable security
- Accommodates various cables - round or flat



PART NUMBER	Colour	Max Cable Dia	Panel Range	Hole Dia.	Distance Between Centres	A	B	C	Screw Size	Unit Quantity
3541597	Natural	16.0	0.8 - 2.8	7.0 Round	37.0	18.0	21.0	46.0	No 8	1,000
3541567	Black	16.0	0.8 - 2.8	7.0 Round	37.0	18.0	21.0	46.0	No 8	1,000



Cable Wrap

Genuine HEYCO® Parts! HEYCO

- Bundles and protects cables, wires, tubing and hoses
- Easy to use: twists on like tape
- Allows breakouts of single/multiple wires and re-routing of replacement wires

Specifications: RoHS ✓

Temperature Range:
Low Density Polyethylene: -60°C to 88°C
UL rated temperature not to exceed: 50°C
Nylon: -40°C to 121°C
UL rated temperature not to exceed: 65°C

Approvals:

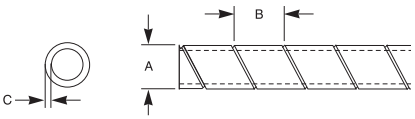
Recognised under the Component Program of Underwriters' Laboratories File No. E-173954. Parts marked * not Recognised

HEYCO® is a registered trade mark of Heyco Inc. USA.

PART NUMBER		Description	Bundle Dia. & Range		Part Dimensions			Material	Unit Quantity
UV Black	Natural		Min	Max	A Outside Diameter	B Pitch	C Thickness		
4188904*	4188905*	CW 187 PE	3.2	38.1	4.8	6.3	0.8	LDPE	30m ROLL
4188908	4188909	CW 250 PE	4.8	50.8	6.3	9.5	1.1	LDPE	30m ROLL
4188912	4188913	CW 375 PE	7.9	76.2	9.5	11.1	1.3	LDPE	30m ROLL
4188916	4188917	CW 500 PE	9.5	101.6	12.7	12.7	1.6	LDPE	30m ROLL
4188920*	4188921*	CW 625 PE	12.7	114.3	15.9	15.9	1.6	LDPE	30m ROLL
4188924	4188925	CW 750 PE	12.7	127.0	19.1	19.1	1.7	LDPE	30m ROLL
4188928	4188929	CW 1000 PE	25.4	177.8	25.4	25.4	2.0	LDPE	30m ROLL
4188936*	4188937*	CW 187 N	3.2	38.1	4.8	6.3	0.5	Nylon	30m ROLL
4188940	4188941	CW 250 N	4.8	50.8	6.3	9.5	0.6	Nylon	30m ROLL
4188944	4188945	CW 375 N	7.9	76.2	9.5	11.1	0.9	Nylon	30m ROLL
4188948	4188949	CW 500 N	9.5	101.6	12.7	12.7	0.9	Nylon	30m ROLL
4188952*	4188953*	CW 625 N	12.7	114.3	15.9	15.9	0.8	Nylon	30m ROLL
4188956	4188957	CW 750 N	12.7	127.0	19.0	19.1	0.8	Nylon	30m ROLL
4188960	4188961	CW 1000 N	25.4	177.8	25.4	25.4	0.8	Nylon	30m ROLL

Conforms to the following Mil, Federal and ASTM specifications:

- Polyethylene Cable Wrap - UV Black and Natural
  - Fed. Spec LP390
  - Mil I-631D
  - Mil P-21922B
- Nylon Cable Wrap - UV Black
  - ASTM D4066 Group 2
  - Fed. Spec LP-410A
  - Mil T-47287A Type II
  - AS 1294
- Nylon Cable Wrap - Natural
  - ASTM D4066 Group 2
  - Fed. Spec LP-410A





Braided Sleeving

Genuine HEYCO® Parts! HEYCO

- Preferred cutting method: Hot knife
- Sleeved components are more organised and attractive

Specifications: RoHS ✓

Material: See table
Colour: Black
Flammability Rating (FR sleeving); UL VW-1
Temperature Rating: -75°C to 125°C
Monofilament Diameter: 0.25mm

Approvals:

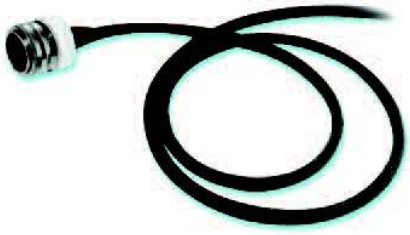
Recognised under the Component Program of Underwriters' Laboratories File No. E-173954.

PART NUMBER	Description	Material	Bundle Range		Part Dimensions		Unit Quantity
			Min	Max	Nominal Diameter	Quantity per Reel (Metres)	
4198980	BS 125	Polyester Yarn	2.3	6.4	3.2	305	2 Reels
4198983	BS 125 FR	Flame Retardant Polyester Yarn	2.3	6.4	3.2	305	2 Reels
4198985	BS 250	Polyester Yarn	3.2	11.1	6.4	305	1 Reel
4198988	BS 250 FR	Flame Retardant Polyester Yarn	3.2	11.1	6.4	305	1 Reel
4198990	BS 500	Polyester Yarn	6.4	19.1	12.7	152	1 Reel
4198993	BS 500 FR	Flame Retardant Polyester Yarn	6.4	19.1	12.7	152	1 Reel
4198995	BS 750	Polyester Yarn	12.7	31.8	19.1	76	2 Reels
4198998	BS 750 FR	Flame Retardant Polyester Yarn	12.7	31.8	19.1	76	2 Reels
4199000	BS 1250	Polyester Yarn	19.1	44.5	31.8	76	1 Reel
4199003	BS 1250 FR	Flame Retardant Polyester Yarn	19.1	44.5	31.8	76	1 Reel
4199005	BS 1750	Polyester Yarn	31.8	69.9	44.5	61	1 Reel
4199008	BS 1750 FR	Flame Retardant Polyester Yarn	31.8	69.9	44.5	61	1 Reel
4199010	BS 2.0	Polyester Yarn	38.1	88.9	50.8	61	1 Reel
4199013	BS 2.0 FR	Flame Retardant Polyester Yarn	38.1	88.9	50.8	61	1 Reel

The high tensile strength, damage resistant filament braid:

1) protects against rough surfaces, sharp edges or corners
2) resists scuffing and abrasion
3) cushions against vibration and impact damage
4) prevents condensation while allowing complete drainage
5) dissipates heat and moisture
6) does not degrade in most fluid environments

- Braided sleeve slips on quickly and is self-fitting over irregular shapes and contours. No wire pulling compounds are required due to its low surface friction. Slight tensioning after application makes for an even tighter fit.
- Expandable up to three times its own diameter, the open-weave construction can fit many applications, simplifying inventory. The open-weave allows for easy inspection of sleeved components and easy break out of individual cables.
- Full cable flexibility is maintained in any direction, even at low temperatures. Wires encased in Heyco Braided Sleeving can flex and bend as readily as if they had no protective oversleeving. Bundles can be flexed repeatedly without damage.
- Tough, cut-resistant sleeving is designed for protecting wire bundles and harnesses, hoses, tubing, and cable assemblies from mechanical damage and environmental hazards.



OPTIMAS

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Slit Harness Wrap

Approvals:

Specifications: RoHS ✓

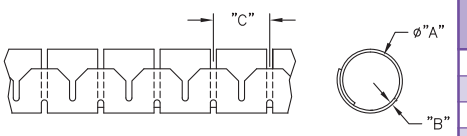
Colour: Black

Working Temperatures:

Nylon 6	-40°C to +100°C
FR Nylon 6	-40°C to +150°C
Polypropylene	0°C to +65°C

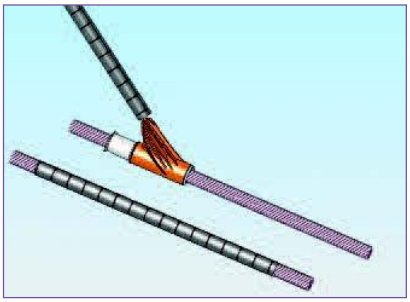
- Easy to use. Simply insert the wires into the tool (sold separately), feed the wrap over the horn of the tool and zip the wires into a neat bundle
- Allows easy breakout of wires
- Provides abrasion protection





PART NUMBER & MATERIAL (FLAMMABILITY)			ØA Ref.	Max. Bundle Diameter	B Ref.	C Ref.	Standard Lengths (Metres)	Installation Tool	Unit Quantity (Rolls)
Nylon 6 (Not rated)	FR Nylon 6 (UL94V-0)	Polypropylene (Not Rated)							
4181000	**4181020**	**4181050**	8.0	10.0	0.8	10.0	100	8001021	1
4181001	**4181021**	**4181051**	15.0	16.0	0.8	14.0	50	8001022	1
4181002	**4181022**	**4181052**	20.0	23.0	0.9	17.0	30	8001023	1
4181003	**4181023**	**4181053**	25.0	25.0	1.0	20.0	20	8001024	1
4181004	**4181024**	**4181054**	32.0	32.0	1.3	24.9	15	8001025	1

Slit Harness Wrap Installation Tools



Specifications: RoHS ✓

Material: Polypropylene

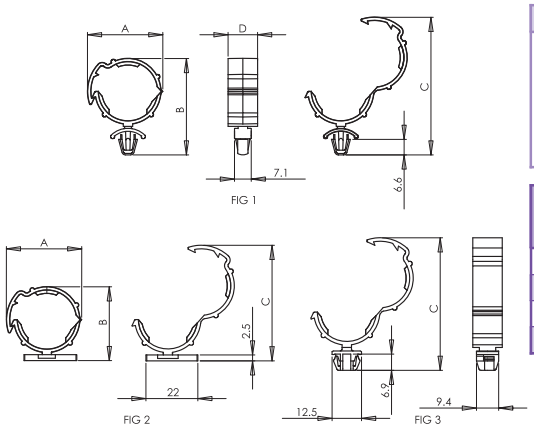
Colour: Guide body - Orange
Cable Holder - Natural

- Simple to use
- Holds wires together when inserting in slit harness wrap



PART NUMBER	A (Ref.)	B (Max Bundle Dia.)	To be used with...	Unit Quantity
8001021	71.0	9.5	4181000, 4181020, 4181050	1
8001022	81.0	16.0	4181001, 4181021, 4181051	1
8001023	100.0	20.0	4181002, 4181022, 4181052	1
8001024	113.0	24.5	4181003, 4181023, 4181053	1
8001025	144.0	31.0	4181004, 4181024, 4181054	1

Slit Harness Wrap Mounting Clips



Specifications: RoHS ✓

Material: Nylon 66

Colour: Black

Flammability: UL94V-2

Temperature rating: -40°C to +85°C

- Designed to mount Slit Harness Wrap
- Routes wrap and keeps it securely held in place



PART NUMBER	A Ref.	B Ref.	C Ref.	D	Bundle Dia. (Clip Sizes)	Mounting Method	Fig.	Unit Quantity
3651000	29.0	42.5	58.0	12.5	20 & 25	Snap Lock in a 6.4 ±0.05 hole into a 0.8 - 2.0 panel	1	1,000
3651001	30.0	32.5	47.0	12.5	20 & 25	M4 or No.8 Screw	2	1,000
3651002	30.0	32.5	47.8	12.5	20 & 25	0.8 thick double sided adhesive tape	2	1,000
3651003	30.0	40.5	56.0	12.5	20 & 25	Snap Lock into a 9.5 ±0.8 square hole in a 0.8 - 2.0 panel	3	1,000



Double Tube Clip

- To hold two wires /tubes together with a distance between them
- Also available for wires / tubes of different diameters, contact us for more information
- Selected parts fit two wires / tubes of the same diameter

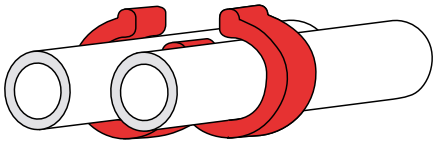
Specifications: RoHS ✓

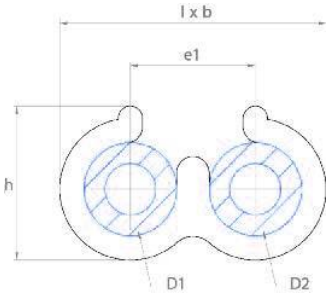
Material: See table
POM = Acetal, PA = Nylon, TPE = Thermoplastic Elastomer

Colour: Black

PART NUMBER	Design Type	Tube Diameter (D1 & D2)	Spacing (e1)	Length x Width (l x b)	Height (h)	Material	Unit Quantity
3200700	1	(x2) 4.75	6.3	13.0x12.0	7.6	POM	5,000
3200701	1	(x2) 4.75-5.2	6.3	13.0x12.0	8.0	PA66	500
3200702	1	(x2) 6.0-7.0	7.7	16.8x8.0	9.45	POM	3,500
3200703	1	(x2) 7.0	8.5	23.12x10.0	18.0	POM	6,500
3200704	1	(x2) 8.0	10.0	21.5x8.0	12.0	POM	2,200
3200705	1	(x2) 10.0	12.1	25.7x10.0	14.8	POM	3,000
3200706	2	(x2) 4.3-5.2	14.0	20.7x10.0	10.35	POM	5,000
3200707	2	(x2) 6.0	12.0	21.0x8.0	13.0	PA66	4,700
3200708	3	(x2) 12.0	18.0	34.0x10.0	16.5	POM	2,000
3200709	4	(x2) 4.7-4.9	10.0	26.0x12.0	18.0	TPE	500








Type 1


Type 2


Type 3


Type 4

Triple Tube Clip

- To hold three wires /tubes together with a distance between them
- Also available for wires / tubes of different diameters, contact us for more information
- Selected parts fit three wires / tubes of the same diameter

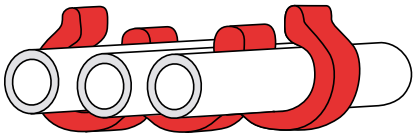
Specifications: RoHS ✓

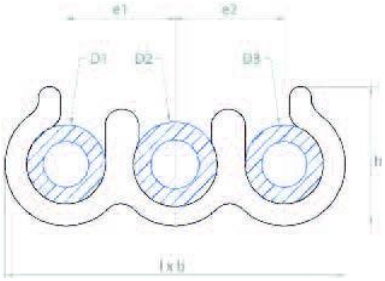
Material: See table
POM = Acetal, PA = Nylon, PE = Polyethylene, PP/EPDM = Polypropylene/EPDM

Colour: Black (Unless marked * - Natural Colour)

PART NUMBER	Design Type	Tube Diameter (D1 & D2 & D3)	Spacing (e1& e2)	Length x Width (l x b)	Height (h)	Material	Unit Quantity
3200690	1	(x3) 4.5-5.0	6.0	18.7x12.0	7.6	POM	2,000
3200691*	1	(x3) 8.0	12.0	35.0x8.0	14.0	PA66	10,000
3200692	1	(x3) 8.0-10.0	15.5	45.0x12.0	16.5	POM	1,200
3200693	1	(x3) 10.0	11.5	36.0x15.0	14.7	PA66	800
3200694	2	(x3) 4.7-4.9	10.0	36.0x12.0	18.0	PP/EPDM 40 Shore D	500
3200695	2	(x3) 4.75-6.0	10.5	36.6x12.0	14.3	POM	1,600
3200696*	2	(x3) 8.0-10.0	19.0	58.5x11.0	21.5	PE LD	600
3200697	3	(x3) 4.75-5.05	12.0	24.8x15.0	21.0	POM	500








Type 1


Type 2


Type 3

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Swivel Cable Clips



Specifications:	RoHS ✓
Material:	See table
POM = Acetal, PA = Nylon	
Colour:	Black

- To hold two wires /tubes together with a distance between them, integrating a swivel system
- Selected parts fit two wires / tubes of the same diameter
- Also available for wires / tubes of different diameters, contact us
- Spare connections allow the assembly of more than two clips and in different layouts
- Contact us for specific layouts

NEW

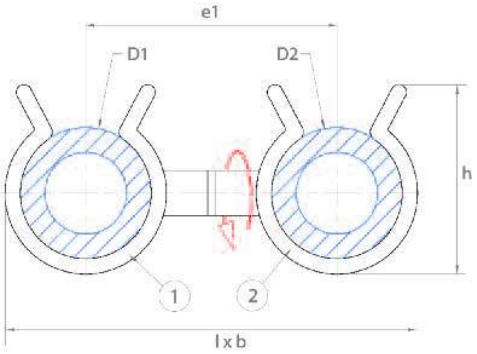

Type 1

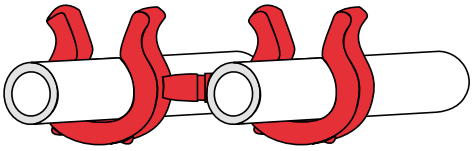

Type 2


Type 3


Type 4

PART NUMBER	Design Type	Tube Diameter (D1 & D2)	Spacing (e1)	Length x Width (lxb)	Height (h)	Material	Unit Quantity
3200669	1	(x2) 4.3-5.2	14.5	21.25x10	9.4	PA66	1,200
3200670	1	(x2) 6.0-6.5	16.5	25.5x8	11.5	PA66	1,500
3200671	1	(x2) 7.8-8.5	17.6	28x12	16.9	PA66	500
3200672	1	(x2) 8.0-9.0	25.0	36x8	13.5	PA66	500
3200673	1	(x2) 11.0-13.0	21.5-23.5	36.5x10	17.5	POM	500
3200674	1	(x2) 13.0-14.0	19.0	36.3x10	20.0	POM	900
3200675	1	(x2) 13.0-14.0	30.0	47x10	22.5	POM	500
3200676	2	(x2) 8.0-10.0	21.3	51.1x10	26.0	POM	450
3200677	2	(x2) 16.0-24.0	36.7	80.9x10	44.9	POM	800
3200678	2	(x2) 23.0-30.0	45.3	98x10	45.75	PA66	200
3200679	3	(x2) 14.0-16.0	24.5	56.5x12	21.0	POM	1,600
3200680	3	(x2) 23.5-25.5	34.5	74.5x12	33.5	POM	900
3200681	4	(x2) 38.0-45.0	48.7	105x10	62	PA66	200





ARaymond MORE THAN FASTENING

Plug in Cable Clips



Specifications:	RoHS ✓
Material:	See table
POM = Acetal, PA = Nylon	
Colour:	Black

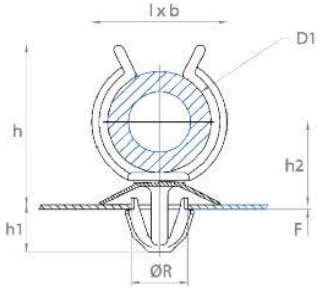
- To fix one tube/wire to a panel with holes
- With different anchoring systems to suit different hole depths
- Available also with swivel or locking systems (see ranges on the following pages)


Type 1


Type 2


Type 3

PART NUMBER	Design Type	Panel Thickness (F)	Tube Diameter (D1)	Hole Diameter (R)	Length x Width (lxb)	Height (h)	Depth (h1)	Tube Height (h2)	Material	Unit Quantity
3200660	1	0.7-1.3	5.0	9.0	9.4x13.0	10.6	7.5-8.1	6.9-7.5	POM	4,500
3200661	1	0.7-2.0	7.5-7.8	6.0-6.2	10.5x10.0	15.8	8.8	7.5-8.8	PA66	3,500
3200662	1	0.7-2.0	9.0-12.0	8.2	15.7x10.0	18.5	9.0	11.0	POM	1,000
3200663	1	0.7-2.0	17.0-21.0	6.5-6.7	24.0x12.0	32.0	6.5	13.0-17.3	POM	600
3200664	1	0.7-2.0	21.0-23.0	6.5-6.7	28.5x12.0	30.2	6.0	17.0	PA66	2,400
3200665	1	0.7-3.2	23.0-24.0	5.0-5.2	30.0x10.0	35.0	8.2-10.7	19.0	PA66	650
3200666	2	0.8-4.0	10.0-12.0	6.5-6.7	14.0x10.0	26.0	8.5	17.0	PA66	400
3200667	2	1.6-6.0	16.0	6.5-6.7	19.0x10.0	23.0	10.0	11.0	POM	1,900
3200668	3	0.7-2.0	10.0-12.0	6.2x8.2	20.5x12.0	37.5	7.0	15.0	POM	1,000



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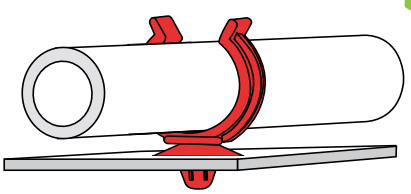




Plug in Cable Clip - Swivel Type

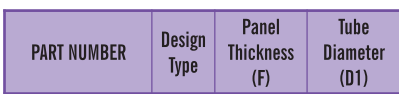
- To fix one tube/wire to a panel with holes, integrating a swivel system
- With different anchoring systems to suit different hole depths

Specifications: RoHS ✓

Material: See table
POM = Acetal, PA = Nylon

Colour: Black

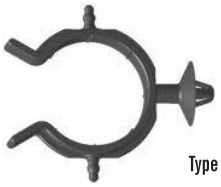
PART NUMBER	Design Type	Panel Thickness (F)	Tube Diameter (D1)	Hole Diameter (R)	Base Diameter (d1)	Height (h)	Depth (h1)	Tube Height (h2)	Material	Unit Quantity
3200640	1	0.8-6.0	6.0-6.5	6.5	20.0	21.4	10.5	14.4	POM	500
3200641	1	0.8-6.0	18.0-20.0	6.5	20.5	36.3	10.3	22.3	POM	500
3200642	1	0.8-6.0	25.0-27.0	6.5	20.0	44.9	10.5	25.4	POM	500
3200643	2	0.5-3.0	7.2-7.5	6.5	21.0	23.8	6.8	16.8	POM/PA66	500
3200644	2	0.5-3.0	13.0-14.0	6.5	21.0	32.2	6.8	20.2	POM/PA6	500
3200645	2	0.5-3.0	16.0-18.0	6.5	21.0	35.2	6.8	21.7	PA66	800
3200646	2	0.7-2.0	35.0-38.0	6.5	20.0	57.5	6.5	31.5	POM	500
3200647	2	0.8-2.0	10.0-12.0	6.5	20.0	28.0	6.5	-	POM	4,000
3200648	2	0.8-2.0	28.0-30.0	6.5	20.0	51.0	6.5	28.5	POM	400
3200649	2	0.8-2.0	29.0-33.0	6.5	20.0	51.4	6.5	27.2	POM	800
3200650	3	0.8-2.0	34.0-36.0	6.5	20.0	56.9	6.5	30.9	POM	550



Type 1

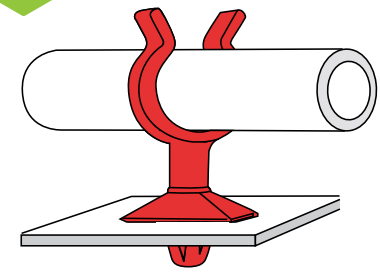


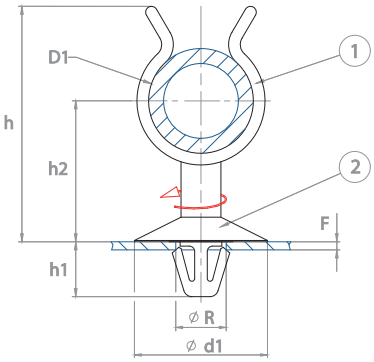
Type 2



Type 3

NEW







Plug in Cable Clip - Twin Type

- To fix two tubes/wires on a panel with holes
- With different anchoring systems to suit different hole depths
- Available also with swivel system

Specifications: RoHS ✓

Material: See table
POM = Acetal, PA = Nylon

Colour: Black

PART NUMBER	Design Type	Panel Thickness (F)	Tube Diameter (D1 & D2)	Hole Diameter (R)	Spacing (e1)	Length x Width (lxb)	Height (h)	Depth (h1)	Tube Height (h2)	Material	Unit Quantity
3200630	1	0.5-3.0	(x2) 16.0-18.0	6.5	28.0	62.0x12.0	31.0	6.7	18.0	POM	450
3200631	2	0.5-6.0	(x2) 9.0-10.5	6.2-6.55	16.0	39.15x21.0	26.25	9.9	17.5	PA6	500
3200632	3	0.7-2.0	(x2) 10.0-14.0	6.2x8.2 (Specific Shape)	20.0	20.5x12.0	30.4	6.1	15.4	PA66	500
3200633	4	0.7-2.0	(x2) 13.5	6.5	21.0	40.0x18.0	23.0	8.5	11.0	POM	500
3200634	5	0.8-4.0	(x2) 4.0-6.0	6.5	8.5	18.5x10.0	12.4	9.3	7.2	PA6	500



Type 1

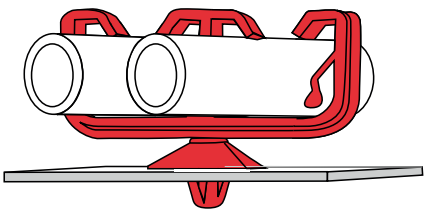


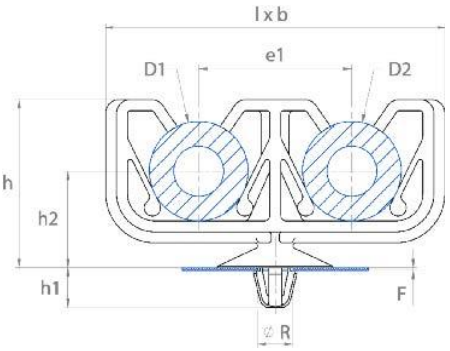
Type 2



Type 3

NEW







Type 4



Type 5

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Plug in Cable Clips - Twin Swivel Type



Specifications: RoHS ✓

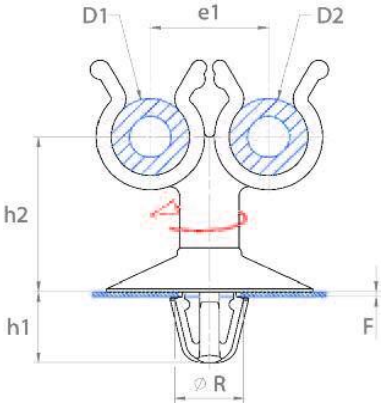
Material: See table

POM = Acetal, PA = Nylon

Colour: Black

- To fix two tubes/wires to a panel with holes, integrating a swivel system

PART NUMBER	Panel Thickness (F)	Tube Diameter (D1 & D2)	Hole Diameter (R)	Spacing (e1)	Base Diameter (d1)	Depth (h1)	Tube Height (h2)	Material	Unit Quantity
3200620	0.5-3.0	(x2) 6.0	6.5	14.0	21.0	6.8	16.7	PA66	500
3200621	0.5-3.0	(x2) 8.0-9.0	6.5	12.0	21.0	6.8	16.7	PA66	1,000
3200622	0.5-3.0	(x2) 13.0-14.0	6.5	19.0	21.0	6.8	17.2	PA6/POM	500
3200623	0.5-3.0	(x2) (16.0-17.0)	6.5	22.0	21.0	6.8	17.2	PA66	1,000
3200624	0.5-3.0	(x2) (25.0-27.0)	6.5	32.0	21.0	6.8	21.7	PA66	200



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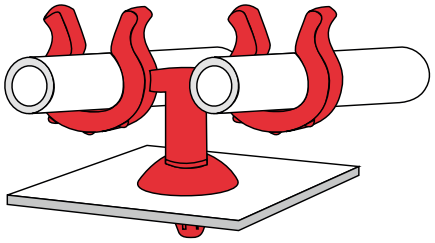


ARaymond MORE THAN FASTENING

Plug in Cable Clips - Universal



Specifications: RoHS ✓

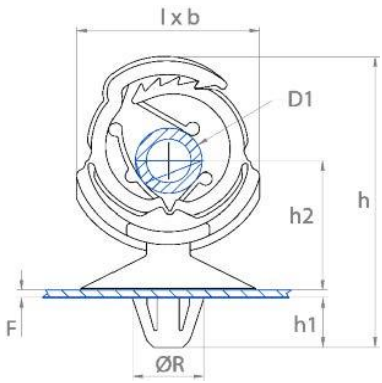
Material: See table

PA = Nylon, PP-C = Polypropylene Copolymer

Colour: Black

- To fix one tube / wire to a panel with holes
- Self-adaptable: suitable for a wide range of tube / wire diameters
- Self-locking: the clip locks when the tube is installed

PART NUMBER	Panel Thickness (F)	Tube Diameter (D1)	Hole Diameter (R)	Length x Width (lxb)	Height (h)	Depth (h1)	Tube Height (h2)	Material	Unit Quantity
3200609	0.5-2.0	6.0-12.0	6.35-6.7	24.0x18.0	37.1	6.7	13.0-20.0	PA66	500
3200610	0.5-3.0	11.0-18.0	6.35-6.7	32.0x20.0	48.5	6.7	21.0-27.0	PP-C	900
3200611	0.7-3.0	3.0-16.0	6.7	22.6x10.0	44.6	5.7	-	PP-C	800
3200612	0.7-3.0	17.0-24.0	6.3-6.7	34.0x10.0	55.5	6.7	21.0-28.0	PP-C	250



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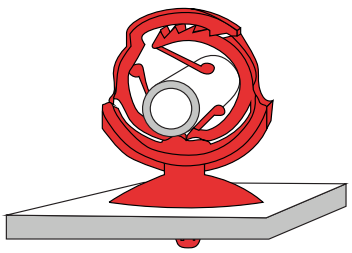




Plug in Cable Clip - Manual Locking

- To fix one tube/wire to a panel with holes
- With different anchoring systems to suit different hole depths
- With an adjustable locking hood

Specifications: RoHS ✓

Material: See table
PA=Nylon

Colour: Black

PART NUMBER	Design Type	Panel Thickness (F)	Tube Diameter (D1)	Hole Diameter (R)	Base Diameter (d1)	Height (h)	Depth (h1)	Tube Height (h2)	Material	Unit Quantity
3200600	1	0.8-2.5	20.6-21.4	6.5-6.7	31.0x20.0	28.0	8.4	13.2-14.9	PA66	500
3200601	1	0.8-2.5	25.1-25.9	6.5-6.7	37.0x20.0	32.5	8.4	15.45-17.15	PA66	500
3200602	1	0.8-2.5	33.0-35.0	6.5-6.7	45.3x20.0	40.5	7.0	23.2-24.9	PA66	300
3200603	1	2.5	15.5-16.1	6.5-6.7	25.5x20.0	20.5	9.3	11.0	PA66	750
3200604	2	0.8-6.0	16.0-18.5	6.5	20.0x10.0	34.2	10.5	15.8	PA6	600
3200605	3	0.8-6.0	22.6-23.4	6.5-6.7	34.4x20.0	29.4	12.75	16.1	PA66	450
3200606	3	1.0-6.0	25.1-25.9	6.5-6.7	37.5x20.0	31.0	10.5	16.55	PA66	400
3200607	4	1.0-6.0	6.8-7.4	6.5-6.7	15.0x10.0	10.0	10.4	5.7	PA66	500
3200608	4	1.0-6.0	9.6-10.2	6.5-6.7	15.0x15.0	17.0	10.5	10.15	PA66	500

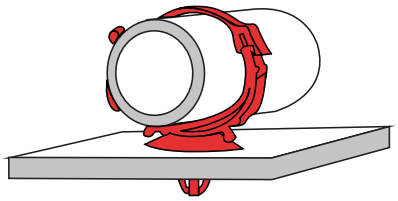

Type 1

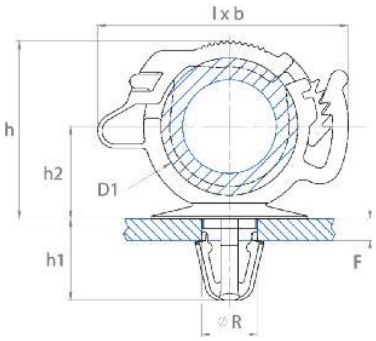

Type 2


Type 3


Type 4

NEW





Omega Clips



- To fix one tube / wire to a panel with holes
- Positioned first around the tube / wire before pushing clip foot into the panel hole

Specifications: RoHS ✓

Material: See table
PA=Nylon, PP=Polypropylene

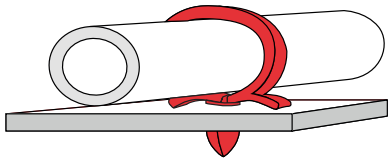
Colour: Black

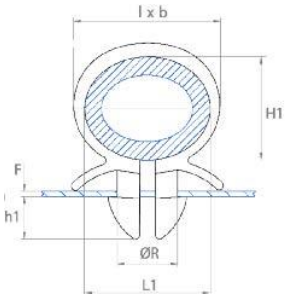
PART NUMBER	Design Type	Panel Thickness (F)	Tube Diameter (L1xH1)	Hole Diameter (R)	Length x Width (lxb)	Depth (h1)	Material	Unit Quantity
3200550	1	0.5-3.0	16.8x13.5	6.5-6.7	21.0x8.0	4.9	PA66	2,300
3200551	1	0.7-2.0	16.8x13.5	6.5-6.7	17.5x8.0	5.0	PA6	1,500
3200552	1	0.7-2.0	10.8x8.2	6.5-6.7	13.8x8.0	5.0	PA6	2,900
3200553	1	0.7-2.0	25.0x22.0	6.5-6.7	30.5x8.0	5.0	PP	1,900
3200554	1	1.0-3.0	8.0x6.0	6.5	12.5x8.0	4.0	PA66	500
3200555	1	1.0-3.0	16.8x13.5	6.5	22.0x8.0	4.9	PA66	500
3200556	1	1.5-3.0	15.8x8.6	6.5	20.8x8.0	4.7	PA66	500
3200557	1	2.7-4.0	10.8x7.8	6.5	15.25x8.0	4.7	PA6	500
3200558	2	0.7-3.0	18.0x20.7	6.5-6.7	21.6x24.0	4.7	PA6	700

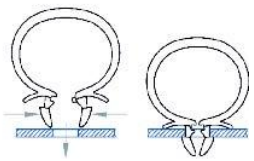

Type 1


Type 2

NEW







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Push Pin Clips - Single Cable



Specifications: RoHS ✓
Material: See table
POM = Acetal, PA = Nylon

Colour: Black (Except where marked * - Natural)

- To fix one tube/wire to a panel with holes
- With a pre-assembled rivet system
- High pull out resistance


Type 1

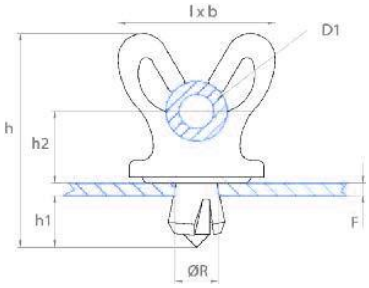

Type 2

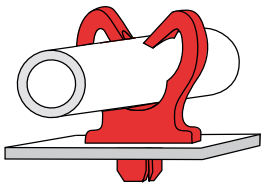

Type 3


Type 4

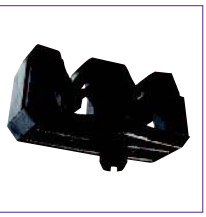
PART NUMBER	Design Type	Panel Thickness (F)	Tube Diameter (D1)	Hole Diameter (R)	Length x Width (lxb)	Height (h)	Depth (h1)	Tube Height (h2)	Material	Unit Quantity
3200530	1	0.5-3.0	4.8	6.5	14.0x12.0	18.4	9.9-12.4	5.5	PA66	1,200
3200531	1	0.5-4.0	4.8-6.0	6.5	12.8x12.0	22.5	6.5-10.0	5.5	POM	1,100
3200532	1	0.5-4.0	8.0-10.0	6.5	17.0x14.0	26.5	3.5-7.0	9.0	PA6	500
3200533	1	0.5-4.0	12.3-15.0	6.5	19.0x15.0	30	3.5-7.0	12.0	PA6	600
3200534	2	0.5-4.0	17.0-19.0	6.5	22.0x22.0	31.5	3.5-7.0	14.0	PA66	750
3200535	2	0.7-4.0	6.5-6.8	6.5	10.0x10.0	18.5	3.5-6.8	5.5	PA6	1,900
3200536	3	0.75-2.5	24.0-26.0	7.1	31.0x13.5	34	5.0-6.75	16.0	POM	750
3200537	4	0.5-4.0	4.8-8.0	6.6	20.0x20.0	26	3.5-7.0	9.3	POM	500

NEW





Push Pin Clips - Multiple Cables



Specifications: RoHS ✓
Material: See table
POM = Acetal, PA = Nylon

Colour: Black

- To fix two or three tubes/wires to a panel with holes
- With a pre-assembled rivet system
- High pull out resistance


Type 1

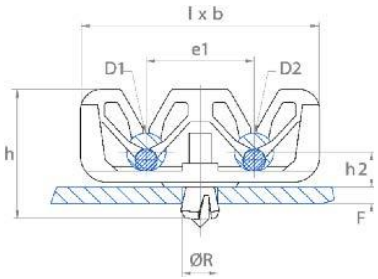

Type 2

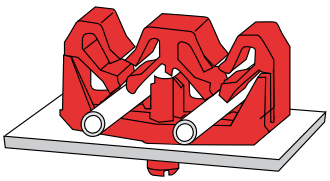

Type 3


Type 4

PART NUMBER	Design Type	Number of Cables	Panel Thickness (F)	Tube Diameter (D1 & D2 & D3)	Hole Diameter (R)	Length x Width (lxb)	Height (h)	Spacing (e1)	Tube Height (h2)	Material	Unit Quantity
3200520	1	2	0.5-2.5	(x2) 4.8-10.0	6.6	45x20	30.0	20.0	8.5	POM	600
3200521	2	3	0.5-4.0	(x3) 4.8-8.0	6.6	50.6x20	26.0	15.5	9.4	PA66	500
3200522	3	2	0.5-4.0	(x2) 13.0-15.0	6.6	38x20	31.5	19.0	12.0	PA66	500
3200523	4	3	0.7-2.5	(x3) 13.0-15.0	6.5	57x12	36.0	19.5	17.0	PA12	400

NEW







Stud Mount Cable Clip - Single

- To fix one tube/wire to a panel with metric studs
- To be pushed onto a stud

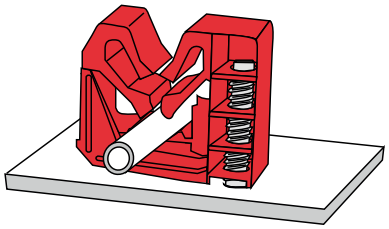
Specifications: RoHS ✓

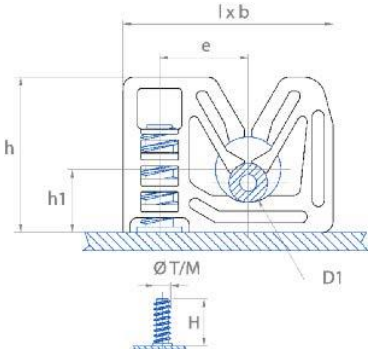
Material: See table
POM = Acetal, PA = Nylon

Colour: Black

PART NUMBER	Design Type	Stud Size (TxH)	Tube Diameter (D1)	Length x Width (lxb)	Tube Height (h1)	Spacing (e)	Height (h)	Material	Unit Quantity
3200502	1	M6x(14.0-19.0)	4,8-6.0	28.5x10.0	6.5-10.0	12.0	21.0	POM	500
3200503	1	M6x18.0	10.0	29.5x10.0	9.0	12.5	21.5	POM	1,700
3200504	1	M8	6.0-8.0	31.25x16.0	7.0-9.0	15.0	18.0	PA66	600
3200505	2	M6	5.0-8.0	25.0x10.0	12.0	13.5	20.5	PA66	1,000
3200506	3	M8x18.0	10.0-12.0	32.5x12,5	12,5	18.0	26.5	POM	1,300
3200507	4	M6	12.0-16.0	51.0x39.0	33.4	23.35	37.0	PA6	380
3200508	5	M6	15.0-19.0	53.0x12.0	9.0	31.0	25.0	PA6	500
3200509	6	M6	14,5-16,5	34,5x10.0	9.0	15.5	20.0	PA66	1,000





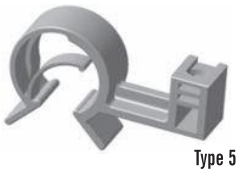



Type 1


Type 2


Type 3


Type 4


Type 5


Type 6

Stud Mount Cable Clip - Twin

- To fix two tubes/wires to a panel with metric studs
- To be pushed onto a stud

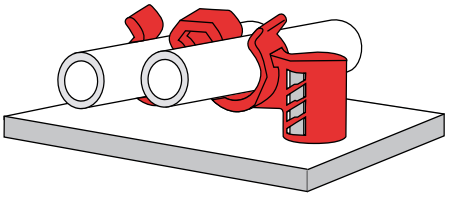
Specifications: RoHS ✓

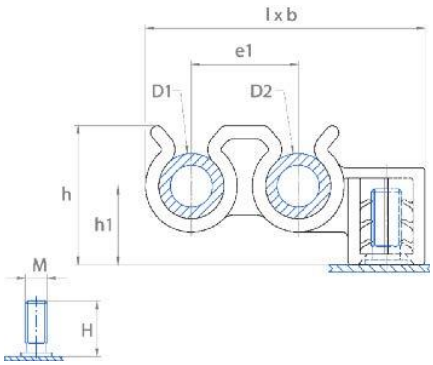
Material: See table
POM = Acetal, PA = Nylon

Colour: Black

PART NUMBER	Design Type	Stud Size (MxH)	Tube Diameter (D1 & D2)	Length x Width (lxb)	Tube Height (h1)	Spacing (e)	Height (h)	Material	Unit Quantity
3200500	1	M6x(7.0-10.0)	(x2) 16.0-18.0	41.0x21.5	21.7	21.0	31.5	POM	700
3200501	2	M6x14.0	(x2) 10.0	42.5x12.0	13.0	16.0	22.0	PA66	700








Type 1


Type 2

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Adhesive Cable Clips



Type 1



Type 2

Specifications: RoHS ✓

Material: See table
PA=Nylon, PP=Polypropylene

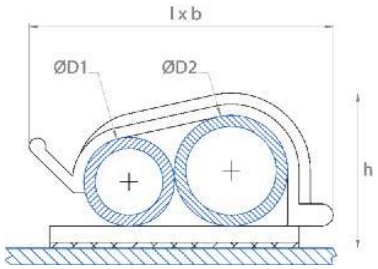
Colour: Black

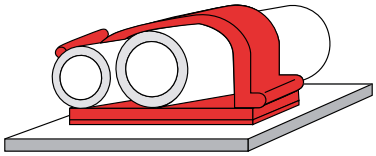
- To fix one or several tubes/wires to a panel flat surface
- With pre-assembled high quality adhesive tape
- Ensure surface is dry and clean, remove the protective film and position the clip



PART NUMBER	Design Type	Tube Diameter (D1 & D2)	Length x Width (lxb)	Height (h)	Material	Unit Quantity
0890060	1	6.0-12.0	25.0 X 25.0	27.0	PP	700
0890061	2	8.0-10.0	27.0 X 22.0	15.0	PA66	1,500

NEW





ARaymond MORE THAN FASTENING

Screw Fixed Cable Clips

Specifications: RoHS ✓

Material: Carbon Steel
Colour: See table

Salt Spray Protection: See Table

- To fix one tube to a panel
- To screw or rivet into a panel hole



PART NUMBER	Tube Diameter (D1)	Hole Diameter (R)	Length x Width (lxb)	Height (h)	Material Thickness (s)	Finish	Salt Spray Resistance Hours*	Unit Quantity
0251250	7.5-8.5	3.5	9.3x16.0	11.5	0.4	Magni 2.1 Silver	200/600	1,000
0251251	7.5-8.5	3.5	9.3x16.0	11.5	0.4	Zinc Nickel Silver	200/400	1,000
0251252	13.0-16.0	5.0	13.7x20.0	19.7	0.6	Zinc Nickel Silver	200/400	1,000
0251253	17.0-20.0	5.0	16.7x20.0	23.5	0.6	Zinc Plated Chromate3 Silver	200/384	1,800
0251254	21.0-25.0	5.0	21.2x20.0	27.1	0.6	Zinc Nickel Silver	200/400	500
0251255	21.0-25.0	5.0	21.2x20.0	27.1	0.6	Zinc Plated Chromate3 Silver /PVC Black	200/384	500
0251256	26.0-30.0	5.0	26.2x20.0	32.6	0.6	Zinc Plated SIlver	-/96	1,200
0251257	31.0-36.0	5.0	30.6x20.0	38.5	0.6	Zinc Nickel Silver	200/400	500
0251258	31.0-36.0	6.0	32.6x11.0	35.3	0.8	Magni 2.2 Black	200/600	500
0251259	35.0-40.0	5.2	35.0x17.5	46.0	1.0	Zinc Nickel Silver	200/400	900

*Salt Spray Protection data for reference only

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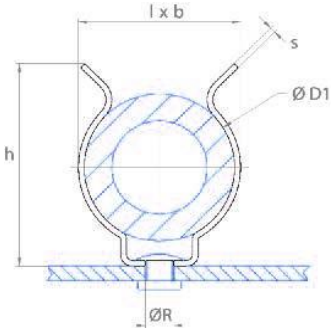

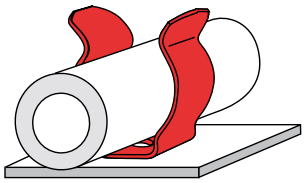

Universal Edge Mounting Adapters



- Multi-purpose base to fit onto a panel edge
- To install by hand or softly with a hammer
- Suitable for cable ties, studs or push mount plastic clips for holes Ø 6,5-6,7mm
- Instant application achieved with the barb design

Specifications: RoHS ✓
Material: Carbon Steel
Finish: See Table

Salt Spray Protection: See Table



Type 1



Type 2

PART NUMBER	Design Type	Panel Thickness (F)	Hole Diameter (c)	Hole Size (l1xc1)	Hole Fastener Fitting	Spacing (ax)	Height (h)	Length x Width (lxb)	Material Thickness (s)	Finish	Salt Spray Resistance Hours*	Unit Quantity
0251210	1	3.0-10.0	6.7	10.0x4.0	Strap 9mm	40.0	14.5	52.0x16.0	1.0	Zinc Plated Chromate3 Silver	200/384	1,000
0251211	1	10.0-18.0	6.7	10.0x4.0	Strap 9mm	40.0	22.5	52.0x16.0	1.0	Zinc Plated Chromate3 Silver	200/384	1,000
0251212	2	2.0-8.0	6.6	10.0x9.0	Rod M6-M8	2.7	30.0	28.0x19.0	0.7	Magni 2.0 Silver	200/600	1,000
0251213	2	8.0-16.0	6.6	10.0x9.0	Rod M6-M8	2.7	38.0	30.0x19.0	0.7	Magni 2.0 Silver	200/600	800

*Salt Spray Protection data for reference only

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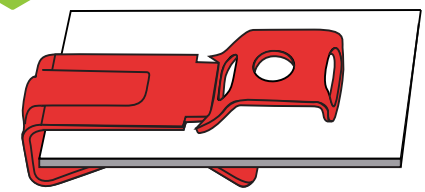
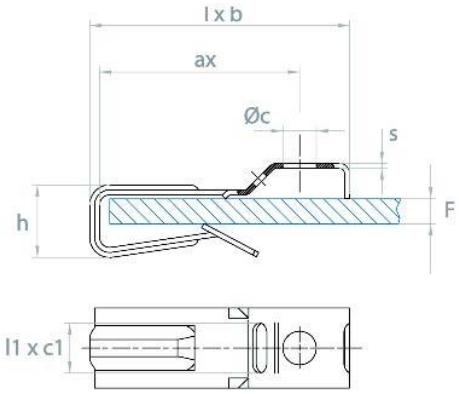




Edge Mounting Adapters for Cable Clips



- Cable clip base to fit onto a panel edge
- To install by hand or softly with a hammer
- Suitable for push fit plastic clips for holes Ø6.5-6.7mm
- Instant application achieved with the barb design

Specifications: RoHS ✓
Material: Carbon Steel
Finish: See Table

Salt Spray Protection: See Table



Type 1

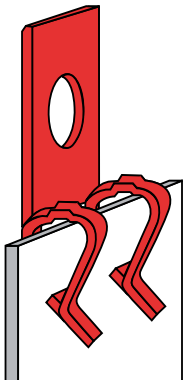


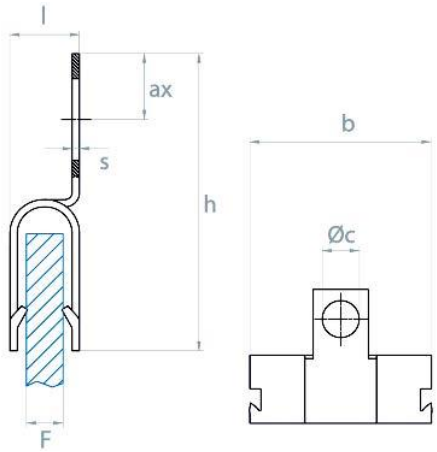
Type 2

PART NUMBER	Design Type	Panel Thickness (F)	Hole Diameter (c)	Length x Width (lxb)	Height (h)	Distance (ax)	Material Thickness (s)	Finish	Salt Spray Resistance Hours*	Unit Quantity
0251204	1	0.7-2.0	6.7	5.2x28.0	21.0	8.2	0.6	Zinc Plated Chromate3 Silver	200/384	3,100
0251205	1	1.5-3.0	6.7	5.2x28.0	21.8	8.2	0.6	Zinc Nickel Silver	200/400	1,500
0251206	1	3.0-5.0	6.7	6.7x28.0	21.0	7.7	0.6	Geomet 1000h Silver	200/1000	1,500
0251207	2	0.5-3.0	6.6	4.2x33.0	24.9	5.4	0.6	Magni 2.2 Black	200/600	1,500

*Salt Spray Protection data for reference only

NEW





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Edge Mounting Adapters for Cable Clips - 90°



Type 1



Type 2

Specifications: RoHS ✓

Material: Carbon Steel
Finish: See Table

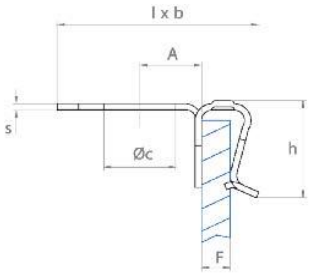
Salt Spray Protection: See Table

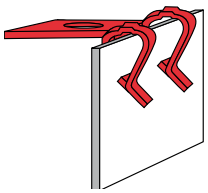
- Cable clip base to fit onto a panel edge
- To install by hand or softly with a hammer
- Suitable for push fit plastic clips for holes Ø6.5-6.7mm
- Instant application achieved with the barb design



PART NUMBER	Design Type	Panel Thickness (F)	Hole Diameter (c)	Length x Width (lxb)	Height (h)	Distance (A)	Material Thickness (s)	Finish	Salt Spray Resistance Hours*	Unit Quantity
0251200	1	0.7-2.0	6.6	18.1x28.0	9.0	6.0	0.6	Geomet 600h Silver	200/600	1,300
0251201	1	1.5-3.0	6.6	19.1x28.0	9.0	5.8	0.6	Geomet 1000h Silver	200/1000	1,200
0251202	1	3.0-5.0	6.7	19.7x28.0	8.0	6.5	0.6	Zinc Nickel Silver	200/400	1,300
0251203	2	3.3-3.7	6.25	18.8x30.0	12.5	6.2	0.6	Zinc Plated Chromate3 Silver	200/384	1,500

*Salt Spray Protection data for reference only





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CHAPTER 6

CABLE TIES & MARKERS

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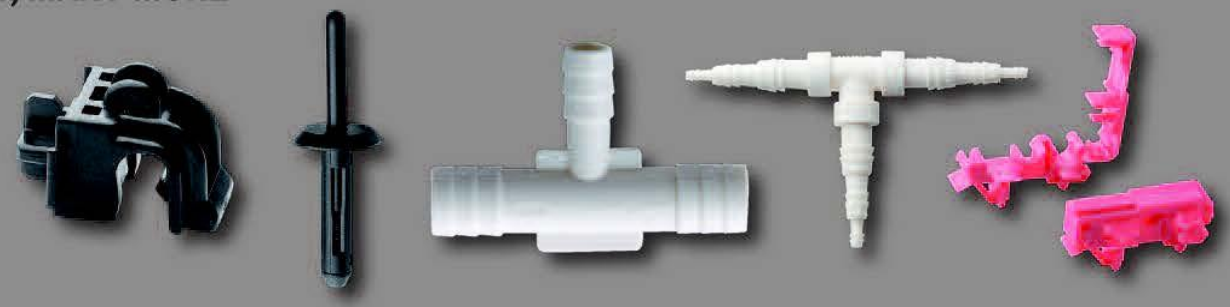
TRIM RETAINERS/PANEL CLIPS



CAPS, PLUGS AND GROMMETS



AND MANY, MANY MORE



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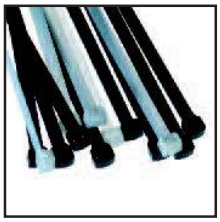
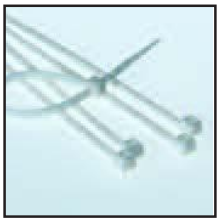

Ty-Fast™ Standard Ties
P6-3


Coloured Cable Ties
P6-3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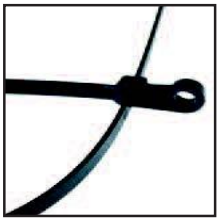
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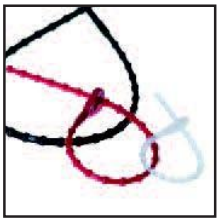
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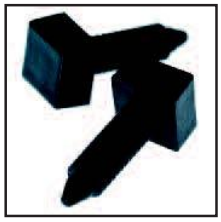
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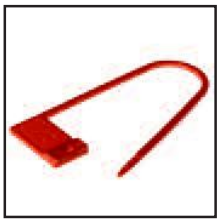

Plaseal®
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Cannot find what you are looking for?

Non-catalogue parts sourcing

If you cannot find the exact part to suit your requirements in our standard catalogue range, we have a team on hand dedicated to sourcing the product that you need, thus giving you all the benefits of a single source component supply.

- No need to waste time shopping around
- Reduce your supplier base
- Have only one source for all your component needs

Call us on +44 (0) 1202 865250 to discuss your requirements

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Thomas&Betts

Ty-Fast™ Standard Ties



Approvals:

UL approved, except where marked *

Specifications: RoHS ✓

Material: Natural Nylon 6,6
Black UV stabilised Nylon 6,6

Flammability: UL94V-2
Temperature range: -40°C to +85°C

- The integral nylon pawl combines low insertion and high locking strength
- A rounded, low profile head makes for fewer snags
- Tails have improved two-sided finger grip design that helps the operator grasp and pull ties snug



PART NUMBER		Length	Width	Max. Bundle Dia.	Minimum Tensile Strength (N)	Unit Quantity
Natural	UV Resistant Black					
TY100-18-100	TY100-18X-100	111	2.4	25	80	100
TY125-18-100	TY125-18X-100	136	2.4	32	80	100
TY150-18-100	TY150-18X-100	160	2.4	38	80	100
TY200-18-100	TY200-18X-100	203	2.4	50	80	100
TY125-30-100	TY125-30X-100	143	3.3	32	130	100
TY125-40-100	TY125-40X-100	141	3.6	32	180	100
TY200-40-100	TY200-40X-100	205	3.6	50	180	100
TY300-40-100	TY300-40X-100	290	3.6	76	180	100
TY400-40-100*	TY400-40X-100*	360	3.6	102	180	100
TY125-50-100	TY125-50X-100	140	4.7	32	220	100
TY175-50-100	TY175-50X-100	186	4.7	44	220	100
TY225-50-100	TY225-50X-100	228	4.7	57	220	100
TY300-50-100	TY300-50X-100	291	4.7	76	220	100
TY400-50-100	TY400-50X-100	363	4.7	102	220	100
TY200-120-50*	TY200-120X-50*	219	7.6	50	540	50
-	TY200-120X-100*	219	7.6	50	540	100
TY300-120-100	TY300-120X-100	289	7.6	76	540	100
TY400-120-100	TY400-120X-100	375	7.6	102	540	100
TY450-120-50	TY450-120X-50	457	7.6	124	540	50
TY600-120	TY600-120X	610	7.6	175	540	50
TY800-120	TY800-120X	711	7.6	203	540	50
TY600-175	TY600-175X	619	8.8	183	780	50
TY900-175	TY900-175X	930	8.8	270	780	50
TY1000-175	TY1000-175X	1036	8.8	305	780	50
TY1200-175	TY1200-175X	1214	8.8	375	780	50
TYL300M*	TYL300MX*	300	13.3	75	1120	50
TYL546M*	TYL546MX*	546	13.3	140	1120	50

Cable tie guns can be found on page 6-7
Part number ERG50 / ERG120



Coloured Cable Ties





Specifications: RoHS ✓

Material: Nylon 6,6
Flammability: UL94V-2
Temperature range: -40°C to +85°C

- The integral nylon pawl combines low insertion and high locking strength
- Moulded colours ideal for colour coding

PART NUMBER & COLOUR							L	Width	Max Bundle Dia	Min Tensile Strength (N)	Unit Quantity
Brown	Blue	Green	Red	Yellow	Black	Natural					
37110025-BR	37110025-BL	37110025-GR	37110025-RD	37110025-YL	37110025-BK	37110025-N	100	2.5	20	79.4	1,000
37114036-BR	37114036-BL	37114036-GR	37114036-RD	37114036-YL	37114036-BK	37114036-N	140	3.6	30	178.4	1,000
-	-	-	-	-	37120025-BK	37120025-N	200	2.5	53	79.4	1,000
37120048-BR	37120048-BL	37120048-GR	37120048-RD	37120048-YL	37120048-BK	37120048-N	200	4.8	50	217.7	1,000
37129548-BR	37129548-BL	37129548-GR	37129548-RD	37129548-YL	37129548-BK	37129548-N	300	4.8	75	217.7	1,000

Looking for a Silver Tie?
Part No for Silver Cable Tie: 295mm x 4.8mm = 37129548-SL

Thomas&Betts

Ty-Fast™ Flame Retardant Ties



Cable tie guns can be found on page 6-7
Part number ERG50 / ERG120



Specifications: RoHS ✓

Material: Nylon 6,6
Colour: White
Flammability: UL94V-0
Temperature range: -40°C to +85°C

- The integral nylon pawl combines low insertion and high locking strength
- A rounded, low profile head makes for fewer snags
- Tails have improved two-sided finger grip design that helps the operator grasp and pull ties snug



PART NUMBER	Length	Width	Max Bundle Dia.	Min Tensile Strength (N)	Unit Quantity
TS1025HF	100	2.5	124	90	100
TS1435HF	140	3.5	136	180	100
TS2045HF	200	4.5	151	220	100
TS3675HF	360	7.5	101	540	100



Ty-Rap® Standard Ties

Thomas&Betts

- Oval, Low Profile Head gives a professional, quality look to wire bundling projects
- Head is designed to prevent snags on uneven surfaces and easier to pull through bulkheads
- Stainless Steel Locking Device insures both maximum strength and the right tightness every time

Specifications: RoHS ✓

Material: Nylon 6,6 & 316 Stainless Steel insert
Flammability: UL94V-2
Temperature range: -40°C to +85°C

Approvals:

UL approved (recognized/listed)

CSA approved

PART NUMBER		Bundle Dia	Width	Length	Strap Thickness	Minimum Tensile Strength (N)	Unit Quantity
Natural	Black						
TY523MR	TY523MXR	2-16	2.4	92	1	80	100
TYB23M	TYB23MX	2-16	2.4	92	1	80	1,000*
TY5232MR	TY5232MXR	2-50	2.4	203	1	80	100
TY5234M	TY5234MX	2-102	2.4	356	1	80	100
TY524MR	TY524MXR	2-29	3.6	140	1.1	133.4	100
TYB24M	TYB24MX	2-29	3.6	140	1.1	133.4	1,000*
TY5242MR	TY5242MXR	2-50	3.6	208	1.1	133.4	100
TY526MR	TY526MXR	2-76	3.6	284	1.1	133.4	100
TY5244MR	TY5244MXR	2-103	3.6	368	1.1	133.4	100
TY525MR	TY525MXR	3.5-45	4.8	186	1.1	222	100
TYB25M	TYB25MX	3.5-45	4.8	186	1.1	222	1,000*
TY5253MR	TY5253MXR	3.5-78	4.8	290	1.1	222	100
TY528MR	TY528MXR	3.5-102	4.8	360	1.1	222	100
TY5272MR	TY5272MXR	6-50	7.0	223	1.5	533.7	50
TY527MR	TY527MXR	6-90	7.0	340	1.5	533.7	50
TY529M	TY529MX	6-229	7.0	762	1.5	533.7	50



* Part numbers **TYB23M, TYB23MX, TYB24M, TYB24MX, TYB25M & TYB25MX** are supplied in Workbench boxes - see below. Workbench Boxes provide an attractive packaging option for high volume manual assembly: 1,000 pieces in a workbench box - easy to reach, hence timesaving. This user-friendly packaging allows fast working without problems or losses.





Cable tie guns can be found on page 6-7
Part number ERG50 / ERG120



Ty-Rap® Detectable Cable Ties

Thomas&Betts

- Bright Blue colour for an easy visual detection
- Help achieve the HACCP EU-Directive
- Halogen free
- Available in standard Nylon 6,6 or buoyant Polypropylene version for liquid-processing applications
- Head is designed to prevent snags

Specifications: RoHS ✓

Colour: Bright Blue
Temperature range: -40°C to +85°C

Approvals:

Detectable by metal detectors set a minimum 1.5mm diameter ferrous sphere (Tested by Thermo Electron Corporation, Minneapolis, MN, USA)

Detectable by X-Ray equipment (Tested by Smiths Detection, Alcoa, TN, USA)

PART NUMBER	Material	Bundle Diameter	Width	Length	Minimum Tensile Strength (N)	Applicable Tooling	Unit Quantity
TY523M-NDT	Nylon 6,6	2.0 - 16.0	2.4	92.0	80	ERG50	100
TY525M-NDT	Nylon 6,6	3.5 - 45.0	4.8	186.0	220	ERG50 / ERG120	100
TY528M-NDT	Nylon 6,6	3.5 - 102	4.8	360.0	220	ERG50 / ERG120	100
TY527M-NDT	Nylon 6,6	6.0 - 90.0	7.0	340.0	540	ERG120	50
TY523M-PDT	Polypropylene	2.0 - 16.0	2.4	92.0	50	ERG50	100
TY525M-PDT	Polypropylene	3.5 - 45.0	4.8	186.0	130	ERG50	100
TY528M-PDT	Polypropylene	3.5 - 102	4.8	360.0	130	ERG50	100
TY527M-PDT	Polypropylene	6.0 - 90.0	7.0	340.0	270	ERG120	50



Bright Blue colour for an easy visual detection...





Safe-Ty™ Low Profile Tie

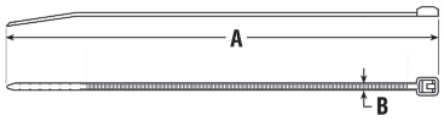
Thomas&Betts

- Low profile, contoured head reduces clearance required
- Reduces snagging on pull-through
- The saddle back fits snug against the contour of the wiring harness
- The safe guard wall eliminates exposure to sharp edges

Specifications: RoHS ✓

Material: Nylon 6,6
Flammability: UL94V-2
Temperature range: -40°C to +85°C

PART NUMBER	Colour	Max Bundle Dia.	Min Bundle Dia.	A Length	B Width	Minimum Tensile Strength (N)	Unit Quantity
SF100-18	Natural	25	3.2	118	2.5	80	1,000
SF100-18X	UV Resistant Black	25	3.2	118	2.5	80	1,000
SF175-50	Natural	44	4.7	195	4.5	220	1,000
SF175-50X	UV Resistant Black	44	4.7	195	4.5	220	1,000



OPTIMAS
T: +44 (0) 1202 865222
E: sales@optimascomponents.com

Ty-Fast™ Push Mountable Ties

Approvals:

UL approved

Specifications: RoHS ✓

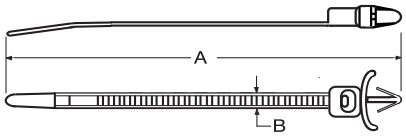
Material: Nylon 6,6

Flammability: UL94V-2

Temperature range: -40°C to +85°C

- The integral nylon pawl combines low insertion and high locking strength
- Provides one-piece mounting and bundling
- Can be fitted to existing installations prior to final assembly of cables





PART NUMBER		A Length	B Width	Max Bundle Dia.	Mounting Hole Diameter	Maximum Panel Thickness	Min Tensile Strength (N)	Unit Quantity
Natural	UV Black							
L-7-50PM-9-D	L-7-50PM-0-D	208	4.80	2 - 44	6.35	2.70	220	1,000

Ty-Rap® Push Mountable Ties

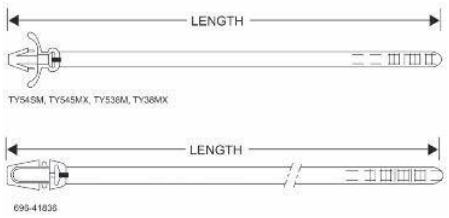
Specifications: RoHS ✓

Material: Nylon 6,6 (UL94V-2) & 316 Stainless Steel insert

Temperature range: -40°C to +85°C (+105°C for short periods)

- Tying and clip-mounting in one
- Fast but secure clip-mounting
- The patented steel barb design guarantees a long-lasting lock even under adverse weather conditions
- Low profile locking head





PART NUMBER	Colour	Bundle Dia.	Width	Length	Strap Thickness	Mounting Hole Dia.	Chassis Thickness	Minimum Tensile Strength (N)	Unit Quantity
TY54SM	Natural	2 - 32	3.5	150	1	4.5-5.2	0-2.5	177	1,000
TY54SMX	Black	2 - 32	3.5	150	1	4.5-5.2	0-2.5	177	1,000
TY538M	Natural	3.5 - 45	4.8	201	1.1	5.8-7.5	2.2-3.7	222	100
TY38MX	Black	3.5 - 45	4.8	201	1.1	5.8-7.5	2.2-3.7	222	1,000
696-41836X	Black	3.5 - 45	4.8	197	1.1	5.8-7.5	2.2-3.7	222	1,000

Ty-Fast™ Screw Mountable Ties

Approvals:

UL approved

Specifications: RoHS ✓

Material: Nylon 6,6

Flammability: UL94V-2

Temperature range: -40°C to +85°C

- The integral nylon pawl combines low insertion and high locking strength
- A rounded, low profile head makes for fewer snags
- Incorporates and integral collar for screw mounting





PART NUMBER		Length	Width	Max Bundle Dia.	Screw Size	Min Tensile Strength (N)	Unit Quantity
Natural	Black						
L-7-50MH-9-C	L-7-50MH-0-C	208	4.7	44	M5	220	100
L-14-50MH-9-C	L-14-50MH-0-C	382	4.7	102	M5	220	100
L-14-120MH-9-C	L-14-120MH-0-C	382	7.6	102	M6	540	100

Ty-Rap® Screw Mountable Ties

Approvals:

VG approved (VG95387, part 4)

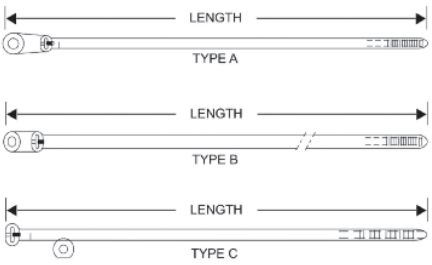
Specifications: RoHS ✓

Material: Nylon 6,6 (UL94V-2) & 316 Stainless Steel insert

Temperature range -40°C to +85°C

- Can be mounted onto a support with screws, bolts or rivets
- Unique steel barb design guarantees a long-lasting lock
- Cable harness can be pre-assembled, then mounted





PART NUMBER		Bundle Dia.	Width	Length	Strap Thickness	Mounting Hole Dia.	Type	Minimum Tensile Strength (N)	Unit Quantity
Natural	UV Resistant Black								
TY533M	TY533MX	2 – 16	2.4	101	1	2.8	A	80	100
TY534M	TY534MX	2 – 29	3.6	152	1.1	4.2	A	177	100
TY635M	-	3.5 – 45	4.8	198	1.1	3.5	A	222	1,000
TY535M	TY535MX	3.5 – 45	4.8	198	1.1	4.8	A	222	100
TY1435M	-	3.5 – 45	4.8	198	1.1	6.3	A	222	1,000
TY537M	TY537MX	6 – 90	7.6	354	1.5	6.3	B	533	50
TYF535M	-	3.5 – 45	4.8	184	1.1	3.5	C	222	100

Cable tie guns can be found on page 6-7
Part number ERG50 / ERG120



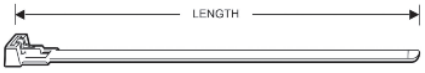
Ty-Fast™ Releasable Ties



- Finger activated release mechanism for simple removal, without the need to tools
- The integral nylon pawl combines low insertion and high locking strength
- Sure grip tab keeps the tail from popping out while being threaded, then holds securely for final tightening by hand or tool

Specifications: RoHS ✓
Material: Nylon 6,6

Flammability: UL94V-2
Temperature range: -40°C to +85°C



PART NUMBER		Length	Width	Max Bundle Dia.	Min Tensile Strength (N)	Unit Quantity
Natural	Black					
L-5-50R-9-C	L-5-50R-0-C	150	7.5	32	220	100
L-8-50R-9-C	L-8-50R-0-C	198	7.5	51	220	100
L-10-50R-9-C	L-10-50R-0-C	298	7.5	76	220	100

Ty-Fast™ Label Ties

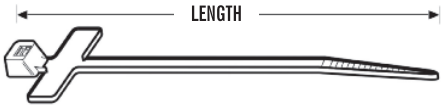


- The integral nylon pawl combines low insertion and high locking strength
- A rounded, low profile head makes for fewer snags
- Tails have improved two-sided finger grip design that helps the operator grasp and pull ties snug

Specifications: RoHS ✓
Material: Nylon 6,6
Colour: Natural
Flammability: UL94V-2
Temperature range: -40°C to +85°C



Cable tie guns can be found on page 6-7
Part number ERG50 / ERG120



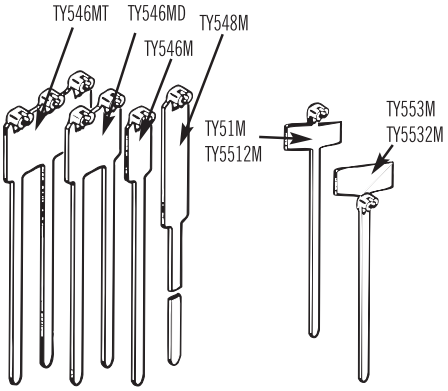
PART NUMBER	Length	Width	Max Bundle Dia.	Label Dimension	Min Tensile Strength (N)	Unit Quantity
L-4-18ID-9-C	102	2.5	19	7.9 x 24.7	80	100
L-7-50ID-9-C	200	4.7	44	30 x 13.3	220	100

Ty-Rap® Label Ties



- For fast tying and labelling
- Label shapes onto the bundle
- Trouble-free installation
- Simple marking on the roughened writing surface
- Strong lock, even in difficult conditions, due to patented stainless steel locking barb

Specifications: RoHS ✓
Material: Nylon 6,6
Temperature range -40°C to +85°C (+105°C for short periods)
Colour: Natural



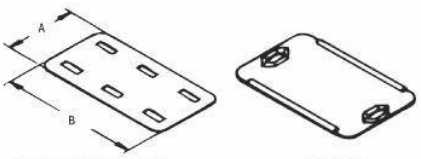
PART NUMBER	Bundle Dia.	Width	Length	Strap Thickness	Label Dimensions	Minimum Tensile Strength (N)	Unit Quantity
TY51M	10-16	2.4	92	1.0	25.4 x 7.9	80	50
TY5512M	10-51	2.4	210	1.0	24.4 x 7.9	80	100
TY548M	19-102	4.8	360	1.1	13.1 x 57.2	222	100
TY546M	9.5-45	4.8	184	1.1	13.1 x 27.0	222	100
TY546MD	19-100	4.8	184	1.1	29.7 x 27.0	222	100
TY546MT	9.5-45	4.8	184	1.1	46.0 x 27.0	222	100
TY553M	2-16	2.4	102	1.0	20.6 x 9.3	80	50
TY5532M	2-51	2.4	212	1.0	20.6 x 9.3	80	100

Ty-Rap® Label Plates



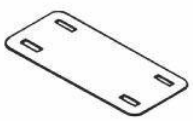
- For use in combination with the special marking pen WT163M-1
- For use with hot foil marking
- For secure labelling of bundles and parts
- Available in three shapes to suit all design requirements

Specifications: RoHS ✓
Material: Nylon 6,6
Temperature range -40°C to +85°C (+105°C for short periods)
Colour: Natural

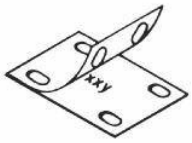


TC123-TB TO TC128-TB

TC223-TB



TC224TB TO TC228TB



STICK REMAINING SHEET OVER WRITING

PART NUMBER	Dimensions		Thickness	Label Height Max	Label Width Max	For Tie Width Up To	Unit Quantity
	Height A	Width B					
TC223-TB	32.3	19.6	1.0	24.0	18.0	4.8	1,000
TC224TB	19.6	38.0	0.5	9.5	38.0	4.8	1,000
TC225TB	19.6	44.7	0.5	9.5	44.7	4.8	1,000
TC226TB	19.6	51.0	0.5	9.5	51.0	4.8	1,000
TC228TB	19.6	63.5	0.5	9.5	63.5	4.8	1,000

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Ty-Rap® Heat Stabilised Ties - Natural

Approvals:

UL recognised except where marked *

Specifications: RoHS ✓

Material: Nylon 6,6 (UL94V-2)
& 316 Stainless Steel insert
Colour: Natural
Temperature range: -40°C to +105°C

- Heat stabilised version, for applications up to 105°C
- Head is designed to prevent snags on uneven surfaces and easier to pull through bulkheads
- Stainless Steel Locking Device insures both maximum strength and the right tightness every time



NEW



PART NUMBER	Bundle Dia	Width	Length	Strap Thickness	Minimum Tensile Strength (N)	Unit Quantity
TYH23M	2 – 16	2.4	92	1.0	80	1,000
TYH232M	2 – 50	2.4	203	1.0	80	1,000
TYH24M	2 – 29	3.6	140	1.1	130	1,000
TYH242M*	2 – 50	3.6	208	1.1	130	1,000
TYH26M	2 – 76	3.6	284	1.1	130	1,000
TYH25M	3.5 – 45	4.8	186	1.1	220	1,000
TYH253M*	3.5 – 78	4.8	290	1.1	220	1,000
TYH28M	3.5 – 102	4.8	360	1.1	220	1,000
TYH272M*	6 – 50	7.6	222	1.6	540	500
TYH27M	6 – 90	7.0	340	1.6	540	500
TYH29M*	6 - 229	6.9	771	1.5	530	500

Ty-Rap® Heat Stabilised Ties - Black

Approvals:

UL recognised

Specifications: RoHS ✓

Material: Nylon 6,6 (UL94V-2)
& 316 Stainless Steel insert
Colour: Black
Temperature range: -40°C to +105°C

- Heat stabilised version, for applications up to 105°C
- Head is designed to prevent snags on uneven surfaces and easier to pull through bulkheads
- Stainless Steel Locking Device insures both maximum strength and the right tightness every time



NEW



PART NUMBER	Bundle Dia	Width	Length	Strap Thickness	Minimum Tensile Strength (N)	Unit Quantity
TY23MX-A	2 - 16	2.3	92	0.9	80	1,000
TY24MX-A	2 – 29	3.6	140	1.1	180	1,000
TY25MX-A	3.5 – 45	4.8	186	1.2	220	1,000
TY27MX-A	6 - 89	6.9	340	1.6	540	500

Stainless Steel Cable Ties

316 grade stainless steel ties are also available. Please contact our Sales Department for further information.

Specifications: RoHS ✓

Material: 302/304 stainless steel
Colour: Self

Operating Temperature: -80°C to +538°C

- Ideal for high temperature applications
- Non-Magnetic
- Self-Locking
- Suitable for indoor or outdoor use
- Innovative locking mechanism provides a low insertion force
- Low head profile - 5.8mm maximum height





PART NUMBER	Length	Width	Thickness	Max Bundle Dia	Min Tensile Strength (N)	Unit Quantity
YLS-4.6-200A	200	4.6	0.25	50	444	100
YLS-4.6-360A	360	4.6	0.25	100	444	100
YLS-4.6-520A	520	4.6	0.25	150	444	100
YLS-4.6-840A	840	4.6	0.25	250	444	100
YLS-7.9-200A	200	7.9	0.25	50	1112	50
YLS-7.9-360A	360	7.9	0.25	100	1112	50
YLS-7.9-520A	520	7.9	0.25	150	1112	50
YLS-7.9-1000A	1000	7.9	0.25	300	1112	50

Cable Tie Gun

Specifications: RoHS ✓

Material: High Impact Polymer with soft over grip

- Suitable for both left and right handed use
- Adjustable trigger position
- Tensioning on front of nozzle, not behind
- Lightweight, break-through ergonomic design
- Reduces user stress and strain
- 360° rotating nose enables operation from any position



PART NUMBER	Description	Unit Quantity
ERG50	Cable tie Gun - 2.4 - 4.8mm	1
ERG120	Cable tie Gun - 4.8 - 7.6mm	1



Cable Ties For Tube Mounting

- To assemble a bundle at any orientation to a tube
- With a swivel system to orientate the bundle
- A re-openable locking system

NEW

Specifications: RoHS ✓
Material: See table
PA = Nylon, POM = Acetal

Colour: Black

PART NUMBER	Design Type	Material	Tube Diameter Range (D1)	Bundle Diameter Range (D2)	Clip Width (1)	Cable Strap Width (2)	Spacing (h)	Unit Quantity
37115030	1	POM/PA12	4.3-5.2	10-52	10.0	7.0	13.5	500
37115031	1	POM/PA12	6.0-6.5	10-52	8.0	7.0	14.0	500
37115032	1	PA12/PA66	7.8-8.5	10-52	10.0	7.0	15.4	500
37115033	1	POM/PA12	7.8-8.5	46-95	10.0	7.0	15.4	500
37115034	1	POM/PA12	8.0-9.0	10-52	8.0	7.0	15.0	500
37115035	1	POM/PA12	10.0-12.0	10-52	10.0	7.0	18.0	500
37115036	1	POM/PA66	10.0-12.0	46-75	10.0	7.0	18.0	500
37115037	1	POM/PA12	11.0-13.0	10-52	10.0	7.0	16.5	500
37115038	1	POM/PA12	13.0-14.0	10-52	10.0	7.0	17.5	500
37115039	1	PA66/PA46	13.0-14.0	46-75	10.0	7.0	17.5	500
37115040	1	POM/PA66	15.0-16.0	46-75	10.0	7.0	18.0	150
37115041	1	PA66/PA66	16.0-18.0	30-80	12.0	8.0	17.0	500
37115042	1	POM/PA12	19.0-24.5	10-52	12.0	7.0	20.8	200
37115043	1	PA66/PA12	19.0-24.5	46-95	12.0	7.0	20.5	500
37115044	2	POM/PA12	14.0-16.0	10-52	12.0	7.0	18.0	200
37115045	3	POM/PA12	23.0-30.0	10-52	10.0	7.0	28.6	1,000

Type 1

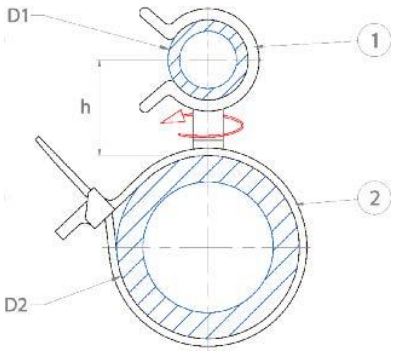


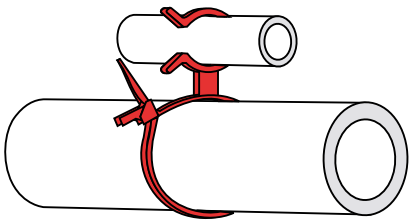
Type 2



Type 3









Edge mounting Cable Ties

- Cable tie with intergrated clip for panel edge fixing
- Panel clip contains a metal part to ensure strong retention to panel
- Available in different configurations to cover many fixing layouts

Specifications: RoHS ✓
Material: Nylon 66 Colour: Black
Retaining Claw: Carbon steel Finish: See table

PART NUMBER	Design Type	Panel Thickness (F)	Max Tube Diameter (D1)	Cable Strap Width	Cable Strap Length	Swivel	Steel Claw Finish	Unit Quantity
37115054	1	0.7-2.5	1.5-40.0	4.8	182.5	Yes	Magni 1.2 Silver	3,000
37115052	2	1.0-3.0	8.0-33.0	4.5	140.0	Yes	Magni 2.2 Black	800
37115053	2	2.0-4.0	8.0-33.0	7.0	140.0	Yes	Magni 2.1 Silver	600
37115046	3	1.5-3.5	1.5-43.0	4.6	191.0	No	Magni 2.1 Silver	2,000
37115050	4	1.5-3.5	1.5-43.0	4.5	180.0	No	Magni 2.1 Silver	2,000
37115051	5	1.5-3.5	1.5-43.0	4.5	186.0	No	Magni 2.1 Silver	3,000



Type 1



Type 2



Type 3

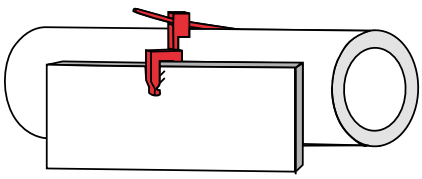


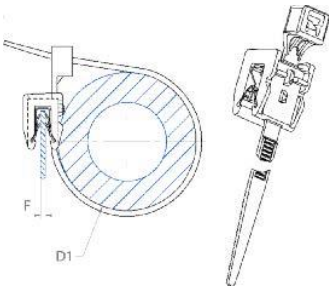
Type 4



Type 5

NEW





OPTIMAS

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Plug Mounting Cable Ties

Specifications: RoHS ✓
Material: Nylon 66 (except marked * - Nylon 6)
Colour: Black (except marked ** - Natural)

- Cable tie integrating an anchoring system
- To fasten a bundle onto a panel
- Different anchoring systems available to suit different hole depths

NEW



Type 1


Type 2

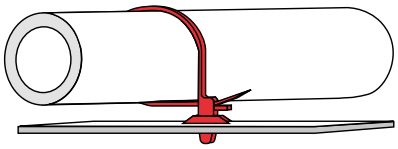

Type 3

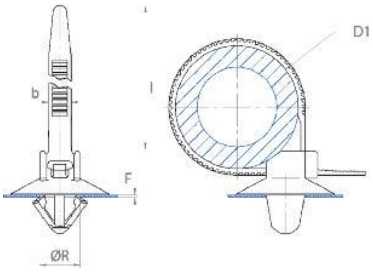

Type 4


Type 5


Type 6


PART NUMBER	Design Type	Panel Thickness (F)	Mounting Hole Diameter (R)	Bundle Diameter Range (D1)	Cable Strap Width (b)	Cable Strap Length (l)	Unit Quantity
37115001*	1	0.5-3.0	6.2x12.2	3.0-40.0	4.5	160.6	1,200
37115002	2	0.8-1.3	6.6	0.5-25.0	3.6	113.6	1,000
37115003**	2	0.8-1.8	6.5	3.0-24.0	4.2	110.0	900
37115004	2	0.8-1.8	6.5	3.0-24.0	4.2	110.0	900
37115005	3	0.8-2.8	6.1-6.5	2.0-30.0	4.4	130.0	500
37115006*	4	0.5-3.0	6.7	3.0-40.0	4.7	182.4	600
37115007	4	0.6-3.0	5.4	0.5-25.0	3.8	114.0	1,000
37115008	4	0.7-3.0	6.5	3.0-40.0	4.5	180.0	1,000
37115009	5	0.6-3.0	6.2-7.2	1.0-40.0	4.8	170.0	1,000
37115010	5	0.7-1.8	6.5	2.0-40.0	4.8	155.0	1,000
37115011*	6	0.5-3.0	6.3	10.0-40.0	9.0	174.0	700
37115012	6	0.8-2.2	7.0	15.0-55.0	9.0	201.5	500





ARaymond MORE THAN FASTENING

Stud Mounting Cable Ties

Specifications: RoHS ✓
Material: Nylon 66
Colour: Black

- Cable tie integrating a female clip to fix onto metric studs
- To fix wire bundles onto a stud or onto a panel with a welded stud

NEW

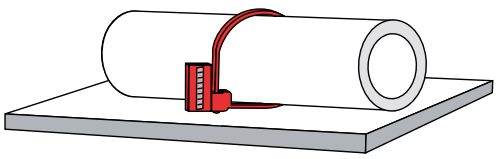


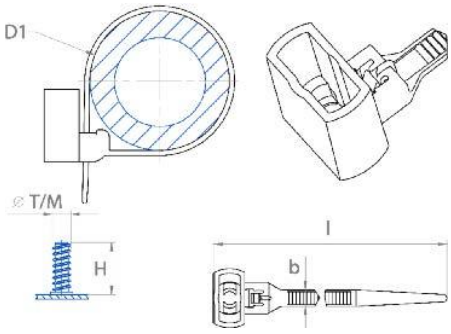
Type 1


Type 2


Type 3


PART NUMBER	Design Type	Stud Size (T x H)	Tube Diameter Range (D1)	Cable Strap Length (l)	Cable Strap Width (b)	Unit Quantity
37115020	1	Ø5/6x14.2	2.0-40.0	171.3	4.5	500
37115021	2	Ø5x12 or M6x12	1.5-40.0	175.5	4.5	700
37115022	3	M8x14.5	2.0-25.0	135.0	4.5	800
37115023	3	M8x14.2	2.0-40.0	183.5	4.8	500







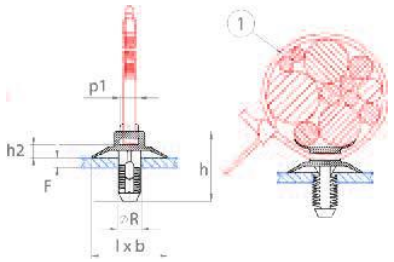
Cable Tie Clips - Plug in Type

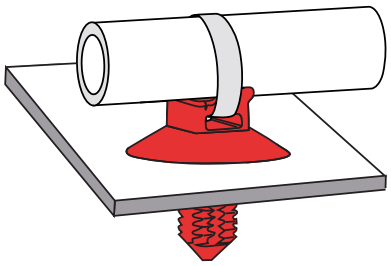
- Cable tie bases to plug into a panel hole
- To be used with standard or re-openable cable ties

NEW

Specifications: RoHS ✓
Material: See Table
Colour: Black (Except where marked * - Natural)

PART NUMBER	Design Type	Panel Thickness (F)	Hole Diameter (R)	Cable Strap Width (p1)	Length x Width (lxb)	Height (h)	Height 2 (h2)	Material	Unit Quantity
37115100	1	0.8-10.0	6.5	5.0	20.0x20.0	20.0	3.4	POM	600
37115102	2	4.5-6.0	11.1	9.2	18.0x18.0	27.5	8.5	PA66	500
37115103	3	0.5-4.0	7.1	9.5	31.0x13.0	17.6	5.5	PA66	600
37115101*	4	2.5-2.6	6.5	6.6	11.0x10.0	13.5	8.5	POM	500






Type 1


Type 2


Type 3


Type 4

Cable tie Clips - Edge Mount Type



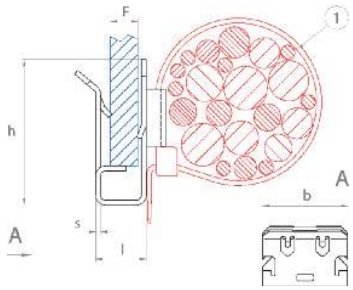
- To be used with standard or re-openable cable tie

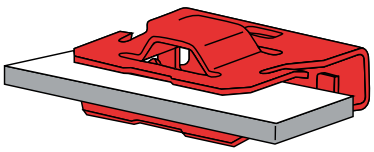
NEW

Specifications: RoHS ✓
Material: Carbon Steel
Finish: See Table
Salt Spray Protection: See Table

PART NUMBER	Design Type	Panel Thickness (F)	Length (l)	Width (b)	Height (h)	Cable Strap Width (1)	Material Thickness (s)	Finish	Salt Spray Resistance Hours*	Unit Quantity
37115200	1	0.8-1.2	0.8-1.2	16.0	15.7	5.0	0.5	Magni 2.2 Black	200/600	1,000
37115203	2	1.5-4.5	1.5-4.5	25.0	17.8	5.8	0.6	Magni 2.0 Silver	200/600	800
37115202	3	1.5-4.0	1.5-4.0	15.0	14.2	5.0	0.5	Magni 2.2 Silver	200/600	4,300
37115201	4	1.0-3.0	18.0	13.0	15.3	5.0	0.5	Magni 2.0 Silver	200/600	1,000

*Salt Spray Protection data for reference only






Type 1


Type 2


Type 3


Type 4

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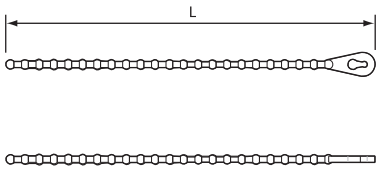
Beaded Ties





Specifications: RoHS ✓

Tolerances:
Overall Length = ± .41

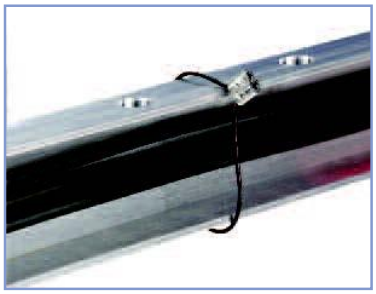
- Versatile and easy to use
- Re-usable
- Polyethylene: High flexibility and moderate strength
- Nylon: Greater strength and temperature resistance
- Used for bundling, bagging, tying, closing and holding

PART NUMBER			Specifications/Dimensions				Unit Quantity
Black	Natural	Red	Max. Bundle Dia.	L - Overall Length	Tensile Strength N	Material	
-	**3853420**	**3853422**	28.6	106	45	Polyethylene	1,000
-	**3853430**	**3853432**	48.0	165	80	Polyethylene	1,000
-	**3853435**	**3853437**	64.0	220	80	Polyethylene	1,000
3853495	-	-	76.0	275	338	Nylon	1,000

HEYCO® Genuine HEYCO® Parts!

HEYCO® SunBundler™ Cable Ties





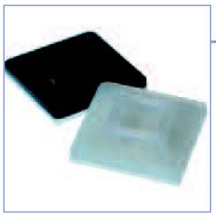
Specifications: RoHS ✓

Materials:
Commercial aircraft grade Stainless Steel wire
UV protected Vinyl Crimp Sleeve

Minimum Tensile Strength: 440N

- Smooth vinyl jacketing prevents damage to installation cable insulation
- Tin plated copper crimp sleeve for easy field installation
- UV protected vinyl jacket is excellent for solar installation where product durability is required
- Use standard wire cutters to both crimp the sleeve and cut the excess wire

PART NUMBER	Maximum Bundle Diameter	Length	Cable Diameter	Unit Quantity
650S6408	58.4	203	1.5	500
650S6410	74.2	254	1.5	500
650S6412	98.6	305	1.5	500
650S6414	106.7	356	1.5	500



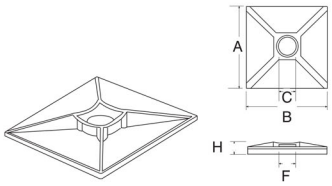
Mounting Platforms

- Provides a secure anchorage for cable bundles and tubing
- Self-adhesive mounts have a base synthetic rubber foundation which provides a high permanent bond to most surfaces
- Versatile and easy to use

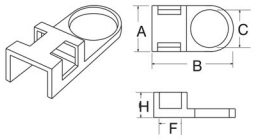
Specifications: RoHS ✓
Material: Nylon 6,6

Tolerances: ± .41

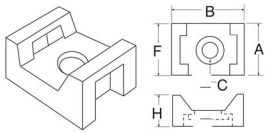
PART NUMBER		Platform Type	Maximum Nytye Width	Dimensions					Unit Quantity
Natural	Black			A	B	C	F	H	
37599725	37599825	Two Way Adhesive Fixing	3.6	19.0	19.0	3.5	4.0	4.4	100
37599727	37599827	Two Way Adhesive Fixing	4.8	28.0	28.0	5.7	6.0	5.7	100
37599740	37599840	Eyelet	4.8	9.52	19.0	4.3	4.95	4.95	100
37599780	37599880	Cradle	9.0	15.9	21.9	5.0	9.2	9.7	100



Two Way Adhesive Fixing



Eyelet



Cradle



Ty-Rap® Mounting Platforms (For Glue Fix)

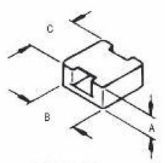
Thomas&Betts

- Low profile
- Easy to use

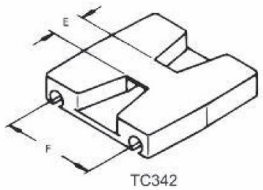
* Recommended glue: Depend® No-Mix 2-part adhesive kit

Specifications: RoHS ✓
Material: Nylon 6,6
Temperature range -40°C to +85°C (+105°C for short periods)
Colour: Natural

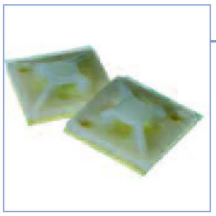
PART NUMBER	Fastening Method	Dimensions					For Tie Width Up To:	Unit Quantity
		Height A	Width B	Length C	E	F		
TC342	*2-Component Glue	5.7	28.5	29.0	7.5	21.0	4.8	1,000
TC817-TB	*2-Component Glue	4.8	11.0	11.0	-	-	4.8	1,000



TC817-TB



TC342



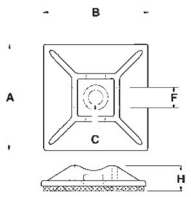
Mounting Platforms

- Provides a secure anchorage for cable bundles and tubing
- Self-adhesive mounts have a base synthetic rubber foundation which provides a high permanent bond to most surfaces
- Versatile and easy to use

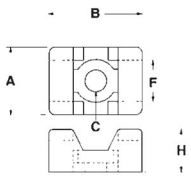
Specifications: RoHS ✓
Material: Nylon 6,6
Colour: Natural

Tolerances: ± .64

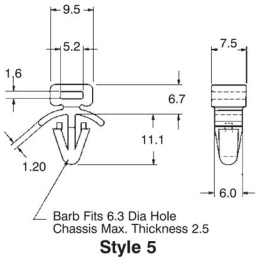
PART NUMBER	Platform Type	Maximum Nytye Width	Style	Dimensions					Unit Quantity
				A	B	C	F	H	
3753593	Two Way Adhesive or Screw Mount	4.8	3	29.2	29.2	4.5	5.3	6.6	1,000
3753759	One Way Screw Mount	4.8	4	9.92	15.24	4.4	5.2	7.14	1,000
3753762	One Way Push Mount	4.8	5	SEE DRAWING BELOW					1,000



Style 3



Style 4



Style 5

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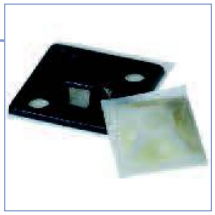
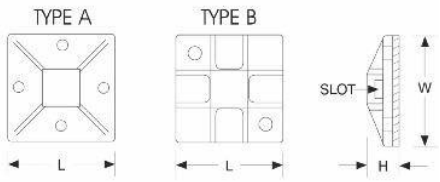
Ty-Fast™ Mounting Platforms

Specifications: RoHS ✓
Material: Natural Nylon 6,6, Black heat stabilised Nylon
Flammability: UL94V-2

- Supplied mounted in pairs on kiss-cut rubber-based (synthetic polymer) closed-cell foam adhesive, except TC200X200A & TC200X200 which are supplied as singles





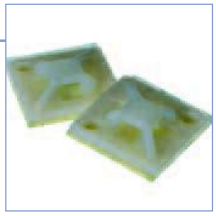
PART NUMBER	Colour	Mount Method	Height H	Length L	Width W	Slot Height	Slot Width	Type	Unit Quantity
TC050X50A-C	Natural	Self-Adhesive	5	12.7	12.7	1	3	A	100
MPNY-750-0-C	Black	Self-Adhesive	5.21	19.04	19.04	1.27	3.18	B	100
MPNY-750-9-C	Natural	Self-Adhesive	5.21	19.04	19.04	1.27	3.18	B	100
MPNY-1000-0-C	Black	Self-Adhesive	5.46	25.4	25.4	1.78	5.16	B	100
MPNY-1000-9-C	Natural	Self-Adhesive	5.46	25.4	25.4	1.78	5.16	B	100
TC150X150A	Natural	Self-Adhesive	7	38	38	3	7	A	500
TC200X200A	Natural	Self-Adhesive	7	51	51	3	8	A	500

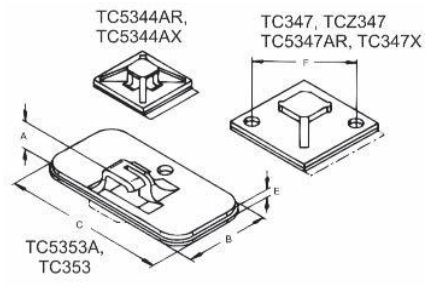
Ty-Rap® Mounting Platforms

Specifications: RoHS ✓
Material: Nylon 6,6

Temperature range -40°C to +85°C (+105°C for short periods)

- Low profile design
- Extremely strong and durable adhesive
- Types TC5344 and 347 allow two directions of cable tie entry
- Self-adhesive film is foam backed (0.8mm) to compensate for any surface irregularities
- Ideal for wiring of control boxes, vehicles and office equipment





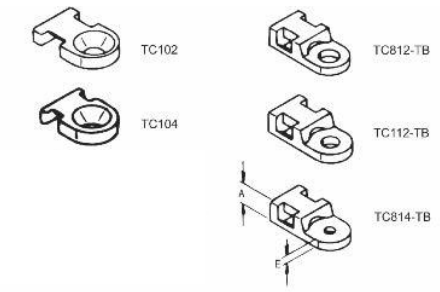
PART NUMBER	Colour	Fastening Method	Dimensions					Tie Width Up To:	Unit Quantity
			Height A	Width B	Length C	E	F		
TC5344AR	Natural	Self-Adhesive	5.0	19.2	19.2	2.0	-	3.6	100
TC347	Natural	Screws Ø4.4 (2x)	8.0	29.0	29.0	1.6	29.0	7.6	1,000
TC5347AR	Natural	Self-Adhesive	8.7	29.0	29.0	2.1	29.0	7.6	100
TC5353A	Natural	Self-Adhesive	9.0	26.5	52.0	2.5	-	4.8	100
TC5344AX	UV Resistant Black	Self-Adhesive	5.0	19.2	19.2	2.0	-	3.6	100

Ty-Rap® Mounting Platforms (Screw/Rivet Fix)

Specifications: RoHS ✓
Material: Nylon 6,6
Temperature range -40°C to +85°C (+105°C for short periods)
Colour: Natural

- Extremely low profile
- Available in three sizes
- Available in versions to suit countersunk or fillister head screws
- For screw or rivet mounting
- Easy to use
- Ideal for wiring of control boxes, vehicles and office equipment





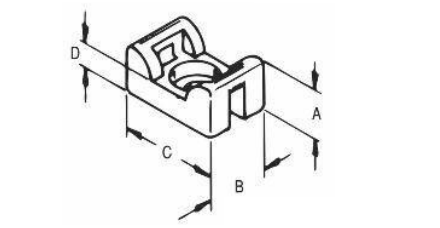
PART NUMBER	Fastening Method	Dimensions					For Tie Width up to:	Unit Quantity
		Height A	Width	Length	E	Mounting Hole Ø		
TC102	Countersunk Screw	3.2	13.0	19.0	-	4.2	4.8	1,000
TC104	Countersunk Screw	2.5	8.0	10.0	-	3.2	2.4	1,000
TC112-TB	Fillister-Head Screw	5.0	10.0	19.0	2.0	4.2	4.8	1,000
TC812-TB	Fillister-Head Screw	5.0	10.0	19.0	2.0	4.8	4.8	1,000
TC814-TB	Fillister-Head Screw	5.0	10.0	19.0	2.0	3.2	4.8	1,000

Ty-Rap® Mounting Platforms - Cradle Type (Screw/Rivet Fix)

Specifications: RoHS ✓
Material: Nylon 6,6
Temperature range -40°C to +85°C (+105°C for short periods)
Colour: Natural

- For screw or rivet fastening
- The prism shape of the saddle prevents twisting around the fixture
- High strength through compact design
- Ideal for control boxes, machine control devices and machine construction





PART NUMBER	Fastening Method	Dimensions					For Tie Width Up To:	Unit Quantity
		Height A	Width B	Length C	D	Mounting Hole Ø		
TC140	Fillister-Head Screw	7.0	8.7	14.2	3.6	2.8	2.4	500
TC141	Fillister-Head Screw	8.2	11.1	17.0	4.0	3.5	4.8	500
TC142	Fillister-Head Screw	11.0	14.2	23.4	5.2	5.2	7.6	500

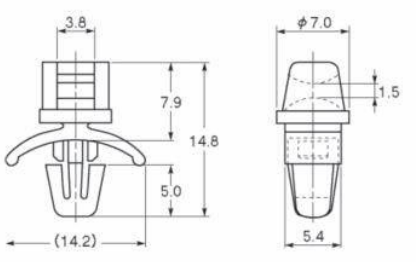
Push-Mount Cable Tie Holder



- Cable tie holders that are secured in mounting holes
- Use with any manufacturer's cable ties that have a width of 3.8 or less, and a thickness of 1.5 or less

Specifications: RoHS ✓

Material: Nylon 6,6
Colours: UL94V-2: Natural
UL94V-0: White



PART NUMBER		Dimensions		Unit Quantity
UL94V-2	UL94V-0	Mounting Hole	Applicable Board Thickness	
3771000	3771001	Ø4.8	0.5~2.0	500

Push-Mount Cable Tie Clips

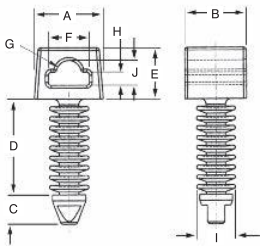


- Use with beaded ties and conventional cable ties
- Suitable for use in pre-drilled holes in wood, masonry and a variety of other materials

Specifications: RoHS ✓

Material: High Density Polyethylene
Colour: Black

Tolerance: ± 0.13



PART NUMBER	Hole Size	Part Dimensions										Unit Quantity
		A	B	C	D	E	F	G	H	I	J	
3750800	4.76	8.89	8.13	3.81	12.45	6.60	5.33	3.18	1.65	5.08	3.18	1,000
3750810	6.35	12.70	12.19	4.57	19.05	7.24	8.13	3.18	1.65	6.86	3.18	1,000

Ty-Rap® Mounting Clamps

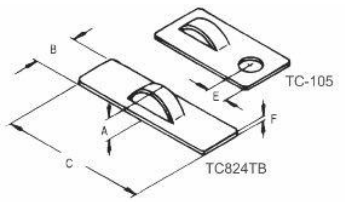
Thomas&Betts



- Very strong
- Low profile, low weight
- Soft material can be perfectly shaped onto any support
- Does not age even under extreme temperatures
- Ideal for Aeronautics, Vehicles and Office Equipment

Specifications: RoHS ✓

Material: Aluminium (3003, ASTMB-209).
Temperature range - 100°C to +450°C
Colour: Silver



PART NUMBER	Fastening Method	Dimensions					Mounting Hole	Tie Width Up To:	Unit Quantity
		Height A	Width B	Length C	E	F			
TC-105	*2-Component Glue or Screws	5.0	13.0	25.0	5.0	0.8	4.8	4.8	1,000
TC824TB	*2-Component Glue	5.0	10.0	35.0	-	0.9	-	4.8	1,000

* Recommended glue: Depend® No-Mix 2-part adhesive kit

Fastening Methods not supplied

Self-Adhesive Ties

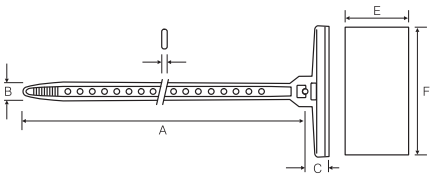


- Versatile and reliable
- Simple and easy to use
- Large self-adhesive base provides a strong and secure mounting platform

Specifications: RoHS ✓

Material: Nylon

Tolerances:
All dimensions = ±.76



PART NUMBER	Dimensions						Max. Wire Bundle Diameter	Rated Static Load N	Fixing	Unit Quantity
Grey	A	B	C	D	E	F				
1077220	127.00	6.35	7.62	1.52	25.40	49.72	31.75	8.89	Self-Adhesive	1,000

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BOCUBE
ENCLOSURE BOXES

BOPLA
A Phoenix Mecano Company





SCREWLESS AND HINGED ENCLOSURE BOXES FOR FAST INSTALLATION AND MAINTENANCE

BOCUBE is a new range of enclosure boxes that can be opened with a screwdriver and snapped shut by hand, thereby saving time during installation or maintenance.

KEY BENEFITS:

- Time saving patented hinged, quick-release technology – open either side with a screwdriver, snap shut by hand
- No screws to drop or misplace
- IP66/67 foam seal guarantees high ingress protection for wet & dusty environments
- Available in ABS or UL94V-0 Polycarbonate
- Available in a range of sizes and colours to suit all applications
- Can be supplied pre-customsied with holes machined and components mounted

SEE OUR FULL STANDARD RANGE IN CHAPTER 2 OR AT:
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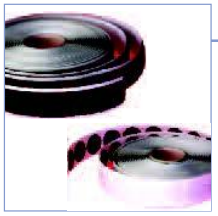
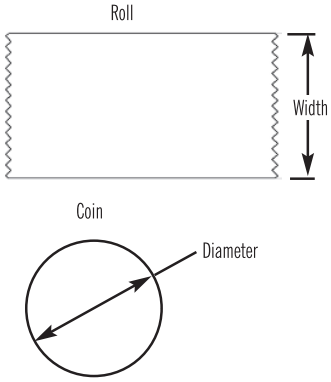


VELCRO® Brand Fasteners - VELCRO® Brand Handy-Pack Range

- Non - Corrosive
- Adjustable - for ease of assembly
- Durable
- Ideal for exhibitions and point of purchase

Specifications:	RoHS ✓
Material: Woven Nylon	
Binder Backing: Synthetic Resin	
Adhesive: General purpose rubber base adhesive, high tack-quick setting, achieves 90% bond strength in approx 1 hour	

PART NUMBER & COLOUR		Description	Roll Width/ Coin Diameter	Roll Length (Metres)	Unit Quantity (Rolls)
Black	White				
3802320	-	**Roll** - Hook	10	25	1
3802321	-	**Roll** - Loop	10	25	1
3802322	-	**Roll** - Hook	16	25	1
3802323	-	**Roll** - Loop	16	25	1
3802302	-	**Roll** - Hook	20	5	1
3802303	-	**Roll** - Loop	20	5	1
3802324	3802326	**Roll** - Hook	20	25	1
3802325	3802327	**Roll** - Loop	20	25	1
3802328	3802330	**Roll** - Hook	25	25	1
3802329	3802331	**Roll** - Loop	25	25	1
3802332	3802334	**Roll** - Hook	50	25	1
3802333	3802335	**Roll** - Loop	50	25	1
3802336	-	**Roll** - Hook	100	25	1
3802337	-	**Roll** - Loop	100	25	1
3802308	-	**Coins** - Hook	13	5 (300 coins)	5
3802309	-	**Coins** - Loop	13	5 (300 coins)	5
3802340	3802342	**Coins** - Hook	13	25 (1,500 coins)	1
3802341	3802343	**Coins** - Loop	13	25 (1,500 coins)	1
3802312	-	**Coins** - Hook	22	5 (200 coins)	5
3802313	-	**Coins** - Loop	22	5 (200 coins)	5
3802344	3802346	**Coins** - Hook	22	25 (1,000 coins)	1
3802345	3802347	**Coins** - Loop	22	25 (1,000 coins)	1



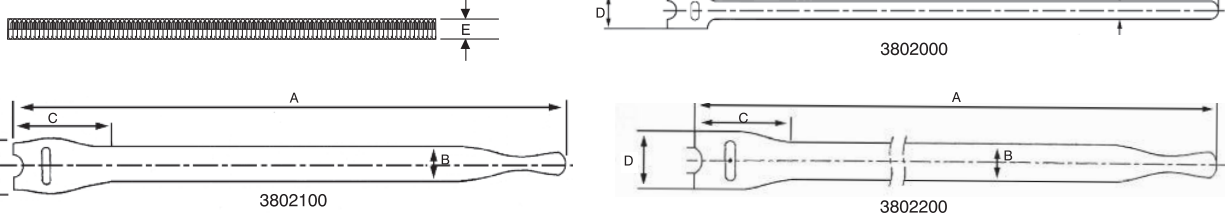


VELCRO® Brand Fasteners - ONE-WRAP® Ties

- Available in reel format
- Easy to use
- Adjustable and re-usable
- Bundles, positions and fixes cables
- Will not crush fragile cables or assemblies

Specifications:	RoHS ✓
Material: Polypropylene & Velour PA	
Colour: Black	

PART NUMBER	Maximum Bundle Diameter	Part Dimensions					Unit Quantity
		A	B	C	D	E	
3802000	50	200.85	6.5	18.25	13.0	1.35	1 Reel (750 Ties)
3802100	50	200.0	12.5	25.0	20.0	1.35	1 Reel (750 Ties)
3802200	80	300.0	16.0	40.0	25.0	1.35	1 Reel (500 Ties)



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VELCRO® Brand Fasteners - ONE-WRAP® Qwik Ties





Promotional messages, company details or web address can be printed on the strap! Please call our Sales Department to discuss your requirements.

Specifications: RoHS ✓

Material: Linear Low Density Polyethylene & Nylon

- Low cost ties for lighter duty applications
- Easy to use - no tools or training needed
- Adjustable and re-usable
- Bundles, positions and fixes cables
- Will not over-tighten, ideal for fibre optics
- Other colours and lengths also available



PART NUMBER	Colour	Part Dimensions		Unit Quantity
		A	B	
3803802	Black	130.0	20.0	1 Reel (180 Ties)
3803804	Black	200.0	20.0	1 Reel (112 Ties)
3803806	Black	300.0	25.0	1 Reel (75 Ties)

VELCRO® Brand Fasteners - ONE-WRAP® Continuous Tape

Usage characteristics:

Peel Strength*:	Minimum 0.4 N/cm
Shear Strength*:	Minimum 7.0 N/cm2
Cycle Life*:	50% loss 100 cycles
Breaking Strength*:	Minimum 120 N/cm
Melting Point:	150°C
* Internal Norm of VESA	
Electrical Conductivity:	None
Washing Resistance:	Good
UV Resistance:	Low
Humidity Resistance:	Medium
Sewn Resistance:	Low
Acid Resistance:	Medium

Specifications: RoHS ✓

Material:	Polypropylene & Velour PA
Colour:	Black (other colours available)
Width: Nominal	±1%
Overall Thickness:	1.35 ±0.20
Weight:	550 ±60 g/m2
Hooks/cm2:	266 ±10%

- Easy to use
- Re-usable
- Easy to cut to length
- Bundles, positions and fixes cables
- Will not crush fragile cables or assemblies
- Longer roll lengths also available



PART NUMBER	Tape Width	Roll Length (Metres)	Unit Quantity
3802204	10.0	25	18 rolls
3802205	16.0	25	1 roll
3802206	20.0	25	1 roll
3802207	25.0	25	5 rolls

VELCRO® Brand Fasteners - LogiStrap®





Specifications: RoHS ✓

Materials:	Strap:	Woven Nylon
	Buckle:	Plated Steel
Colour:	Orange with black tab and metal buckle	
Breaking Strength: Loop Tape: 1,590N, Hook Tape: 1,800N. Ultra-sonic welding joint: 838N		

- Time saving device, taking seconds to apply
- Environmentally friendly
- Re-usable
- No additional tools are required
- Fluorescent colour for distance visability
- Helps steady stacked boxes, especially during order picking



PART NUMBER	Strap Width	Strap Length (Metres)	Unit Quantity
3803807	50.0	5	5



Marker Kit Boxes

- Assortment box which facilitates combination marking work
- Good overview - means fast marking
- Easy to use at installation site
- Special filling combinations available to order

Specifications:	RoHS ✓
Materials:	
Markers:	Cadmium-free soft PVC (UL94V-0 rated)
Box:	Polystyrene
Box Colour:	Yellow with a clear lid

PART NUMBER	Description	Unit Quantity
2095000	18 Compartments, Size B marker kit box - Format 1 (see below)	1
2095001	18 Compartments, Size B marker kit box - Format 2 (see below)	1
2095002	18 Compartments, Size C marker kit box - Format 1 (see below)	1
2095003	18 Compartments, Size C marker kit box - Format 2 (see below)	1

Format 1 contains 250 of each marker:
0 - 9 (incl), L, N, R, S, T, +, - and earth.
The numbers, letters and symbols are black on white.

Format 2 contains 250 of each marker:
0 - 9 (incl), L, N, R, S, T, +, - and earth.
The letters and symbols are black on white.
The numbers are printed on colour coded markers.



Refillable 'Pocket Size' Cassette Dispensers

- Flexible aid for service and maintenance marking
- Saves time and money
- Pocket-sized
- Double-sided for right and left-mounting
- Easy to refill

Specifications:	RoHS ✓
Cassette Material:	Polystyrene.
Colour:	Red for Size B and Blue for Size C.
Temperature Range:	From -30°C to +70°C

PART NUMBER	Description	Unit Quantity
2096000	Blue Pocket Cassette containing 500 Size C markers and one 800 1013 Teflon coated applicator Format 1 (see below)	1
2096001	Blue Pocket Cassette containing 500 Size C markers and one 800 1013 Teflon coated applicator Format 2 (see below)	1
2096002	Red Pocket Cassette containing 600 Size B markers and one 800 1012 Teflon coated applicator Format 3 (see below)	1
2096003	Red Pocket Cassette containing 600 Size B markers and one 800 1012 Teflon coated applicator Format 4 (see below)	1

Design:
The cassette comprises two identical lids, linked by a hinge on the one side. The outer sides of the lids have grooves for storing marker strips. The lids of the two different designs fit one another and can thus be combined. The applicator can be stored inside the cassette.

Format 1 contains 25 Size C markers of each:
(500 markers in total)
0 - 9 (incl), A, E, L, N, R, S, T, +, - and earth.
The numbers, letters and symbols are black on white.

Format 2 contains 25 Size C markers of each:
(500 markers in total)
0 - 9 (incl), A, E, L, N, R, S, T, +, - and earth.
The letters and symbols are black on white.
The numbers are printed on colour coded markers.
(500 markers in total)

Format 3 contains the following number of each of Size B markers: (600 markers in total)
50 of each 0, 1, 2 & 3
25 of each 4 - 9 (incl), A, E, L, N, R, S, T, +, - and earth.
The numbers, letters and symbols are black on white.

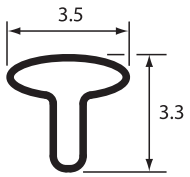
Format 4 contains the following number of each of Size B markers: (600 markers in total)
50 of each 0, 1, 2 & 3
25 of each 4 - 9 (incl), A, E, L, N, R, S, T, +, - and earth.
The letters and symbols are black on white.
The numbers are printed on colour coded markers.



Cable Markers - Size A

- Self-extinguishing, good resistance to chemicals, gamma and UV radiation
- Closed design, combination marker sleeve for small wires
- Chevron cut means markers interlock and text is always easily readable
- Flexible sleeve profile, covers a wide diameter range and allows rapid installation

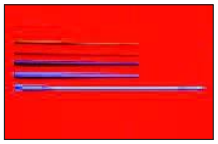
Specifications:	RoHS ✓
Size Range:	Ø1.0 to 2.0mm (0.2 to 0.7mm²)
Length:	3.0mm
Material:	Cadmium & silicon free soft PVC (UL94V-0 rated)
Print:	Hot Foil Stamped, Text 2.6mm High
Temperature:	30°C to +60°C



PART NUMBER	Marker	Colour	Unit Quantity
2090000	A	White	250
2090001	B	White	250
2090002	C	White	250
2090003	D	White	250
2090004	E	White	250
2090005	F	White	250
2090006	G	White	250
2090007	H	White	250
2090008	I	White	250
2090009	J	White	250
2090010	K	White	250
2090011	L	White	250
2090012	M	White	250
2090013	N	White	250

PART NUMBER	Marker	Colour	Unit Quantity
2090014	O	White	250
2090015	P	White	250
2090016	Q	White	250
2090017	R	White	250
2090018	S	White	250
2090019	T	White	250
2090020	U	White	250
2090021	V	White	250
2090022	W	White	250
2090023	X	White	250
2090024	Y	White	250
2090025	Z	White	250
2090026	+	White	250
2090027	-	White	250
2090028	/	White	250
2090029	⏚	White	250

PART NUMBER	Marker	Colour	Unit Quantity
2090050	0	White	250
2090051	1	White	250
2090052	2	White	250
2090053	3	White	250
2090054	4	White	250
2090055	5	White	250
2090056	6	White	250
2090057	7	White	250
2090058	8	White	250
2090059	9	White	250
2090100	0	Black	250
2090101	1	Brown	250
2090102	2	Red	250
2090103	3	Orange	250
2090104	4	Yellow	250
2090105	5	Green	250
2090106	6	Blue	250
2090107	7	Violet	250
2090108	8	Grey	250



Marker Applicators can be found on page 6-20

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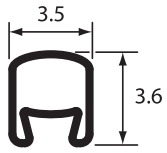
Cable Markers - Size B





Specifications:	RoHS ✓
Size Range:	Ø1.7 to 2.8mm (0.5 to 0.75mm²)
Length:	3.0mm
Material:	Cadmium & silicon free soft PVC (UL94V-0 rated)
Print:	Hot Foil Stamped, Text 2.6mm High
Temperature:	30°C to +60°C

- Self-extinguishing, good resistance to chemicals, gamma and UV radiation
- Closed design, combination marker sleeve for small wires
- Chevron cut means markers interlock and text is always easily readable
- Flexible sleeve profile, covers a wide diameter range and allows rapid installation

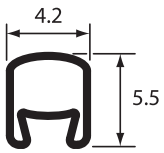
PART NUMBER	Marker	Colour	Unit Quantity
2091000	A	White	250
2091001	B	White	250
2091002	C	White	250
2091003	D	White	250
2091004	E	White	250
2091005	F	White	250
2091006	G	White	250
2091007	H	White	250
2091008	I	White	250
2091009	J	White	250
2091010	K	White	250
2091011	L	White	250
2091012	M	White	250
2091013	N	White	250

PART NUMBER	Marker	Colour	Unit Quantity
2091014	O	White	250
2091015	P	White	250
2091016	Q	White	250
2091017	R	White	250
2091018	S	White	250
2091019	T	White	250
2091020	U	White	250
2091021	V	White	250
2091022	W	White	250
2091023	X	White	250
2091024	Y	White	250
2091025	Z	White	250
2091026	+	White	250
2091027	-	White	250
2091028	/	White	250
2091029	⏚	White	250

PART NUMBER	Marker	Colour	Unit Quantity
2091050	0	White	250
2091051	1	White	250
2091052	2	White	250
2091053	3	White	250
2091054	4	White	250
2091055	5	White	250
2091056	6	White	250
2091057	7	White	250
2091058	8	White	250
2091059	9	White	250
2091100	0	Black	250
2091101	1	Brown	250
2091102	2	Red	250
2091103	3	Orange	250
2091104	4	Yellow	250
2091105	5	Green	250
2091106	6	Blue	250
2091107	7	Violet	250
2091108	8	Grey	250

Cable Markers - Size C





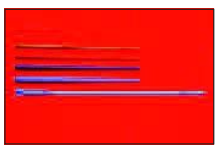
Specifications:	RoHS ✓
Size Range:	Ø2.5 to 5.0mm (0.75 to 4.00mm²)
Length:	3.0mm
Material:	Cadmium & silicon free soft PVC (UL94V-0 rated)
Print:	Hot Foil Stamped, Text 2.6mm High
Temperature:	30°C to +60°C

- Self-extinguishing, good resistance to chemicals, gamma and UV radiation
- Closed design, combination marker sleeve for small wires
- Chevron cut means markers interlock and text is always easily readable
- Flexible sleeve profile, covers a wide diameter range and allows rapid installation

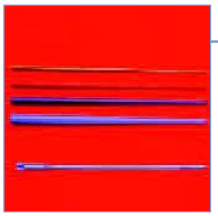
PART NUMBER	Marker	Colour	Unit Quantity
2092000	A	White	250
2092001	B	White	250
2092002	C	White	250
2092003	D	White	250
2092004	E	White	250
2092005	F	White	250
2092006	G	White	250
2092007	H	White	250
2092008	I	White	250
2092009	J	White	250
2092010	K	White	250
2092011	L	White	250
2092012	M	White	250
2092013	N	White	250

PART NUMBER	Marker	Colour	Unit Quantity
2092014	O	White	250
2092015	P	White	250
2092016	Q	White	250
2092017	R	White	250
2092018	S	White	250
2092019	T	White	250
2092020	U	White	250
2092021	V	White	250
2092022	W	White	250
2092023	X	White	250
2092024	Y	White	250
2092025	Z	White	250
2092026	+	White	250
2092027	-	White	250
2092028	/	White	250
2092029	⏚	White	250

PART NUMBER	Marker	Colour	Unit Quantity
2092050	0	White	250
2092051	1	White	250
2092052	2	White	250
2092053	3	White	250
2092054	4	White	250
2092055	5	White	250
2092056	6	White	250
2092057	7	White	250
2092058	8	White	250
2092059	9	White	250
2092100	0	Black	250
2092101	1	Brown	250
2092102	2	Red	250
2092103	3	Orange	250
2092104	4	Yellow	250
2092105	5	Green	250
2092106	6	Blue	250
2092107	7	Violet	250
2092108	8	Grey	250



Marker Applicators can be found on page 6-20



Marker Applicators for Size A, B & C Markers

- Conical, tubular tools that shortens installation time
- Excellent tool for combination marking with stripped wires
- Teflon coated stainless steel with axial hole at the fat end for the wire

Specifications:	RoHS ✓
Material:	Teflon Coated Stainless Steel
Material for 8001010:	Nylon

PART NUMBER	Colour	Recommended For Cable Sizes:	For use with:	Unit Quantity
8001010	Dark Blue	Ø 2.5 - 4.4mm 0.75, 1.0, 1.5, 2.5, 4.0mm²	Size C Markers	1
8001011	Green	Ø Less than 1.5mm Smaller than 0.5mm²	Size A Markers	1
8001012	Dark Blue	Ø 2.5 - 3.5mm 0.75, 1.0, 1.5mm²	Size B & C Markers	1
8001013	Light Blue	Ø 3.5 - 4.4mm 2.5, 4.0mm²	Size C Markers	1



Cable Markers - Size D

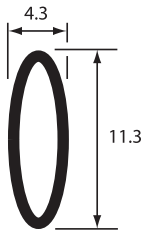
- Oval combination marker, primarily used for cable & wire marking
- Specially designed oval profile enables the marker to be easily fitted to cables or pipes
- The marker's shape also means that the marker maintains its position when fitted
- Designed for electrical, pneumatic, hydraulic etc., applications
- Designed to interlock — enabling easy alignment of multiple character markings

Specifications:	RoHS ✓
Size Range:	Ø5.0 to 7.0mm (4.0 to 10.0mm²)
Length:	4.0mm
Material:	Cadmium & silicon free soft PVC (UL94V-0 rated)
Print:	Hot Foil Stamped, Text 4.5mm High
Temperature:	30°C to +60°C

For larger diameters the Size D marker is used in conjunction with the 7, 12 or 18 digit carrier strips (see below) which means that any size of cable or pipe can be marked.

PART NUMBER	Marker	Colour	Unit Quantity
2093000	A	Yellow	500
2093001	B	Yellow	500
2093002	C	Yellow	500
2093003	D	Yellow	500
2093004	E	Yellow	500
2093005	F	Yellow	500
2093006	G	Yellow	500
2093007	H	Yellow	500
2093008	I	Yellow	500
2093009	J	Yellow	500
2093010	K	Yellow	500
2093011	L	Yellow	500
2093012	M	Yellow	500
2093013	N	Yellow	500
2093014	O	Yellow	500
2093015	P	Yellow	500
2093016	Q	Yellow	500
2093017	R	Yellow	500
2093018	S	Yellow	500
2093019	T	Yellow	500
2093020	U	Yellow	500
2093021	V	Yellow	500
2093022	W	Yellow	500
2093023	X	Yellow	500
2093024	Y	Yellow	500
2093025	Z	Yellow	500

PART NUMBER	Marker	Colour	Unit Quantity
2093026	+	Yellow	500
2093027	-	Yellow	500
2093028	/	Yellow	500
2093029	⏚	Yellow	500
2093050	0	Yellow	500
2093051	1	Yellow	500
2093052	2	Yellow	500
2093053	3	Yellow	500
2093054	4	Yellow	500
2093055	5	Yellow	500
2093056	6	Yellow	500
2093057	7	Yellow	500
2093058	8	Yellow	500
2093059	9	Yellow	500





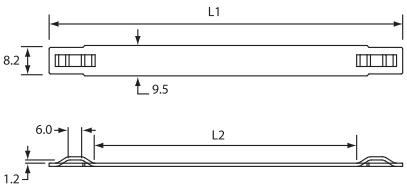
Markers are supplied prewound onto a "Compactadisc"



Carrier Strips For Size D Cable Markers

- Flat, wear resistant holder with two raised anchor points for quick and easy threading of cable ties
- Designed for multi character marking using Size D markers
- Raised arms hold marker sleeves in place
- Low total marking costs

Specifications:	RoHS ✓
Material:	Cadmium & silicon free rigid PVC
Colour:	Black
Temp. Rating:	-30°C to +60°C



PART NUMBER	Description	L1	L2	Unit Quantity
2094000	7 Digit Carrier Strip	60.0	31.0	100
2094001	12 Digit Carrier Strip	82.0	55.0	100
2094002	18 Digit Carrier Strip	110.0	80.0	100

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Plaseal® Flag Security Seals



Flag seals feature this wording on one side only with the other side plain

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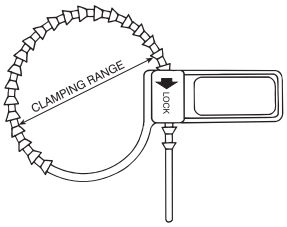
Specifications: RoHS ✓
Material: Nylon 6
Temperature: -20°C to 80°C

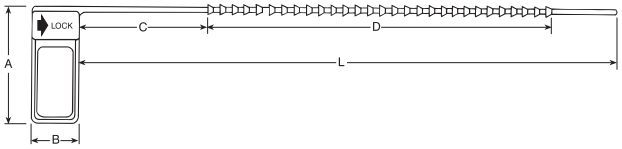
Tensile Strength: 350N (35.7kgf)
Test results are typical and do not form part of the specification

- Provides a deterent against and indication of tampering, pilferage and unauthorised entry
- Lightweight but tough
- Will not corrode
- Ideal for securing vehicle doors during transit

PART NUMBER					A	B	C	D	L	Logo Area	Clamping Range		Unit Quantity
Red	Blue	Green	Yellow	White							Max.	Min.	
7521001	7523001	7524001	7525001	7529001	50.0	20.0	46.0	148.0	222.0	15 x 30	55.0	15.0	5,000
7521101	7523101	7524101	7525101	7529101	50.0	20.0	142.0	52.0	222.0	15 x 30	55.0	45.0	5,000
7521201	7523201	7524201	7525201	7529201	50.0	20.0	46.0	229.0	303.0	15 x 30	80.0	15.0	5,000
7521301	7523301	7524301	7525301	7529301	50.0	20.0	142.0	133.0	303.0	15 x 30	80.0	45.0	5,000
7521401	7523401	7524401	7525401	7529401	50.0	20.0	142.0	212.0	382.0	15 x 30	105.0	45.0	5,000

When ordering please state if you require hot stamped logos or serial numbers





Paddle Seals



Paddle seals are plain on both sides

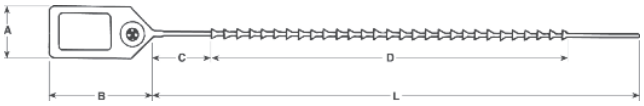
Specifications: RoHS ✓
Material: Polypropylene

Tensile Strength: 65N (6.62kgf)
Test results are typical and do not form part of the specification

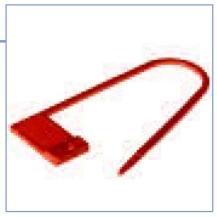
- Provides a deterent against and indication of tampering, pilferage and unauthorised entry
- Lightweight but tough
- Will not corrode
- Easy to assemble with fingertip pressure
- Available in a variety of colours

PART NUMBER					A	B	C	D	L	Logo Area	Clamping Range		Unit Quantity
Red	Blue	Green	Yellow	White							Max.	Min.	
7541000	7543000	7544000	7545000	7549000	15.0	30.0	15.0	120.0	150.0	15 x 9	40.0	7.0	5,000
7541100	7543100	7544100	7545100	7549100	15.0	30.0	15.0	195.0	225.0	15 x 9	60.0	7.0	5,000
7541200	7543200	7544200	7545200	7549200	15.0	30.0	15.0	270.0	300.0	15 x 9	85.0	7.0	5,000

When ordering please state if you require hot stamped logos or serial numbers



Plaseal® Padlock Security Seals



Flag seals feature this wording on one side only with the other side plain

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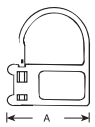
Specifications: RoHS ✓
Material: Acetal

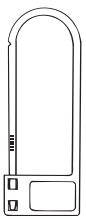
Tensile Strength: See table
Test results are typical and do not form part of the specification

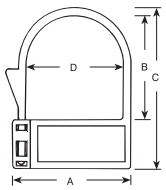
- Provides a deterent against and indication of tampering, pilferage and unauthorised entry
- Lightweight but tough
- Will not corrode
- Easy to assemble with fingertip pressure
- Available in a variety of colours

PART NUMBER								A	B	C	D	Logo Area	Tensile Strength N	Form	Unit Quantity
Red	Grey	Blue	Green	Yellow	Orange	Natural	Black								
7501001	7502001	7503001	7504001	7505001	7506001	7507001	7507001	26.3	20.3	37.1	18.5	15.4 x 9.4	140	A	5,000
7501101	7502101	7503101	7504101	7505101	7506101	7507101	7508101	24.5	51.0	66.4	19.4	15.3 x 9.3	190	B	5,000
7501201	7502201	7503201	7504201	7505201	7506201	7507201	7508201	38.4	33.6	50.9	30.0	28.0 x 11.0	160	C	5,000



Form A


Form B



Form C

KITTING AND BAGGING
VALUE ADDED SERVICES



THE PARTS YOU NEED, PACKED HOW YOU WANT THEM

We can save you time and money with our Kitting and Bagging services, by delivering tailored solutions to match your requirements.

Created from standard or custom parts, our kits are ideal for use in laboratories, R&D departments or for spares and maintenance.

We can also design and print a fully customised label, including the part details, logos, barcodes, icons, email and website details.

THE BENEFITS OF THIS SERVICE:

- Reduce your bill of materials, purchase one complete pack of components
- Save time and cost by receiving all parts packed and labelled how you need them
- Have all the information you require on the labels and packaging
- Enjoy maximum flexibility with your procurement process
- Reduce the number of vendors you transact with

TO DISCUSS YOUR NEEDS:

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E : sales@optimascomponents.com

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CHAPTER 7

CONDUIT & FITTINGS



CIRCULAR CONNECTORS



SIGNAL AND POWER CIRCULAR CONNECTORS

Available in a wide range of thread sizes, contacts and housings to suit all applications, Hummel's Circular Connectors have earned a worldwide reputation for their high quality robust construction, performance and durability.

KEY FEATURES:

- **THREAD SIZES** – Signal Connectors in M16, M23 & M27; Power Connectors in M23 & M40
- **CONTACTS** – constructed from Brass Alloy, Nickel and Gold plated
- **HOUSINGS** – from die cast Copper/Zinc Alloy with Nickel plating; straight, right angle and panel fittings; male & female variants available
- **INSERTS** – moulded in Nylon, PBT (UL94V-0)

KEY BENEFITS:

- A wide range of Contact Configurations, from 2 to 18 contacts dependant on the housing type
- User-friendly modular assembly
- Integrated liquid tight strain relief fitting

ALSO AVAILABLE:

- Alternative housing finishes on request
- Stainless Steel (INOX) connector range
- Moulded Connector Cordset range

FOR FURTHER INFORMATION ON CIRCULAR CONNECTORS PLEASE CALL US ON: +44 (0) 1202 865222

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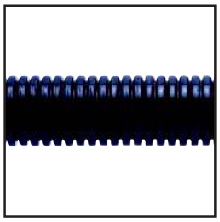
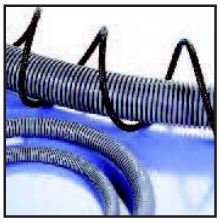

PA Flexible Nylon Conduit, Light Duty
P7-2


CYL Economy Flexible Nylon Conduit, Medium Duty
P7-2


PCL Flexible Nylon Conduit, Medium to Heavy Duty
P7-2


LL Economy Flexible Polypropylene Conduit
P7-2


PA Split Flexible Nylon Conduit, Light Duty
P7-3


PACOF Split Flexible Nylon Conduit, Meduim Duty
P7-3


Type A Straight Metric Conduit Connectors for PA Conduit
P7-3


Type C90 Elbow Metric Conduit Connectors for PA Conduit
P7-3


VN Straight Metric Conduit Connectors
P7-4


LND Straight Metric Conduit Connectors
P7-4


VW 90° Elbow Metric Conduit Connectors
P7-4

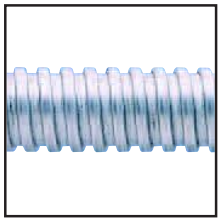

VY - 'Y' Piece Conduit Connectors
P7-5

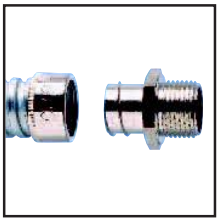

FT - 'T' Piece Conduit Connectors
P7-5


AVD One-Piece Universal Conduit Adaptors
P7-5


Conduit Cutting Tools & Spares
P7-5


FH-O Conduit Supports
P7-7


Plain Galvanised Steel Flexible Metric Conduit
P7-7


Metric Straight Metal Conduit Connectors
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Metric Straight Swivel Metal Conduit Connectors
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PVC Covered Galvanised Steel Flexible Metric Conduit
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Metric Straight Metal Conduit Connectors for PVC Covered Conduit P7-8


Metric Straight Swivel Metal Conduit Connectors for PVC Covered Conduit P7-8


Metric Metal Locknuts
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Heyco-Flex™ I Liquid Tight Conduit
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Heyco-Flex™ I Female Conduit Adapters
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Heyco-Flex™ II Liquid Tight Tubing
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Heyco-Flex™ Liquid Tight Conduit Fittings - Snap-In
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Heyco-Flex™ Liquid Tight Conduit Fittings - Straight Thru
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MHeyco-Flex™ III Liquid Tight Fittings - Straight-Thru NPT Hubs P7-12



Heyco-Flex™ Liquid Tight Conduit Fittings - 90°
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Heyco-Flex™ Mounting Bracket Conduit Supports
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Heyco-Flex™ III Liquid Tight Fittings - 90° Sweep, NPT Hubs
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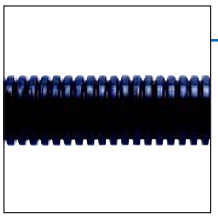
PA Flexible Nylon Conduit, Light Duty



- Economical light duty conduit offering good impact resistance and flexibility
- Generally used in the machine building, public buildings and rail

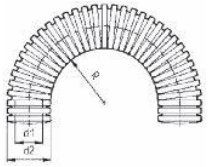
Specifications: RoHS ✓
Material: Nylon 6 - Black
UV Resistance: Very High
Temp range: Static Applications: -40°C to +120°C
Moving Applications: -5°C to +120°C
Flexibility: High Flexibility - High Fatigue Life

Approvals:

PART NUMBER	Conduit Size NW	Nominal Conduit Size	d1 Inside Diameter	d2 Outside Diameter	*R Stat Radius	Coil Length Metres	Unit Quantity (Coils)
8602010	10	13	9.6	13.0	25	50	1
8602011	13	16	11.8	15.8	35	50	1
8602012A	17	21	16.5	21.2	45	10	1
8602012	17	21	16.5	21.2	45	25	1
8602013A	23	28	22.6	28.5	50	10	1
8602013	23	28	22.6	28.5	50	25	1
8602014	29	34	28.8	34.5	60	50	1
8602015	26	42	35.2	42.5	65	10	1
8602016	48	54	46.5	54.5	75	10	1

Applicable Connectors:
Types: A & C90
See page 7-3

* R - Stat. Radius = lowest recommended bending radius for static(fixed) installation.



CYL Flexible Nylon Conduit, Medium Duty



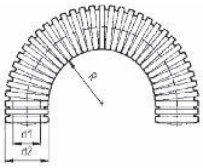
- Very flexible medium duty Nylon conduit
- Suitable for a wide range of applications in general machine building
- Good impact strength even at low temperatures

Specifications: RoHS ✓
Material: Modified polyamide 6/6,6 for cold impact
Flammability: UL94V-2 free from halogens and cadmium
Temp range: -50°C to +105°C; short term to +150°C
Chemical resistance: To fuels, mineral oils, fats, alkalis, weak acids etc.

Approvals:

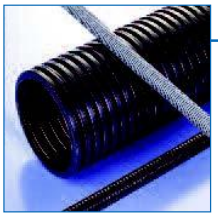
PART NUMBER & COLOUR		Conduit Size NW	Conduit Size Metric	d1 Inside Diameter	d2 Outside Diameter	*R Stat Radius	Coil Length Metres	Unit Quantity (Coils)
Black	Grey							
CYLT-17B	CYLT-17S	17	20	16.2	21.2	40	50	1
CYLT-23B	CYLT-23S	23	25	22.6	28.5	40	50	1

* R - Stat. Radius = lowest recommended bending radius for static(fixed) installation.



Applicable Connectors: VN, VW, VY, FT **See pages 7-4 & 7-5**

PCL Flexible Nylon Conduit, Medium to Heavy Duty

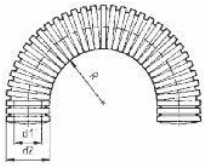


- Very flexible, heavy to medium duty Nylon conduit
- Suitable for a wide range of applications in general machine building
- Can be used in the vehicle building industry
- Good weather resistance and suitable for very low temperatures

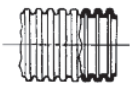
Specifications: RoHS ✓
Material: Modified polyamide 6/6,6 for cold impact
Flammability: UL94V-2 free from halogens and cadmium
Temp range: -50°C to +105°C; short term to +150°C
Chemical resistance: To fuels, mineral oils, fats, alkalis, weak acids etc.

Approvals:

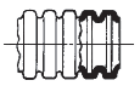
PART NUMBER & COLOUR		Conduit Size NW	Conduit Size Metric	d1 Inside Diameter	d2 Outside Diameter	*R Stat Radius	Profile Type	Coil Length Metres	Unit Quantity (Coils)
Black	Grey								
PCLT-07B	PCLT-07S	7	10	6.2	10	15	Fine	50	1
PCLT-10B	PCLT-10S	10	12	9.6	13	20	Fine	50	1
PCLT-12B	PCLT-12S	12	16	12	15.8	30	Fine	50	1
PCLT-17B	PCLT-17S	17	20	16.2	21.2	40	Fine	50	1
PCLT-23B	PCLT-23S	23	25	22.6	28.5	45	Fine	50	1
PCLT-29B	PCLT-29S	29	32	29	34.5	55	Fine	50	1
PCLG-23B	PCLG-23S	23	25	21.9	28.5	45	Coarse	50	1
PCLG-29B	PCLG-29S	29	32	27.6	34.5	55	Coarse	50	1
PCLG-36B	PCLG-36S	36	40	36	42.5	60	Coarse	10	1
PCLG-48B	PCLG-48S	48	50	47	54.5	70	Coarse	10	1



* R - Stat. Radius = lowest recommended bending radius for static(fixed) installation.



Fine profile type provides a tight bend radius.



Coarse Profile type provides a high pull out strength.

Applicable Connectors: VN, VW, VY, FT **See pages 7-4 & 7-5**

LL Flexible Polypropylene Conduit

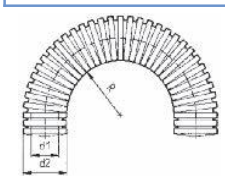


- Economical, medium to light conduit offering good impact resistance and flexibility
- Generally used in the machine building, installation and construction industries

Specifications: RoHS ✓
Material: Polypropylene Flammability: UL94 HB
Free from halogens and cadmium
Temp range: -20°C to +100°C; short term to +130°C
Chemical resistance: Resistance to most of the common solvents, acids, fuels, mineral oils and fats.

Approvals:

PART NUMBER & COLOUR		Conduit Size NW	Conduit Size Metric	d1 Inside Diameter	d2 Outside Diameter	*R Stat Radius	Coil Length Metres	Unit Quantity (Coils)
Black	Grey							
LL-17A	LL-17S	17	20	16.2	21.2	40	50	1
LL-23A	LL-23S	23	25	22.6	28.5	45	50	1



* R - Stat. Radius = lowest recommended bending radius for static(fixed) installation.

Applicable Connectors: VN, VW, VY, FT **See pages 7-4 & 7-5**

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PA Split Flexible Nylon Conduit, Light Duty

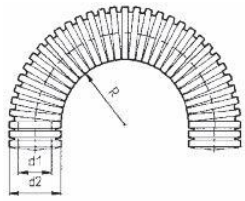
Approvals:

Specifications: RoHS ✓

Material: Nylon 6 - Black
UV Resistance: Very High
Temp range: Static Applications: -40°C to +120°C
Moving Applications: -5°C to +120°C
Flexibility: High Flexibility - High Fatigue Life

- Ideal for retro-fit and pre-loomed applications
- New cables can be added without the need for re-wiring or re-threading
- Suitable for a wide range of applications in vehicle manufacturing and building





* R - Stat. Radius = lowest recommended bending radius for static(fixed) installation.

PART NUMBER	Conduit Size NW	Nominal Conduit Size	d1 Inside Diameter	d2 Outside Diameter	*R Stat Radius	Coil Length Metres	Unit Quantity (Coils)
8602050	17	21	16.8	21.2	45	50	1
8602051	23	28	22.2	28.5	50	50	1

PACOF Split Flexible Nylon Conduit, Medium Duty

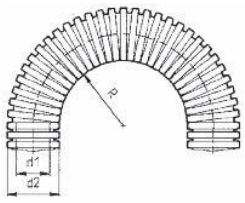
Approvals:

Specifications: RoHS ✓

Material: Modified polyamide 6 Colour: Black
Flammability: UL94V-0 free from halogens and cadmium
Temp range: -40°C to +105°C; short term to +160°C
Chemical resistance: To fuels, mineral oils, fats, alkalis, weak acids etc.

- Ideal for retro-fit and pre-loomed applications
- New cables can be added without the need for re-wiring or re-threading
- Suitable for a wide range of applications in vehicle manufacturing and building





* R - Stat. Radius = lowest recommended bending radius for static(fixed) installation.

PART NUMBER	Conduit Size NW	Conduit Size Metric	d1 Inside Diameter	d2 Outside Diameter	*R Stat Radius	Coil Length Metres	Unit Quantity (Coils)
PACOF-07B	07	10	5.6	10.0	30	25	1
PACOF-10B	10	12	8.5	12.8	33	25	1
PACOF-12B	12	16	11.0	15.6	35	25	1
PACOF-17B	17	20	15.5	21.1	45	25	1
PACOF-23B	23	25	21.1	28.4	70	25	1

Type A - Straight Metric Conduit Connectors for use with PA type Conduit (with Locknuts)

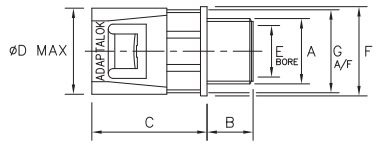
Approvals:

Specifications: RoHS ✓

Material: Nylon 6,6 - Colour: Black
Sealing rating: IP66 (IP67, IP68 & IP69K when used with additional ALS seals - available upon request)
Temp range: Static: -50°C to +120°C
Dynamic: -45°C to +120°C

- Designed to suit PA type conduit
- Easy mounting - just push into conduit
- High pull-out resistance
- Supplied complete with locknut





Connectors are supplied c/w Locknuts

PART NUMBER	Nominal Conduit Size	A Thread Size	B	C	D	E (BORE)	F	G (A/F)	Unit Quantity
8602020	10	M12 x 1.5	10.0	25.0	16.1	7.5	15.2	12.5	10
8602021	13	M20 x 1.5	10.0	31.4	21.3	15.3	23.4	17.0	10
8602022	16	M20 x 1.5	11.5	33.0	23.7	15.3	23.4	19.8	10
8602023	21	M20 x 1.5	14.0	34.7	28.9	14.8	26.7	25.0	10
8602024	28	M25 x 1.5	16.2	36.8	36.8	20.0	35.5	32.3	10
8602025	34	M32 x 1.5	16.0	37.8	43.2	26.5	41.5	38.9	10
8602026	42	M40 x 1.5	16.0	47.8	53.8	31.0	52.8	49.5	2
8602027	54	M50 x 1.5	16.0	53.0	66.9	40.2	67.2	62.6	2

Type C90 - 90° Elbow Metric Conduit Connectors for use with PA type Conduit (with Locknuts)

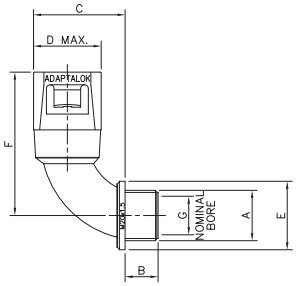
Approvals:

Specifications: RoHS ✓

Material: Nylon 6,6 - Colour: Black
Sealing rating: IP66 (IP67, IP68 & IP69K when used with additional ALS seals - available upon request)
Temp range: Static: -50°C to +120°C
Dynamic: -45°C to +120°C

- Designed to suit PA type conduit
- Easy mounting - just push into conduit
- High pull-out resistance
- Supplied complete with locknut





Connectors are supplied c/w Locknuts

PART NUMBER	Nominal Conduit Size	A Thread Size	B	C	D	E	F	G (BORE)	Unit Quantity
8602030	10	M12 x 1.5	8.0	17.8	16.1	15.3	41.1	6.1	10
8602031	13	M16 x 1.5	11.5	31.5	21.2	22.0	52.9	11.3	10
8602032	16	M20 x 1.5	13.0	33.1	23.9	27.0	54.7	15.2	10
8602033	21	M20 x 1.5	13.0	36.1	29.2	27.0	56.5	15.2	10
8602034	28	M25 x 1.5	15.0	45.1	37.0	32.1	64.5	20.2	10
8602035	34	M32 x 1.5	16.0	57.0	43.4	38.9	73.7	25.9	10
8602036	42	M40 x 1.5	16.0	73.5	54.5	47.5	92.2	34.0	2
8602037	54	M50 x 1.5	16.0	95.1	67.9	59.0	115.0	40.2	2



VN Straight Metric Conduit Connectors

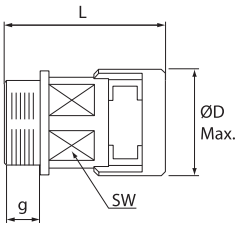
- One-piece connector guarantees a vibration free connection
- Hand opening not possible
- Fits both fine and coarse profile conduits
- Easy mounting - just push into conduit
- Can be reopened with a screwdriver
- High pull-out resistance

Specifications: RoHS ✓
Material: High-grade formulated polyamide
Flammability: Product - UL94V-0; Material - UL94V-2
Sealing rating: IP66 - static/IP54 dynamic
(IP68 rated connectors are available upon request)
Temp range: -40°C to +150°C; short term to +160°C

Approvals:

PART NUMBER & COLOUR		Thread Size	Conduit Size NW	Conduit Size Metric	g Thread Length	ØD Max.	L Overall Length	SW Across Flats	Unit Quantity
Black	Grey								
BVND-M12MGT	SVND-M12MGT	M12 x 1.5	7	10	11	20	34.5	14	100
BVND-M120GT	SVND-M120GT	M12 x 1.5	10	12	11	20	36.5	17	100
BVND-M160GT	SVND-M160GT	M16 x 1.5	10	12	11	23	36.5	17	100
BVND-M162GT	SVND-M162GT	M16 x 1.5	12	16	11	23.5	39.5	20	100
BVND-M200GT	SVND-M200GT	M20 x 1.5	10	12	11	26	36.5	17	100
BVND-M202GT	SVND-M202GT	M20 x 1.5	12	16	11	26	39.5	20	100
BVND-M207GT	SVND-M207GT	M20 x 1.5	17	20	11	29.5	47.5	26	100
BVND-M203GT	SVND-M203GT	M20 x 1.5	23	25	11	37	51	32	100
BVND-M257GT	SVND-M257GT	M25 x 1.5	17	20	12	32	48.5	26	50
BVND-M253GT	SVND-M253GT	M25 x 1.5	23	25	12	37	52	32	50
BVND-M323GT	SVND-M323GT	M32 x 1.5	23	25	15	43	55.5	32	20
BVND-M329GT	SVND-M329GT	M32 x 1.5	29	32	15	44	56	40	20
BVND-M409GT	SVND-M409GT	M40 x 1.5	29	32	19	49	60	40	10
BVND-M406GT	SVND-M406GT	M40 x 1.5	36	40	19	55	72.5	50	10
BVND-M506GT	SVND-M506GT	M50 x 1.5	36	40	19	59	72	50	2
BVND-M508GT	SVND-M508GT	M50 x 1.5	48	50	19	69	72.5	65	2

Designed to suit CYL, PCL & LL type conduit



Supplied complete with locknut and fitted with pre-assembled universal safety clips.



LND Straight Metric Conduit Connectors

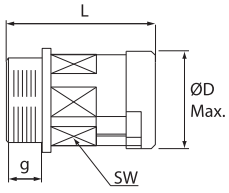
- Economy range of connectors generally used in machine building installation and construction industries
- Easy push-in installation
- Fits both fine and coarse profile conduits
- Easy to reopen with a screwdriver
- Space saving due to compact design

Specifications: RoHS ✓
Material: Specially formulated Polyamide
Flammability: UL94V-2
Temp range: -45°C to +105°C - short term 150°C
Seal rating: IP66

Approvals:

PART NUMBER & COLOUR		Thread Size	Conduit Size NW	Conduit Size Metric	g Thread Length	ØD Max.	L Overall Length	SW Across Flats	Unit Quantity
Black	Grey								
ALND-M207	SLND-M207	M20x1.5	17	20	11	31	41	24	100
ALND-M253	SLND-M253	M25x1.5	23	25	12	39	45.5	32	50

Designed to suit CYL, PCL & LL type conduit



Supplied complete with locknut.



VW 90° Elbow Metric Conduit Connectors

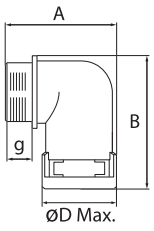
- One-piece connector guarantees a vibration free connection
- Hand opening not possible
- Fits both fine and coarse profile conduits
- Easy mounting - just push into conduit
- Can be reopened with a screwdriver
- High pull-out resistance

Specifications: RoHS ✓
Material: High-grade formulated polyamide
Flammability: Product - UL94V-0; Material - UL94V-2
Sealing rating: IP66 - static/IP54 dynamic
(IP68 rated connectors are available upon request)
Temp range: -40°C to +150°C; short term to +160°C

Approvals:

PART NUMBER & COLOUR		Thread Size	Conduit Size NW	Conduit Size Metric	g Thread Length	ØD Max.	A	B	Unit Quantity
Black	Grey								
BVWD-M12MGT	SVWD-M12MGT	M12x1.5	7	10	11	16.5	32	35	10
BVWD-M120GT	SVWD-M120GT	M12x1.5	10	12	11	20	34	39.5	10
BVWD-M160GT	SVWD-M160GT	M16x1.5	10	12	11	20	34	40.5	20
BVWD-M162GT	SVWD-M162GT	M16x1.5	12	16	11	23.5	38.5	46	20
BVWD-M202GT	SVWD-M202GT	M20x1.5	12	16	11	23.5	38.5	47.5	20
BVWD-M207GT	SVWD-M207GT	M20x1.5	17	20	11	29.5	43.5	58.5	20
BVWD-M253GT	SVWD-M253GT	M25x1.5	23	25	12	37	54	65	10
BVWD-M329GT	SVWD-M329GT	M32x1.5	29	32	15	44	64.5	73	4
BVWD-M406GT	SVWD-M406GT	M40x1.5	36	40	19	53.5	78	96	2
BVWD-M508GT	SVWD-M508GT	M50x1.5	48	50	19	66	91.5	106	2

Designed to suit CYL, PCL & LL type conduit



Supplied complete with locknut and fitted with pre-assembled universal safety clips.

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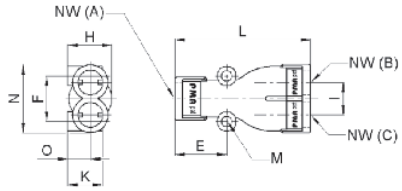
VY - 'Y' Piece Conduit Connectors

Approvals:

Specifications: RoHS ✓
Material: High-grade formulated polyamide
Colour: Black (Grey also available upon request)
Flammability: Product - UL94V-0; Material - UL94V-2
Sealing rating: IP66 - static/IP54 dynamic
Temp range: -40°C to +150°C; short term to +160°C

- Vibration-proof connection to flexible conduits
- Very high impact resistance
- Easy mounting: simple conduit push-in insertion
- High conduit pull-out strength
- Can be reopened with a screwdriver
- Fits both fine and coarse profile conduit





(IP68 rated connectors are available upon request)

PART NUMBER	Fits Conduit Size			Part Dimensions									Unit Quantity
	NW A	NW B	NW C	L	N	H	I	O	F	K	E	M	
BVYD-121010GT	12	10	10	69	39	24	19	12	24	18	27	2xM4	10
BVYD-171212GT	17	12	12	80	46	30	22	15	32	22	34	2xM5	10
BVYD-231717GT	23	17	17	98	60	38	30	19	42	29	38	2xM6	10

Supplied fitted with pre-assembled universal safety clips. Designed to suit PCL, CYL & LL type conduit

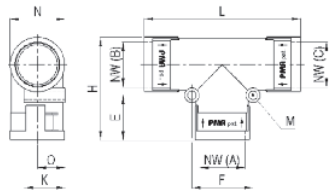
FT - 'T' Piece Conduit Connectors

Approvals:

Specifications: RoHS ✓
Material: High-grade formulated polyamide
Flammability: Product - UL94V-0; Material - UL94V-2
Sealing rating: IP66 - static/IP54 dynamic
Temp range: -40°C to +150°C; short term to +160°C

- Vibration-proof connection to flexible conduits
- Very high impact resistance
- Easy mounting: simple conduit push-in insertion
- High conduit pull-out strength
- Can be reopened with a screwdriver
- Fits both fine and coarse profile conduit





(IP68 rated connectors are available upon request)

PART NUMBER & COLOUR		Fits Conduit Size			Part Dimensions								Unit Quantity
Black	Grey	NW A	NW B	NW C	E	F	H	K	L	M	N	O	
BFTD-101010GT	SFTD-101010GT	10	10	10	18.5	21	39.5	16	58.5	2xM4	20.5	10.5	10
BFTD-121212GT	SFTD-121212GT	12	12	12	18.5	26.5	43.5	18.5	63.5	2xM4	24	12.5	10
BFTD-171717GT	SFTD-171717GT	17	17	17	18.5	34	50	15	71	2xM5	29.5	15	10
BFTD-292323GT	SFTD-292323GT	29	23	23	32	48	73	22	108	2xM5	44	22	10
BFTD-292929GT	SFTD-292929GT	29	29	29	29.5	48	75.5	22	108	2xM5	44	22	4

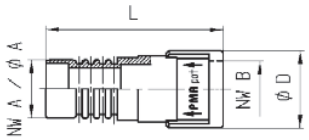
Supplied fitted with pre-assembled universal safety clips. Designed to suit PCL, CYL & LL type conduit

AVD One-Piece Universal Conduit Adaptors

Specifications: RoHS ✓
Material: High-grade formulated polyamide
Colour: Black
Flammability: Product - UL94V-0; Material - UL94V-2
Sealing rating: IP66 - static/IP54 dynamic
Temp range: -40°C to +150°C; short term to +160°C

- One-piece conduit adapter
- Hand opening not possible
- Easy mounting - just push into conduit
- Can be reopened with a screwdriver
- High pull-out resistance





(IP68 rated connectors are available upon request)

Supplied fitted with pre-assembled universal safety clips.

PART NUMBER	Conduit Size		ØA	ØD	L	Unit Quantity
	NW A	NW B				
BAVD-12/10GT	12	10	15.5	20	46	10
BAVD-17/10GT	17	10	21	20	53	10
BAVD-17/12GT	17	12	21	23.5	54	10
BAVD-23/10GT	23	10	28.5	20	54	10
BAVD-23/12GT	23	12	28.5	23.5	53	10
BAVD-23/17GT	23	17	28.5	29.5	62	10
BAVD-29/12GT	29	12	34.5	23.5	55	10
BAVD-29/17GT	29	17	34.5	29.5	61	10
BAVD-29/23GT	29	23	34	37	64	10

Conduit Cutting Tools & Spares

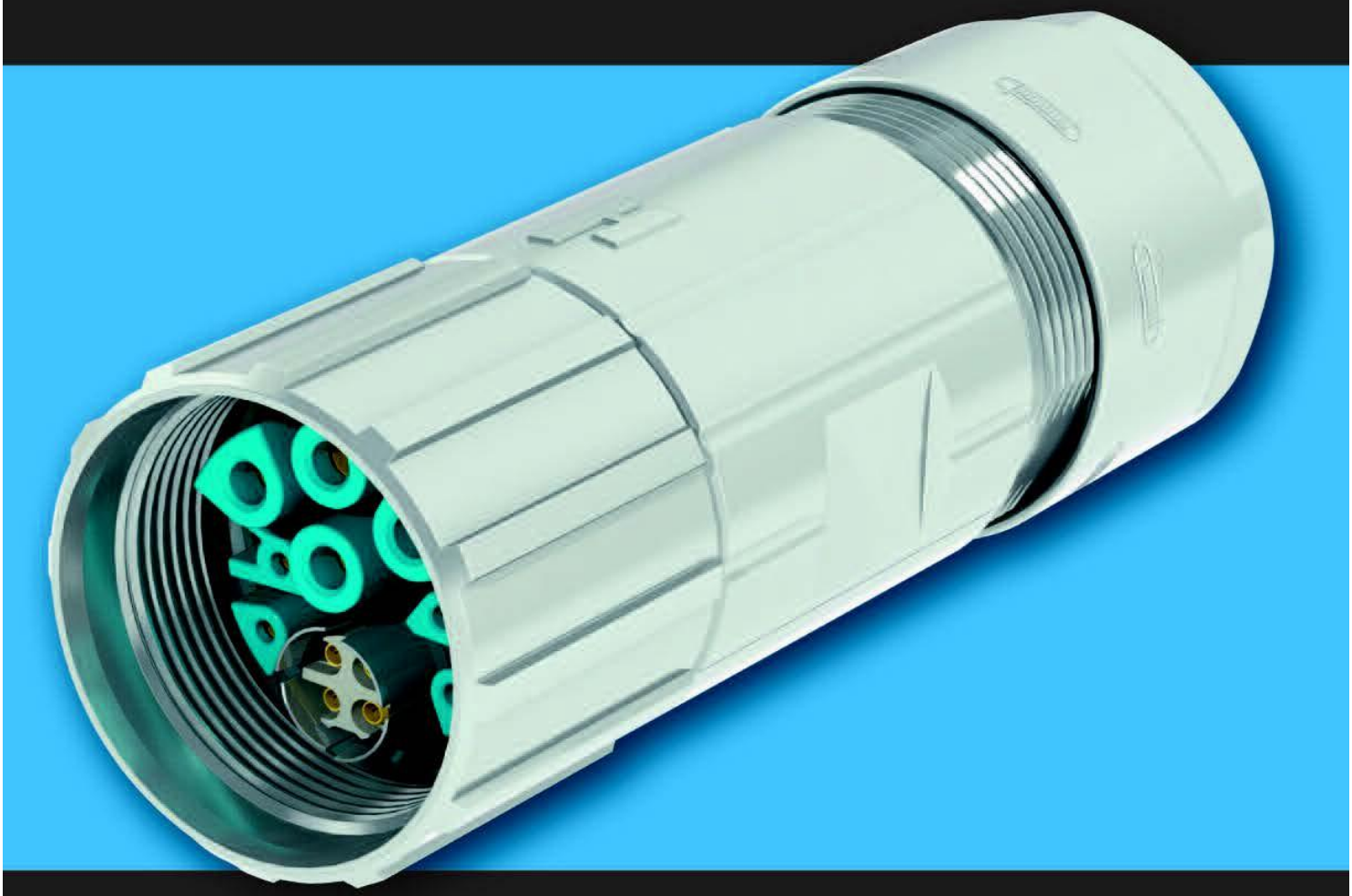
Specifications: RoHS ✓
Material: Metal
Colour: Red

- Cutting tool ideal for cutting all PMA conduits
- It guarantees precise and safe 90° cut angle



PART NUMBER	Description	Cutting Range	For Conduit Size (Nylon or Polypropylene only)	Unit Quantity
PMACUT-38	Cutting Tool	0 to 38	7 to 29	1
PMACUT-52	Cutting Tool	0 to 52	23 to 48	1
FP-38	Spare blade for PMACUT-38	-	-	1
FP-52	Spare blade for PMACUT-52	-	-	1

M23 HYBRID CONNECTOR



THE HYBRID CONNECTOR FOR SINGLE CABLE SOLUTIONS

Hummel's new all-in-one compact M23 Hybrid Connector allows transmitting of Power, Signals and Ethernet. It permits transmitting high speed data per CAT 5e standards.

KEY FEATURES:

- **HOUSING:** die cast Copper / Zinc Alloy, Nickel plated
- **INSERTS:** moulded in Nylon / PBT (UL94V-0)
- **CONTACTS:** constructed from Brass Alloy, Nickel and Gold plated
- Cable diameter range: 3-17mm
- IP67/69 K ingress protection per EN 60529 (connected)

KEY BENEFITS:

- Simple and cost effective assembly
- Secure 360° EMI shielding
- Individual shielded options prevent cross talking
- Fully protected inserts allow robust handling

FOR FURTHER INFORMATION ON M23 HYBRID CONNECTOR PLEASE CALL US ON: +44 (0) 1202 865222

optimascomponents.com

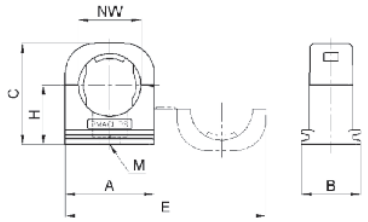
OPTIMAS

FH-0 Conduit Supports



Specifications: RoHS ✓
Material: High-grade formulated polyamide
Colour: Black
Flammability: UL94V2
Temperature range: -40°C to +150°C; short term to +160°C

- One-piece construction
- Very high impact strength
- Optimal axial strain relief due to integral rib
- Suitable for overhead installations due to safety lid
- Quick mounting due to single hole fixing
- Fits both fine and coarse profile conduit



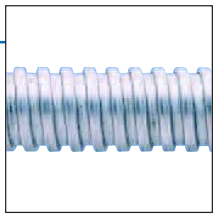
PART NUMBER & COLOUR		Conduit Size NW	Conduit Size Metric	A	B	C	H	E	M	Unit Quantity
Black	Grey									
BFH-07-0	SFH-07-0	7	10	17	20	21.5	13.5	40.5	M4	10
BFH-10-0	SFH-10-0	10	12	20.5	20	24.5	15.5	47.5	M5	10
BFH-12-0	SFH-12-0	12	16	24	20	27	16.5	54.5	M5	10
BFH-17-0	SFH-17-0	17	20	30	20	34	20	68	M6	50
BFH-23-0	SFH-23-0	23	25	38.5	20	42	24	85	M6	50
BFH-29-0	SFH-29-0	29	32	45.5	20	48	27	99	M6	10
BFH-36-0	SFH-36-0	36	40	55.5	20	56	31	119	M6	10
BFH-48-0	SFH-48-0	48	50	67.5	20	68	37	143	M6	10

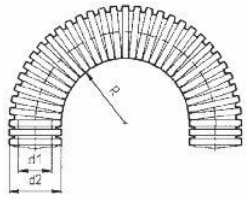
Plain Galvanised Steel Flexible Metric Conduit

Approvals:

Specifications: RoHS ✓
Material: Wound from a formed strip of electro-galvanised steel
Colour: Self
Temperature range: -50°C to +300°C
Sealing Rating: IP40 (conduit to connector)

- Ideal for high temperature applications where continuous flexing is required
- Typical applications include lighting and underfloor heating
- Designed for both commercial and industrial users





CONNECTORS SOLD SEPARATELY

PART NUMBER	Conduit Size Metric	d1 Inside Diameter	d2 Outside Diameter	R Minimum Bend Radius	Coil Length Metres	Unit Quantity (Coils)
8600000A	12	10.3	13	30	10	1
8600000	12	10.3	13	30	25	1
8600001A	16	13	16	35	10	1
8600001	16	13	16	35	25	1
8600002A	20	16.9	20.5	45	10	1
8600002	20	16.9	20.5	45	25	1
8600003A	25	21.4	25	55	10	1
8600003	25	21.4	25	55	25	1
8600004A	32	28.1	32	60	10	1
8600004	32	28.1	32	60	25	1
8600005	40	37.7	42.5	80	10	1
8600006	50	48.4	53	90	10	1

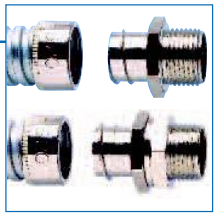
Metric Straight Fixed & Swivel Metal Conduit Connectors

Approvals:

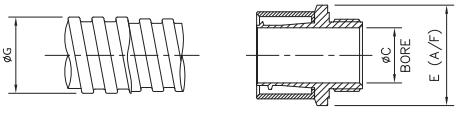
Specifications: RoHS ✓
Material: Nickel Plated Brass

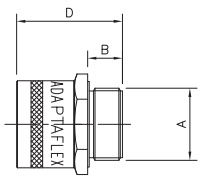
Temperature Range: Static: -50°C to +300°C
Dymanic: -45°C to +250°C

Locknuts sold separately - see page 7-8

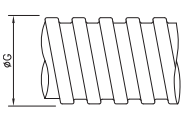


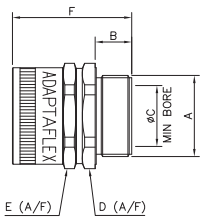
Straight





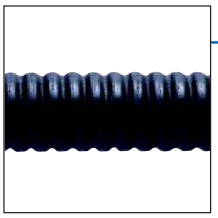
Swivel





PART NUMBER	Nominal Conduit Size	G - Conduit Diameter	A Thread Size	B	C	D	E	F	Type	Unit Quantity
8601110	10	9.0	M12x1.5	8.0	5.5	23.0	14.0	-	Straight	10
8601111A	12	13.0	M16x1.5	8.0	8.5	23.0	17.0	-	Straight	10
8601111	16	16.0	M16x1.5	10.0	11.5	25.5	20.0	-	Straight	10
8601112	16	16.0	M20x1.5	10.0	11.5	25.5	22.0	-	Straight	10
8601113	20	20.5	M20x1.5	13.0	15.3	29.0	24.0	-	Straight	10
8601114	25	25.0	M25x1.5	12.0	19.0	36.5	30.0	-	Straight	10
8601115	32	32.0	M32x1.5	14.0	26.2	39.0	38.0	-	Straight	2
8601116	40	42.5	M40x1.5	15.0	34.2	43.0	50.0	-	Straight	2
8601117	50	53.0	M50x1.5	15.0	45.0	45.0	66.5	-	Straight	1
8601118	10	9.0	M12x1.5	8.0	5.5	14.0	14.0	29.2	Swivel	10
8601119A	12	13.0	M16x1.5	8.0	7.5	17.0	17.0	29.5	Swivel	10
8601119	16	16.0	M16x1.5	8.3	10.2	20.0	20.0	31.6	Swivel	10
8601120	16	16.0	M20x1.5	9.0	10.2	20.0	20.0	32.4	Swivel	10
8601121	20	20.5	M20x1.5	10.0	14.5	24.0	24.0	33.9	Swivel	10
8601122	25	25.0	M25x1.5	12.0	16.9	30.0	30.0	46.0	Swivel	10
8601123	32	32.0	M32x1.5	14.0	24.1	38.0	38.0	47.0	Swivel	2
8601124	40	42.5	M40x1.5	15.0	30.8	50.0	50.0	55.7	Swivel	2
8601125	50	53.0	M50x1.5	15.0	42.5	66.5	66.5	57.9	Swivel	1

PVC Covered Galvanised Steel Flexible Metric Conduit



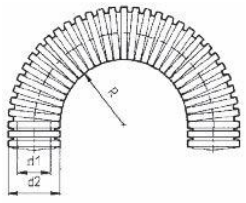
- PVC covering provides a high degree of weather proofing without restricting the excellent flexibility characteristics
- High flexibility - medium fatigue life
- Designed for commercial and industrial users

Specifications: RoHS ✓

Material: Plain galvanised steel with black PVC covering
Temperature Range: Static: -15°C to +70°C
Dymanic: -5°C to +90°C
Flammability: UL94V-0
Sealing Rating: IP54 (conduit to connector)

Approvals:

PART NUMBER	Conduit Size Metric	Inside Diameter	Outside Diameter	R Minimum Bend Radius	Coil Length Metres	Unit Quantity (Coils)
8600010	12	10.3	14.0	30.0	25	1
8600011A	16	13.0	17.0	35.0	10	1
8600011	16	13.0	17.0	35.0	25	1
8600012A	20	16.9	21.5	45.0	10	1
8600012	20	16.9	21.5	45.0	25	1
8600013A	25	21.4	26.0	55.0	10	1
8600013	25	21.4	26.0	55.0	25	1
8600014A	32	28.1	34.0	60.0	10	1
8600014	32	28.1	34.0	60.0	25	1
8600015	40	37.7	44.5	80.0	10	1
8600016	50	48.8	55.0	90.0	10	1



CONNECTORS SOLD SEPARATELY

Metric Straight Fixed & Swivel Metal Conduit Connectors for PVC Covered Steel Conduit



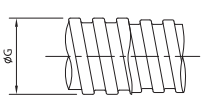
Locknuts sold separately - see below.

Specifications: RoHS ✓

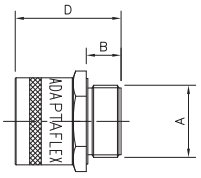
Material: Nickel Plated Brass
Temperature Range: Static: -50°C to +300°C
Dymanic: -45°C to +250°C

Approvals:

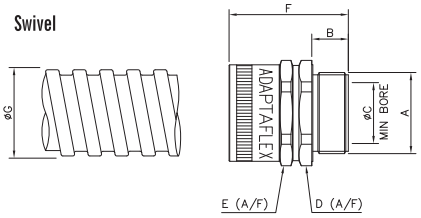
PART NUMBER	Nominal Conduit Size	G - Conduit Diameter	A Thread Size	B	C	D	E	F	Type	Unit Quantity
8601150	12	14.0	M16x1.5	8.0	8.5	23.0	17.0	-	Straight	10
8601151	16	17.0	M16x1.5	10.0	11.5	25.5	20.0	-	Straight	10
8601152	20	21.5	M20x1.5	13.0	15.3	29.0	24.0	-	Straight	10
8601153	25	26.0	M25x1.5	12.0	19.0	36.5	30.0	-	Straight	10
8601154	32	34.0	M32x1.5	14.0	26.2	39.0	38.0	-	Straight	2
8601155	40	44.5	M40x1.5	15.0	34.2	43.0	50.0	-	Straight	2
8601156	50	55.0	M50x1.5	15.0	45.0	45.0	66.5	-	Straight	1
8601157	12	14.0	M16x1.5	8.0	7.5	17.0	17.0	29.5	Swivel	10
8601158	16	17.0	M16x1.5	8.3	10.2	20.0	20.0	31.6	Swivel	10
8601159	20	21.5	M20x1.5	10.0	14.5	24.0	24.0	33.9	Swivel	10
8601160	25	26.0	M25x1.5	12.0	16.9	30.0	30.0	46.0	Swivel	10
8601161	32	34.0	M32x1.5	14.0	24.1	38.0	38.0	47.0	Swivel	2
8601162	40	44.5	M40x1.5	15.0	30.8	50.0	50.0	55.7	Swivel	2
8601163	50	55.0	M50x1.5	15.0	42.5	66.5	66.5	57.9	Swivel	1



Straight



Swivel

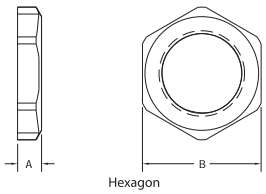


Metric Locknuts - Brass Nickel Plated



HUMMEL®

PART NUMBER	Thread Type and Size	Part Dimensions		Unit Quantity	Material	Body Style
		A - Overall Thickness	B - Wrenching Flats			
34688449	M12 x 1.5	2.8	15.0	100	Brass Nickel Plated	Hexagon
34688450	M16 x 1.5	2.8	19.0	100		
34688451	M20 x 1.5	3.0	23.0	100		
34688452	M25 x 1.5	3.5	30.0	100		
34688453	M32 x 1.5	4.0	36.0	50		
34688454	M40 x 1.5	4.5	45.0	25		
34688456	M50 x 1.5	5.5	55.0	25		
34688458	M63 x 1.5	6.0	70.0	25		



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ARCA IEC
ELECTRICAL CABINETS

FIBOX
Enclosing innovations



NON-CORROSIVE ELECTRICAL CABINETS FOR DEMANDING APPLICATIONS

Fibox ARCA IEC is a new range of robust UV stabilised Polycarbonate wall mounting electrical cabinets designed specifically for harsh environments. These cabinets combine all the features of steel with the benefits of high grade thermoplastic.

KEY BENEFITS:

- Non corrosive for a long lasting solution
- IP66 high ingress protection for wet & dusty environments
- IK10 high impact resistance for excellent protection against vandalism
- 1-point locking
- Can be safely machined without conductive swarf residue
- Chemical resistant
- UL94-5VA raw material flammability

SEE THE FULL RANGE IN CHAPTER 2 OR AT:

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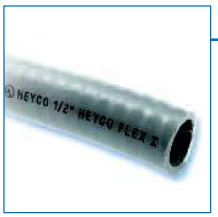


Heyco-Flex™ I Liquid Tight Conduit

Genuine HEYCO® Parts!

- Smooth inside for easier wire pulling; no hazardous sharp edges or burrs; will not damage
- Approved for direct burial
- Sunlight resistant.
- Suitable for indoor/outdoor use
- Integral rigid and flexible PVC construction

Specifications: RoHS ✓

Material: PVC Colour: Grey
Flammability Rating: VW1
Temperature Rating: -18°C to 75°C
Passes submersion test of 70 psi.
Voltage rating: 600V

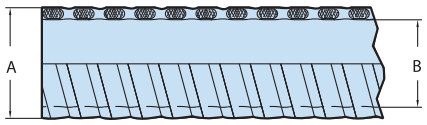
Approvals:

Listed under Underwriters' Laboratories File No. E121096

Certified by the Canadian Standards Association File No. 233010

PART NUMBER	Trade size	Description	A Outside Diameter	B Inside Diameter	Coil Length Meters	Unit Quantity
66018430	3/8	HF1 3/8	17,8	12,5	30	1 Coil
66018431	1/2	HF1 1/2	21,1	16,1	30	1 Coil
66018432	3/4	HF1 3/4	26,4	21,1	30	1 Coil
66018433	1	HF1 1	33,1	26,8	30	1 Coil
66018434	1 - 1/4	HF1 1-1/4	41,8	35,4	30	1 Coil
66018435	1 - 1/2	HF1 1-1/2	47,8	40,3	15	1 Coil
66018436	2	HF1 2	59,9	51,6	15	1 Coil

NEW





Heyco-Flex™ I Female Conduit Adapters

Genuine HEYCO® Parts!

- Cement onto HF1 Conduit and convert the rough cut end into an NPT threaded hub.
- Allow for the installation of Heyco Liquid Tight Cordgrips, as well as other NPT hub parts, onto the end of Heyco-Flex I Conduit.
- Solar App: The solar installer can run PV conductors through a Heyco Solar Masthead/Heyco Flex I assembly, using a Female Conduit Adapter, from the roof to the field level inverter.

Specifications: RoHS ✓

Material: PVC
Colour: Grey

NEW

PART NUMBER	Description	Trade Size / Thread Size	Unit QTY
66118658	FCA 1/2	1/2 NPT	50
66118659	FCA 3/4	3/4 NPT	50
66118660	FCA 1	1 NPT	50
66118661	FCA 1-1/4	1-1/4 NPT	30
66118662	FCA 1-1/2	1-1/2 NPT	25
66118663	FCA 2	2 NPT	30



Heyco-Flex™ II Liquid Tight Tubing

Genuine HEYCO® Parts!

- Smooth inside for easier wire pulling
- Lightweight and lower installed cost
- Integral rigid and flexible PVC construction
- Suitable for use in high vibration or flexing applications
- Resists corrosion, oil and water

Specifications: RoHS ✓

Material: PVC Colour: Black
Flammability Rating: VW1
Voltage rating: 300V
Passes submersion test of 70 psi
Temperature Rating: -18°C to 70°C

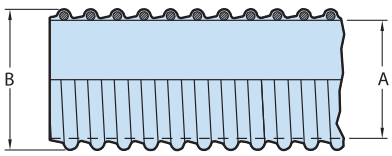
Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E121095

Certified by the Canadian Standards Association File No. 233010

PART NUMBER	Trade size	Description	A Outside Diameter	B Inside Diameter	Coil Length Meters	Unit Quantity
66018449	1/4	HF2 1/4	14,4	10,0	30	1 Coil
66018450	3/8	HF2 3/8	17,8	12,5	30	1 Coil
66018451	1/2	HF2 1/2	21,1	16,1	30	1 Coil
66018452	3/4	HF2 3/4	26,4	21,1	30	1 Coil
66018453	1	HF2 1	33,1	26,8	30	1 Coil
66018454	1-1/4	HF2 1-1/4	41,8	35,4	30	1 Coil
66018455	1-1/2	HF2 1-1/2	47,8	40,3	15	1 Coil
66018456	2	HF2 2	59,9	51,6	15	1 Coil

NEW



Use with nylon Heyco-Flex Connector - Straight, Snap-in, or Sweep. Also use with Quick Twist Fittings.

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Heyco-Flex™ III Liquid Tight Tubing

Genuine HEYCO® Parts!

- Nontoxic and UV resistant
- Rated for NEMA 4 and 4X applications when used with Heyco-flex III Liquid Tight Fittings
- Rated for NEMA type 3R applications
- Suitable for use in high vibration or flexing applications
- Resists corrosion, oil and water

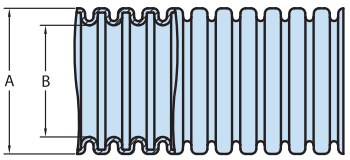
Specifications: RoHS ✓
Material: Halogen Free Nylon 6 Colour: Black
Flammability Rating: UL94V-0
Voltage rating: 300V

Temperature Rating: -18°C to 105°C

Approvals:
Certified to both Canadian and U.S. Requirements under File E121095

PART NUMBER	Trade size	Description	A Outside Diameter	B Inside Diameter	Coil Length Meters	Unit Quantity
66218478	3/8	HF3 3/8 FR	18,0	13,1	30	1 Coil
66218479	1/2	HF3 1/2 FR	21,6	16,5	30	1 Coil
66218480	3/4	HF3 3/4 FR	28,3	22,0	30	1 Coil
66218481	1	HF3 1 FR	34,3	28,0	30	1 Coil

NEW



Use with Heyco-Flex III fittings

Genuine HEYCO® Parts!

Heyco-Flex™ V Nylon Slit Tubing

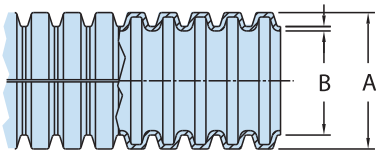


NEW

Specifications: RoHS ✓
Material: Nylon 6 Colour: Black
Flammability Rating: UL94HB

Temperature Rating: -40°C to 115°C Continuous
-40°C to 190°C Intermittent

- Split design allows side entry and encirclement of preassembled harnesses and capillary tubes
- Unique split design allows for wire break out
- Heyco-Flex V is lightweight and flexible yet durable enough to meet your wire management needs
- Resists corrosion, oil and water



PART NUMBER	Trade size	Description	A Outside Diameter	B Inside Diameter	Wall Thickness Range	Coil Length Meters	Unit Quantity
66211634	1/8	HF5 1/8	6,6	4,3	0,18-0,48	30	2 Coils
66211635	1/4	HF5 1/4	9,9	7,3	0.18-0.48	30	2 Coils
66211636	11/32	HF5 11/32	13,0	8,8	0.18-0.48	30	2 Coils
66211637	3/8	HF5 3/8	13,5	10,5	0.18-0.48	30	2 Coils
66211638	7/16	HF5 7/16	15,9	11,2	0,18-0,48	30	2 Coils
66211639	1/2	HF5 1/2	16,2	13,3	0.18-0.48	30	2 Coils
66211641	5/8	HF5 5/8	20,5	16,8	0.18-0.48	30	1 Coil
66211642	3/4	HF5 3/4	23,6	20,1	0.18-0.48	30	1 Coil
66211643	1	HF5 1	28,5	23,3	0,18-0,48	30	1 Coil
66211644	1-1/16	HF5 1-1/16	30,9	25,6	0.18-0.48	30	1 Coil
66211646	1-1/4	HF5 1-1/4	37,9	32,6	0.18-0.48	30	1 Coil
66211649	1-1/2	HF5 1-1/2	43,9	37,2	0.18-0.48	30	1 Coil

Genuine HEYCO® Parts!

Heyco-Flex™ Liquid Tight Conduit Fittings - Snap-In



Approvals:
IP68 up to 70 psi (5 bar) pressure when used with O-ring and Locknut
Listed under Underwriters' Laboratories File E28430

Certified by the Canadian Standards Association File No. 84579 and 81067

Specifications: RoHS ✓
Material: Nylon 66 Colour: Black
Flammability Rating: UL94V-2
IP Rating: IP68 up to 70 psi (5 bar) water pressure
Material Temperature Index: Material not to exceed 105°C

- Snaps into panel with Fingertip pressure
- For use with Heyco-Flex conduit and tubing
- Suitable for Indoor/Outdoor use
- Foam sealing washer included
- Resists salt water, weak acids, gasoline, alcohol, oil, grease and common solvents

PART NUMBER	Fits Conduit/Tubing Trade Size	Description	Part Dimensions Body and Sealing Nut					Unit Quantity
			A Mounting Hole Diameter	B Max Length	C Thread Length	D Wrenching Nut Thickness	E Wrenching Flat Size	
66118382	1/4	HFC 1/4-S	12,7	38,1	11,3	5,6	22,2	500
66118384	3/8	HFC 3/8-S	22,2	50,8	15,9	6,3	33,7	500
66118386	1/2	HFC 1/2-S	22.2	50.8	15.9	6.3	33.7	500
66118388	3/4	HFC 3/4-S	27,7	51,6	15,9	6,3	39,7	200
66118390	1	HFC 1-S	34,9	57,1	19,8	6,3	46,0	170

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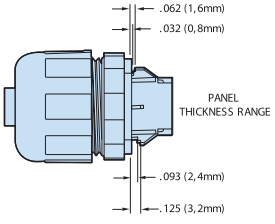
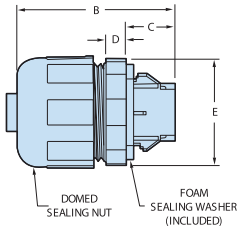
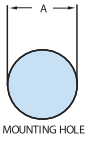
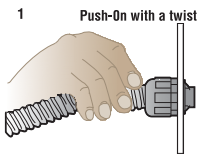
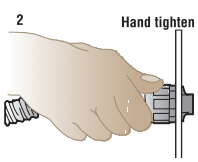












Heyco-Flex™ Liquid Tight Conduit Fittings - Straight Thru

Genuine HEYCO® Parts!

- For use with Heyco-Flex II tubing
- Suitable for indoor/outdoor use; for original equipment manufacturers or field installers
- Simple installation. Push the conduit onto the ferrule, then tighten the domed sealing nut.
- Fit into panel using a lock nut or into an NPT threaded hole

Specifications: RoHS ✓

Material: Nylon 66
Flammability Rating: UL94V-2
IP Rating: IP68 up to 70 psi (5 bar) water pressure
Material Temperature Index: Material not to exceed 105°C

Approvals:

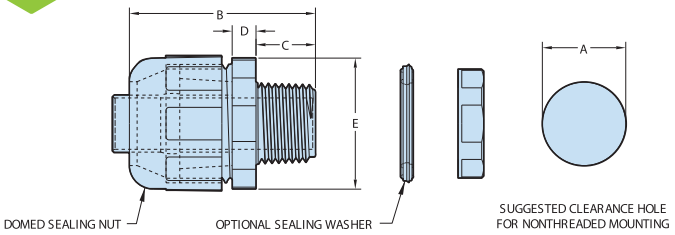
IP68 up to 70 psi (5 bar) pressure when used with O-ring and Locknut
Listed under Underwriters' Laboratories File E28430
Certified by the Canadian Standards Association File No. 84579 and 81067

PART NUMBER AND COLOUR		Fits Conduit/Tubing Trade Size	Description	Thread Size	Part Dimensions Body and Sealing Nut					Unit Quantity
Black	Grey				A Mounting Hole Diameter	B Max Length	C Thread Length	D Wrenching Nut Thickness	E Wrenching Flat Size	
66118400	66118401	1/2" NPT	HFC 3/8	1/2″ NPT	22,2	49,8	16,0	6,3	33,7	Black 500. Grey 250
66118402	66118403	1/2" NPT	HFC 1/2	1/2" NPT	22,2	49,8	16,0	6,3	33,7	500
66118404	66118405	3/4" NPT	HFC 3/4	3/4″ NPT	28,1	52,8	16,0	6,3	39,6	200
66118406	66118407	1" NPT	HFC 1	1″ NPT	34,9	57,2	19,8	6,3	46,0	200
66118638	66118639	1-1/4" NPT	HFC 1-1/4	1-1/4″ NPT	44,0	52,6	17,4	6,3	54,6	50
66118640	66118641	1-1/2" NPT	HFC 1-1/2	1-1/2″ NPT	50,4	57,9	19,8	7,0	61,0	50
66118642	66118643	2" NPT	HFC 2	2″ NPT	62,7	66,0	21,6	7,9	75,6	50

Black connectors up to 1" provided with Nylon locknut. Larger than 1" provided with o-ring and metal locknut.
Grey connectors provided with assembled ring and metal locknut.
If using a Tapped hole, Teflon® tape is needed on the threads of the connector

NEW







Heyco-Flex™ III Liquid Tight Fittings - Straight-Thru NPT Hubs

Genuine HEYCO® Parts!

- For use with Heyco-Flex III Corrugated Tubing in trade sizes 3/8″ through 1″
- Nontoxic and UV resistant
- Rated for NEMA 4 and 4X applications when used with Heyco-Flex III Tubing.
- Rated for NEMA Type 3R applications
- Easy, permanent assembly between the tubing and fittings: push the tubing over the fitting ferrule until the tubing "clicks" into place

Specifications: RoHS ✓

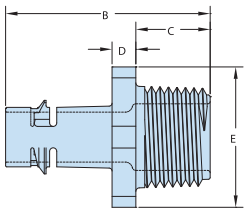
Material: Nylon 66 Colour: Black
Flammability Rating: UL94V-2
IP Rating: IP64
Material Temperature: Material not to exceed 105°C

Approvals:

Certified to both Canadian and U.S. Requirements File E121095

NEW

PART NUMBER	Fits Conduit/ Tubing Trade Size	Description	Thread Size	Part Dimensions Body and Sealing Nut					Unit Quantity
				A Mounting Hole Diameter	B Max Length	C Thread Length	D Wrenching Nut Thickness	E Wrenching Flat Size	
66119146	3/8	HF3C 3/8	1/2 NPT	22,2	43,7	16,0	5,1	29,5	50
66119147	1/2	HF3C 1/2	1/2 NPT	22,2	43,7	16,0	5,1	29,5	50
66119148	3/4	HF3C 3/4	3/4 NPT	28,2	46,7	16,0	5,1	34,5	50
66119149	1	HF3C 1	1 NPT	34,9	50,6	19,8	5,1	40,4	50



If using a tapped hole, Teflon® tape is needed on the threads of the connector, for all other applications an O-ring and Locknut are needed to attain liquid tight
Locknuts included with Straight-Thru fittings

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HEYCO® Genuine HEYCO® Parts!

Heyco-Flex™ Liquid Tight Conduit Fittings - 90°

Approvals:
IP68 up to 70 psi (5 bar) pressure when used with O-ring and Locknut
Listed under Underwriters' Laboratories File E28430
Certified by the Canadian Standards Association File No. 84579 and 81067

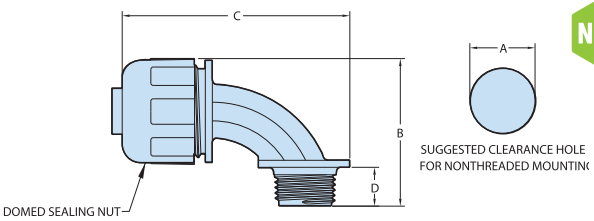
Specifications: RoHS ✓
Material: Nylon 66
Flammability Rating: UL94V-2
IP Rating: IP68 up to 70 psi (5 bar) water pressure
Material Temperature Index: Material not to exceed 105°C

- For use with Heyco-Flex II tubing
- Suitable for indoor/outdoor use; for original equipment manufacturers or field installers
- Simple installation. Push the conduit onto the ferrule, then tighten the domed sealing nut.
- Fit into panel using a lock nut or into an NPT threaded hole



PART NUMBER AND COLOUR		Fits Conduit/Tubing Trade Size	Description	Thread Size	Part Dimensions Body and Sealing Nut				Unit Quantity
Black	Grey				A Clearance Hole	B Max Height	C Max Length	D Thread Length	
66118423	66118424	3/8	HFC 3/8-90R	1/2 NPT	22,2	50,3	73,9	13,2	250
66118425	66118426	1/2	HFC 1/2-90R	1/2 NPT	22,2	50.3	73.9	13.2	250
66118427	66118428	3/4	HFC 3/4-90R	3/4 NPT	28,1	58,2	80,5	13,2	250
66118412	66118413	1	HFC 1-90R	1 NPT	34,9	71,9	100,6	17,5	100
66118652	66118653	1-1/4	HFC 1-1/4-90R	1-1/4 NPT	44,0	100,3	116,1	18,0	30
66118654	66118655	1-1/2	HFC 1-1/2-90R	1-1/2 NPT	50,4	113,2	124,4	20,8	30
66118656	66118657	2	HFC 2-90R	2 NPT	62,7	124,4	139,6	21,3	20

Black connectors up to 1" provided with Nylon locknut. Larger than 1" provided with o-ring and metal locknut.
Grey connectors provided with assembled ring and metal locknut.
If using a Tapped hole, Teflon® tape is needed on the threads of the connector



NEW

HEYCO® Genuine HEYCO® Parts!

Heyco-Flex™ III Liquid Tight Fittings - 90° Sweep, NPT Hubs

Approvals:
Certified to both Canadian and U.S. Requirements File E121095

Specifications: RoHS ✓
Material: Nylon 66 Colour: Black
Flammability Rating: UL94V-2
IP Rating: IP64

Material Temperature: Material not to exceed 105°C

- For use with Heyco-Flex III Corrugated Tubing in trade sizes 3/8 ″ through 1 ″
- Nontoxic and UV resistant
- Rated for NEMA 4 and 4X applications when used with Heyco-Flex III Tubing.
- Rated for NEMA Type 3R applications
- Easy, permanent assembly between the tubing and fittings: push the tubing over the fitting ferrule until the tubing "clicks" into place



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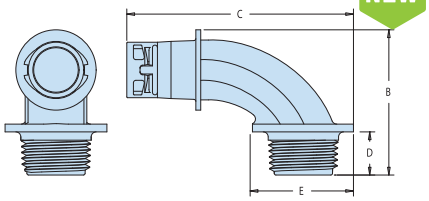


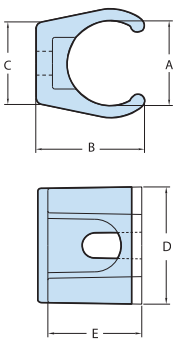
PART NUMBER	Fits Conduit/ Tubing Trade Size	Description	Thread Size	Part Dimensions Body and Sealing Nut					Unit Quantity
				A Clearance Hole	B Max Height	C Max Length	D Thread Length	E Flange Diameter	
66111955	3/8	HF3C 3/8 NPT	1/2 NPT	22,2	44.5	69.6	13.2	31.2	50
66111956	1/2	HF3C 1/2 NPT	1/2 NPT	22,2	44.5	69.6	13.2	31.2	50
66111957	3/4	HF3C 3/4 NPT	3/4 NPT	28,2	53.3	78.2	13.2	38.1	50
66111958	1	HF3C 1 NPT	1 NPT	34,9	67.8	93.0	17.5	45.7	50

If using a Tapped hole, Teflon® tape is needed on the threads of the connector, for all other applications an O-ring and Locknut are needed to attain liquid tight

HEYCO® Genuine HEYCO® Parts!

Heyco-Flex™ Mounting Bracket Conduit Supports

NEW



Specifications: RoHS ✓
Material: Nylon 6,6
Flammability: UL94V2

Material Temperature Index: 125°C
Max temperature on part shall not exceed 105°C

- For mounting Heyco-Flex I Conduit, Heyco-Flex II Tubing, and Heyco-Flex III Tubing securely into place, vertically or horizontally
- Only fingertip pressure is required to snap conduit or tubing into bracket
- Low profile design for space savings and pleasing appearance



PART NUMBER & COLOUR		Fits Conduit/Tubing Size	Description	A Inside Diameter	B Length	C Height	D Outside Diameter	E Width	Unit Quantity
Black	Grey								
8601025	8601026	3/8	HFB 3/8	16,9	23,2	18,2	22,9	19,1	500
8601027	8601028	1/2	HFB 1/2	20,0	27,3	18,0	26,8	19.1	500
8601029	8601030	3/4	HFB 3/4	26,7	32,2	17,0	33,2	19.1	500
8601031	8601032	1	HFB 1	31,5	38,6	21,3	38,9	19.1	500

Use one standard #10 (4-5M) screw for attaching bracket to panel (screw not included)

Recommended distance between brackets at intervals not greater than 3 feet (1m) as required by Article 351-27 of 1996 NEC

ARCA IEC
ELECTRICAL CABINETS

FIBOX
Enclosing innovations



NON-CORROSIVE ELECTRICAL CABINETS FOR DEMANDING APPLICATIONS

Fibox ARCA IEC is a new range of robust UV stabilised Polycarbonate wall mounting electrical cabinets designed specifically for harsh environments. These cabinets combine all the features of steel with the benefits of high grade thermoplastic.

KEY BENEFITS:

- Non corrosive for a long lasting solution
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- IK10 high impact resistance for excellent protection against vandalism
- 1-point locking
- Can be safely machined without conductive swarf residue
- Chemical resistant
- UL94-5VA raw material flammability

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CHAPTER 8

CABLE PROTECTION

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CABLE MANAGEMENT & HOLE BLANKING

HEYCO®

STRAIN RELIEF BUSHINGS

A range of components to anchor your cable into the product chasis.

CABLE PROTECTION

Protection and insulation of cables from raw edged panel holes.

CABLE GLANDS AND LIQUID TIGHT FITTINGS

Ingress protection solutions at point of cable entry.

CONDUIT AND FITTINGS

Flexible conduits and fittings for mechanical and ingress protection of cables and harnesses.

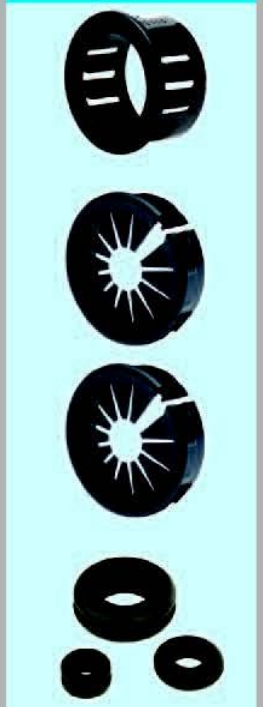
CAPS AND PLUGS

A solution for all of your hole blanking needs.

CHAPTER 4



CHAPTER 8



CHAPTER 3



CHAPTER 7



CHAPTER 10



CABLE MANAGEMENT AND HOLE BLANKING SOLUTIONS

Heyco is the brand synonymous with nylon cable strain relief bushings, cable protection, cable glands, conduit and fittings, caps and plugs.

We carry in stock a huge range of Heyco products and have access to their entire portfolio.

HEYCO PRODUCTS CAN BE FOUND THROUGHOUT THIS CATALOGUE AND AT:

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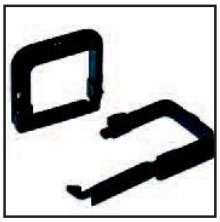
OPTIMAS


Edge Holders EH Series
P8-2


Edge Holder LT Series
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Edge Holders EHS Series
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Double Insulated Bushing
P8-3


Open/Closed Bushings
P8-3


Snap Bushings
P8-4, 5


Shorty Bushings
P8-5


Universal Bushings
P8-6


Open-Close
Universal Bushings
P8-6


Snub Bushings
P8-6


Extruded Grommeting
P8-6



Heyco® Armour Bushings
P8-7



Threaded Smooth Bore
Bushings
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Thermoplastic Rubber
Grommets
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Push Fit Grommets
P8-8



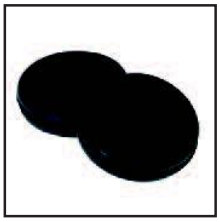
PVC Open Grommets - White
P8-8

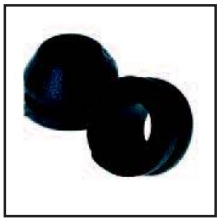


PVC Semi-Blind Grommets -
White
P8-8

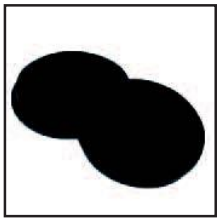

PVC Open Grommets
P8-9


PVC Perforated
Diaphragm Grommets
P8-10


PVC Semi-Blind Grommets
P8-10

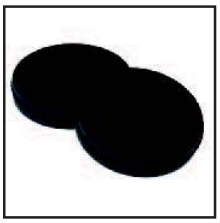

PVC Tapered Grommets
P8-11


PVC Tapered Grommets
Irregular Hole
P8-11


PVC Multi-Hole Grommets
P8-11

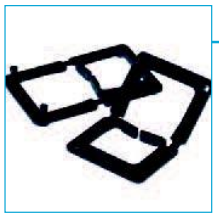

PVC Flared Entry
Tapered Grommets
P8-13


PVC Sleeve Grommets
P8-13


Rubber Semi-Blind Grommets
P8-13


Rubber Open Grommets
P8-14


Heat Shrink Tubing
P8-15



Edge Holders EH Series

- Protects and insulates wires and cables from the edges of chassis and frames
- Easy one-touch installation

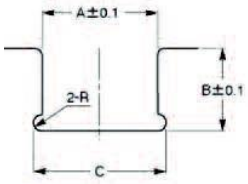
Specifications: RoHS ✓
Material: Nylon 66
Colour: Black

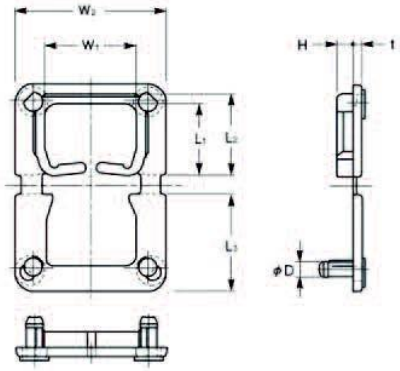
Approvals:
UL recognized product
File No. E191920
Rating: 85°C

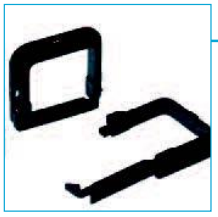
Part Number		Dimensions									Unit Quantity
UL94V-2	UL94V-0	W1	W2	L1	L2	L3	H	ØD	t	Applicable Board Thickness	
2001000	2001003	11.0	18.4	8.8	10.0	11.8	2.0	1.9	1.0	0.8 to 2.0	1,000
2001001	2001004	14.0	22.0	13.0	14.5	16.8	2.0	2.0	1.3	0.8 to 2.0	1,000
2001002	2001005	18.0	26.0	16.0	17.5	19.8	2.0	2.3	1.3	0.8 to 2.0	1,000

Mounting Dimensions

Part Number		Dimensions			
UL94V-2	UL94V-0	A	B	C	R
2001000	2001003	14	10	16	1
2001001	2001004	17	14.5	19.2	1.1
2001002	2001005	21	17.5	23.4	1.2







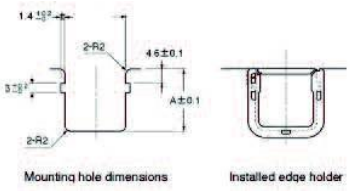
Edge Holders LT Series

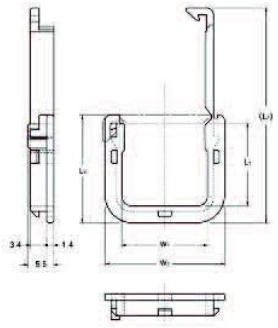
- Protects and insulates wires and cables from the edges of chassis and frames
- The wire guide locking mechanism enables these edge holders to be mounted sideways or upside down
- Can be mounted on the sides or upper edges of chassis

Specifications: RoHS ✓
Material: Nylon 66
Colour: Black

Approvals:
UL recognized product
File No. E191920
Rating: 85°C

Part Number		Dimensions							Unit Quantity
UL94V-2	UL94V-0	W1	W2	L1	L2	(L3)	A	Applicable Board Thickness	
2004000	2004002	11.6	18	11.1	15.8	31.4	14	0.5 to 1.6	1,000
2004001	2004003	18.4	25.8	17.7	23.2	46.1	21	0.5 to 1.6	1,000







Edge Holders EHS Series

- Protects and insulates wires and cables from the edges of chassis and frames
- Easy one-touch installation

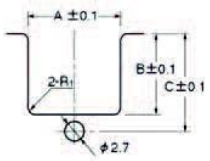
Specifications: RoHS ✓
Material: Nylon 66
Colour: Black
Applicable Board Thickness: 0.8 to 2.0

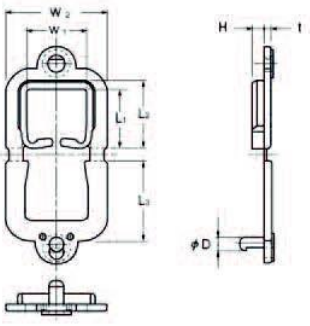
Approvals:
UL recognized product
File No. E191920
Rating: 85°C

Part Number		Dimensions								Unit Quantity
UL94V-2	UL94V-0	W1	W2	L1	L2	L3	H	D	t	
2002000	2002002	11.0	18.4	10.8	12.3	14.5	2	2.5	1.3	1,000
2002001	2002003	18.0	25.4	19.5	21	23.4	2	2.5	1.3	1,000

Mounting Hole Dimensions

Part Number		Dimensions			
UL94V-2	UL94V-0	A	B	C	R1
2002000	2002002	14.0	12.3	15.0	1
2002001	2002003	21.0	21.0	23.4	1.5





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Double Insulated Bushing

Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E15331

Certified by the Canadian Standards Association File No. LR-8919

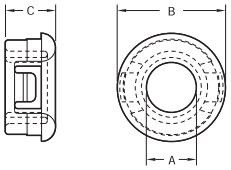
Specifications: RoHS ✓

Material: Nylon 66 Colour: Black
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C
Tolerances: A = ± 0.13 B & C = ± 0.41

- Quick and easy to install with fingertip pressure
- Internal insulating sleeve blends into a large radiused exit hole
- Protects cables against excessive wear and damage



Maximum Chassis Thickness: 1.6



Part Number	Description	Mounting Hole Diameter	Part Dimensions			Unit Quantity
			A Inside Diameter	B Head Diameter	C Overall Height	
4062514	S 50	12.7	6.4	14.3	6.9	1,000
4062516	S 625-4	15.9	6.4	18.3	11.2	500
4062535	S 750-5	19.1	9.1	23.1	11.2	500
4062540	S 87	22.3	13.2	24.9	8.1	500
4062552	S 875-9	22.3	14.2	24.6	13.1	500
4062554	S 1000-9	25.4	15.2	30.2	13.1	500
4062555	S 1093-10	27.8	16.0	30.7	13.1	500

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HEYCO® Genuine HEYCO® Parts!

Open/Closed Bushings

Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E15331

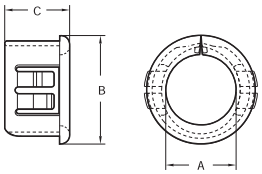
Certified by the Canadian Standards Association File No. LR-8919

Specifications: RoHS ✓

Material: Nylon 66 Colour: Black
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C
Tolerances: A, B & C = ± 0.41

- Installs with fingertip pressure
- Split design allows the bushing to be assembled around cable harnesses that have attachments larger than the inside diameter of the bushing
- Can assemble into holes that already contain cable or tubing





Maximum Chassis Thickness: 3.2

Head Height: Approx 1.6

Locking fingers in increments of 0.8, 1.6 and 2.4 up to the maximum panel thickness

Part Number	Description	Mounting Hole Diameter	Part Dimensions			Unit Quantity
			A Inside Diameter	B Head Diameter	C Overall Height	
4032865	OCB-375	9.5	6.7	10.7	9.9	1,000
4032867	OCB-437	11.1	7.9	12.3	10.3	1,000
4032871	OCB-500	12.7	7.9	14.3	10.3	1,000
4032869	OCB-562	14.3	9.9	16.3	10.3	1,000
4032872	OCB-625	15.9	11.5	17.5	10.3	500
4032873	OCB-750	19.0	13.9	20.2	10.3	500
4032874	OCB-875	22.2	17.7	23.4	10.3	500
4032878	OCB-1000	25.5	20.6	26.6	10.3	500
4032879	OCB-1093	27.8	22.2	29.4	10.3	500
4032881	OCB-1250	31.8	26.6	34.1	10.3	500
4032882	OCB-1375	34.9	29.7	37.3	10.3	500
4032883	OCB-1500	38.1	31.7	40.1	10.7	500

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Snap Bushings

- Will withstand push back force of 155.6N
- Provides protection and insulation from raw-edged panel holes

Specifications: RoHS ✓

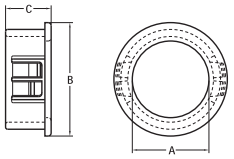
Material: Nylon 66
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C
Tolerances: A, B & C = ± 0.41

Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E15331

Certified by the Canadian Standards Association File No. LR-8919

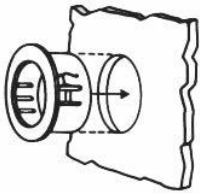
PART NUMBER		Description	Part Dimensions			Chassis Dimensions			Unit Quantity	
Black	White		A - Inside Diameter	B - Head Diameter	C - Overall Height	Mounting Hole Dia.	Minimum Th'kness	Maximum Th'kness	Black	White
4002000	4002001	SB 250-2	3.2	7.9	7.9	6.4	1.6	†1.6	1,000	Please call
4002003	4002004	SB 250-040	3.2	7.9	7.9	6.4	1.0	†1.0	5,000	Please call
4002010	4002011	SB 312-3	4.8	9.5	7.9	8.0	1.6	†1.6	2,500	2,500
4002020	4002021	SB 375-3	4.8	11.9	10.3	9.5	0.8	3.2	500	7,500
4002030	4002031	SB 375-4	6.4	11.9	10.3	9.5	0.8	3.2	1,000	1,000
4002017	4002018	SB 375-281	7.1	11.9	10.3	9.5	4.3	†4.3	1,000	15,000
4002038	4002039	SB-437-4	6.4	13.5	10.3	11.0	0.8	3.2	7,500	7,500
4002043	4002044	SB 437-5	7.9	13.5	10.3	11.0	0.8	3.2	1,000	1,000
4002042	4002037	SB 437-243	6.17	13.5	10.3	11.0	0.8	3.2	7,500	7,500
4002058	4002059	SB-500-4	6.4	14.2	10.3	12.7	0.8	3.2	7,500	7,500
4002049	4002050	SB 500-5	7.9	14.7	10.3	12.7	0.8	3.2	500	7,500
4002053	4002054	SB 500-6	9.9	14.7	10.3	12.7	0.8	3.2	1,000	1,000
4003126	4003127	SBT 500-6	9.9	14.7	14.3	12.7	0.8	6.4	3,500	3,500
4002060	4002061	SB 562-5	7.9	16.7	10.3	14.3	0.8	3.2	1,000	6,000
4002063	4002064	SB 562-6	9.9	16.7	10.3	14.3	0.8	3.2	1,000	6,000
4002066	4002067	SB 562-7	11.1	16.7	10.3	14.3	0.8	3.2	1,000	1,000
4002075	4002078	SB 625-4	6.4	18.7	10.3	15.9	0.8	3.2	Please call	Please call
4002070	4002071	SB 625-7	11.1	18.2	10.3	15.9	0.8	3.2	500	7,500
4002073	4002074	SB 625-8	12.7	18.2	10.3	15.9	0.8	3.2	1,000	20,000
4002830	4002831	SB-625-500	12.7	18.0	13.6	15.9	1.6	6.4	10,000	10,000
4002142	4002143	MSB 16-12	12.0	18.5	10.3	16.0	0.8	2.5	1,000	Please call
4002083	4002084	SB 687-8	12.7	19.8	10.3	17.5	0.8	3.2	1,000	1,000
4002086	4002087	SB 687-9	14.3	19.8	10.3	17.5	0.8	3.2	1,000	20,000
4002090	4002091	SB-750-6	9.5	21.7	10.3	19.0	0.8	3.2	5,000	5,000
4002092	4002099	SB-750-8	12.7	21.7	10.3	19.0	0.8	3.2	5,000	5,000
4002093	4002094	SB 750-9	14.3	21.4	10.3	19.0	0.8	3.2	500	Please call
4002096	4002097	SB 750-10	15.5	21.4	10.3	19.0	0.8	3.2	500	17,000
4002840	4002841	SB-750-625	16.0	21.1	13.5	19.0	1.6	6.4	7,500	7,500
4002144	4002145	MSB 20-16	16.0	22.6	10.3	20.0	0.8	2.5	500	Please call
4002100	4002101	SB 812-9	14.3	22.6	10.3	20.6	0.8	3.2	500	Please call
4002103	4002104	SB 812-10	15.9	22.6	10.3	20.6	0.8	3.2	1,000	Please call
4002110	4002111	SB-875-6	9.5	24.2	11.5	22.2	0.8	3.2	5,000	5,000
4002113	4002114	SB-875-7	11.0	24.2	11.5	22.2	0.8	3.2	5,000	5,000
4002116	4002117	SB-875-8	12.7	24.2	11.5	22.2	0.8	3.2	5,000	5,000
4002120	4002121	SB-875-9	14.3	24.2	11.5	22.2	0.8	3.2	5,000	5,000
4002123	4002124	SB 875-10	15.9	24.2	11.5	22.2	0.8	3.2	500	20,000
4002126	4002127	SB 875-11	17.5	24.2	11.5	22.2	0.8	3.2	500	500
4003104	4003105	SBT-875-11	17.5	24.2	14.3	22.2	0.8	6.4	4,500	4,500
4002146	4002147	MSB 25-19	19.0	27.8	11.5	25.0	0.8	2.5	500	Please call
4002140	4002141	SB 1000-12	19.4	28.6	11.5	25.4	0.8	3.2	500	500
4003085	4003086	SBT 1000-790	20.1	28.8	11.4	25.4	4.3	†4.3	500	500
4003108	4003109	SBT 1000-12	19.4	28.6	14.3	25.4	0.8	6.4	1,500	1,500
4002160	4002161	SB 1093-13	20.6	30.9	11.5	27.8 to 28.6	0.8	3.2	500	4,000
4002163	4002164	SB 1093-14	22.0	30.9	11.5	27.8 to 28.6	0.8	3.2	500	4,000
4002166	4002167	SB 1093-15	23.8	30.9	11.5	27.8 to 28.6	0.8	3.2	500	4,000
4003128	4003129	SBT 1093-15	23.8	30.9	14.3	27.8 - 28.6	0.8	6.4	3,000	3,000
4002148	4002149	MSB 32-26	26.0	34.9	11.5	32.0	0.8	3.2	500	Please call
4002182	4002183	SB 1187-15	23.8	33.3	11.5	30.0	0.8	3.2	500	10,000
4003130	4003131	SBT 1187-15	23.8	33.3	14.3	30.2	0.8	6.4	500	500



Head Height: Approx 1.6

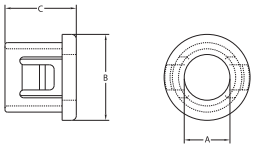
Locking fingers in increments of 0.8, 1.6 and 2.4 up to the maximum panel thickness, except where indicated by "†".

When installed the inside diameter 'A' will be reduced where the locking fingers move inwards.



Fingertip Assembly

"†" Single Chassis Design



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Continued...

OPTIMAS

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Snap Bushings

Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E15331

Certified by the Canadian Standards Association File No. LR-8919

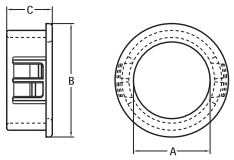
Specifications: RoHS ✓

Material: Nylon 66
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C
Tolerances: A, B & C = ± 0.41

When installed the inside diameter 'A' will be reduced where the locking fingers move inwards. Will withstand push back force of 155.6N

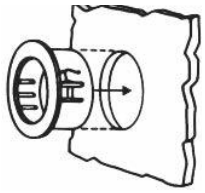
- Provides protection and insulation from raw-edged panel holes





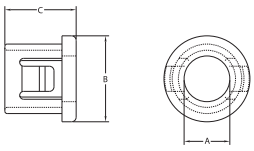
Head Height: Approx 1.6

Locking fingers in increments of 0.8, 1.6 and 2.4 up to the maximum panel thickness, except where indicated by "†"



Fingertip Assembly

"†" Single Chassis Design



PART NUMBER		Description	Part Dimensions			Chassis Dimensions			Unit Quantity	
Black	White		A - Inside Diameter	B - Head Diameter	C - Overall Height	Mounting Hole Diameter	Minimum Th'kness	Maximum Th'kness	Black	White
4002198	4002199	SB 1250-15	23.8	34.5	11.5	32.0	0.8	3.2	500	500
4002201	4002202	SB 1250-16	25.4	33.2	11.5	31.8	0.8	3.2	500	Please call
4003132	4003133	SBT-1250-16	25.4	33.2	14.3	31.8	0.8	6.4	500	500
4002207	4002208	SB 1375-14	22.2	37.3	11.5	35.0	0.8	3.2	500	Please call
4002210	4002211	SB 1375-16	25.4	37.3	11.5	35.0	0.8	3.2	500	2,500
4003110	4003111	SBT-1375-16	25.4	38.1	14.3	34.9	0.8	6.4	500	500
4002233	4002234	SB 1500-17	27.0	40.9	11.5	38.0	0.8	3.2	500	Please call
4002236	4002237	SB 1500-18	28.5	40.9	11.5	38.0	0.8	3.2	500	1,000
4002240	4002241	SB 1500-21	33.3	40.9	11.5	38.0	0.8	3.2	200	1,000
4003112	4003113	SBT-1500-21	33.3	41.2	14.3	38.1	0.8	6.4	1,000	1,000
4002300	4002301	SB 1750-22	34.9	47.6	11.5	45.0	0.8	3.2	500	2,500
4003114	4003115	SBT-1750-22	34.9	47.6	14.3	44.5	0.8	6.4	500	500
4002400	4002401	SB 2000-26	41.6	54.0	11.5	51.0	0.8	3.2	200	200
4003116	4003117	SBT-2000-26	41.3	54	14.3	50.8	0.8	6.4	500	500
4002415	4002416	SB 2.093-29	46.0	59.7	18.3	53.1	1.6	6.4	500	1,000
4002417	4002418	SB 2.25-29	47.1	63.1	18.3	57.2	1.6	6.4	100	2,000
4002420	4002421	SB 2.5-31	50.0	67.5	18.3	63.5	1.6	6.4	100	2,000
4002461	4002462	SB 3.0-39	62.7	80.2	18.3	76.2	1.6	6.4	100	100
4002407	4002408	SB-3375-45	71.4	92.9	18.3	85.7	1.6	6.4	400	800
4002470	4002471	SB 3.5-47	74.7	93.0	18.3	88.9	1.6	6.4	100	800
4002479	4002480	SB 4.0-55	88.4	105.9	18.3	101.6	1.6	6.4	100	1,200
4002409	4002410	SB 5.0-75	113.8	132.6	18.8	127.0	1.6	6.4	150	150
4002484	4002485	SB 6.0-88	139.2	157.9	18.8	152.4	1.6	6.4	130	2,600

HEYCO® is a registered trade mark of Heyco Inc. USA.

HEYCO® Genuine HEYCO® Parts!

Shorty Bushings

Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E15331
*UL approval pending
Certified by the Canadian Standards Association File No. LR-8919

Specifications: RoHS ✓

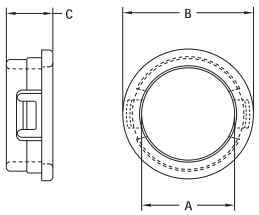
Material: Nylon 66
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C
Tolerances: A, B & C = ± 0.41

- Quick and easy to install with fingertip pressure
- Only 3.2 internal clearance needed
- Completely insulates and isolates electric or communication cables as well as low R.P.M. shafts and push-pull rods



HEYCO® is a registered trade mark of Heyco Inc. USA.

Head Height: Approx 1.6



Maximum Chassis Thickness: 1.6

Parts 4012810N, 4012811N, 4012803N & 4012804N have panel locking finger steps at 0.5, 0.8 & 1.2mm.

Parts 4012820N, 4012821N, 4012827N, 4012828N, 4012836N, 4012837N, 4012850N & 4012851N have panel locking finger steps at 0.5, 0.8, 1.0, 1.2 & 1.6mm.

Part Number		Description	Mounting Hole Diameter	Part Dimensions			Unit Quantity	
Black	White			A Inside Diameter	B Head Diameter	C Overall Height	Black	White
4012800	4012801	B-187-125	4.7	3.2	6.4	6.0	1,000	15,000
4012859	4012860	B-218-125	5.5	3.2	7.1	6.0	1,000	Please call
4012853	4012854	B-281-218	7.1	5.5	8.7	6.0	1,000	15,000
4012810N	4012811N	B-312-250	7.9	6.3	9.5	6.0	1,000	1,000
4012810	4012811	B-312-250	7.9	6.4	9.5	6.0	2,500	2,500
4012856	4012857	B-343-218	8.7	5.6	10.4	6.4	1,000	Please call
4012803N	4012804N	B-375-250	9.5	6.3	11.1	6.4	1,000	1,000
4012803	4012804	B-375-250	9.5	6.4	11.1	6.4	2,500	Please call
4012806	4012807	B-406-281	10.3	7.1	11.9	6.4	1,000	1,000
4012813	4012814	B-437-312	11.1	7.9	12.7	6.4	1,000	Please call
4012817	4012818	B-468-343	11.9	8.6	13.5	6.4	1,000	1,000
4012820N	4012821N	B-500-375	12.7	9.5	14.3	6.4	1,000	20,000
4012820	4012821	B-500-375	12.7	9.5	14.3	6.4	1,000	5,000
4012824	4012825	B-531-406	13.5	10.3	15.1	6.4	1,000	1,000
*4012833	*4012834	*B-593-468	15.1	11.9	16.7	6.4	1,000	1,000
4012827N	4012828N	B-625-500	15.9	12.7	17.9	6.4	1,000	1,000
4012827	4012828	B-625-500	15.9	12.7	17.9	6.4	1,000	Please call
4012836N	4012837N	B-750-625	19.1	15.9	21.0	6.4	1,000	1,000
4012836	4012837	B-750-625	19.1	15.9	21.0	6.4	1,000	1,000
4012844	4012845	B-781-625	19.8	15.9	21.8	6.4	1,000	Please call
4012850N	4012851N	B-875-750	22.2	19.0	23.8	6.4	1,000	1,000
4012850	4012851	B-875-750	22.2	19.0	23.8	6.4	1,000	20,000
4012847	-	B-1000-875	25.4	22.3	27.0	6.4	1,000	-



Universal Bushings

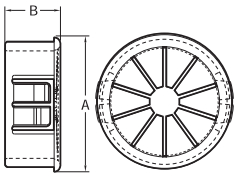
Genuine HEYCO® Parts!

- Installs with fingertip pressure
- Absorbs vibration
- Cushions and insulates cables, tubing, hoses or shafts
- Flexible shutters adjust to accommodate and support any shape from 3.2 to a maximum diameter of 25.4

Specifications: RoHS ✓
Material: Nylon 66 Colour: Black
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C
Tolerances: A & B = ± 0.41

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E15331
Certified by the Canadian Standards Association File No. LR-8919

Part Number	Description	Mounting Hole Diameter	Part Dimensions			Unit Quantity
			A	Maximum I/D	B	
4022055	UB-500	12.7	15.2	7.6	9.8	1,000
4022077	UB-625	15.9	18.5	11.1	9.9	1,000
4022089	UB-750	19.0	21.4	12.7	9.9	1,000
4022106	UB-812	20.6	22.6	12.7	9.9	1,000
4022119	UB-875	22.2	23.8	14.3	11.5	500
4022137	UB-1000	25.4	27.0	19.0	11.5	500
4022157	UB-1093	27.8	29.4	20.6	11.5	500
4022184	UB-1375	34.9	37.8	25.4	11.5	500
4022213	UB-1500	38.1	40.9	26.9	11.4	500



Maximum Chassis Thickness: 3.2

Head Height: Approx 1.6

Locking fingers in increments of 0.8, 1.6 and 2.4 up to the maximum panel thickness



Open-Close Universal Bushings

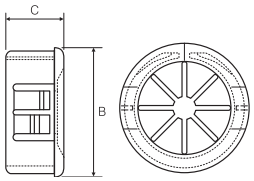
Genuine HEYCO® Parts!

- Split design allows side entry and encirclement of pre-assembled harnesses, capillary tubes or other assemblies

Specifications: RoHS ✓
Material: Nylon 6,6
Colour: Black
Flammability: UL94V-2

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E15331
Certified by the Canadian Standards Association File No. LR-8919

PART NUMBER	Description	Mounting Hole Diameter	Maximum Panel Thickness	Maximum I/D	B Head Diameter	C Overall Height	Unit Quantity
4032055	OCUB-500	12.7	3.2	7.6	14.3	9.8	1,000
4032077	OCUB-625	15.9	3.2	11.1	18.2	10.3	1,000
4032089	OCUB-750	19.0	3.2	12.7	20.6	10.3	1,000
4032119	OCUB-875	22.2	3.2	14.3	23.4	10.3	1,000
4032137	OCUB-1000	25.4	3.2	19.0	27.0	10.3	1,000
4032157	OCUB-1093	27.8	3.2	20.6	30.2	10.3	1,000
4032184	OCUB-1375	34.9	3.2	25.4	37.3	10.3	500
4032213	OCUB-1500	38.1	3.2	26.9	40.1	10.7	500



Locking fingers in increments of 0.8, 1.6 and 2.4 up to the maximum panel thickness



Snub Bushings

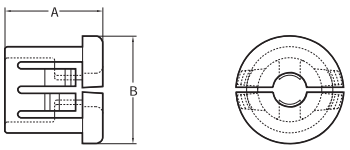
Genuine HEYCO® Parts!

- Quick and easy to install with fingertip pressure
- Provides insulation plus light strain relief for cables, tubing or hose
- The inside diameter opens to accept the cable then closes firmly when installed into the mounting hole

Specifications: RoHS ✓
Material: Nylon 66 Colour: Black
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C
Tolerances: A & B = ± 0.41

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E15331
Certified by the Canadian Standards Association File No. LR-8919

PART NUMBER	Description	Approximate Cable etc. Diameter	A Overall Height	B Head Diameter	Chassis Dimensions		Unit Quantity
					Mounting Hole	Maximum Chassis	
4042034	K-375-125	3.2	10.7	11.7	9.5	3.2	500
4042047	K-437-187	4.8	11.2	11.9	11.1	3.2	500
4042057	K-500-250	6.4	11.2	14.2	12.7	3.2	500
4042068	K-625-375	9.5	11.2	18.5	15.9	3.2	500
4042088	K-750-500	12.7	11.2	23.0	19.1	3.2	500
4042109	K-875-625	15.9	12.3	25.8	22.2	3.2	500



Head Height: Approx 2.4

Maximum Chassis Thickness: 3.2

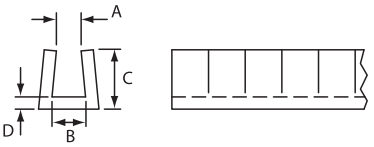


Extruded Grommeting Roll

- Lightweight low cost material for general indoor applications
- Protects and insulates wires and cables from chafing against sharp chassis edges
- Serrated design particularly suited to irregularly shaped panel holes
- Cut to fit for no waste

Specifications: RoHS ✓
Material: Linear Low Density Polyethylene
Operating Temperature: -48°C to +76°C
Hardness: 55 Shore D

Part Number		Maximum Panel Thickness	Part Dimensions (REF.)				Unit Quantity
Black	Natural		A	B	C	D	
4153000	4153100	1.02 - 1.78	0.89	1.83	4.83	0.71	30.5m ROLL
4153001	4153101	1.14 - 1.78	1.02	1.83	4.83	0.71	30.5m ROLL
4153002	4153102	1.40 - 1.91	1.27	2.03	5.08	1.02	30.5m ROLL
4153003	4153103	2.03 - 2.16	1.91	2.16	4.83	1.02	30.5m ROLL
4153004	4153104	2.54 - 3.05	2.41	3.05	5.59	1.14	30.5m ROLL
4153005	4153105	2.92 - 3.18	2.84	3.18	5.59	1.02	30.5m ROLL
4153006	4153106	4.62 - 4.75	4.57	4.75	6.99	1.57	30.5m ROLL



Depending on the chassis thickness, grommeting may grip tightly by itself, if not, a touch of epoxy will keep it in place.

OPTIMAS
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HEYCO® *Genuine HEYCO® Parts!*

Heyco® Armour Bushings



Approvals:

Listed under Underwriters' Laboratories File E51579

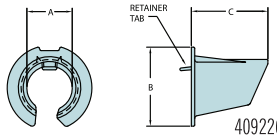
Certified by the Canadian Standards Association File 213253

Specifications: RoHS ✓

Material High Dielectric Polyethylene
Colour: Red

Temperature Rating -40°C to 90°C

- Use with Flexible Armoured Cable (BX) and Flexible Metallic Conduit (FMC), to insulate rough cut conduit ends
- Chamfered lead-in allows for fast installation
- Suitable for installation at temperatures up to 90°C and as low as -40°C
- Size-marked for easy identification



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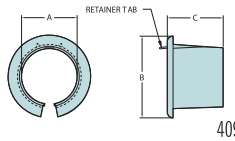

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NEW

PART NUMBER	Will Fit These Armored Cables (AWG/Conductors)	Description	A Inside Diameter	B Head Diameter	C Overall Height	Unit Quantity
4092264	14/2, 14/3, 12/2, 12/3, 14/4, 6/1, 4/1	AB 0	9,4	17,3	14,7	10,000
4092265	14/2, 14/3, 12/2, 12/3, 14/4, 6/1, 4/1	AB 1	11,2	17,8	16,0	10,000
4092266	12/4, 10/2, 10/3, 2/1	AB 2	14,0	21,6	15,2	5,000
4092267	10/4, 8/2, 8/3, 1/1	AB 3	18,5	25,9	15,2	5,000

HEYCO® *Genuine HEYCO® Parts!*

Threaded Smooth Bore Bushings



Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E15331

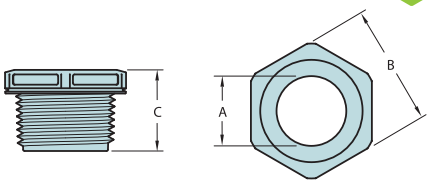
Certified by the Canadian Standards Association File 8919

Specifications: RoHS ✓

Material Nylon 6,6
Flammability Rating: UL94V-2

Material Temperature Index : 125°C
Maximum temperature on part not to exceed 105°C

- Used to protect threaded holes. Eliminates sharp edges so wires are protected.
- Insulate and mechanically protect electrical and communication cables, tubing, rope, and utility lines.
- Molded from electrically nonconductive Nylon 6/6.



NEW

PART NUMBER		To Fit Internal Thread	Description	A Inside Diameter	B Wrenching Flats	C Overall Height	Unit Quantity
Black	Grey						
4093621B	**4093621**	1/4 NPT	TSB 1/4	7.9	16.0	16.8	100
4093622B	**4093622**	3/8 NPT	TSB 3/8	10.9	21.0	17.5	100
4093623B	**4093623**	1/2 NPT	TSB 1/2	14.7	24.9	20.6	100
4093624B	**4093624**	3/4 NPT	TSB 3/4	18.8	33.0	21.8	100

Thermoplastic Rubber Grommets



Approvals:

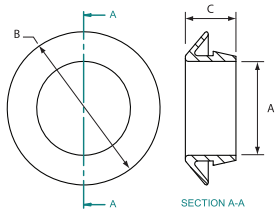
Listed by the Underwriters' Laboratories

Specifications: RoHS ✓

Material: Thermoplastic Rubber
Colour: Black

Material Max Working Temperature: 149°C

- Converts raw-edged holes into smooth, neat insulated holes
- Retaining bead snaps securely into place
- UL approved for applications up to 105°C
- Insulates and mechanically protects cable, tubing, hose, rope, rods and shafts



PART NUMBER	Mounting Hole Diameter	Maximum Panel Thickness	A Inside Diameter	B Head Diameter	C Overall Height	Unit Quantity
4111505	12.7	0.8 to 2.0	10.4	20.6	7.1	1,000
4111506	15.9	0.8 to 2.0	13.2	23.6	7.9	1,000
4111507	19.1	0.8 to 2.0	16.5	26.9	8.9	1,000
4111508	22.2	0.8 to 2.0	19.6	30.2	8.9	1,000
4111509	25.4	0.8 to 2.0	22.6	33.5	8.9	1,000
4111510	31.8	0.8 to 2.0	28.4	40.6	8.9	1,000



Push Fit Grommets

- Used to protect threaded holes. Eliminate sharp edges so wires are protected.
- Insulate and mechanically protect electrical and communication cables, tubing, rope, and utility lines.
- Molded from electrically nonconductive Nylon 6/6.

Specifications: RoHS ✓
Material: See Table
PE=Polyethylene, PP/EPDM=Polypropylene/EPDM
SEBS=Styrol Ethene Butene Styrol

Colour: See Table



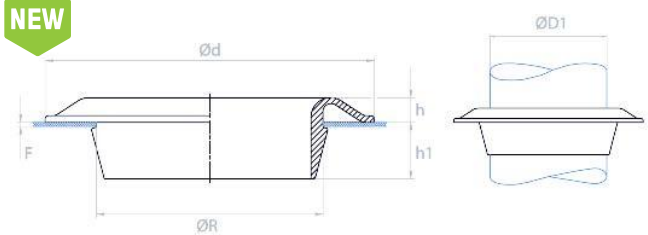
Type 1

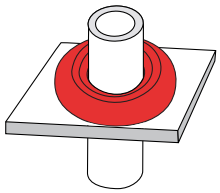


Type 2

PART NUMBER	Design Type	Panel Thickness (F)	Tube Diameter (D1)	Hole Diameter (R)	Head Diameter (d)	Head Thickness (h)	Depth (h1)	Material	Colour	Unit Quantity
4103400	1	0.5-1.5	7.2-7.8	10.0	17.0	3.0	4.0	PE	Black	500
4103401	1	0.5-2.0	25.0	28.0	40.0	4.0	6.0	PE	Natural	500
4103402	1	0.5-2.5	12.0	16.0	18.0x26.0	4.3	4.9	LDPE	Natural	500
4103403	2	0.5-2.0	7.0	28.0	39.0	4.8	5.2	PE	Black	500
4103404	2	0.5-2.0	14.0	28.0	39.0	4.8	5.2	PE	Black	270
4103405	2	1.0-1.5	4.8-5.05	40.0	53.0	5.0	5.0	PP/EPDM	Black	400
4103406	2	1.2	18.0	30.0	49.7	12.0	4.4	SEBS	Black	300

NEW





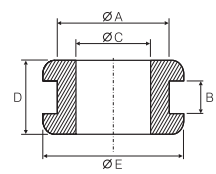


PVC Open Grommets - White

- Low cost protection for wires and passing through metal panels
- Quick and simple to install
- White finish for applications such as lighting and white goods or appliances

Specifications: RoHS ✓
Material: PVC
Colour: White

Hardness: 50 to 65 Shore A



PART NUMBER	ØA	B	ØC	D	ØE	Panel Hole Dia.	Max Panel Thk.	Unit Quantity
4103500	9.5	1.6	8.0	8.0	14.3	9.5	1.6	1,000
4103501	19.0	1.6	12.7	6.4	25.4	19.0	1.6	1,000
4103502	20.0	1.6	15.9	6.4	23.8	20.0	1.6	1,000

NEW

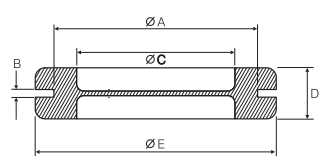


PVC Semi-Blind Grommets - White

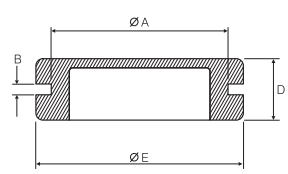
- Low cost protection for cables and wires
- Blank holes for later insertion of cables etc.
- Lock into round or oval holes
- Protect against ingress of water and dust
- White finish for applications such as lighting and white goods or appliances

Specifications: RoHS ✓
Material: PVC
Colour: White

Hardness: 50 to 65 Shore A



Type A



Type B

PART NUMBER	ØA	B	ØC	D	ØE	Panel Hole Dia.	Max Panel Thk.	Type	Unit Quantity
4103700	15.9	1.6	11.0	6.0	19.0	15.9	1.6	A	1,000
4103701	20.0	1.6	16.0	6.2	25.0	20.0	1.6	B	1,000
4103702	22.2	1.6	17.0	6.2	28.6	22.2	1.6	B	1,000

NEW

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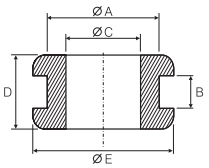
Specifications: RoHS ✓
Material: PVC
Colour: Black
Hardness: 48 to 60 Shore A

- Low cost protection for wires and passing through metal panels
- Quick and simple to install

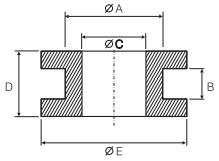


PART NUMBER	ØA	B	ØC	D	ØE	Panel Hole Dia.	Max Panel Thk.	Type	Unit Quantity
4102000	4.8	1.6	3.2	6.4	8.0	4.8	1.6	A	1,000
4102005	6.0	1.5	3.0	5.5	10.0	6.0	1.5	A	1,000
4101010	6.0	1.5	4.0	5.5	10.0	6.0	1.5	A	1,000
4102015	6.0	2.0	3.0	6.0	10.0	6.0	2.0	A	1,000
4102020	6.0	2.0	4.0	6.0	10.0	6.0	2.0	A	1,000
4102270	6.0	2.0	5.0	6.0	10.0	6.0	2.0	A	1,000
4102025	6.0	3.0	3.0	7.0	10.0	6.0	3.0	A	1,000
4102030	6.0	3.0	4.0	7.0	10.0	6.0	3.0	A	1,000
4101011	6.4	1.6	4.0	6.4	9.5	6.4	1.6	A	1,000
4101012	6.4	3.2	4.0	8.0	9.5	6.4	3.2	A	1,000
4102305	7.0	1.0	3.5	8.0	11.5	7.0	1.0	A	1,000
4101013	7.0	1.6	4.8	6.4	11.1	7.0	1.6	A	1,000
4102014	7.5	3.3	4.0	8.0	10.0	7.5	3.3	A	1,000
4102310	8.0	1.0	4.0	8.0	12.0	8.0	1.0	B	1,000
4102035	8.0	2.0	3.0	6.0	12.0	8.0	2.0	A	1,000
4102040	8.0	2.0	4.0	6.0	12.0	8.0	2.0	A	1,000
4102295	8.0	2.0	6.0	6.0	12.0	8.0	2.0	A	1,000
4102275	8.0	2.5	5.0	7.0	12.0	8.0	2.5	A	1,000
4102045	8.0	3.0	3.0	7.0	12.0	8.0	3.0	A	1,000
4102050	8.0	3.0	4.0	7.0	12.0	8.0	3.0	A	1,000
4102280	8.0	3.0	5.0	7.0	12.0	8.0	3.0	A	1,000
4102285	8.0	3.0	6.0	7.0	12.0	8.0	3.0	A	1,000
4102055	8.0	3.5	3.0	7.5	12.0	8.0	3.5	A	1,000
4102060	8.0	3.5	4.0	7.5	12.0	8.0	3.5	A	1,000
4102290	8.0	3.5	6.0	7.5	12.0	8.0	3.5	A	1,000
4102190	8.5	2.5	6.0	7.0	14.0	8.5	2.5	A	1,000
4102300	9.0	1.0	6.0	5.0	12.0	9.0	1.0	A	1,000
4101016	9.5	3.2	8.0	9.5	14.3	9.5	3.2	A	1,000
4102245	10.0	1.5	4.0	6.0	15.0	10.0	1.5	A	1,000
4102065	10.0	1.5	6.0	6.0	15.0	10.0	1.5	A	1,000
4101015	10.0	1.5	8.0	6.0	14.5	10.0	1.5	A	1,000
4102070	10.0	1.5	8.0	6.0	15.0	10.0	1.5	A	1,000
4102195	10.0	2.0	4.0	8.0	14.0	10.0	2.0	A	1,000
4102075	10.0	2.0	6.0	8.0	14.0	10.0	2.0	A	1,000
4102080	10.0	2.0	8.0	8.0	14.0	10.0	2.0	A	1,000
4102315	10.0	2.5	8.0	8.5	14.0	10.0	2.5	B	1,000
4102200	10.0	3.0	4.0	9.0	14.0	10.0	3.0	A	1,000
4102210	10.0	3.0	8.0	9.0	14.0	10.0	3.0	A	1,000
4102205	10.0	4.0	4.0	10.0	14.0	10.0	4.0	A	1,000
4102017	10.0	4.0	8.0	10.0	14.0	10.0	4.0	A	1,000
4102185	11.0	1.0	8.0	6.0	14.0	11.0	1.0	A	1,000
4102085	11.0	1.5	4.0	7.5	15.0	11.0	1.5	A	1,000
4102090	11.0	1.5	6.0	7.5	15.0	11.0	1.5	A	1,000
4102095	11.0	1.5	8.0	7.5	15.0	11.0	1.5	A	1,000
4102100	11.0	2.5	6.0	8.0	16.0	11.0	2.5	A	1,000
4102105	11.0	2.5	8.0	8.0	16.0	11.0	2.5	A	1,000
4102215	11.5	1.2	8.5	8.0	14.5	11.5	1.2	A	1,000
4102230	11.5	2.0	9.0	10.0	14.5	11.5	2.0	A	1,000
4102220	11.5	3.0	8.0	11.0	14.5	11.5	3.0	A	1,000
4102235	11.5	3.0	10.0	11.0	14.5	11.5	3.0	A	1,000
4102225	11.5	4.0	8.0	12.0	14.5	11.5	4.0	A	1,000
4102240	11.5	4.0	10.0	12.0	14.5	11.5	4.0	A	1,000
4102110	12.0	1.5	6.0	7.0	17.0	12.0	1.5	A	1,000
4102115	12.0	1.5	8.0	7.0	17.0	12.0	1.5	A	1,000
4102250	12.0	1.5	10.0	7.0	17.0	12.0	1.5	A	1,000
4102320	12.0	2.0	9.0	6.0	16.0	12.0	2.0	A	1,000
4102325	12.0	3.0	8.0	10.0	18.0	12.0	3.0	A	1,000
4102330	12.0	3.0	10.0	10.0	18.0	12.0	3.0	A	1,000
4101020	12.7	1.6	9.0	6.3	15.9	12.7	1.6	A	1,000
4101021	12.7	3.2	9.5	9.5	17.5	12.7	3.2	A	1,000
4102120	13.5	3.0	10.0	8.0	17.5	13.5	3.0	A	1,000
4102265	14.0	3.0	10.0	9.0	20.0	14.0	3.0	A	1,000
4101022	14.0	4.0	10.0	9.0	17.5	14.0	4.0	A	1,000

PART NUMBER	ØA	B	ØC	D	ØE	Panel Hole Dia.	Max Panel Thk.	Type	Unit Quantity
4102135	15.0	1.5	8.0	8.0	18.5	15.0	1.5	A	1,000
4102140	15.0	1.5	10.0	8.0	18.5	15.0	1.5	A	1,000
4102335	15.0	2.0	8.0	7.0	20.5	15.0	2.0	A	1,000
4102145	15.0	2.5	8.0	9.0	18.5	15.0	2.5	A	1,000
4102150	15.0	2.5	10.0	9.0	18.5	15.0	2.5	A	1,000
4102130	15.0	3.0	12.0	9.0	20.0	15.0	3.0	A	1,000
4102255	15.0	3.5	8.0	10.0	18.5	15.0	3.5	A	1,000
4102260	15.0	3.5	10.0	10.0	18.5	15.0	3.5	A	1,000
4102024	15.0	3.5	13.0	10.0	18.5	15.0	3.5	A	1,000
4101023	15.9	1.6	11.0	6.0	19.0	15.9	1.6	A	1,000
4102155	18.0	2.0	10.0	8.0	23.0	18.0	2.0	B	1,000
4102160	18.0	2.0	12.0	8.0	23.0	18.0	2.0	B	1,000
4102165	18.0	2.0	14.0	8.0	23.0	18.0	2.0	B	1,000
4102345	18.0	2.0	16.0	7.5	24.0	18.0	2.0	A	1,000
4102340	18.0	3.0	13.0	8.5	24.0	18.0	3.0	A	1,000
4102350	18.0	3.0	16.0	8.5	24.0	18.0	3.0	A	1,000
4102355	18.0	4.0	16.0	9.5	24.0	18.0	4.0	A	1,000
4101025	20.0	1.6	15.9	6.4	23.8	20.0	1.6	A	1,000
4101026	21.0	2.0	16.0	8.0	28.0	21.0	2.0	B	1,000
4102175	21.0	3.0	16.0	9.0	28.0	21.0	3.0	B	1,000
4102180	21.0	4.0	16.0	10.0	28.0	21.0	4.0	B	1,000
4102027	23.0	2.0	19.0	8.0	28.0	23.0	2.0	A	1,000
4102360	24.0	2.0	19.5	8.5	32.0	24.0	2.0	A	1,000
4102031	24.0	3.0	19.5	8.5	32.0	24.0	3.0	A	1,000
4102365	24.0	4.0	19.5	10.5	32.0	24.0	4.0	A	1,000
4102370	26.0	2.0	18.0	8.5	35.0	26.0	2.0	A	1,000
4102375	26.0	3.0	20.0	9.5	35.0	26.0	3.0	A	1,000
4102032	26.0	4.0	18.0	10.5	35.0	26.0	4.0	A	1,000
4102380	26.0	4.0	20.0	10.5	35.0	26.0	4.0	A	1,000
4101033	31.8	1.6	23.8	8.0	38.1	31.8	1.6	A	1,000
4101034	31.8	3.2	23.8	9.8	38.1	31.8	3.2	A	1,000
4101035	31.8	4.8	23.8	11.1	38.1	31.8	4.8	A	1,000
4102385	34.0	3.0	28.0	8.0	39.0	34.0	3.0	A	1,000
4101037	38.1	3.2	31.8	11.1	46.0	38.1	3.2	A	1,000
4101036	39.0	2.0	35.0	7.0	45.0	39.0	2.0	A	1,000
4101038	39.0	4.0	35.0	9.0	45.0	39.0	4.0	B	1,000
4101039	50.8	3.2	44.4	12.7	60.3	50.8	3.2	A	1,000
4101040	50.8	4.8	44.4	14.2	60.3	50.8	4.8	A	1,000



Type A



Type B

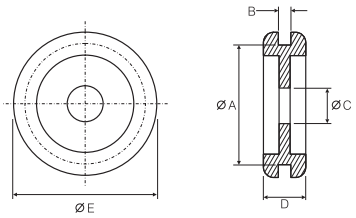


PVC Perforated Diaphragm Grommets

- Preformed hole allows quick cable entry
- Flexible diaphragm forms a dust tight seal around cable

Specifications: RoHS ✓
Material: PVC
Colour: Black

Hardness: 48 Shore A



PART NUMBER	ØA	B	ØC	D	ØE	Unit Quantity
4101555	15.0	1.5	4.0	8.0	19.0	1,000
4101056	15.0	3.0	4.0	9.5	19.0	1,000
4101057	15.0	4.0	4.0	10.5	19.0	1,000
4101058	21.0	2.0	6.5	8.0	28.0	1,000
4101059	21.0	3.0	6.5	9.0	28.0	1,000
4101060	21.0	4.0	6.5	10.0	28.0	1,000

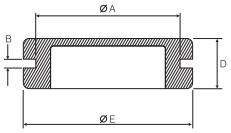


PVC Semi-Blind Grommets

- Low cost protection for wires and cables passing through metal panels
- Installs instantly - simply snap into hole
- Semi-Blind Grommets:
  Blank holes for later insertion of cables etc.
  Lock into round or oval holes
  Protect against ingress of water and dust

Specifications: RoHS ✓
Material: PVC
Colour: Black
Hardness: 55 Shore A

Tolerances: A, B, D & E = ± 0.40



Part Number	Part Dimensions				Chassis Dimensions		Unit Quantity
	ØA	B	D	ØE	Mounting Hole Diameter	Maximum Thickness	
4102536	4.8	1.6	6.4	8.0	4.8	1.6	1,000
4102510	6.0	1.5	5.5	10.0	6.0	1.5	1,000
4101515	10.0	1.5	7.0	15.0	10.0	1.5	1,000
4102517	10.0	2.0	8.0	14.0	10.0	2.0	1,000
4102535	11.0	1.5	7.5	15.0	11.0	1.5	1,000
4102520	12.0	1.5	7.0	17.0	12.0	1.5	1,000
4102521	15.0	1.5	8.0	18.5	15.0	1.5	1,000
4102522	16.0	1.6	8.0	25.0	16.0	1.6	1,000
4102537	18.0	2.0	8.0	23.0	18.0	2.0	1,000
4102538	18.0	3.0	8.5	24.0	18.0	3.0	1,000
4102524	18.0	4.0	9.5	24.0	18.0	4.0	1,000
4102525	21.0	2.0	8.0	28.0	21.0	2.0	1,000
4102539	21.0	3.0	9.0	28.0	21.0	3.0	1,000
4102540	21.0	4.0	10.0	28.0	21.0	4.0	1,000
4102527	23.0	2.0	8.0	28.0	23.0	2.0	1,000
4102541	24.0	2.0	8.5	32.0	24.0	2.0	1,000
4102542	24.0	3.0	9.5	32.0	24.0	3.0	1,000
4102543	24.0	4.0	10.5	32.0	24.0	4.0	1,000
4101531	26.0	2.0	8.5	35.0	26.0	2.0	1,000
4102544	26.0	2.0	8.5	35.0	26.0	2.0	1,000
4102545	26.0	3.0	9.5	35.0	26.0	3.0	1,000
4102546	26.0	4.0	10.5	35.0	26.0	4.0	1,000
4101532	28.0	2.0	8.0	35.0	28.0	2.0	1,000
4102547	34.0	2.0	7.0	39.0	34.0	2.0	1,000

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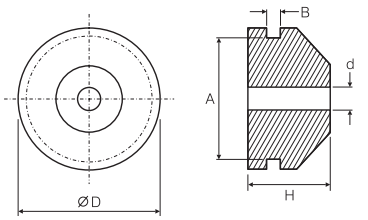
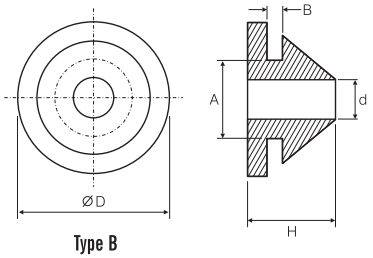
PVC Tapered Grommets



Type A



Type B

Specifications: RoHS ✓
Material: PVC
Colour: Black

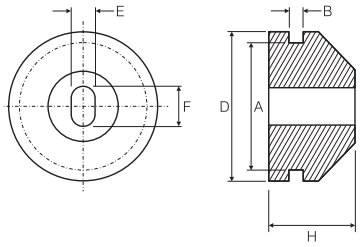
Hardness: 48 Shore A

- Lead-in taper aids installation in panel hole

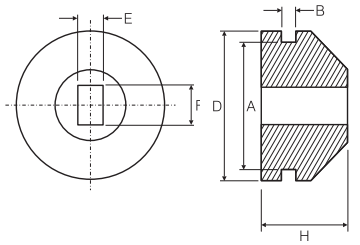


PART NUMBER	A	B	D	d	H	Type	Unit Quantity
4104001	7.0	2.0	11.0	5.0	9.0	A	1,000
4104002	7.0	1.5	11.0	5.0	9.0	A	1,000
4104003	11.0	2.0	13.5	7.0	9.0	A	1,000
4104010	6.0	2.0	9.5	2.0	8.0	B	1,000
4104015	6.0	2.0	9.5	2.5	8.0	B	1,000
4104020	6.0	2.0	9.5	3.0	8.0	B	1,000
4104025	6.0	2.0	9.5	3.5	8.0	B	1,000
4104030	6.0	2.0	9.5	4.0	8.0	B	1,000
4104035	6.0	2.0	9.5	4.5	8.0	B	1,000

PVC Tapered Grommets-Irregular Hole



Type A



Type B

Specifications: RoHS ✓
Material: PVC
Colour: Black

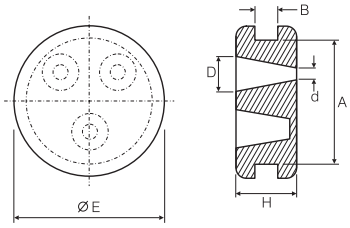
Hardness: 48 Shore A

- Lead-in taper aids installation in panel hole
- Oval and rectangular holes to suit flat cables

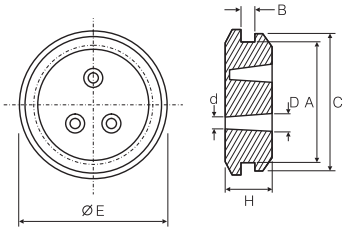


PART NUMBER	A	B	D	E	F	H	Type	Unit Quantity
4104040	12.0	2.0	14.0	2.5	4.5	9.0	A	1,000
4104041	12.0	1.5	14.0	3.0	5.0	9.0	B	1,000

PVC Multi-Hole Grommets



Type A

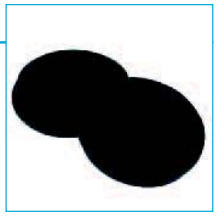


Type B

Specifications: RoHS ✓
Material: PVC
Colour: Black

Hardness: 48 Shore A

- Tapered holes help form a dust tight seal around cable
- Lead-in taper on type B aids installation in panel hole



PART NUMBER	A	B	C	D	d	E	H	Closed Holes	Type	Unit Quantity
4103000	10.0	1.0	-	3.0	2.0	13.0	5.0	1	A	1,000
4103001	10.0	2.0	-	3.0	2.0	13.0	6.0	1	A	1,000
4103002	10.0	3.0	-	3.0	2.0	13.0	7.0	1	A	1,000
4103003	10.0	1.0	-	3.0	2.0	13.0	5.0	2	A	1,000
4103004	10.0	2.0	-	3.0	2.0	13.0	6.0	2	A	1,000
4103005	10.0	3.0	-	3.0	2.0	13.0	7.0	2	A	1,000
4103006	10.0	1.0	-	3.0	2.0	13.0	5.0	3	A	1,000
4103007	10.0	2.0	-	3.0	2.0	13.0	6.0	3	A	1,000
4103008	10.0	3.0	-	3.0	2.0	13.0	7.0	3	A	1,000
4103009	10.0	1.0	-	3.0	2.0	13.0	5.0	0	A	1,000
4103010	10.0	2.0	-	3.0	2.0	13.0	6.0	0	A	1,000
4103011	10.0	3.0	-	3.0	2.0	13.0	7.0	0	A	1,000
4103020	19.0	1.8	23.0	3.0	2.0	25.0	6.8	1	B	1,000
4103021	19.0	2.0	23.0	3.0	2.0	25.0	7.0	1	B	1,000
4103022	19.0	1.8	23.0	3.0	2.0	25.0	6.8	2	B	1,000
4103023	19.0	2.0	23.0	3.0	2.0	25.0	7.0	2	B	1,000
4103033	19.0	1.8	23.0	3.0	2.0	25.0	6.8	3	B	1,000
4103034	19.0	2.0	23.0	3.0	2.0	25.0	7.0	3	B	1,000

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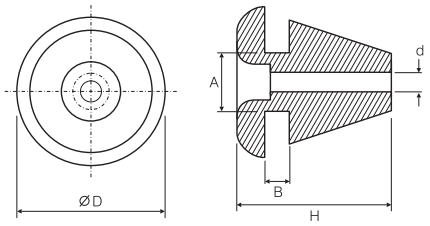
PVC Flared Entry Tapered Grommet



Specifications: RoHS ✓
Material: PVC
Colour: Black

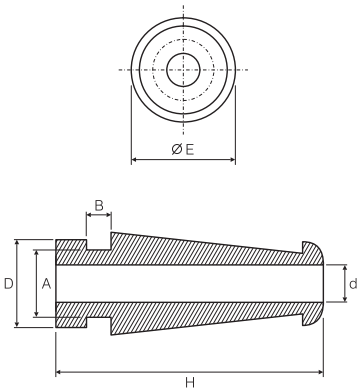
Hardness: 48 Shore A

- Lead-in taper aids installation in panel hole
- Flared entry aids installation of cable



PART NUMBER	A	B	ØD	d	H	Unit Quantity
4104042	8.0	2.0	14.0	3.5	12.0	1,000

PVC Sleeve Grommets



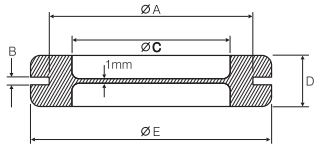
Specifications: RoHS ✓
Material: PVC
Colour: Black
Hardness: 48 Shore A

- Flexible sleeve prevents cable from bending sharply

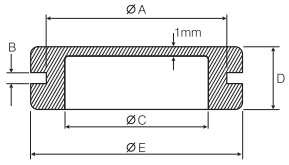


PART NUMBER	A	B	D	ØE	d	H	Unit Quantity
4105000	8.0	2.0	10.0	11.0	3.0	17.5	1,000
4105002	8.0	2.0	10.0	11.0	4.0	17.5	1,000
4105004	8.0	2.0	10.0	11.0	5.0	17.5	1,000
4105006	8.0	2.0	10.0	11.0	6.0	17.5	1,000
4105008	8.0	2.0	10.0	11.0	7.0	17.5	1,000

Rubber Semi-Blind Grommets



Type C

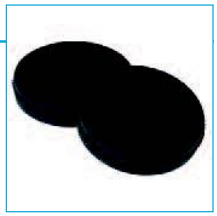


Type D

Specifications: RoHS ✓
Material: Natural Rubber - 48 Shore A
Colour: Black

Working Temperature: -20°C to +80°C

- Natural Rubber offers a good resistance to organic acids, alcohols and automotive brake fluid
- Low cost protection for cables and wires
- Blank holes for later insertion of cables etc.
- Lock into round or oval holes
- Protect against ingress of water and dust



PART NUMBER	ØA	B	ØC	D	ØE	Type	Unit Quantity
4110052	10.5	1.5	7.5	7.0	15.5	D	1,000
4110053	15.0	2.0	9.0	5.5	19.5	C	1,000
4110054	18.5	2.0	11.0	7.0	23.0	C	1,000
4110055	20.5	2.0	13.5	7.0	25.0	C	1,000
4110056	22.5	2.0	16.0	7.0	28.0	C	1,000
4110057	21.0	2.0	17.5	9.0	25.0	D	1,000
4110058	28.0	2.0	21.0	7.0	35.0	C	1,000
4110059	37.0	2.0	29.0	9.0	44.0	C	1,000
4110060	47.0	2.5	36.0	10.0	54.0	C	1,000
4110061	60.0	2.5	48.0	10.0	67.0	C	1,000
4110062	64.0	2.5	53.0	10.0	75.0	C	1,000
4110063	79.0	2.5	69.0	10.0	90.0	C	1,000

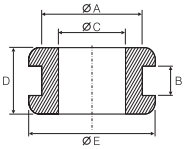


Rubber Open Grommets

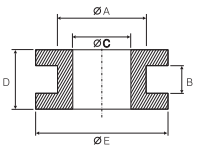
- Natural Rubber offers a good resistance to organic acids, alcohols and automotive brake fluid
- SBR grommets have good water resistant characteristics and are suitable for most moderate chemicals and wet or dry organic acids

Specifications: RoHS ✓

Colour: Black
Working Temperature:
SBR: -40°C to +105°C
NR (Natural Rubber): -20°C to +80°C
Nitrile: -40°C to +120°C



Type A



Type B

PART NUMBER	ØA	B	ØC	D	ØE	Type	Material	Unit Quantity
4112000	4.3	1.5	2.5	6.0	7.5	A	NR	1,000
4112002	6.0	1.5	3.3	6.5	9.5	A	NR	1,000
4112003	6.0	1.0	3.5	6.0	10	A	NR	1,000
4112004	6.0	2.5	3.8	6.0	9.0	A	NR	1,000
4112005	6.5	1.5	4.0	6.0	9.5	A	NR	1,000
4112033	6.5	2.5	5.0	9.0	10.0	B	NR	1,000
4112007	6.5	1.5	5.5	6.0	9.5	A	NR	1,000
4112052	7.0	1.5	3.5	7.0	10.0	B	NR	1,000
4112053	7.0	1.5	4.8	6.0	12.0	B	NR	1,000
4111020	7.9	3.2	4.8	6.4	11.8	A	SBR	1,000
4111023	7.9	6.4	4.8	9.5	11.8	A	SBR	500
4112034	8.5	1.0	3.5	8.0	10.3	B	NR	1,000
4112035	8.5	1.5	4.7	7.0	15.0	B	NR	1,000
4112036	8.5	1.0	5.0	6.5	15.0	B	NR	1,000
4112008	8.5	1.0	6.0	8.0	14.0	A	NR	1,000
4112009	9.0	1.5	6.6	5.5	13.5	A	NR	1,000
4112011	9.0	2.5	7.0	8.0	14.0	A	NR	1,000
4111033	9.5	2.4	3.2	8.0	12.7	A	SBR	1,000
4112006	9.5	1.5	4.5	9.0	13.0	A	NR	1,000
4111034	9.5	4.8	4.8	9.5	15.9	A	SBR	1,000
4112038	9.5	1.5	5.0	7.5	12.0	B	NR	1,000
4112037	9.5	3.0	5.5	9.5	14.0	B	NR	1,000
4112039	9.5	2.0	6.0	8.5	13.5	B	NR	1,000
4112012	9.5	6.0	7.0	12.0	14.0	A	NR	1,000
4112040	9.5	1.5	7.0	7.5	15.5	B	NR	1,000
4112046	10.0	1.5	8.0	6.3	13.5	B	NR	1,000
4111047	10.3	3.2	7.1	9.5	15.9	A	SBR	1,000
4112041	10.5	1.5	7.0	6.0	15.5	B	NR	1,000
4112013	10.5	1.5	9.0	6.5	16.0	A	NR	1,000
4112014	11.0	1.2	9.0	8.5	16.0	A	NR	1,000
4112015	11.0	1.5	9.0	6.5	16.0	A	NR	1,000
4111052	11.1	1.6	6.4	4.8	15.9	A	SBR	1,000
4111056	11.1	3.2	6.4	6.4	15.9	A	SBR	1,000
4111057	11.1	4.8	6.4	8.0	15.9	A	SBR	1,500
4111058	11.1	6.4	6.4	9.5	15.9	A	Nitrile	1,000
4112042	11.5	1.4	7.5	6.5	20.0	B	NR	1,000
4112001	12.5	1.0	3.0	8.0	16.0	A	NR	1,000
4112016	12.5	2.5	9.0	9.0	18.0	A	NR	1,000
4112017	12.5	1.5	9.8	7.5	17.5	A	NR	1,000
4111086	12.7	6.4	8.0	15.9	15.9	A	Nitrile	1,000
4111092	12.7	3.2	9.5	8.0	15.9	A	SBR	1,000
4111093	12.7	3.2	9.5	10.3	15.9	A	SBR	1,000
4111096	12.7	9.5	9.5	15.9	15.9	A	SBR	1,000
4112047	13.0	1.5	9.0	5.0	17.5	B	NR	1,000
4112043	13.5	1.5	8.0	7.0	19.0	B	NR	1,000
4112018	13.5	2.0	10.0	7.5	18.0	A	NR	1,000
4112020	13.5	2.0	11.0	12.0	25.0	A	NR	1,000
4112021	13.5	4.5	11.0	12.0	19.0	A	NR	1,000
4112010	14.0	1.0	6.8	7.5	18.5	A	NR	1,000
4112048	14.0	5.5	7.7	10.0	18.0	B	NR	1,000
4111114	14.3	3.2	8.0	9.5	20.7	A	SBR	1,000
4111120	14.3	4.8	9.5	9.5	20.7	A	SBR	1,000
4111123	14.3	1.6	11.1	6.4	19.1	A	SBR	1,000
4112023	14.5	1.5	12.0	6.5	20.0	A	NR	1,000
4112022	15.5	6.0	11.0	14.0	22.0	A	NR	1,000

PART NUMBER	ØA	B	ØC	D	ØE	Type	Material	Unit Quantity
4111127	15.9	3.2	4.8	6.4	22.2	A	Nitrile	1,000
4111130	15.9	1.6	9.5	8.0	22.2	A	SBR	1,000
4111132	15.9	3.2	9.5	9.5	22.2	A	SBR	1,000
4111133	15.9	4.8	9.5	11.1	22.2	A	SBR	1,000
4111136	15.9	9.5	10.3	15.9	20.7	A	SBR	2,500
4111137	15.9	1.6	12.7	7.1	20.7	A	SBR	1,000
4112026	16.0	5.0	12.5	12.0	21.0	A	NR	1,000
4111140	16.0	2.8	12.7	7.6	20.6	A	SBR	600
4112024	16.5	1.7	12.9	10.0	22.0	A	NR	1,000
4112049	17.0	9.0	13.5	16.0	30.0	B	NR	1,000
4112019	17.5	1.5	11	6.4	20.5	A	NR	1,000
4111152	17.5	3.2	11.1	9.5	23.8	A	SBR	1,000
4111153	17.5	4.8	11.1	11.1	23.8	A	SBR	1,000
4111154	17.5	6.4	11.1	12.7	23.8	A	SBR	1,000
4111155	17.5	1.6	12.7	6.4	22.2	A	SBR	1,000
4112030	18.5	2.0	16.0	11.0	24.0	A	NR	1,000
4112025	19.0	1.5	13.0	7.5	23.0	A	NR	1,000
4111172	19.1	4.8	8.0	11.1	25.4	A	SBR	1,000
4111193	20.6	3.2	12.7	9.5	27.0	A	SBR	500
4111197	20.6	1.6	14.3	8.0	27.0	A	SBR	1,000
4111200	20.6	6.4	14.3	12.7	27.0	A	SBR	500
4112050	21.0	0.7	18.0	8.0	31.5	B	NR	1,000
4112028	21.5	3.0	14.5	10.0	29.0	A	NR	1,000
4112029	21.5	6.0	14.5	13.5	29.5	A	NR	1,000
4112044	21.5	5.0	17.5	11.5	34	B	NR	1,000
4112027	22.0	1.5	14.0	10.5	31.5	A	NR	1,000
4111242	25.4	1.6	9.5	6.4	31.8	A	SBR	1,000
4111258	25.4	1.6	19.1	7.5	31.8	A	SBR	500
4111259	25.4	3.2	19.1	9.5	30.2	A	SBR	1,000
4111279	28.6	6.5	20.4	12.9	34.9	A	SBR	1,000
4111281	28.6	2.4	22.2	8.7	38.1	A	SBR	500
4112051	29.0	1.0	23.8	7.5	35.0	B	NR	1,000
4111304	31.8	3.2	22.2	12.7	41.3	A	SBR	1,000
4111306	31.8	4.8	22.2	14.3	41.3	A	SBR	600
4111307	31.8	6.4	22.2	15.9	41.3	A	SBR	700
4112054	31.8	1.8	25.4	9.8	39.7	A	NR	1,000
4111322	34.9	3.2	25.4	12.7	44.5	A	SBR	1,100
4111324	34.9	6.4	25.4	15.9	44.5	A	SBR	600
4111349	38.1	1.6	31.8	8.7	47.6	A	SBR	1,000
4111350	38.1	3.2	31.8	10.3	47.6	A	SBR	600
4111000	38.1	4.5	25.4	12.5	31.8	A	NR	1000
4111351	38.1	4.8	31.8	15.9	50.8	A	SBR	500
4111353	38.1	6.4	31.8	12.7	44.5	A	SBR	1,000
4112032	40.0	1.5	34.0	8.0	49.0	A	NR	1,000
4111363	41.3	3.2	33.4	11.1	50.8	A	SBR	500
4111369	44.4	1.6	38.1	11.1	54.0	A	SBR	500
4111371	44.4	3.2	38.1	12.7	54.0	A	SBR	500
4111372	44.4	4.8	38.1	14.3	54.0	A	SBR	420
4111373	44.4	6.4	38.1	12.7	50.8	A	SBR	500
4111375	44.4	9.5	38.1	19.1	54.0	A	SBR	300
4111387	50.8	2.4	38.1	9.5	60.3	A	SBR	450
4111390	50.8	4.8	41.3	19.1	57.2	A	SBR	300
4111392	50.8	3.2	44.5	9.5	60.3	A	SBR	500
4111393	50.8	6.4	44.5	13.5	63.5	A	SBR	750
4112045	65.5	7.0	45.0	15.5	73.0	B	NR	1,000

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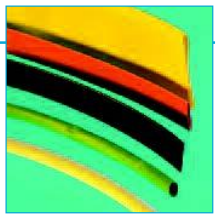
Heat Shrink Tubing - 2:1 Standard Wall



Specifications:	RoHS ✓
Material:	Flame retardant crosslinked Polyolefin
Colour:	See Tables
Shrink temperature:	100°C
Working temperature:	-55°C to +125°C
Voltage:	600V Ratio: 2:1 Standard: UL 224 125°C

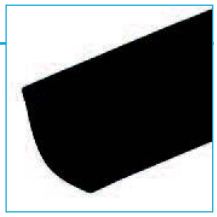
- High quality 2:1 standard wall heat shrink tubing

TECHNICAL DATA		
Property	**Data**	**Condition**
Tensile Strength	>10.4MPa	
Tensile Strength After Aging	>7.28MPa	158°C 168 hrs
Elongation	>200%	
Elongation After Aging	>100%	134°C 60 days
Longitudinal Change	<5%	
Radial Shrinking Ratio	>50%	
Flammability	UL94VW-1	
Dielectric Strength	>15kV/mm	
Volume Resistivity	10^{14} -cm	
Corrosion	No Corrosion	
Copper Stability	>100%	
Concentricity	>65%	

PART NUMBER (Black)	Pack Size	As Supplied		After Recovery		Unit Quantity
		Minimum Inside Diameter	Wall Thickness	Inside Diameter	Wall Thickness	
2080000A	300m Roll	1.2	0.20	0.6	0.42	1
2080001A	300m Roll	1.6	0.20	0.8	0.42	1
2080002A	150m Roll	2.4	0.22	1.2	0.47	1
2080003A	150m Roll	3.2	0.25	1.6	0.50	1
2080004A	75m Roll	4.8	0.25	2.4	0.50	1
2080005A	60m Roll	6.4	0.30	3.2	0.64	1
2080006A	60m Roll	9.5	0.36	4.7	0.64	1
2080007A	60m Roll	12.7	0.36	6.4	0.64	1
2080008A	60m Roll	19.1	0.40	9.5	0.77	1
2080009A	30m Roll	25.4	0.46	12.7	0.89	1

PART NUMBER & COLOUR									Pack Size	As Supplied		After Recovery		Unit Quantity
Black	Yellow	Red	Blue	White	Green	Brown	Grey	Green /Yellow		Minimum Inside Diameter	Wall Thickness	Inside Diameter	Wall Thickness	
2080000	**2082000**	**2083000**	**2084000**	**2085000**	**2086000**	**2087000**	**2088000**	**2089000**	20m Mini-Box	1.2	0.20	0.6	0.42	1
2080001	**2082001**	**2083001**	**2084001**	**2085001**	**2086001**	**2087001**	**2088001**	**2089001**	17m Mini-Box	1.6	0.20	0.8	0.42	1
2080002	**2082002**	**2083002**	**2084002**	**2085002**	**2086002**	**2087002**	**2088002**	**2089002**	15m Mini-Box	2.4	0.22	1.2	0.47	1
2080003	**2082003**	**2083003**	**2084003**	**2085003**	**2086003**	**2087003**	**2088003**	**2089003**	15m Mini-Box	3.2	0.25	1.6	0.50	1
2080004	**2082004**	**2083004**	**2084004**	**2085004**	**2086004**	**2087004**	**2088004**	**2089004**	12m Mini-Box	4.8	0.25	2.4	0.50	1
2080005	**2082005**	**2083005**	**2084005**	**2085005**	**2086005**	**2087005**	**2088005**	**2089005**	12m Mini-Box	6.4	0.30	3.2	0.64	1
2080006	**2082006**	**2083006**	**2084006**	**2085006**	**2086006**	**2087006**	**2088006**	**2089006**	8m Mini-Box	9.5	0.36	4.7	0.64	1
2080007	**2082007**	**2083007**	**2084007**	**2085007**	**2086007**	**2087007**	**2088007**	**2089007**	8m Mini-Box	12.7	0.36	6.4	0.64	1
2080008	**2082008**	**2083008**	**2084008**	**2085008**	**2086008**	**2087008**	**2088008**	**2089008**	5m Mini-Box	19.1	0.40	9.5	0.77	1
2080009	**2082009**	**2083009**	**2084009**	**2085009**	**2086009**	**2087009**	**2088009**	**2089009**	5m Mini-Box	25.4	0.46	12.7	0.89	1
2080010	**2082010**	**2083010**	**2084010**	**2085010**	**2086010**	**2087010**	**2088010**	**2089010**	30m Reel	38.1	0.46	19.0	1.01	1
2080011	**2082011**	**2083011**	**2084011**	**2085011**	**2086011**	**2087011**	**2088011**	**2089011**	30m Reel	50.8	0.52	25.4	1.15	1
2080012	**2082012**	**2083012**	**2084012**	**2085012**	**2086012**	**2087012**	**2088012**	**2089012**	15m Reel	76.2	0.70	38.1	1.40	1
2080013	**2082013**	**2083013**	**2084013**	**2085013**	**2086013**	**2087013**	**2088013**	**2089013**	15m Reel	101.6	0.70	50.8	1.40	1

Dual Wall Heat Shrink Tubing - 3:1 Adhesived Lined



Specifications:	RoHS ✓
Material: Crosslinked Polyolefin	Colour: Black
Shrink temperature: 100°C	
Working temperature: -55°C to +125°C	
Voltage: 600V	Ratio: 3:1
Standard: UL 224 125°C	

- High quality 3:1 dual wall heat shrink tubing

PART NUMBER	As Supplied		After Recovery		Adhesive Wall	Unit Quantity (1.2m lengths)
	Minimum Inside Diameter	Wall Thickness	Inside Diameter	Wall Thickness		
2080050	3.0	0.57	1.0	1.00	0.50	1
2080051	6.0	0.57	2.0	1.00	0.50	1
2080052	9.0	0.64	3.0	1.40	0.61	1
2080053	12.0	0.80	4.0	1.78	0.76	1
2080054	18.0	0.93	6.0	2.25	0.76	1
2080055	24.0	1.00	8.0	2.54	1.02	1
2080056	39.0	1.00	13.0	2.54	1.02	1



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CHAPTER 9

WIRE & CABLE

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BOCUBE is a new range of enclosure boxes that can be opened with a screwdriver and snapped shut by hand, thereby saving time during installation or maintenance.

KEY BENEFITS:

- Time saving patented hinged, quick-release technology – open either side with a screwdriver, snap shut by hand
- No screws to drop or misplace
- IP66/67 foam seal guarantees high ingress protection for wet & dusty environments
- Available in ABS or UL94V-0 Polycarbonate
- Available in a range of sizes and colours to suit all applications
- Can be supplied pre-customsied with holes machined and components mounted

SEE OUR FULL STANDARD RANGE IN CHAPTER 2 OR AT:
optimascomponents.com

OPTIMAS



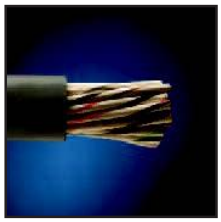
Xtra-Guard® 1 Multicore Unshielded
P9-2



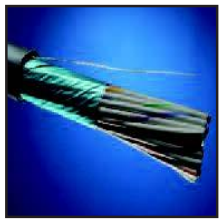
Xtra-Guard® 1 Multicore Foil Shielded
P9-2



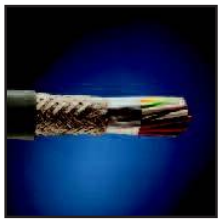
Xtra-Guard® 1 Multicore Supra-Shield
P9-3



Xtra-Guard® 1 Multipair Unshielded
P9-3



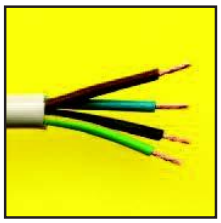
Xtra-Guard® 1 Multipair Foil Shielded
P9-4



Xtra-Guard® 1 Multipair Supra-Shield
P9-4



Flat 2 Core PVC Cable 2192Y
P9-5



Round 2, 3, 4 & 5 Core PVC Cable 218*Y & 318*Y
P9-5



DEF61-12 pt 6 & BS4808 pt 2 Equipment Wire
P9-5



EcoWire UL11028 Style Single Core Hook Up Wires
P9-6



DEF61-12 pt 18 Type 1 “LFH” Equipment Wire
P9-6



Tri-Rated Single Core PVC Insulated Wire
P9-6



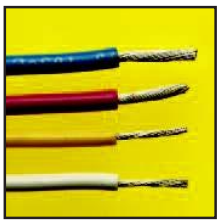
BS3G210 PTFE Insulated Equipment Wire
P9-7



UL1007/1569 Style Single Core Hook-Up Wire
P9-7



UL1007/1569 Hook-Up Wire Kits
P9-7



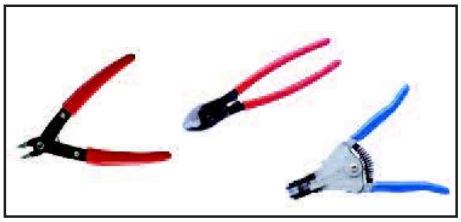
UL1015 Style Single Core Hook-Up Wire
P9-8



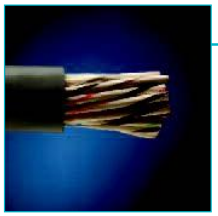
UL1061 Style Single Core Hook-Up Wire
P9-8



UL1213 Style TFE Insulated Single Core Hook-Up Wire
P9-8



For our range of wire strippers & cutters - visit our website:
www.optimascomponents.com



Xtra-Guard® 1 Multicore Unshielded

AlphaWire

- Unique Premium-Grade PVC insulation and jacket provides easier routing of cables in tight spaces
- Fast, easy stripping of insulation and jacket to reduce installation and connection time and cost
- Light-duty resistance to most oils per UL Class 43
- Resistance to ambient temperatures up to 105°C
- Ultraviolet (UV) stabilized

Specifications: RoHS ✓

Jacket Colour: Slate
Jacket Material: Premium Grade PVC
Colour Code:
Conductor: Stranded Tinned Copper
Insulation: Colour-Coded PVC
UL Type CM, AWM Style 2464 Overall
UL AWM Style 10002 Conductors
CSA CMG FT4
Voltage Rating: 300 Volt
Operating Temperature:
-30°C to 105°C CM & CMG
-30°C to 80°C AWM 2464
Passes UL VW-1 Flame Test
Passes CSA FT4 Flame Test

24 AWG (0.23mm²), 7 x 0.20mm

PART NUMBER		No. of Conductors	Insulation Thickness	Nom. Dia.	Jacket Thk	Unit Qty (Reels)
Reel Length 30.5M	Reel Length 305M					
8580001	8581001	2	0.25	3.96	0.81	1
8580002	8581002	3	0.25	4.14	0.81	1
8580003	8581003	4	0.25	4.44	0.81	1
8580004	8581004	6	0.25	5.11	0.81	1
8580005	8581005	8	0.25	5.46	0.81	1
8580006	8581006	10	0.25	6.2	0.81	1
8580007	8581007	15	0.25	6.88	0.81	1
8580008	8581008	20	0.25	7.62	0.81	1
8580009	8581009	25	0.25	8.43	0.81	1
8580010	8581010	30	0.25	8.89	0.81	1
8580011	8581011	40	0.25	9.91	0.81	1
8580012	8581012	50	0.25	10.9	0.81	1

22 AWG (0.35mm²), 7 x 0.25mm

PART NUMBER	No. of Conductors	Insulation Thickness	Nom. Dia.	Jacket Thk	Unit Qty (Reels)
Reel Length 30.5M					
8580013	2	0.25	4.27	0.81	1
8580014	3	0.25	4.47	0.81	1
8580015	4	0.25	4.8	0.81	1
8580016	6	0.25	5.56	0.81	1
8580017	8	0.25	5.97	0.81	1
8580018	10	0.25	6.81	0.81	1
8580019	15	0.25	7.59	0.81	1
8580020	20	0.25	8.41	0.81	1
8580021	25	0.25	9.35	0.81	1
8580022	30	0.25	9.88	0.81	1
8580023	40	0.25	11.02	0.81	1
8580024	50	0.25	12.14	0.81	1
8580025	60	0.25	13.16	0.81	1

20 AWG (0.56mm²), 7 x 0.32mm

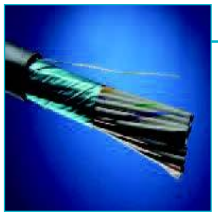
PART NUMBER	No. of Conductors	Insulation Thickness	Nom. Dia.	Jacket Thk	Unit Qty (Reels)
Reel Length 30.5M					
8580026	2	0.43	5.28	0.81	1
8580027	3	0.43	5.56	0.81	1
8580028	4	0.43	6.05	0.81	1
8580029	6	0.43	7.11	0.81	1
8580030	8	0.43	7.67	0.81	1
8580031	10	0.43	8.84	0.81	1
8580032	15	0.43	9.93	0.81	1
8580033	20	0.43	11.1	0.81	1
8580034	25	0.43	12.4	0.81	1
8580035	30	0.43	13.13	0.81	1
8580036	40	0.43	15.8	1.35	1
8580037	50	0.43	17.37	1.35	1

Reel Length = See tables above

SLATE BEIGE WHITE
RED BLACK BLUE
GREEN YELLOW ORANGE

Jacketing options
Xtra-Guard cables are available in a range of longlasting colours for fast, easy identification, for safety reasons, and for matching the colour of your system. Custom colours are also available.

Please contact our Sales Dept to discuss your requirements.



Xtra-Guard® 1 Multicore Foil Shielded

AlphaWire

- Unique Premium-Grade PVC insulation and jacket provides easier routing of cables in tight spaces
- Fast, easy stripping of insulation and jacket to reduce installation and connection time and cost
- Light-duty resistance to most oils per UL Class 43
- Resistance to ambient temperatures up to 105°C
- Ultraviolet (UV) stabilized
- Nylon rip cord for ease of jacket stripping

Specifications: RoHS ✓

Jacket Colour: Slate
Jacket Material: Premium Grade PVC
Conductor: Stranded Tinned Copper
Insulation: Colour-Coded PVC
Shield: Aluminum/Polyester Foil facing in with stranded tinned. Copper drain wire equal in size to insulated conductors of cable.
UL Type CM, AWM Style 2464 Overall
UL AWM Style 10002 Conductors
CSA CMG FT4
Voltage Rating: 300 Volt
Operating Temperature:
-30°C to 105°C CM & CMG
-30°C to 80°C AWM 2464
Passes UL VW-1 Flame Test
Passes CSA FT4 Flame Test

24 AWG (0.23mm²), 7 x 0.20mm

PART NUMBER	Number of Conductors	Insulation Thickness	Nominal Diameter	Jacket Thickness	Unit Quantity (Reels)
8580050	2	0.25	4.06	0.81	1
8580051	3	0.25	4.24	0.81	1
8580052	4	0.25	4.55	0.81	1
8580053	6	0.25	5.21	0.81	1
8580054	8	0.25	5.56	0.81	1
8580055	10	0.25	6.3	0.81	1
8580056	15	0.25	6.98	0.81	1
8580057	20	0.25	7.72	0.81	1
8580058	25	0.25	8.53	0.81	1
8580059	30	0.25	8.99	0.81	1
8580060	40	0.25	10.01	0.81	1
8580061	50	0.25	11	0.81	1
8580062	60	0.25	11.89	0.81	1
8580063	70	0.25	12.83	0.81	1

Reel Length = 30.5m (100ft)

22 AWG (0.35mm²), 7 x 0.25mm

PART NUMBER	Number of Conductors	Insulation Thickness	Nominal Diameter	Jacket Thickness	Unit Quantity (Reels)
8580064	2	0.25	4.37	0.81	1
8580065	3	0.25	4.57	0.81	1
8580066	4	0.25	4.9	0.81	1
8580067	6	0.25	5.66	0.81	1
8580068	8	0.25	6.07	0.81	1
8580069	10	0.25	6.91	0.81	1
8580070	15	0.25	7.7	0.81	1

Reel Length = 30.5m (100ft)

SLATE BEIGE WHITE
RED BLACK BLUE
GREEN YELLOW ORANGE

Jacketing options
Xtra-Guard cables are available in a range of longlasting colours for fast, easy identification, for safety reasons, and for matching the colour of your system. Custom colours are also available.

Please contact our Sales Dept to discuss your requirements.

Need some Heat Shrink Tubing?

See pages 8-15



OPTIMAS

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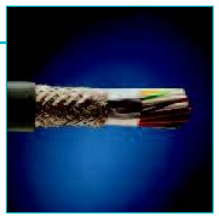
Xtra-Guard® 1 Multicore Supra-Shield®



Specifications: RoHS ✓

Jacket Colour: Slate
Jacket Material: Premium Grade PVC
Colour Code:
Conductor: Stranded Tinned Copper
Insulation: Colour-Coded PVC

SUPRASHIELD:
Aluminum/Polyester/Aluminum foil
with stranded tinned copper drain wire equal in size to insulated conductors of cable plus 70% overall braid of tinned copper.
UL Type CM, AWM Style 2464 Overall
UL AWM Style 10002 Conductors
CSA CMG FT4
Voltage Rating: 300 Volt
Operating Temperature:
-30°C to 105°C CM & CMG
-30°C to 80°C AWM 2464
Passes UL VW-1 Flame Test
Passes CSA FT4 Flame Test

- Unique Premium-Grade PVC insulation and jacket provides easier routing of cables in tight spaces
- Fast, easy stripping of insulation and jacket to reduce installation and connection time and cost
- Light-duty resistance to most oils per UL Class 43
- Resistance to ambient temperatures up to 105°C
- Ultraviolet (UV) stabilized
- Nylon rip cord for ease of jacket stripping

24 AWG (0.23mm²), 7 x 0.20mm

PART NUMBER	No. of Conductors	Insulation Thickness	Nom. Dia.	Jacket Thk	Unit Quantity (Reels)
8580100	2	0.25	4.67	0.81	1
8580101	3	0.25	4.85	0.81	1
8580102	4	0.25	5.16	0.81	1
8580103	6	0.25	5.82	0.81	1
8580104	8	0.25	6.17	0.81	1
8580105	10	0.25	6.91	0.81	1
8580106	15	0.25	7.59	0.81	1
8580107	20	0.25	8.33	0.81	1
8580108	25	0.25	9.14	0.81	1
8580109	30	0.25	9.6	0.81	1
8580110	40	0.25	10.62	0.81	1
8580111	50	0.25	11.61	0.81	1

Reel Length = 30.5m (100ft)

22 AWG (0.35mm²), 7 x 0.25mm

PART NUMBER	No. of Conductors	Insulation Thickness	Nom. Dia.	Jacket Thk	Unit Quantity (Reels)
8580112	2	0.25	4.98	0.81	1
8580113	3	0.25	5.18	0.81	1
8580114	4	0.25	5.51	0.81	1
8580115	6	0.25	6.27	0.81	1
8580116	8	0.25	6.68	0.81	1
8580117	10	0.25	7.52	0.81	1

Reel Length = 30.5m (100ft)

20 AWG (0.56mm²), 7 x 0.32mm

PART NUMBER	No. of Conductors	Insulation Thickness	Nom. Dia.	Jacket Thk	Unit Quantity (Reels)
8580118	2	0.41	5.99	0.81	1
8580119	3	0.41	6.27	0.81	1
8580120	4	0.41	6.76	0.81	1
8580121	6	0.41	7.82	0.81	1
8580122	8	0.41	8.38	0.81	1
8580123	10	0.41	9.55	0.81	1
8580124	15	0.41	10.64	0.81	1
8580125	20	0.41	11.81	0.81	1
8580126	25	0.41	13.11	0.81	1
8580127	30	0.41	13.84	0.81	1
8580128	40	0.41	16.66	1.35	1
8580129	50	0.41	18.24	1.35	1
8580130	60	0.41	19.66	1.35	1

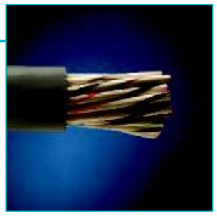
Reel Length = 30.5m (100ft)

SLATE | BEIGE | WHITE
RED | BLACK | BLUE
GREEN | YELLOW | ORANGE

Jacketing options
Xtra-Guard cables are available in a range of longlasting colours for fast, easy identification, for safety reasons, and for matching the colour of your system. Custom colours are also available.

Please contact our Sales Dept to discuss your requirements.

Xtra-Guard® 1 Multipair Unshielded



Specifications: RoHS ✓

Jacket Colour: Slate
Jacket Material: Premium Grade PVC
Colour Code: Chart B (see pg 9-15)
Conductor: Stranded Tinned Copper
Insulation: Colour-Coded PVC
UL Type CM, AWM Style 2464 Overall
UL AWM Style 10002 Conductors
CSA CMG FT4
Voltage Rating: 300 Volt
Operating Temperature:
-30°C to 105°C CM & CMG
-30°C to 80°C AWM 2464
Passes UL VW-1 Flame Test
Passes CSA FT4 Flame Test

- Unique Premium-Grade PVC insulation and jacket provides easier routing of cables in tight spaces
- Fast, easy stripping of insulation and jacket to reduce installation and connectorization time and cost
- Light-duty resistance to most oils per UL Class 43
- Resistance to ambient temperatures up to 105°C
- Ultraviolet (UV) stabilized

24 AWG (0.23mm²), 7 x 0.20mm

PART NUMBER	Number of Pairs	Insulation Thickness	Nominal Diameter	Jacket Thickness	Unit Quantity (Reels)
8580150	1	0.25	3.96	0.81	1
8580151	2	0.25	5.38	0.81	1
8580152	3	0.25	5.69	0.81	1
8580153	4	0.25	6.17	0.81	1
8580154	5	0.25	6.71	0.81	1
8580155	6	0.25	7.26	0.81	1
8580156	9	0.25	8.43	0.81	1
8580157	11	0.25	9.07	0.81	1
8580158	15	0.25	10.19	0.81	1

Reel Length = 30.5m (100ft)

SLATE | BEIGE | WHITE
RED | BLACK | BLUE
GREEN | YELLOW | ORANGE

Jacketing options
Xtra-Guard cables are available in a range of longlasting colours for fast, easy identification, for safety reasons, and for matching the colour of your system. Custom colours are also available.

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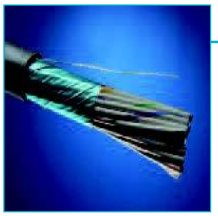
Need some Heat Shrink Tubing?

See pages 8-15





Xtra-Guard® 1 Multipair Foil Shielded

AlphaWire

- Unique Premium-Grade PVC insulation and jacket provides easier routing of cables in tight spaces
- Fast, easy stripping of insulation and jacket to reduce installation and connection time and cost
- Light-duty resistance to most oils per UL Class 43
- Resistance to ambient temperatures up to 105°C
- Ultraviolet (UV) stabilized
- Nylon rip cord for ease of jacket stripping

Specifications: RoHS ✓

Jacket Colour: Slate
Jacket Material: Premium Grade PVC
Conductor: Stranded Tinned Copper
Insulation: Colour-Coded PVC
Shield: Aluminum/Polyester Foil facing in with stranded tinned. Copper drain wire equal in size to insulated conductors of cable.
UL Type CM, AWM Style 2464 Overall
UL AWM Style 10002 Conductors
CSA CMG FT4
Voltage Rating: 300 Volt
Operating Temperature: -30°C to 105°C CM & CMG
-30°C to 80°C AWM 2464
Passes UL VW-1 Flame Test
Passes CSA FT4 Flame Test

24 AWG (0.23mm²), 7 x 0.20mm

PART NUMBER	Number of Pairs	Insulation Thickness	Nominal Diameter	Jacket Thickness	Unit Quantity (Reels)
8580200	1	0.25	4.06	0.81	1
8580201	2	0.25	5.49	0.81	1
8580202	3	0.25	5.79	0.81	1
8580203	4	0.25	6.27	0.81	1
8580204	5	0.25	6.81	0.81	1
8580205	6	0.25	7.37	0.81	1
8580206	9	0.25	8.53	0.81	1
8580207	11	0.25	9.17	0.81	1
8580208	15	0.25	10.29	0.81	1
8580209	19	0.25	11	0.81	1
8580210	27	0.25	13.11	0.81	1

Reel Length = 30.5m (100ft)

22 AWG (0.35mm²), 7 x 0.25mm

PART NUMBER	Number of Pairs	Insulation Thickness	Nominal Diameter	Jacket Thickness	Unit Quantity (Reels)
8580211	1	0.25	4.37	0.81	1
8580212	2	0.25	5.99	0.81	1
8580213	3	0.25	6.32	0.81	1
8580214	4	0.25	6.88	0.81	1
8580215	5	0.25	7.49	0.81	1
8580216	6	0.25	8.13	0.81	1
8580217	9	0.25	9.45	0.81	1
8580218	11	0.25	10.16	0.81	1
8580219	15	0.25	11.46	0.81	1
8580220	19	0.25	12.27	0.81	1
8580221	27	0.25	15.72	1.35	1

Reel Length = 30.5m (100ft)

SLATE | BEIGE | WHITE
RED | BLACK | BLUE
GREEN | YELLOW | ORANGE

Jacketing options
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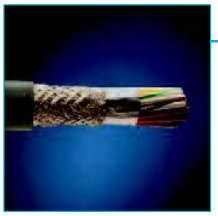

Xtra-Guard® 1 Multipair Supra-Shield®

AlphaWire

- Unique Premium-Grade PVC insulation and jacket provides easier routing of cables in tight spaces
- Fast, easy stripping of insulation and jacket to reduce installation and connection time and cost
- Light-duty resistance to most oils per UL Class 43
- Resistance to ambient temperatures up to 105°C
- Ultraviolet (UV) stabilized
- Nylon rip cord for ease of jacket stripping

Specifications: RoHS ✓

Jacket Colour: Slate
Jacket Material: Premium Grade PVC
Conductor: Stranded Tinned Copper
Insulation: Colour-Coded PVC
SUPRASHIELD: Aluminum/Polyester/Aluminum foil with stranded tinned copper drain wire equal in size to insulated conductors of cable plus 70% overall braid of tinned copper.
UL Type CM, AWM Style 2464 Overall
UL AWM Style 10002 Conductors
CSA CMG FT4
Voltage Rating: 300 Volt
Operating Temperature: -30°C to 105°C CM & CMG
-30°C to 80°C AWM 2464
Passes UL VW-1 Flame Test
Passes CSA FT4 Flame Test

24 AWG (0.23mm²), 7 x 0.20mm

PART NUMBER	Number of Pairs	Insulation Thickness	Nominal Diameter	Jacket Thickness	Unit Quantity (Reels)
8580250	1	0.25	4.67	0.81	1
8580251	2	0.25	6.1	0.81	1
8580252	3	0.25	6.4	0.81	1
8580253	4	0.25	6.88	0.81	1
8580254	5	0.25	7.42	0.81	1
8580255	6	0.25	7.98	0.81	1
8580256	9	0.25	9.14	0.81	1
8580257	11	0.25	9.78	0.81	1
8580258	15	0.25	10.9	0.81	1
8580259	19	0.25	11.61	0.81	1
8580260	27	0.25	13.72	0.81	1
8580261	51	0.25	18.77	1.35	1

Reel Length = 30.5m (100ft)

22 AWG (0.35mm²), 7 x 0.25mm

PART NUMBER	Number of Pairs	Insulation Thickness	Nominal Diameter	Jacket Thickness	Unit Quantity (Reels)
8580262	1	0.25	4.98	0.81	1
8580263	2	0.25	6.6	0.81	1
8580264	3	0.25	6.93	0.81	1
8580265	4	0.25	7.49	0.81	1
8580266	5	0.25	8.1	0.81	1
8580267	6	0.25	8.74	0.81	1
8580268	9	0.25	10.06	0.81	1
8580269	11	0.25	10.77	0.81	1
8580270	15	0.25	12.06	0.81	1
8580271	19	0.25	12.88	0.81	1
8580272	27	0.25	16.48	1.35	1

Reel Length = 30.5m (100ft)

SLATE | BEIGE | WHITE
RED | BLACK | BLUE
GREEN | YELLOW | ORANGE

Jacketing options
Xtra-Guard cables are available in a range of longlasting colours for fast, easy identification, for safety reasons, and for matching the colour of your system. Custom colours are also available.

Please contact our Sales Dept to discuss your requirements.

Need some Heat Shrink Tubing?

See pages 8-15



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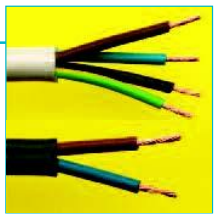
PVC Insulated Flexible Mains Cables



Specifications: RoHS ✓

Standards: In accordance with BS6500 and Cenelec HD21.5
Conductors: Flexible Class 5 conductors to BS6360
Insulation: PVC insulation Type TI.2 to BS7655
Core identification: 2 core - blue, brown
3 core - green/yellow, blue, brown
4 core - green/yellow, brown, black, grey
5 core - green/yellow, brown, black, grey, blue
Sheath: PVC sheath Type TM-2 to BS7655 (black or white). Flame retardant to BS EN 60332-1-2
Temp. Rating: 70°C max conductor operating temperature
Voltage Rating: H03VV-F & H03VVH2-F2: 300/300V
H05VV-F: 300/500V

- Mains rated cables for domestic and industrial applications

Cable Type	PART NUMBER & SHEATH COLOUR		Cenelec Code	Nominal Conductor Area mm²	Insulation Thickness	Minimum O/D	Nominal O/D	Unit Quantity (100m Reels)
	White	Black						
2192Y Flat, 2 core	8500000	8500001	H03VVH2-F2	0.5	0.5	3.0 x 4.9	3.7 x 5.9	1
	8500002	8500003	H03VVH2-F2	0.75	0.5	3.2 x 5.2	3.8 x 6.3	1
2182Y Round, 2 core	8500050	8500051	H03VV-F2	0.5	0.5	4.6	5.9	1
	8500052	8500053	H03VV-F2	0.75	0.5	4.9	6.3	1
2183Y Round, 3 core	8500100	8500101	H03VV-F3	0.5	0.5	4.9	6.3	1
	8500102	8500103	H03VV-F3	0.75	0.5	5.2	6.7	1
3182Y Round, 2 core	8500200	8500201	H05VV-F2	0.75	0.6	5.7	7.2	1
	8500202	8500203	H05VV-F2	1.00	0.6	5.9	7.5	1
	8500204	8500205	H05VV-F2	1.50	0.7	6.8	8.6	1
	8500206	8500207	H05VV-F2	2.50	0.7	8.4	10.6	1
3183Y Round, 3 core	8500250	8500251	H05VV-F3	0.75	0.6	6.0	7.6	1
	8500252	8500253	H05VV-F3	1.00	0.6	6.3	8.0	1
	8500254	8500255	H05VV-F3	1.50	0.7	7.4	9.4	1
	8500256	8500257	H05VV-F3	2.50	0.8	9.2	11.4	1
3184Y Round, 4 core	8500300	8500301	H05VV-F4	0.75	0.6	6.6	8.3	1
	8500302	8500303	H05VV-F4	1.00	0.6	7.1	9.0	1
	8500304	8500305	H05VV-F4	1.50	0.7	8.4	10.5	1
	8500306	8500307	H05VV-F4	2.50	0.8	10.1	12.5	1
3185Y Round, 5 core	8500350	8500351	H05VV-F5	0.75	0.6	7.4	9.3	1
	8500352	8500353	H05VV-F5	1.00	0.6	7.8	9.8	1
	8500354	8500355	H05VV-F5	1.50	0.7	9.3	11.6	1

Reel Length: 100m

Nominal Conductor Area - mm²	Current Carrying Capacity (Amperes):		Voltage Drop (per ampere per metre):	
	Single-phase a.c. (A)	Three-phase a.c. (A)	d.c. or single-phase a.c. (mV)	Three-phase a.c. (mV)
0.5	3	3	93	80
0.75	6	6	62	54
1.00	10	10	46	40
1.50	16	16	32	27
2.50	25	20	19	16

Equipment Wires to DEF 61-12 Part 6 & BS4808 Part 2



Colour Suffix Key:
-01 = White
-02 = Black
-03 = Red
-04 = Green
-05 = Yellow
-06 = Blue
-07 = Brown
-08 = Orange
-09 = Grey
-10 = Violet
-11 = Pink

To specify the required colour, add this suffix to the end of the part numbers shown in the table:- i.e. 8510000-01 = White 0.22mm² wire

Specifications: RoHS ✓

Standards: In accordance with DEF 61-12 Part 6 and BS4808 Part 2
Conductors: Tinned copper conductors to BS6360
Insulation: PVC insulation Type 2 to BS7655
Temp. Rating: -15°C to +85°C
Voltage Rating: 1000Vrms

- For internal wiring of electronic and other equipment
- Cable Type: Type 2 - PVC hard grade
- Cable Types 1, 3 & 7 are also available. Please contact our Sales Department for further information.

Note:
The upper temperature limits above refer to the maximum continuous temperature of the conductor due to the combination of ambient temperature and temperature rise due to current flow. The lower values quoted are the minimum temperatures for equipment wire which may be subject to slight flexing during their normal operating life.

The current carrying capacities quoted are for wires carrying a continuous current in free air at an ambient temperature. Current carrying capacities will depend on circumstances but for general guidance the quoted current values will give a temperature rise of about 15°C in ambient temperatures up to 70°C for single, freely ventilated, insulated wires. Different values will apply when equipment wires are bunched.

PART NUMBER	Colour	Nominal Conductor Area mm²	Nominal Conductor Stranding #/mm	Current Ratings A	Insulation Thickness	Min O/D	Max O/D	Unit Quantity (100m Reels)
8510000	See Key Below	0.22	7/0.2	1.4	0.3	1.1	1.3	1
8510001	See Key Below	0.50	16/0.2	3.0	0.3	1.45	1.65	1
8510002	See Key Below	0.75	24/0.2	4.5	0.45	1.95	2.15	1

Reel Length: 100m



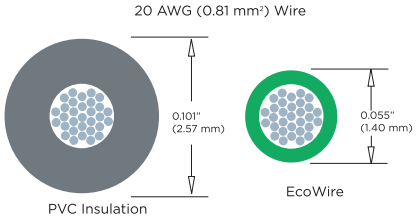
EcoWire™ UL11028 Style Single Core Hook-Up Wires

AlphaWire

- Excellent dielectric strength
- Wide temperature range that meets VW-1
- Low specific gravity
- 10x better abrasion and pinch resistance resistance than conventional PVC
- Up to 45% smaller diameter
- Up to 40% lighter
- Fully Recyclable

Specifications: RoHS ✓

Conductor: Flexible tinned copper
Insulation: Modified Polyphenylene ether - Halogen Free
Standards: UL AWM Styles 11028, CSA C(RU) AWM I A/B FT1
Fire Performance: Flame retardant to VW-1
Temp Rating: -40°C to +105°C
Voltage Rating: 600 volts

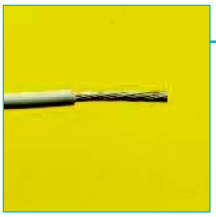


Reel Length = See table

PART NUMBER		Colour	Nominal Conductor Size AWG	Nominal Conductor Stranding #/AWG	Insulation Thickness	Overall Dia.	Unit Quantity (Reels)
Reel Length 30.5m (100 ft)	Reel Length 305m (1,000 ft)						
8620001	8621001	See Key Below	28	7/36	0.24	0.86	1
8620002	8621002	See Key Below	26	7/34	0.24	0.97	1
8620003	8621003	See Key Below	24	7/32	0.24	1.09	1
8620004	8621004	See Key Below	22	7/30	0.24	1.24	1
8620005	8621005	See Key Below	20	10/30	0.24	1.40	1
8620006	8621006	See Key Below	18	16/30	0.24	1.70	1
-	8621011	See Key Below	18	Solid	0.24	1.50	1
8620007	8621007	See Key Below	16	26/30	0.28	2.06	1
8620008	8621008	See Key Below	14	41/30	0.28	2.44	1
-	8621012	See Key Below	14	Solid	0.28	2.18	1
8620009	8621009	See Key Below	12	65/30	0.30	2.97	1
8620010	8621010	See Key Below	10	105/30	0.30	3.61	1

Colour Key:
-01 = White -02 = Black -03 = Red
-04 = Green -05 = Yellow -06 = Blue
-07 = Brown -08 = Orange -09 = Grey
-10 = Violet -12 = Green/Yellow

To specify the required colour, add this suffix to the end of the part numbers shown in the table:- i.e. 8620001-01 = White, 28 AWG wire



Equipment Wires to DEF 61-12 Part 18 Type 1 "LFH"

- For internal wiring of electronic and other equipment
- Incorporates LFH(Limited Fire Hazard) insulation for reduced levels of smoke and toxic fumes in the event of a fire

Specifications: RoHS ✓

Standards: In accordance with DEF 61-12 Part 18
Conductors: Tinned copper conductors to BS 2G 231
Insulation:Thin-wall LFH insulation to DEF 61-12 Part 18 for Category 1 equipment wire displaying the following characteristics:
Oxygen Index: 30% min.
Temperature Index: 250°C min
HCL emission @ 800°C: 0.5% max
Toxicity Index: 0.2
Fire Performance: Flame retardant to BS 3G 230
Temp. Rating: 120°C max. conductor operating temperature
Voltage Rating: 600V a.c./800V d.c

PART NUMBER	Colour	Conductor Size AWG	Nominal Conductor Area mm²	Nominal Conductor Stranding #/mm	Current Rating @ 105°C A	Insulation Thickness	Min O/D	Max O/D	Unit Quantity (100m Reels)
8540050	See Key Below	26	0.15	19/0.1	0.8	0.20	0.80	0.95	1
8540051	See Key Below	24	0.20	19/0.127	1.3	0.20	0.90	1.05	1
8540052	See Key Below	22	0.40	19/0.15	2.2	0.20	1.05	1.20	1
8540053	See Key Below	20	0.60	19/0.203	3.7	0.20	1.30	1.50	1
8540054	See Key Below	18	1.00	19/0.254	5.8	0.20	1.55	1.75	1
8540055	See Key Below	16	1.20	19/0.287	7.7	0.20	1.80	2.00	1
8540056	See Key Below	14	2.00	37/0.25	11.4	0.25	2.15	2.35	1

Colour Suffix Key:
-01 = White -02 = Black -03 = Red
-04 = Green -05 = Yellow -06 = Blue
-07 = Brown -08 = Orange -09 = Grey
-10 = Violet -11 = Pink -12 = Green/Yellow

To specify the required colour, add this suffix to the end of the part numbers shown in the table:- i.e. 8540050-01 = White 26 AWG wire

Reel Length: 100m



Tri-Rated Single Core PVC Insulated Wire

- For internal wiring of electronic and other equipment
- Incorporates LFH(Limited Fire Hazard) insulation for reduced levels of smoke and toxic fumes in the event of a fire

Specifications: RoHS ✓

Standards: In accordance with BS6231 Type CK, Conforms to UL subject 758 Appliance Wiring Material (AWM) for style 1015, Canadian Standards Association (CSA) approved. Complies with standard C22.2 No.127, Type TEW
Conductors: Flexible Class 5 conductors to BS6360
Insulation: PVC insulation
Flame retardant to BS EN 60332-1-2 and VW-1
Temp Rating: BS6231 specifies a maximum continuous conductor operating temperature of 90°C, and for limited use up to 105°C UL and CSA rated 105°C
Voltage Rating: 600/1000V (BS), 600V (UL & CSA)

PART NUMBER	Colour	Nominal Conductor Area mm²	Nominal Conductor Stranding #/mm	Current Ratings A	Nominal Voltage Drop* mV/A/m	Nominal O/D	Unit Quantity (100m Reels)
8520000	See Key Below	0.5	16/0.2	11	46.0	2.6	1
8520001	See Key Below	0.75	24/0.2	14	31.0	2.8	1
8520002	See Key Below	1.0	32/0.2	17	22.0	3.0	1
8520003	See Key Below	1.5	30/0.25	21	15.0	3.3	1
8520004	See Key Below	2.5	50/0.25	30	9.1	3.7	1
8520005	See Key Below	4.0	56/0.3	41	5.7	4.4	1
8520006	See Key Below	6.0	84/0.3	53	3.8	5.1	1

Colour Suffix Key:
-01 = White -02 = Black -03 = Red
-05 = Yellow -06 = Blue -07 = Brown
-08 = Orange -09 = Grey -12= Green/Yellow

To specify the required colour, add this suffix to the end of the part numbers shown in the table:- i.e. 8520000-01 = White, 0.5mm² wire

Reel Length: 100m

Note:
Current ratings are based on a conductor operating temperature of 85°C and an ambient air temperature of 45°C and assumes single cable isolated in free air. The ratings do not apply if the cable is protected by a semi-enclosed fuse to BS3036.

* The voltage drop figures quoted are for one cable only. For other circuit arrangements they should be adjusted as follows: Single phase 50Hz a.c. or 2-wire d.c. x 2, Three phase a.c. x 1.732

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PTFE Insulated Equipment Wires to BS3G210



Specifications: RoHS ✓

Conductors: Silver plated copper conductors
Insulation: PTFE
Temp Rating: 190°C max. conductor operating temperature
Minimum bending temperature: -75°C

- For use in areas where thermal, electrical or environmental conditions are very demanding.
- Power Generation
- Avionics and general electronics
- PTFE is unaffected by oils, lubricants, hydraulic fluids or aircraft fuels.

Colour Suffix Key:

-01 = White	-02 = Black	-03 = Red
-04 = Green	-05 = Yellow	-06 = Blue
-07 = Brown	-08 = Orange	-09 = Grey
-10 = Violet	-11 = Pink	

To specify the required colour, add this suffix to the end of the part numbers shown in the table:- i.e.8510050-01 = White 28 AWG wire

PART NUMBER	Colour	Cable Type	AWG	Nominal Conductor Area (mm^2)	Nominal Conductor Stranding #/mm	Insulation Thickness	Maximum O/D	Voltage Rating (V)	Unit Quantity (100m Reels)
8510050	See Key Below	A	28	0.09	7/0.12	0.15	0.73	300	1
8510051	See Key Below	A	24	0.22	7/0.20	0.15	0.95	300	1
8510052	See Key Below	B	24	0.22	7/0.20	0.25	1.20	600	1
8510053	See Key Below	A	22	0.33	19/0.15	0.15	1.10	300	1
8510054	See Key Below	B	22	0.33	19/0.15	0.25	1.35	600	1
8510055	See Key Below	A	20	0.59	19/0.20	0.15	1.35	300	1
8510056	See Key Below	B	20	0.59	19/0.20	0.25	1.60	600	1

Reel Length: 100m

AlphaWire

UL1007/1569 Style Single Core Hook-Up Wires



Specifications: RoHS ✓

Conductor: Flexible tinned copper
Insulation: PVC (0.41mm)
Standards: UL AWM Styles 1007 and 1569, CSA TR-64Fire
Performance: Flame retardant to VW-1
Temp Rating: -40°C to +105°C - UL AWM 1569
-40°C to +90°C - CSA TR-64
-40°C to +80°C - UL AWM 1007
Voltage Rating: 300 volts

- These wires are used in small equipment or for data transmission up to 300 volts
- These cables are internationally recognised

Colour Key:

-01 = White	-02 = Black	-03 = Red
-04 = Green	-05 = Yellow	-06 = Blue
-07 = Brown	-08 = Orange	-09 = Grey
-10 = Violet		

To specify the required colour, add this suffix to the end of the part numbers shown in the table:- i.e. 8530000-01 = White, 28 AWG wire

PART NUMBER		Colour	Nominal Conductor Size AWG	Nominal Conductor Stranding #/AWG	Overall Dia.	Unit Quantity (Reels)
Reel Length 30.5m (100 ft)	Reel Length 305m (1,000 ft)					
8530050	8531050	See Key Below	28	7/36	1.19	1
8530051	8531051	See Key Below	26	7/34	1.30	1
8530052	8531052	See Key Below	24	7/32	1.42	1
8530053	8531053	See Key Below	22	7/30	1.57	1
8530054	8531054	See Key Below	20	10/30	1.75	1
8530055	8531055	See Key Below	18	16/30	2.01	1
8530056	8531056	See Key Below	16	26/30	2.34	1

Reel Length = See table above

AlphaWire

UL1007/1569 Style Single Core Hook-Up Wire Kits



Specifications: RoHS ✓

Conductor: Flexible tinned copper
Insulation: PVC (0.41mm)
Standards: UL AWM Styles 1007 and 1569, CSA TR-64Fire
Performance: Flame retardant to VW-1
Temp Rating: -40°C to +105°C - UL AWM 1569
-40°C to +90°C - CSA TR-64
-40°C to +80°C - UL AWM 1007
Voltage Rating: 300 volts

- These wires are used in small equipment or for data transmission up to 300 volts

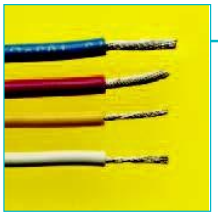
----These cables are internationally recognised

Application:
Hook- Up Wire Kits contain an assortment of 100 ft (30,5m) spools of Hook- Up Wire suitable for UL/ CSA applications. These kits have been designed for use by technicians, engineers and designers in the R & D lab or maintenance shop.

Each kit contains five spools of Hook- Up Wire in a unique, rack-mounted, transparent dispensing tube. The tube and rack system keeps hook-up wire neat, clean and conveniently at hand.

Includes Cut and Strip Tool.

PART NUMBER	Contents	Quantity	Nominal Conductor Size (AWG)	Unit Quantity
8532000	UL1007/1569, CSA TR-64 / White UL1007/1569, CSA TR-64 / Black UL1007/1569, CSA TR-64 / Red UL1007/1569, CSA TR-64 / Green UL1007/1569, CSA TR-64 / Blue Cut and Strip Tool	30.5m 30.5m 30.5m 30.5m 30.5m 1	22	1
8532001	UL1007/1569, CSA TR-64 / White UL1007/1569, CSA TR-64 / Black UL1007/1569, CSA TR-64 / Red UL1007/1569, CSA TR-64 / Green UL1007/1569, CSA TR-64 / Blue Cut and Strip Tool	30.5m 30.5m 30.5m 30.5m 30.5m 1	24	1



UL1015 Style Single Core Hook-Up Wires

AlphaWire

- Used for wiring in fixed installations of electric and electronic components in switch gear cabinets, up to 600 volts
- These cables are internationally recognised

Specifications: RoHS ✓

Conductor: Flexible tinned copper
Insulation: PVC (0.81mm)
Standards: UL AWM Style 1015, CSA TEW-105
Fire Performance: Flame retardant to VW-1
Temp Rating: -20°C to +105°C
Voltage Rating: 600 volts

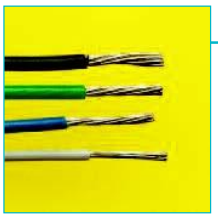
PART NUMBER		Colour	Nominal Conductor Size AWG	Nominal Conductor Stranding #/AWG	*Current Rating (A)	Overall Dia.	Unit Quantity (Reels)
Reel Length 30.5m (100 ft)	Reel Length 305m (1,000 ft)						
8570000	8571000	See Key Below	24	7/32	6	2.24	1
8570001	8571001	See Key Below	22	7/30	8	2.38	1
8570002	8571002	See Key Below	20	10/30	10	2.54	1
8570003	8571003	See Key Below	18	16/30	15	2.85	1
8570004	8571004	See Key Below	16	26/30	19	3.14	1
8570005	8571005	See Key Below	14	41/30	27	3.61	1

Colour Key:
-01 = White -02 = Black
-03 = Red -04 = Green -05 = Yellow
-06 = Blue -07 = Brown -08 = Orange
-09 = Grey -10 = Violet

To specify the required colour, add this suffix to the end of the part numbers shown in the table:- i.e. 8570000-01 = White, 24 AWG wire

Reel Length = See table above

* Current rating is given for Single Conductor in Free Air 30°C Ambient Temperature



UL1061 Style Single Core Hook-Up Wires

AlphaWire

- Designed to be used for internal installations and electronic control devices
- These cables are internationally recognised

Specifications: RoHS ✓

Conductor: Flexible tinned copper
Insulation: PVC (0.23mm Semi-Rigid)
Standards: UL AWM Style 1061, CSA AWM I A/B FT1
Fire Performance: Flame retardant to VW-1
Temp Rating: -10°C to +80°C
Voltage Rating: 300 volts

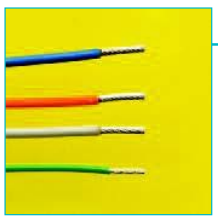
PART NUMBER	Colour	Nominal Conductor Size AWG	Nominal Conductor Stranding #/AWG	Overall Dia.	*Current Rating (A)	Unit Quantity (Reels)
Reel Length 305m (1,000 ft)						
8531000	See Key Below	24	7/32	1.12	6	1
8531001	See Key Below	22	7/30	1.27	8	1
8531002	See Key Below	20	7/28	1.47	10	1
8531003	See Key Below	18	7/26	1.73	15	5
8531004	See Key Below	16	7/24	2.03	19	5

Colour Suffix Key:
-01 = White -02 = Black -03 = Red
-04 = Green -05 = Yellow -06 = Blue
-07 = Brown -08 = Orange -09 = Grey
-10 = Violet

To specify the required colour, add this suffix to the end of the part numbers shown in the table:- i.e. 8531000-01 = White, 24 AWG wire

Reel Length = See table above

* Current rating is given for Single Conductor in Free Air 30°C Ambient Temperature



UL1213 Style PTFE Insulated Hook Up Wires

AlphaWire

- PTFE is not degraded by chemicals which makes it ideal for use in harsh environments. PTFE is widely regarded as the ultimate high performance wire Insulation material for environments characterized by extreme thermal or chemical conditions

Specifications: RoHS ✓

Standards: UL AWM Style 1213
Fire Performance: Flame retardant to VW-1
Conductors: Silver plated copper conductors
Insulation: PTFE (0.25mm)
Temp Rating: -60°C to +200°C (UL: 105°C)

PART NUMBER	Colour	Nominal Conductor Size AWG	Nominal Conductor Stranding #/AWG	*Current Rating (A)	Overall Dia.	Unit Quantity (Reels)
Reel Length 30.5m (100 ft)						
8590001	See Key Below	28	7/36	6	0.89	1
8590002	See Key Below	26	7/34	7	0.99	1
8590003	See Key Below	24	7/32	10	1.12	1
8590004	See Key Below	22	7/30	13	1.27	1
8590005	See Key Below	20	19/32	17	1.47	1
8590006	See Key Below	18	19/30	24	1.75	1
8590007	See Key Below	16	19/29	32	2.03	1

Colour Key:
-01 = White -02 = Black -03 = Red
-04 = Green -05 = Yellow -06 = Blue
-07 = Brown -08 = Orange -09 = Grey
-10 = Violet

To specify the required colour, add this suffix to the end of the part numbers shown in the table:- i.e. 8590000-01 = White, 30 AWG wire

Reel Length = See table above

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E: sales@optimascomponents.com

CABLE GLANDS

EXIOS



CABLE GLANDS FOR HAZARDOUS AREAS

EXIOS is a range of cable glands designed specifically to deliver high performance in explosion proof areas, where the demand for quality, reliability, strain relief and water proof protection is at its highest.

These Ex-d, Ex-e and/or Ex-ta certified cable glands are ideal for use in Group I, II and III applications, including marine, offshore, gas conveying machinery, refineries and chemical plants.

EXIOS STANDARD: a high end cable gland for armoured cables in hazardous areas, including the latest IECEx and ATEX certifications, for use in Ex-e, Ex-d and Ex-ta areas.

EXIOS BARRIER: a high end cable gland for armoured cables in hazardous areas, uses a compound barrier to make it flameproof. Includes the latest IECEx and ATEX certifications. For use in Ex-e, Ex-d and Ex-ta areas.

EXIOS A2F: for non-armoured cables, for use in Ex-e and Ex-d areas.

Silicone Seals and O-Ring are standard across the range.

FOR FURTHER INFORMATION ON EXIOS PLEASE CALL US ON:
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OPTIMAS

Colour Code Charts

To view Alpha Wire insulation colour code charts, please visit our website www.optimascomponents.com and search for the part number, or call our Sales Department for more information.

Alpha Wire Part Number Cross Reference

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1243	8610250-52	WO
1771	8610200	WO
1772	8610201	WO
3048	8530050	9-7
3049	8530051	9-7
3050	8530052	9-7
3051	8530053	9-7
3053	8530054	9-7
3055	8530055	9-7
3057	8530056	9-7
3070	8570000	9-8
3071	8570001	9-8
3073	8570002	9-8
3075	8570003	9-8
3077	8570004	9-8
3079	8570005	9-8
3250	8530000	9-8
3251	8530001	9-8
3252	8530002	9-8
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5852	8590001	9-8
5853	8590002	9-8
5856	8590005	9-8
5857	8590006	9-8
5858	8590007	9-8
6305	8611052	WO
6306	8611053	WO
6316	8611100	WO
6317	8611101	WO
6318	8611102	WO
6319	8611103	WO
6320	8611104	WO
6710	8620001	9-6
6711	8620002	9-6
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6714	8620005	9-6
6715	8620006	9-6

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1178C	8610007	WO
1179C	8610008	WO
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1181C	8610010-17	WO
1243/2C	8610400	WO
1292C	8611001	WO
1293C	8611002	WO
1294C	8611003	WO
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1296C	8611005	WO
1297C	8611006	WO
1298C	8611007	WO
1299C	8611008-10	WO
1895C	8610050	WO
1896/4C	8610052	WO
1896/5C	8610053-60	WO
1896C	8610051	WO
1897C	8610100	WO
1898C	8610101-12	WO
2400C	8610150	WO
2401C	8610151	WO
2402C	8610152	WO
2403C	8610153	WO
2404C	8610154	WO
2411C	8610155	WO
2412C	8610156	WO
2413C	8610157	WO
2414C	8610158	WO
2421C	8610159	WO
2422C	8610160	WO

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2423C	8610161	WO
2424C	8610162	WO
2432C	8610163	WO
2433C	8610164	WO
2466C	8610401	WO
2467C	8610402	WO
3580/9	8550009	WO
3583/9	8551009	WO
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5003C	8580014	9-2
5004C	8580015	9-2
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5008C	8580017	9-2
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5010C	8580018	9-2
5012C	8580001	9-2
5013C	8580002	9-2
5014C	8580003	9-2
5016C	8580004	9-2
5018C	8580005	9-2
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5052C	8580026	9-2
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5054C	8580028	9-2
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5112C	8580100	9-3
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5274C	8580253	9-4
5275C	8580254	9-4
5276C	8580255	9-4
5279C	8580256-61	9-4
5471C	8610300	WO
5472C	8610301	WO
5473C	8610302	WO
5474C	8610303	WO
5475C	8610304	WO
5476C	8610305	WO
5477C	8610306	WO
5478C	8610307	WO
5479C	8610308	WO
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6017C	8610354	WO
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6300/3	8611050	WO
6300/4	8611051	WO
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6715S	8621011	9-6
6717S	8621012	9-6
HU-KIT-20	8532000	9-7
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Page numbers designated WO are website only parts. Please visit optimascomponents.com for further details

If the Alpha Wire part number that you require is not listed here, then please call our Commercial Department on 01202 865250 for further information

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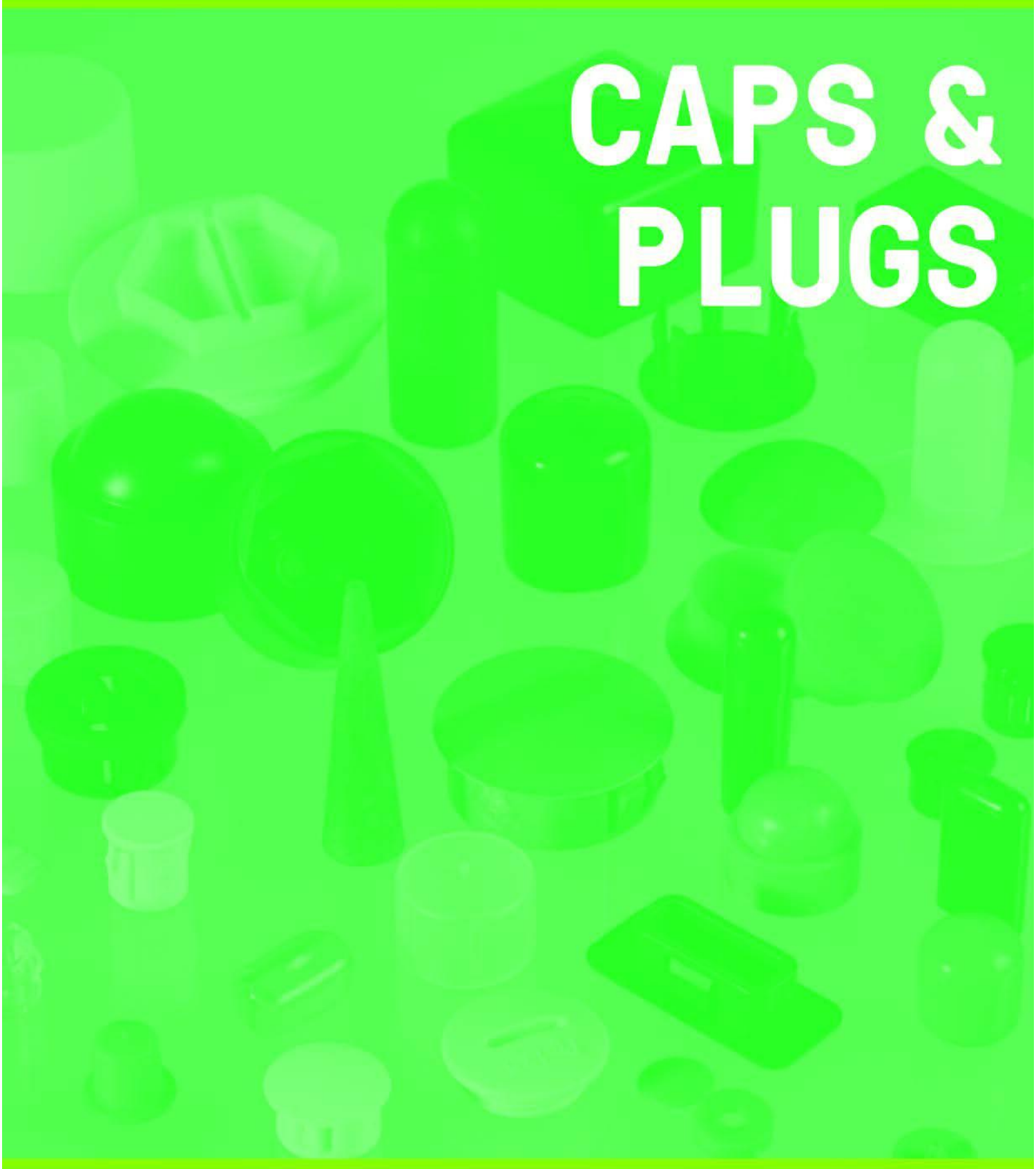
CHAPTER 10

CAPS & PLUGS



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OPTIMAS


Dome Plugs
P10-3


Flame Retardant
Halogen Free Dome Plugs
P10-4


Dome Plug Kit
P10-4


Extra Dome Plugs
P10-4


Pry-Out Plugs
P10-5


Glossy Plugs
P10-5


Shorty Plugs
P10-6


D-Subminiature Pry-Out Plugs
P10-6


Rectangular Plugs
P10-6


Knock-Out Seals
P10-7


Window Plugs
P10-7


Vent Plugs
P10-8


Louvered Plugs
P10-8



Vent Plugs with Filter Inserts
P10-9



Louvered Plugs with Filter Inserts
P10-9


Liquid Tight
Knock-Out Hole Plugs
P10-11


Double 'D' Plugs
P10-11


Insulation Hole Plug
P10-11


Ergonomic Plugs
P10-12


Sheet Metal Plugs - Flush Head
P10-12



Domed Head Blanking Plugs
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Sheet Metal Plugs
Recessed Head
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Sheet Metal Plugs for Round Holes
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Sheet Metal Plugs for Oblong Holes
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Pull Plugs
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Tapered Plugs
P10-15


Pull Ring Plugs
P10-15


Tapered Plugs with
Large Flange
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Taper Plugs - for Internal
Thread Bores
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Tapered Plugs
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Taper Plugs with Tab
P10-17


Plugs with large flange
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Bodywork Plugs
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Threaded Hole Protectors
P10-18



Universal Threaded plugs
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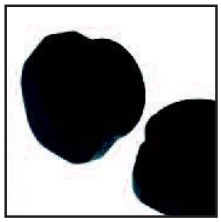
PG Threaded Plugs
P10-20


Hexagon Drive Threaded Plugs
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Metric Threaded Plugs fitted with 'O' Ring
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Metric Threaded Plugs
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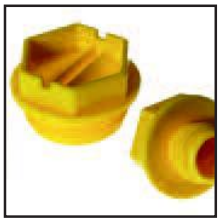
Threaded Plugs
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Threaded Plugs with Sealing Washer
P10-21



Heyco Liquid Tight Threaded Plugs
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Protection Plugs for Internal Threads & Bores
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Cover Plugs for Internal Threads
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Threaded Caps
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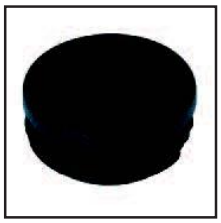
Rectangular Hole Plugs
P10-26


Square Hole Plugs
P10-26


Round Hole Plugs
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Round Caps
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Grab Tab Caps
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Pull Tab Caps
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Square Caps
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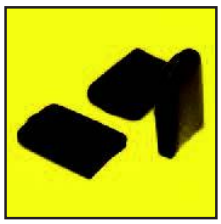
Rectangular Caps
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Round Caps - EPDM
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Round Caps - Silicone
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Protection Caps for External Threads & Plain Diameters
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Caps with Gripping Edge
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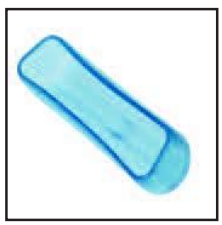
Pipe Caps
P10-32


Dust Covers for D-Sub Plugs
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Cap with Double Edge
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Lamination Caps
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Grease Nipple Caps
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Protection Caps with Pull-Off Tabs
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Heyco® IEC-14 Plug
P10-34



Heyco® Connector Caps
P10-34



Heyco® Connector Plugs
P10-34



Heyco® Push-In for SAE and NPT Threaded Ports
P10-35



Heyco® TEMPlugs™
P10-35


Pop-On Screw Covers & Bases
P10-36


Hinged Screw Covers
P10-36


Nut & Screw Head Covers
P10-37


Tap-On Screw Covers
P10-37

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Dome Plugs



Approvals:

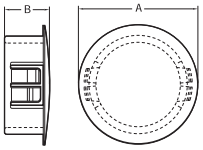
Recognized under the Component Program of Underwriters' Laboratories File No. E51579

Certified by the Canadian Standards Association File No. LR-8919

Specifications: RoHS ✓

Material: Nylon 66
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C
Tolerances: A & B = ± 0.41

- Quick and easy installation with fingertip pressure
- Locks firmly into panels to provide a neat finish
- Ideal for covering unwanted openings



Approximate Head Thickness = 1.6 (Thickness may vary)

Locking steps in increments of 0.8, 1.6 and 2.4 up to the maximum panel thickness, except where marked "†" = single panel thickness

* SP-312 & SP-375 have locking steps at 0.5, 0.8 and 1.2

** SP-500, SP-625, SP-750 & SP-875 have locking steps at 0.5, 0.8, 1.0, 1.2 and 1.6

PART NUMBER		Description	Chassis Dimensions		Part Dimensions		Unit Quantity	
Black	White		Mounting Hole Diameter	Maximum Thickness	A Head Diameter	B Overall Height	Black	White
4302590	4302591	*DP-187	4.8	†1.6	6.4	5.9	1,000	1,000
4321654N	4321655N	SP-218N	5.5	1.2	7.1	6.4	1,000	1,000
4322607N	4322608N	SP-250N	6.4	1.2	7.9	6.4	1,000	1,000
4302603	4302604	DP-250	6.4	†1.6	7.9	7.9	1,000	1,000
4321660N	4321661N	SP-281N	7.1	1.2	8.7	6.4	1,000	1,000
4301678N	4301679N	SP-312	7.9	*1.2	9.5	6.4	1,000	1,000
4302613	4302614	DP-312	8.0	†1.6	9.5	7.9	1,000	1,000
4321663N	4321664N	SP-343N	8.7	1.2	10.3	6.4	1,000	1,000
4301681N	4301682N	SP-375	9.5	*1.2	11.9	6.4	1,000	1,000
4302617	4302618	DP-375	9.5	3.2	11.9	10.3	1,000	1,000
4302624	4302625	DPT-375	9.5	†4.4	11.9	10.3	1,000	1,000
4302633	4302634	DP-437	11.0	3.2	13.5	10.3	1,000	1,000
4301687N	4301688N	SP-500	12.7	**1.6	14.3	6.4	1,000	1,000
4302643	4302644	DP-500	12.7	3.2	14.7	10.3	1,000	1,000
4303004	4303005	DPT-500	12.7	6.4	14.7	14.3	500	500
4302653	4302654	DP-562	14.3	3.2	16.7	10.3	1,000	1,000
4301690N	4301691N	SP-625	15.9	**1.6	18.3	6.4	1,000	1,000
4302663	4302664	DP-625	15.9	3.2	18.2	10.3	1,000	1,000
4303006	4303007	DPT-625	15.9	†6.4	18.2	14.3	1,000	1,000
4302128	4302130	MDP-16	16.0	2.5	18.5	10.3	1,000	Please Call
4302673	4302674	DP-687	17.5	3.2	19.8	10.3	500	500
4301693N	4301694N	SP-750	19.1	**1.6	23.8	6.4	1,000	1,000
4302683	4302684	DP-750	19.0	3.2	23.4	10.3	500	500
4303008	4303009	DPT-750	19.1	†6.4	23.4	14.3	1,000	1,000
4302131	4302132	MDP-20	20.0	2.5	22.6	10.3	500	Please Call
4302667	4302668	DPT-812-500	19.6	12.7	25.9	22.4	1,000	1,000
4302693	4302694	DP-812	20.6	3.2	25.0	10.3	500	500
4301699N	4301700N	SP-875	22.2	**1.6	24.6	6.4	1,000	1,000
4302703	4302704	DP-875	22.2	3.2	25.8	11.5	500	500
4303044	4303045	DPT-875	22.2	6.4	25.8	14.3	500	500
4302133	4302134	MDP-25	25.0	2.5	29.8	11.5	500	Please Call
4302713	4302714	DP-1000	25.4	3.2	30.6	11.5	500	500
4303046	4303047	DPT-1000	25.4	6.4	30.6	14.3	100	100
4302723	4302724	DP-1093	27.8 to 28.6	3.2	30.9	11.5	500	500
4303018	4303019	DPT-1093	27.8 - 28.6	6.4	30.9	14.3	500	1,000
4302733	4302734	DP-1187	30.0	3.2	33.3	11.5	500	500
4303100	4303101	DPT-1187	30.1	6.4	33.3	14.3	600	100
4302740	4302741	DP-1250	32.0	3.2	34.9	11.5	500	500
4303102	4303103	DPT-1250	31.7	6.4	34.9	14.3	100	100
4302135	4302136	MDP 32	32.0	2.5	35.3	11.5	1,000	Please Call
4302753	4302754	DP-1375	35.0	3.2	38.1	11.5	500	500
4303106	4303107	DPT-1375	34.9	6.4	38.1	14.3	100	100
4302763	4302764	DP-1500	38.0	3.2	42.4	11.5	200	200
4303048	4303049	DPT-1500	38.1	6.4	42.4	14.3	500	100
4302773	4302774	DP-1750	45.0	3.2	48.4	11.5	500	500
4303027	4303028	DPT-1750	44.5	6.4	48.4	14.3	500	100
4302783	4302784	DP-2000	51.0	3.2	55.1	11.9	200	200
4303050	4303051	DPT-2000	50.8	6.4	55.1	14.7	100	100
4302403	4302404	DP-2.093	53.2 to 54.0	6.4	60.0	19.3	100	100
4302411	4302412	DP-2.25	57.2	6.4	63.0	19.1	100	2,500
4302790	4302791	DP-2.5	64.0	6.4	69.0	19.1	50	50
4302455	4302456	DP-3.0	76.2	6.4	80.5	19.1	50	1,200
4302482	4302483	DP-3.375	85.7	6.4	92.9	19.1	50	1,600
4302464	4302465	DP-3.5	88.9	6.4	92.9	19.1	50	800
4302473	4302474	DP-4.0	101.6	6.4	105.6	19.1	50	1,200
4302451	4302452	DP-5.0	127.0	6.4	132.5	19.8	50	3,000
4302453	4302454	DP-6.0	152.4	6.4	157.9	19.8	130	2,600

* Convex, glossy finish head

Custom Colours or Engraved Tops for Plugs

Our ranges of Dome Plugs and Shorty Plugs can be supplied moulded in custom colours or with your company name/logo engraved on the head.

For more information, please contact our Sales Department on:

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HEYCO® is a registered trade mark of Heyco Inc. USA.



Dome Plugs - Flame Retardant - Halogen Free

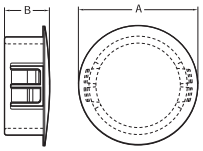
Genuine HEYCO® Parts! HEYCO®

- Nylon meets UL94V-0 to 0.4 flammability requirements
- Material formulated for better UV resistance

Specifications: RoHS ✓
Material: Nylon 66, Colour: Black
Flammability rating UL94V-0
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C
Tolerances: A & B = ± 0.41

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File E15331 except parts marked * which are covered on file number E51579
Certified by the Canadian Standards Association File No. LR-8919

PART NUMBER	Description	Chassis Dimensions		Part Dimensions		Unit Quantity
		Mounting Hole Diameter	Maximum Thickness	A Head Diameter	B Overall Height	
††4312593	HFP-187	4.8	†1.6	6.4	5.9	Please Call
4312606	HFP-250	6.4	†1.6	7.9	7.9	1,000
4312616	HFP-312	8.0	†1.6	9.5	7.9	5,000
4312623	HFP-375	9.5	3.2	12.0	10.3	5,000
4312636	HFP-437	11.0	3.2	13.5	10.3	5,000
4312646	HFP-500	12.7	3.2	14.5	10.3	1,000
4312666	HFP-625	15.9	3.2	18.6	10.7	5,000
4312686	HFP-750	19.0	3.2	23.4	10.3	1,000
4312706	*HFP-875	22.2	3.2	25.8	11.5	1,000
4312716	HFP-1000	25.4	3.2	30.6	11.5	3,500
4312729	*HFP-1093	27.8 to 28.6	3.2	31.0	11.5	Please Call



Approximate Head Thickness = 1.6
(Thickness may vary)

Locking fingers in increments of 0.8, 1.6 and 2.4 up to the maximum panel thickness, except where marked † (single panel thickness design)

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Dome Plug Assortment Box

Genuine HEYCO® Parts! HEYCO®

- Ideal for product design departments and R&D labs

Specifications: RoHS ✓
Material: Nylon 66
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E51579
Certified by the Canadian Standards Association File No. LR-8919

PART NUMBER	Description	Unit Quantity
0826428	This kit contains an assortment of 18 popular sizes of Dome Plugs covering hole sizes from Ø4.8 to Ø45.0mm.	1

Kit Contents:

Part Number	4302590	4302603	4302613	4302617	4302633	4302643
Hole Diameter	4.8	6.4	8.0	9.5	11.0	12.7
Maximum Panel Thickness	1.6	1.6	1.6	3.2	3.2	3.2
Quantity	30	30	30	30	30	25
Part Number	**4302653**	**4302663**	**4302673**	**4302683**	**4302693**	**4302703**
Hole Diameter	14.3	15.9	17.5	19.0	20.6	22.2
Maximum Panel Thickness	3.2	3.2	3.2	3.2	3.2	3.2
Quantity	15	15	10	10	10	8
Part Number	**4302713**	**4302723**	**4302740**	**4302753**	**4302763**	**4302773**
Hole Diameter	25.4	27.8 – 28.6	32.0	35.0	38.0	45.0
Maximum Panel Thickness	3.2	3.2	3.2	3.2	3.2	3.2
Quantity	5	5	4	3	2	1

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Extra Dome Plugs

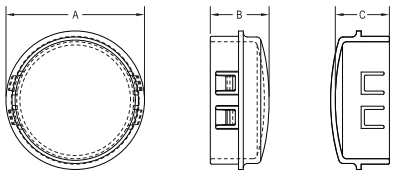
Genuine HEYCO® Parts! HEYCO®

- Extra dome height for additional clearance under the top
- Locking fingers in fractional increments up to the maximum panel thickness

Specifications: RoHS ✓
Material: Nylon 66, Colour: Black
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

Approvals:
Certified by the Canadian Standards Association File No. LR-8919

PART NUMBER		Description	Chassis Dimensions		Part Dimensions			Unit Quantity	
Black	White		Mounting Hole Diameter	Maximum Thickness	A Head Diameter	B Overall Height	C Inside Height	Black	White
4302442	4302443	EDP 3.0	76.2	6.4	81.8	34.8	32.0	100	100
4302444	4302445	EDP 5.0	127.0	6.4	132.6	35.8	33.3	50	50



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HEYCO® *Genuine HEYCO® Parts!*

Pry-Out Plugs



Approvals:

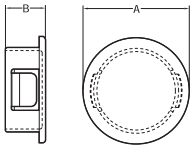
Recognized under the Component Program of Underwriters' Laboratories File No. E51579

Certified by the Canadian Standards Association File No. LR-8919

Specifications: RoHS ✓

Material: Nylon 66
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C
Tolerances: A & B = ± 0.41

- "POP" in closures for pipe and tubing ends
- Easily removed and reused
- Bumper protection - easy glide surface
- Flat, matt finish head
- Ideal for use in applications where regular access through panel hole is required



Approximate Head Thickness = 1.6

PART NUMBER & COLOUR		Description	Chassis Dimensions		Part Dimensions		Unit Quantity	
Black	White		Mounting Hole Diameter	Maximum Thickness	A Head Diameter	B Overall Height	Black	White
4343053	4343054	POP-250	6.4	4.0	10.7	8.3	1,000	Please Call
4343056	4343057	POP-312	7.9	4.4	12.9	10.3	1,000	8,000
4343059	4343060	POP-375	9.5	4.4	14.7	10.3	1,000	15,000
4343062	4343063	POP-437	11.1	4.4	15.5	10.3	1,000	Please Call
4343065	4343066	POP-500	12.7	4.4	17.0	10.3	1,000	10,000
4343068	4343069	POP-562	14.3	4.4	18.6	10.3	500	Please Call
4343071	4343072	POP-625	15.9	4.4	20.2	10.3	500	Please Call
4343074	4343075	POP-687	17.4	4.4	22.6	10.3	500	Please Call
4343077	4343078	POP-750	19.1	4.4	24.6	10.3	500	Please Call
4343080	4343081	POP-812	20.6	4.4	26.2	10.3	500	Please Call
4343083	4343084	POP-875	22.2	4.4	27.4	10.3	500	Please Call
4343086	4343087	POP-1000	25.4	4.4	30.9	10.3	500	Please Call
4343089	4343090	POP-1093	27.8	4.4	32.9	10.3	500	8,000
4343092	4343093	POP-1187	30.1	4.4	35.7	10.3	500	Please Call
4343095	4343096	POP-1250	31.7	4.4	36.9	10.3	500	Please Call
4343098	4343099	POP-1375	34.9	4.4	40.1	11.5	500	1,500
4343124	4343125	POP-1500	38.1	6.4	43.6	11.5	500	Please Call
4342973	4342974	POP-1750	44.5	6.4	50.3	12.1	500	500
4342798	4342799	POP-2000	50.8	6.4	56.4	12.3	500	500
4342975	4342976	POP-2.5	63.5	6.4	68.4	18.8	500	500

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Glossy Plugs



Approvals:

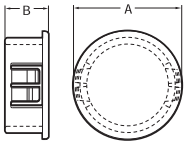
Recognized under the Component Program of Underwriters' Laboratories File No. E51579

Certified by the Canadian Standards Association File No. LR-8919

Specifications: RoHS ✓

Material: Nylon 66
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C
Tolerances: A & B = ± 0.41

- Closes unwanted chassis holes
- Smooth head provides easy glide surface
- Quick and easy installation with fingertip pressure
- M-20 hole plug for conduit box knock-out holes



Approximate Head Thickness = 1.6

Locking fingers in increments of 0.8, 1.6 and 2.4 up to the maximum panel thickness

PART NUMBER		Description	Chassis Dimensions		Part Dimensions		Unit Quantity	
Black	White		Mounting Hole Diameter	Maximum Thickness	A Head Diameter	B Overall Height	Black	White
4332600	4332601	G-250	6.4	1.6	7.9	7.9	1,000	10,000
4332610	4332611	G-312	7.9	1.6	9.5	7.9	1,000	Please Call
4332620	4332621	G-375	9.5	3.2	11.9	10.3	1,000	10,000
4332630	4332631	G-437	11.1	3.2	13.5	10.3	1,000	1,000
4332640	4332641	G-500	12.7	3.2	14.3	10.3	1,000	15,000
4332430	4332431	GPT-500	12.7	6.4	14.3	14.3	500	500
4372650	4372651	G-562	14.3	3.2	16.7	10.3	1,000	1,000
4332660	4332661	G-625	15.9	3.2	18.6	10.3	1,000	12,000
4333134	4333135	GPT-625	15.9	6.4	18.6	14.3	1,000	1,000
4332680	4332681	G-750	19.1	3.2	21.8	10.3	500	17,000
4333136	4333137	GPT-750	19.1	6.4	21.8	14.3	500	500
4332686	4332687	M-20	20.0	3.2	22.1	10.1	1,000	1,000
4332700	4332701	G-875	22.2	3.2	24.2	11.5	1,000	Please Call
4333138	4333139	GPT-875	22.2	6.4	24.2	14.3	500	500
4332710	4332711	G-1000	25.4	3.2	28.6	11.5	1,000	14,000
4333140	4333141	GPT-1000	25.4	6.4	28.6	14.3	400	400
4332720	4332721	G-1093	28.6	3.2	30.9	11.5	1,000	1,000
4333142	4333143	GPT-1093	27.8 - 28.6	6.4	30.9	14.3	600	600
4332730	-	G-1187	30.1	3.2	33.3	11.5	1,000	-
4333144	4333145	GPT-1187	30.2	6.4	33.3	14.3	300	300
4332432	4332433	GPT-1375	34.9	6.4	37.3	14.3	100	100
4332428	4332429	GPT-1500	38.1	6.4	41.2	14.3	100	100
4332436	4332437	GPT-1750	44.5	6.4	47.6	14.3	100	100
4332438	4332439	GPT-2000	50.8	6.4	54.8	14.3	100	100

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Shorty Plugs

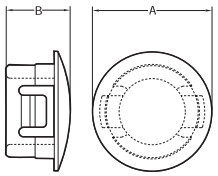
Genuine HEYCO® Parts!

- Use where internal dimensions are limited
- Convex, matt finish head
- Quick and easy installation with fingertip pressure

Specifications: RoHS ✓
Material: Nylon 66, Colour: Black
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C
Tolerances: A & B = ± 0.41

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E51579
Certified by the Canadian Standards Association File No. LR-8919

PART NUMBER		Description	Chassis Dimensions		Part Dimensions		Unit Quantity	
Black	White		Mounting Hole Diameter	Maximum Thickness	A Head Diameter	B Overall Height	Black	White
4321654	4321655	SP-218	5.5	1.6	7.1	6.4	1,000	1,000
4321660	4321661	SP-281	7.1	1.6	8.7	6.4	1,000	1,000
4321678	4321679	SP-312	7.9	1.6	9.5	6.4	1,000	1,000
4321663	4321664	SP-343	8.7	1.6	10.3	6.4	1,000	Please Call
4321681	4321682	SP-375	9.5	1.6	11.9	6.4	2,500	Please Call
4321666	4321667	SP-406	10.3	1.6	11.9	6.4	1,000	10,000
4321684	4321685	SP-437	11.1	1.6	13.5	6.4	1,000	10,000
4321669	4321670	SP-468	11.9	1.6	13.5	6.4	1,000	1,000
4321687	4321688	SP-500	12.7	1.6	14.3	6.4	1,000	1,000
4321672	4321673	SP-531	13.5	1.6	15.1	6.4	1,000	1,000
4321675	4321676	SP-593	15.1	1.6	17.5	6.4	1,000	30,000
4321690	4321691	SP-625	15.9	1.6	18.3	6.4	1,000	1,000
4321693	4321694	SP-750	19.0	1.6	21.4	6.4	1,000	1,000
4321696	4321697	SP-781	19.8	1.6	22.6	6.4	1,000	1,000
4321699	4321700	SP-875	22.2	1.6	24.6	6.4	1,000	1,000
4321702	-	SP-1000	25.4	1.6	30.5	6.4	1,000	-
4321705	4321706	SP-1093	27.8	1.6	31.0	6.4	1,000	1,000



Approximate Head Thickness = 1.6

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D-Subminiature Pry-Out Plugs

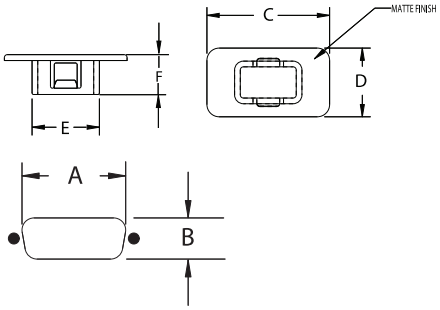
Genuine HEYCO® Parts!

- Four sizes available: D-Sub 9, 15, 25 & 37 pins
- Covers unwanted holes in panels and is easy to remove
- Protection from dust particles
- Quick and easy installation with fingertip pressure

Specifications: RoHS ✓
Material: Nylon 66
Colour: Black
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E15331
Certified by the Canadian Standards Association File 8919

PART NUMBER	Description	Chassis Dimensions			Part Dimensions				Unit Quantity
		A	B	Maximum Thickness	C	D	E	F	
4362966	POP-DB9	20.6	11.4	4.3	31.8	17.8	17.5	10.4	100
4362968	POP-DB15	28.8	11.4	4.3	39.8	17.8	26.7	10.4	100
4362970	POP-DB25	42.5	11.4	4.3	51.0	17.8	39.4	10.4	100
4362972	POP-DB37	59.1	11.4	4.3	70.4	17.8	56.6	10.4	100



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Rectangular Plugs

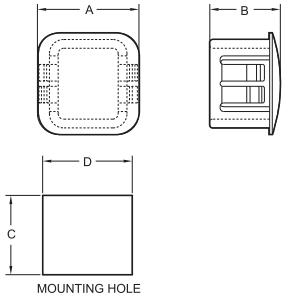
Genuine HEYCO® Parts!

- Fill uniquely sized panel holes
- Locking fingers in fractional increments up to the maximum panel thickness

Specifications: RoHS ✓
Material: Nylon 66
Colour: Black
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E51579
Certified by the Canadian Standards Association File 8919

PART NUMBER	Description	Chassis Dimensions			Part Dimensions		Unit Quantity
		C	D	Maximum Thickness	A	B	
4302512	RP 69-74*	7.4	6.9	1.0	9.4 x 9.4	8.4	1,000
4301890	RP 115-130	11.5	13.9	2.5	14.7 x 14.7	10.2	1,000
4301892	RP 175-175	17.5	17.5	4.0	21.1 x 21.1	11.9	1,000
4302546	RP 343-343R**	34.3	34.3	3.2	56.8 dia.	15.2	1,000
4302513	RP 239-419	41.9	23.9	3.2	35.1 x 55.1	11.7	1,000



* Single panel thickness design. Panel may be thinner
** Round Head and single thickness panel design

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Knock-Out Seals

Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E51579

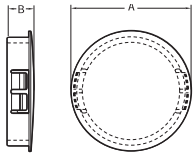
Certified by the Canadian Standards Association File No. LR-8919

Specifications: RoHS ✓

Material: Nylon 66, Colour: Silver Grey
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C
Tolerances: A & B = ± 0.41

- Plugs a knock-out sized hole
- Colour resembles galvanised steel





Approximate Head Thickness = 1.6

Locking fingers in increments of 0.8, 1.6 and 2.4 up to the maximum panel thickness

PART NUMBER	Description	Chassis Dimensions		Part Dimensions		Unit Quantity
		Mounting Hole Diameter	Maximum Thickness	A Head Diameter	B Overall Height	
4353997	KOS 1/2	22.2	3.2	25.8	11.5	500
4353991	KOST 1/2	22.2	6.4	25.8	14.3	500
4353998	KOS 3/4	27.8	3.2	31.0	11.5	500
4353992	KOST 3/4	27.8	6.4	31.0	14.3	500
4353999	KOS 1	34.9	3.2	38.1	11.5	100
4353993	KOST 1	34.9	6.4	38.1	14.3	100
4354000	KOS 1-1/4	44.5	3.2	48.4	11.5	100
4353994	KOST 1-1/4	44.5	6.4	48.4	14.3	100
4354001	KOS 1-1/2	50.8	3.2	54.4	11.5	100
4353995	KOST 1-1/2	50.8	6.4	54.4	14.7	100
4354002	KOS 2	63.5	6.4	69.9	19.1	50

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HEYCO® Genuine HEYCO® Parts!

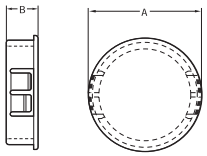
Window Plugs

Specifications: RoHS ✓

Material: Polycarbonate
Colour: Clear
Temperature range: -40°C to 115°C
Flammability rating: UL94V-2
Tolerances: A & B = ± 0.41

- Custom tints also available
- High-Clarity transparent glossy texture
- Snaps into hole under fingertip pressure





Approximate Head Thickness = 1.6

Locking fingers in increments of 0.8, 1.6 and 2.4 up to the maximum panel thickness, except where marked "†" = single panel design



Infrared Window Plug



Blue Transparent Window Plug

PART NUMBER	Description	Chassis Dimensions		Part Dimensions		Unit Quantity
		Mounting Hole Diameter	Maximum Thickness	A Head Diameter	B Overall Height	
4381300	WP-187	4.8	1.6	6.4	4.9	10,000
4381301	WP-250	6.4	†1.6	7.9	7.9	1,000
4381302	WP-312	7.9	†1.6	9.5	7.9	1,000
4381303	WP-375	9.5	3.2	11.9	10.3	Please Call
4381304	WP-437	11.1	3.2	13.5	10.3	2,500
4381305	WP-500	12.7	3.2	14.3	10.3	3,000
4381307	WP-625	15.9	3.2	18.2	10.3	Please Call
4381309	WP-750	19.1	3.2	21.8	10.3	500
4381311	WP-875	22.2	3.2	24.2	11.5	1,500
4381312	WP-1000	25.4	3.2	28.6	11.5	500
4381313	WP-1093	27.8 to 28.6	3.2	30.9	11.5	Please Call
4381314	WP-1375	34.9	3.2	37.2	11.5	5,000
4381316	WP-1500	38.1	3.2	40.8	11.5	4,000
4381318	WP-1750	44.4	3.2	47.6	11.5	2,500
4381319	WP-2000	50.8	3.2	54.8	11.5	5,000

Custom Tints for Plugs

Our ranges of Window Plugs can be supplied moulded in custom tints.
For more information, please contact our Sales Department on:

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HEYCO® Genuine HEYCO® Parts!

Oval Window Plugs

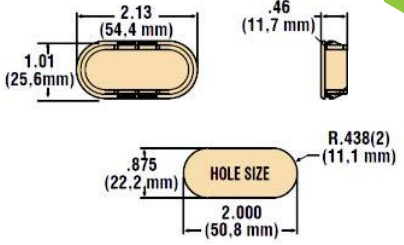
NEW

Specifications: RoHS ✓

Material: Polycarbonate
Colour: Clear
Flammability rating: UL94V-2
Temperature range: -40°C to 115°C

- Large viewing window for internal components.
- Locking fingers in fractional increments up to the maximum panel thickness.





PART NUMBER	Description	Chassis Dimensions		Part Dimensions		Unit Quantity
		Mounting Hole Diameter	Maximum Thickness	A Head Diameter	B Overall Height	
4381299	OWP 875-2000	22.2 x 50.8	3.2	54.4 - 26.6	11.7	2,000



Vent Plugs

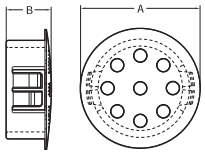
Genuine HEYCO® Parts! HEYCO

- Permits the passage of air, heat and sound

Specifications: RoHS ✓
Material: Nylon 66, Colour: Black
Flammability rating UL94V-2.
Tolerances: A & B = ± 0.41
Material temperature index: 125°C.
Maximum temperature on part not to exceed 105°C.

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E51579
Certified by the Canadian Standards Association File No. LR-8919

PART NUMBER		Description	Chassis Dimensions		Part Dimensions				Unit Quantity	
Black	White		Mounting Hole Diameter	Maximum Thickness	No. of Vent Holes	Vent Hole Dia.	A Head Diameter	B Overall Height	Black	White
4422637	4422638	VP-500	12.7	3.2	4	2.4	14.7	10.3	1,000	1,000
4423010	4423011	VPT 500	12.7	6.4	4	2.4	14.7	14.3	500	500
4422647	-	VP-562	14.3	3.2	4	2.4	16.7	10.3	1,000	-
4422657	4422658	VP-625	15.8	3.2	5	2.4	18.7	10.3	1,000	1,000
4423013	4423014	VPT 625	15.9	6.4	5	2.4	18.7	14.3	500	1,000
4422677	4422678	VP-750	19.0	3.2	8	2.4	23.0	10.3	500	Please Call
4422426	4422427	VPT 750	19.1	6.4	8	2.4	23.0	14.3	500	1,000
4422688	4422689	VP-812	20.6	3.2	8	2.4	22.6	11.5	1,000	1,000
4422697	4422698	VP-875	22.2	3.2	9	2.4	25.8	11.5	1,000	Please Call
4423152	4423153	VPT 875	22.2	6.4	9	2.4	25.8	14.3	500	1,500
4422707	4422708	VP-1000	25.4	3.2	9	3.2	30.6	11.5	1,000	14,000
4423154	4423155	VPT 1000	25.4	6.4	9	3.2	30.6	14.3	200	800
4422726	4422727	VP-1093	27.8 to 28.6	3.2	9	3.2	30.9	11.5	500	Please Call
4423032	4423033	VPT 1093	27.8-28.6	6.4	9	3.2	30.9	14.3	300	600
4422736	4422737	VP-1187	30.1	3.2	10	3.2	33.3	11.5	500	500
4423160	4423161	VTP-1187	30.1	6.4	10	3.2	33.3	14.3	200	200
4422743	4422744	VP-1250	31.8	3.2	10	3.2	34.9	11.5	500	Please Call
4423034	4423035	VPT 1250	31.7	6.4	10	3.2	34.9	14.3	100	600
4422756	4422757	VP-1375	34.9	3.2	11	3.2	38.1	11.5	500	Please Call
4423036	4423037	VPT 1375	34.9	6.4	11	3.2	38.1	14.3	100	500
4422766	4422767	VP-1500	38.1	3.2	13	3.2	42.4	11.5	500	Please Call
4423156	4423157	VPT 1500	38.1	6.4	13	3.2	42.4	14.3	500	1,000
4422776	4422777	VP-1750	44.5	3.2	13	3.2	48.4	11.5	500	20,000
4423038	4423039	VPT 1750	44.5	6.4	13	3.2	48.4	14.3	500	1,000
4422786	4422787	VP-2000	50.8	3.2	19	3.2	54.4	11.9	500	20,000
4423158	4423159	VPT 2000	50.8	6.4	19	3.2	54.4	14.7	100	500
4422793	4422794	VP-2.5	63.5	6.4	19	3.2	69.0	19.1	150	2,750
4422458	4422459	VP-3.0	76.2	6.4	26	3.2	80.5	19.1	100	1,200
4422467	4422468	VP-3.5	88.9	6.4	38	3.2	92.9	19.1	100	1,200
4422476	4422477	VP-4.0	101.6	6.4	48	3.2	105.6	19.1	100	900



Approximate Head Thickness = 1.6

Locking fingers in increments of 0.8, 1.6 and 2.4 up to the maximum panel thickness

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Louvered Plugs

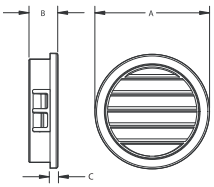
Genuine HEYCO® Parts! HEYCO

- Louvers permit the passage of air for ventilation but limits liquid infiltration
- Locks firmly into panels up to 6.4 thick
- Quick and easy installation
- Suitable for ventilation in electronic enclosures, motor housings and metal or plastic panels
- Withstands a push back force of 35 lbs

Specifications: RoHS ✓
Material: Nylon 66
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C

Approvals:
UL Pending

PART NUMBER		Description	Chassis Dimensions		Part Dimensions			Unit Quantity
Black	White		Mounting Hole Diameter	Maximum Thickness	A Head Diameter	B Overall Height	C Head Height	
4372557	4372558	LP 875	22.2	3.2	25.8	13.5	3.6	500
4372559	4372560	LP 1000	25.4	3.2	30.6	13.5	3.6	500
4372561	-	LP-1093	27.8 - 28.6	3.2	30.9	13.5	N/A	250
4372567	4372568	LP 1375	34.9	3.2	38.1	13.8	3.9	500
4372569	-	LP-1500	38.1	3.2	42.6	13.8	N/A	250
4372594	4372595	LP 2000	50.8	3.2	55.1	13.8	3.7	500
4372596	4372597	LP 2.5	63.5	6.4	69.0	20.9	4.2	450
4372598	-	LP-3.0	76.2	6.4	80.5	20.9	N/A	100



Locking fingers in increments of 0.8, 1.6 and 2.4 up to the maximum panel thickness

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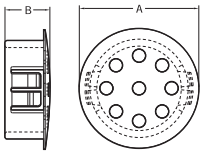
Vent Plugs with Filter Inserts



Specifications: RoHS ✓

Material: Body - Nylon 66, Colour: Black
Filter - Polyurethane foam
Flammability rating: UL94V-2.
Temperature Rating: -40°C to 105°C

- Permits the passage of air, heat and sound for ventilation but limit liquid as well as dust and pest infiltration
- Polyurathane foam filter will filter particle sizes 30 micron and larger
- Filter is captive in body of vent plug and uses no additional real estate inside



NEW

PART NUMBER	Description	Chassis Dimensions		Part Dimensions			Unit Quantity
		Mounting Hole Diameter	Maximum Thickness	No. of Vent Holes	A Head Diameter	B Overall Height	
4424917	FIVP 500	12.7	3.2	4	14.2	10,4	**1,000**
4424919	FIVP 875	22.2	3.2	9	25.8	11,5	**1,000**
4424921	FIVP 1000	25.4	3.2	9	30.6	11,5	**1,000**
4424923	FIVP 1093	27.8-28.6	3.2	9	30.9	11,5	**500**
4424931	FIVP 1375	34.9	3.2	11	38.1	11,5	**500**
4424933	FIVP 1500	38.1	3.2	13	42.4	11,5	**500**
4424937	FIVP 2000	50.8	3.2	19	54.4	11,9	**500**
4424973	FIVPT 875	22.2	6.4	9	25.8	14,3	**1,000**
4424975	FIVPT 1000	25.4	6.4	9	30.6	14,3	**1,000**
4424977	FIVPT 1093	27.8 - 28.6	6.4	9	30.9	14,3	**1,000**
4424983	FIVPT 1375	34.9	6.4	11	38.1	14,3	**500**
4424985	FIVPT 1500	38.1	6.4	13	42.4	14,3	**500**
4424989	FIVPT 2000	50.8	6.4	19	54.4	14,7	**500**
4424939	FIVP 2.5	63.5	6.4	19	69.0	19,1	**150**
4424941	FIVP 3.0	76.2	6.4	26	80.0	18,8	**100**

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Louvered Plugs with Filter Inserts

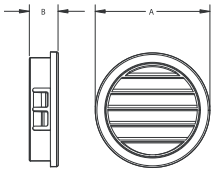


Specifications: RoHS ✓

Material: Body - Nylon 66
Filter - Polyurathane foam
Flammability rating: UL94V-2

Temperature rating: -40°C to 105°C

- Louvers permit the passage of air for ventilation but limits liquid, dust and pest infiltration
- Polyurathane foam filter will filter particle sizes 30 micron and larger



NEW

PART NUMBER	Description	Chassis Dimensions		Part Dimensions		Unit Quantity
Black		Mounting Hole Diameter	Maximum Thickness	A Head Diameter	B Overall Height	
4374947	FILP 875	22.2	3.2	25.8	13.5	500
4374949	FILP 1000	25.4	3.2	30.6	13.5	500
4374951	FILP 1093	27.8-28.6	3.2	30.9	13.5	500
4374957	FILP 1375	34.9	3.2	38.1	13.8	500
4374959	FILP 1500	38.1	3.2	42.6	13.8	500
4374963	FILP 2000	50.8	3.2	55.1	13.8	500
4374965	FILP 2.5	63.5	6.4	69.0	20.9	450
4374967	FILP 3.0	76.2	6.4	80.5	20.9	450

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AUTOMOTIVE CLIPS AND FASTENERS

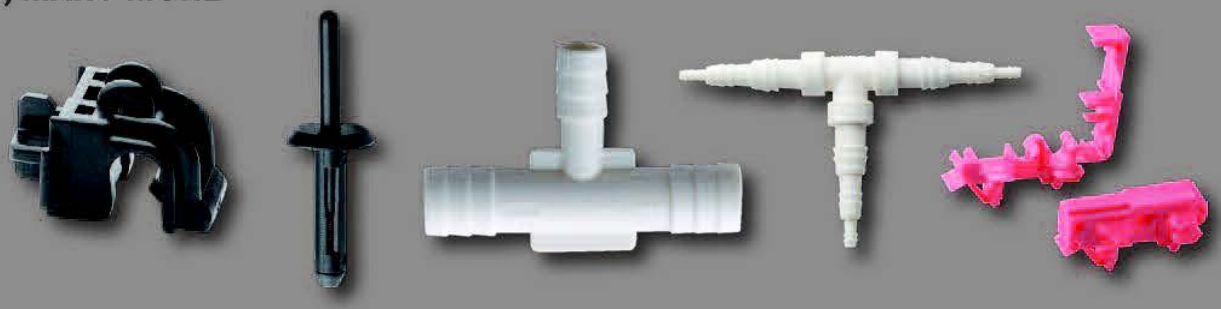
TRIM RETAINERS/PANEL CLIPS



CAPS, PLUGS AND GROMMETS



AND MANY, MANY MORE



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Liquid Tight Knock-Out Hole Plugs

Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E51579 († = Listed on File No. E51579)

Certified by the Canadian Standards Association File No. LR-8919 († = LR-81067C)

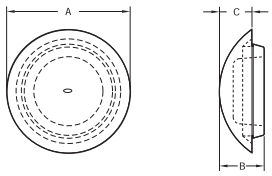
Specifications: RoHS ✓

Material: Santoprene 251-80
Flammability: UL94V-0
Temperature Range: -60°C to 135°C

Rated for use in NEMA 4, Enclosures IP67 per EN60529

- Oil tight, rain tight and submersible
- UL certified for outdoor applications
- Locks firmly in boxes from 0.8 to 3.2 thick
- Quick and easy to install with fingertip pressure
- Excellent chemical resistance
- 75 or 85 Shore A Hardness options





Standard 85 Durometer Plugs

PART NUMBER BLACK	Description	Chassis Dimensions		Part Dimensions			Unit Quantity
		Mounting Hole Diameter	Maximum Thickness	A Head Diameter	B Overall Height	C Head Height	
4433830	KOS-LT .500	12.7	3.2	23.4	11.4	7.4	500
4433834	KOS LT 625	15.9	3.2	26.2	11.9	7.9	500
4433831	KOS-LT .750	19.1	3.2	29.2	13.0	8.9	300
4433832	KOS-LT 1.000	25.4	3.2	35.8	14.2	10.2	200
4433833 †	KOS-LT 1/2	22.2	3.2	32.5	12.7	9.1	100
4433835 †	KOS-LT 3/4	27.8	3.2	38.9	13.9	9.9	100
4433837 †	KOS-LT 1	34.9	3.2	45.6	14.3	10.7	100

NEW

Low 75 Durometer Plugs

PART NUMBER		Description	Chassis Dimensions		Part Dimensions			Unit Quantity
Black	Grey		Mounting Hole Diameter	Maximum Thickness	A Head Diameter	B Overall Height	C Head Height	
4433833FN†	4433833FP†	KOS LT ½ LD	22.2	3.2	32.5	13.5	9.1	500
4433835FN†	4433835FP†	KOS LT ¾ LD	27.8	3.2	38.6	14.0	10.2	500
4433837FN†	4433837FP†	KOS LT 1 LD	34.9	3.2	45.2	14.3	10.7	500

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Double 'D' Plugs

Approvals:

Recognized under the Component Program of Underwriters' Laboratories File No. E51579

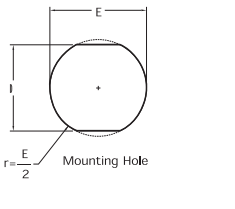
Certified by the Canadian Standards Association File No. LR-8919

Specifications: RoHS ✓

Material: Nylon 66, Colour: Black
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C
Tolerances: A & B = ± 0.41

- Use to plug unwanted strain relief anti-rotational holes
- Convex, matt finish head tapers to a thin edge presenting an excellent appearance
- Quick and easy installation with fingertip pressure





Approximate Head Thickness = 1.6

PART NUMBER	Description	Chassis Dimensions			Part Dimensions		Unit Quantity
		E Mounting Hole Diameter	D To Prevent Rotation	Maximum Thickness	A Head Diameter	B Overall Height	
4402488	DD-437-390	11.1	9.9	3.2	13.5	10.3	1,000
4402491	DD-500-445	12.7	11.3	3.2	14.7	10.3	1,000
4402494	DD-562-530	14.3	13.5	3.2	16.7	10.3	1,000
4402497	DD-625-550	15.9	14.0	3.2	18.2	10.3	1,000
4402503	DD-750-625	19.1	15.9	3.2	23.4	10.3	500
4402509	DD-875-770	22.2	19.5	3.2	25.8	11.5	1,000
4402717	DD-1109-1000	28.2	25.4	3.2	30.9	11.5	500
4402959	DD-2000-1875	50.8	47.6	3.2	55.1	12.1	500

White parts are available subject to minimum production quantities and lead times

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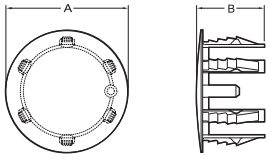
Insulation Plug

Specifications: RoHS ✓

Material: Nylon 66, Colour: Black
Flammability rating UL94V-2
Material temperature index: 125°C
Maximum temperature on part not to exceed 105°C
Tolerances: A & B = ± 0.41

- Specifically designed to close cavity-fill insulation holes in wood and other panels
- Holds securely, six legs ensures good fit
- Thin contoured head blends with panel
- Head masks raw hole edge
- Easy to paint
- Quick and easy installation with fingertip pressure





Approx. Head Thickness=1.6

PART NUMBER	Description	Panel Hole Diameter	A - Head Diameter	B - Overall Height	Unit Quantity
4413149	IPW 1	25.5	31.4	17.5	500

White parts are available subject to minimum production quantities and lead-times

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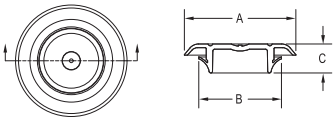
Ergonomic Plugs



- Close unneeded sheet metal panel holes, ergonomically
- Flush "button" head style
- Ergonomic Plugs offer greater versatility because their pliable nature allows one plug size to fit a variety of different sized holes

Specifications: RoHS ✓
Material: Flex Temp (Santoprene TPR)
Colour: Black
Material temperature rating: 105°C

PART NUMBER	Description	Chassis Dimensions		Part Dimensions			Unit Quantity
		Mounting Hole Diameter	Panel Thickness	A	B	C	
4309690	SMPE - M15	14.5 - 16.0	0.8 - 2.0	25.0	18.0	7.8	500
4309691	SMPE - M17	15.2 - 18.0	0.8 - 2.0	28.0	20.3	7.8	500
4309692	SMPE - M19	18.5 - 20.0	0.8 - 2.0	30.2	22.5	7.8	500
4309693	SMPE - M21	20.5 - 22.0	0.8 - 2.0	32.0	24.3	7.8	500
4309694	SMPE - M23	22.5 - 24.0	0.8 - 2.0	34.0	26.4	7.8	500
4309695	SMPE - M25	24.5 - 26.0	0.8 - 2.0	35.0	28.0	7.8	500
4309696	SMPE - M27	26.5 - 28.0	0.8 - 2.0	38.0	30.3	7.8	500
4309697	SMPE - M29	28.5 - 30.0	0.8 - 2.0	40.0	32.3	7.8	500
4309698	SMPE - M31	30.5 - 32.0	0.8 - 2.0	42.0	34.3	7.8	500
4309699	SMPE - M33	32.5 - 34.0	0.8 - 2.0	44.0	36.3	7.8	500



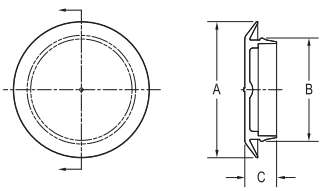
Sheet Metal Plugs - Flush Head



- Close unneeded sheet metal panel holes in equipment such as car bodies, tanks, refrigeration units etc
- Flush "button" head style
- Retaining bead snaps easily into place

Specifications: RoHS ✓
Material: See Table
Colour: Black
Material temperature rating:
LDPE: 79°C
EVA: 60°C

PART NUMBER	Material	Description	Chassis Dimensions		Part Dimensions			Unit Quantity
			Mounting Hole Diameter	Panel Thickness	A	B	C	
4309640	EVA	SMP F-M5	4.6 - 4.9	0.51 - 1.02	9.9	5.3	5.3	1,000
4309641	EVA	SMP F-M6	5.8 - 6.1	0.51 - 1.52	12.7	7.4	11.4	1,000
4309642	EVA	SMP F-250	6.1 - 6.4	0.51 - 1.78	12.7	7.1	5.3	1,000
4309644	LDPE	SMP F-375	9.4 - 9.7	0.51 - 1.27	19.1	10.4	4.8	1,000
4309646	LDPE	SMP F-437	10.9 - 11.4	0.76 - 1.52	17.5	11.9	5.6	1,000
4309647	LDPE	SMP F-500	12.5 - 13.0	0.76 - 2.03	21.8	13.7	6.4	1,000
4309648	LDPE	SMP F-562	14.0 - 14.2	0.76 - 2.03	22.1	15.2	6.4	1,000
4309649	LDPE	SMP F-625	15.7	1.52 - 2.03	20.6	17	6.4	1,000
4309650	LDPE	SMP F-687	17.3 - 17.8	0.76 - 2.03	25.7	18.5	6.4	1,000
4309651	LDPE	SMP F-750	18.5 - 19.3	1.27 - 2.79	25.7	20.1	7.4	1,000
4309654	LDPE	SMP F-875	21.8 - 22.4	1.27 - 2.79	29.5	23.1	6.4	1,000
4309656	LDPE	SMP F-937	23.4 - 24.1	0.76 - 2.03	33.3	24.9	6.4	1,000
4309657	LDPE	SMP F-1000	25.4	0.76 - 2.03	35.1	26.4	6.4	1,000
4309660	LDPE	SMP F-1125	27.9 - 29.2	0.51 - 4.57	38.9	30	10.9	500
4309661	LDPE	SMP F-1187	29.5 - 30.5	0.76 - 2.03	39.6	31	6.4	500
4309663	LDPE	SMP F-1250	31.8	0.76 - 2.03	41.1	32.8	6.4	500
4309664	LDPE	SMP F-1312	32.8 - 33.8	0.76 - 2.03	42.7	34.6	6.4	500
4309665	LDPE	SMP F-1500	38.1	0.76 - 2.03	47.8	39.1	6.4	500
4309666	LDPE	SMP F-1750	44.5	0.76 - 2.03	53.8	45.5	6.4	500
4309667	LDPE	SMP F-2000	50.3 - 51.1	0.76 - 2.03	59.9	51.8	6.4	500
4309669	LDPE	SMP F-2.5	63.5	0.76 - 2.03	76.2	65	6.4	500
4309671	LDPE	SMP F-3.0	76.2	0.76 - 2.03	85.3	77.7	6.4	250



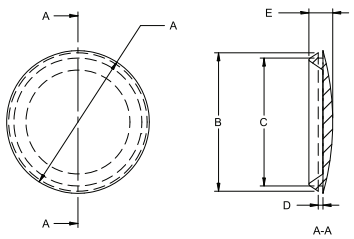
Domed Head Blanking Plugs



- Close unneeded sheet metal panel holes in equipment such as car bodies, tanks, refrigeration units etc
- Domed head provides a neat appearance

Specifications: RoHS ✓
Material: PVC
Colour: Black
Hardness: 50.0 ±5.0 Shore A

PART NUMBER	Chassis Dimensions		Part Dimensions					Unit Quantity
	Mounting Hole Diameter	Maximum Panel Thickness	A	B	C	D	E	
4301002	9.0	1.6	15.0	12.4	9.0	1.6	6.6	1,000
4301000	15.5	1.6	22.0	19.0	15.5	1.6	7.5	1,000
4301001	38.2	1.6	43.7	43.0	38.2	1.6	8.2	1,000



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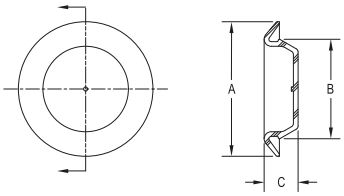
Sheet Metal Plugs - Recessed Head

Specifications: RoHS ✓
Material: LDPE
Colour: Black
Material temperature rating: 79°C

- Close unneeded sheet metal panel holes in equipment such as car bodies, tanks, refrigeration units etc
- Recessed "button" head style
- Retaining bead snaps easily into place





PART NUMBER	Description	Chassis Dimensions		Part Dimensions			Unit Quantity
		Mounting Hole Diameter	Panel Thickness	A	B	C	
4309610	SMP R-375	9.4 - 9.9	0.51 - 2.54	19.1	10.4	7.9	1,000
4309611	SMP R-500	12.7 - 13.2	0.51 - 1.78	21.6	14.0	7.4	1,000
4309614	SMP R-750	18.5 - 19.3	0.51 - 3.56	29.5	20.1	8.6	1,000
4309615	SMP R-812	20.1 - 20.8	0.51 - 1.78	29.2	21.6	7.4	1,000
4309616	SMP R-875	22.1 - 22.9	0.51 - 2.54	31.2	23.6	8.9	1,000
4309618	SMP R-1000	25.2 - 25.9	0.51 - 2.54	34.3	26.7	8.9	1,000
4309619	SMP R-1062	26.4 - 27.2	0.51 - 2.54	35.6	27.9	8.9	1,000
4309620	SMP R-1093	27.7 - 28.5	0.51 - 2.54	37.3	29.5	8.9	1,000
4309621	SMP R-1125	27.9 - 29.2	0.51 - 4.57	38.9	30.0	10.9	500
4309622	SMP R-1250	31.2 - 32.3	0.25 - 2.54	40.6	33.0	8.9	500
4309623	SMP R-1312	33.0 - 34.0	0.25 - 2.54	42.4	34.5	8.9	500
4309624	SMP R-1375	34.6 - 35.6	0.51 - 2.54	43.9	36.3	8.9	500
4309625	SMP R-1500	37.6 - 38.6	0.51 - 2.54	47.0	39.4	8.9	500
4309627	SMP R-1625	40.4 - 41.9	0.76 - 2.54	50.8	42.7	9.1	500
4309628	SMP R-1750	44.5	0.51 - 2.54	54.1	45.7	8.9	500
4309631	SMP R-1875	47.0 - 48.3	0.51 - 2.54	56.9	49.0	8.9	500
4309632	SMP R-2000	50.0 - 51.3	0.51 - 2.55	59.7	52.1	9.1	500
4309633	SMP R-2.5	63.5	0.51 - 2.55	76.2	65.3	9.7	250
4309635	SMP R-3.0	76.2	0.51 - 2.55	90.4	77.7	10.4	100

ARaymond
MORE THAN FASTENING

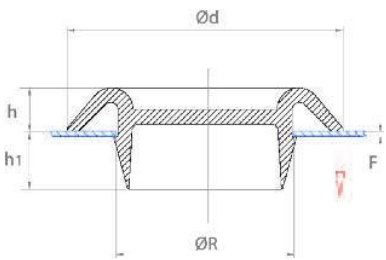
Sheet Metal Plugs - For Round Holes

Specifications: RoHS ✓
Material: See Table
PE = Polyethylene, TPE = Thermoplastic Elastomer, SEBS = Styrol Ethene Butene Styrol, PP/EPDM = Polypropylene/EMPDM
Colour: See Table

- To seal round holes
- Avoids water damp and dust ingress
- Close unneeded sheet metal panel holes in equipment such as car bodies, tanks, refrigeration units etc
- Recessed "button" head style



PART NUMBER	Panel Thickness (F)	Hole Diameter (R)	Head Diameter (d)	Head Thickness (h)	Depth (h1)	Material	Colour	Unit Quantity
4309750	0.5-1.5	12.0	19.0	3.0	4.0	LDPE	Natural	1,000
4309751	0.5-1.5	12.0	19.0	3.0	4.0	TPE	Black	1,200
4309752	0.5-2.5	18.0	30.0	4.0	5.0	LDPE	Black	900
4309753	0.5-2.5	18.0	30.0	4.0	5.0	LDPE	White	900
4309754	0.5-3.0	20.5	29.6	3.7	2.4	LDPE	Black	500
4309755	0.5-3.0	20.5	29.6	3.7	2.4	LDPE	White	500
4309756	0.6	6.5	10.5	2.2	2.8	TPE	Black	500
4309757	0.6-2.0	28.0	39.5	4.8	5.2	LDPE	Black	500
4309758	0.6-2.0	28.0	39.5	4.8	5.2	EPDM	Natural	500
4309759	0.7-2.5	14.0	24.1	6.5	7.0	SEBS	Black	1,000
4309760	3.0-4.0	22.0-24.0	31.4	6.1	6.8	PP/EPDM	Black	500
4309761	3.0	24.5-25.0	34.0	3.0	7.0	PP/EPDM	Black	500



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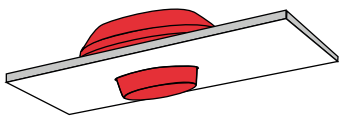




Sheet Metal Plugs - For Oblong Holes

- To seal oblong holes
- Avoids water damp and dust ingress
- Close unneeded sheet metal panel holes in equipment such as car bodies, tanks, refrigeration units etc
- Recessed "button" head style

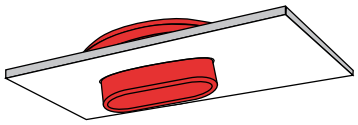
Specifications: RoHS ✓

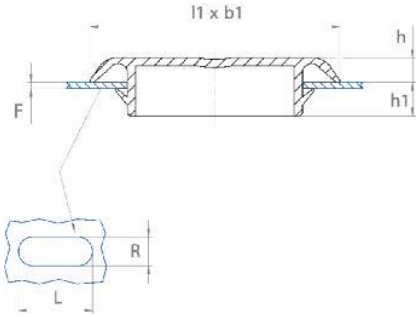
Material: See Table
PE = Polyethylene, PP/EPDM = Polypropylene/EPDM
SEBS = Styrol Ethene Butene Styrol

Colour: Black

PART NUMBER	Panel Thickness (F)	Hole Diameter (LxR)	Head Size (l1xb1)	Head Thickness (h)	Depth (h1)	Material	Unit Quantity
4309702	0.7-0.9	22.0x16.0	30.0x23.85	3.0	4.0	PE	3,000
4309703	0.7-1.5	40.0x12.0	46.0x18.0	4.3	6.0	PP/EPDM	2,300
4309704	0.8-1.5	70.0x30.0	74.0x34.0	2.2	6.8	PE	550
4309705	1.0-1.2	50.0x30.0	62.0x42.0	3.0	3.7	PVC	1,400
4309706	1.0-4.3	60.0x48.0	75.6x63.7	7.0	6.7	PP/EPDM	500
4309707	3.0	16.7x13.1	26.7x23.1	6.0	8.0	PP/EPDM	500
4309708	5.0	22.3x16.3	31.3x25.3	4.0	11.2	SEBS	500

NEW







Pull Plugs

- When pulled through holes, large diameter compresses until released, providing a tight seal
- Chamfered neck and smaller pull-tab diameter aid insertion

Specifications: RoHS ✓

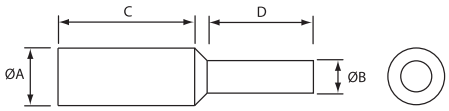
Material: EPDM
Hardness: 55 ±5 Shore A
Temperature Range: -50°C to +175°C (short term to 245°C)

Material: Silicone
Hardness: 55 ±5 Shore A
Temperature Range: -50°C to +316°C (short term)

PART NUMBER, MATERIAL & COLOUR		ØA	ØB	C Length	D Length	Unit Quantity
EPDM - Black	Silicone - Natural					
1364900	**1364950**	3.18	2.08	15.88	15.88	1,000
1364901	**1364951**	4.11	2.36	25.40	25.40	500
1364902	**1364952**	5.00	2.79	25.40	25.40	500
1364903	**1364953**	6.53	3.30	25.40	25.40	500
1364904	**1364954**	7.92	3.30	25.40	25.40	500
1364905	**1364955**	8.51	3.99	25.40	25.40	500
1364906	**1364956**	9.86	3.99	25.40	25.40	250
1364907	**1364957**	10.52	3.99	25.40	25.40	250
1364908	**1364958**	11.89	6.35	25.40	25.40	250
1364909	**1364959**	12.95	9.53	25.40	25.40	250
1364910	**1364960**	13.46	9.53	25.40	25.40	250
1364911	**1364961**	15.54	9.53	25.40	25.40	250
1364912	**1364962**	16.26	9.53	25.40	25.40	100
1364913	**1364963**	17.78	9.53	25.40	25.40	100
1364914	**1364964**	18.52	8.00	25.40	25.40	100
1364915	**1364965**	19.59	9.53	25.40	25.40	100
1364916	**1364966**	22.76	9.53	25.40	25.40	50

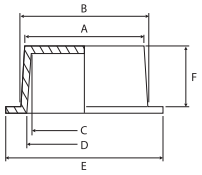
Helpful Hints

- When plugging a hole, make sure that the major diameter of the plug is larger than the diameter of the hole being plugged by at least 4%



T: +44 (0) 1202 865222
E: sales@optimascomponents.com

Tapered Plugs



Specifications: RoHS ✓
Material: Low Density Polyethylene
Colour: Red

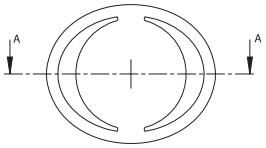
- Can be used as a cap or a plug for internal or external protection
- Ideal for connection ports, inspection holes, metal and plastic piping etc.
- Other sizes available, please contact our Sales Department for further information

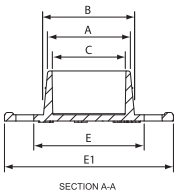


PART NUMBER	A	B	C	D	E	F	Unit Quantity
1344050	2.5	3.3	1.1	2.1	4.9	5.0	1,000
1344051	2.8	3.5	1.3	2.1	5.0	4.0	1,000
1344052	1.3	4.0	1.1	2.1	5.9	8.0	1,000
1344053	4.1	4.6	1.0	2.1	7.4	5.5	1,000
1344054	4.0	4.8	2.0	2.0	7.7	3.1	1,000
1344006	3.2	4.8	1.2	2.9	10.0	8.0	1,000
1344005	4.8	5.5	3.2	4.0	8.0	5.7	1,000
1344007	5.0	5.9	3.6	4.6	7.4	8.0	1,000
1344008	5.5	6.2	4.0	4.8	8.9	5.9	1,000
1344009	6.0	6.7	4.5	5.3	10.6	5.9	1,000
1344010	6.8	7.4	5.0	5.6	11.5	6.8	1,000
1344011	7.6	8.5	6.0	7.1	12.0	8.0	1,000
1344012	8.5	9.5	6.6	7.8	13.0	9.2	1,000
1344013	9.2	10.6	7.2	9.0	13.9	10.0	1,000
1344014	10.1	11.0	8.2	9.5	15.0	9.9	1,000
1344015	10.8	12.5	9.0	10.8	16.2	9.6	1,000
1344016	11.6	12.8	10.0	11.4	17.2	10.0	1,000
1344017	12.0	13.8	10.4	12.1	17.9	11.1	1,000
1344018	13.1	14.5	11.5	12.6	19.0	11.1	1,000
1344056	13.5	15.0	11.9	13.3	19.0	11.7	1,000
1344019	13.9	15.4	12.4	14.0	19.1	12.3	1,000
1344020	14.2	15.7	13.0	14.7	18.9	12.8	1,000
1344021	14.9	16.8	14.0	15.5	20.3	12.8	1,000
1344022	16.3	18.0	14.4	16.3	20.1	13.4	1,000
1344023	17.2	18.9	15.8	17.6	23.0	14.0	500
1344057	18.7	20.0	17.4	18.7	24.0	9.0	500
1344024	18.2	20.2	16.4	18.8	24.2	13.9	500
1344027	19.8	21.0	17.1	18.4	26.9	8.9	500
1344026	19.3	21.1	17.6	19.5	25.3	13.7	500
1344058	20.2	21.7	18.4	20.3	25.8	17.2	500
1344029	20.4	22.5	18.9	20.9	25.9	15.0	500
1344059	20.3	22.9	18.4	21.5	25.7	16.6	500
1344031	21.4	23.4	19.7	21.5	27.7	15.0	500
1344032	22.2	25.5	20.2	23.3	28.8	15.5	500
1344033	24.2	26.0	22.4	23.5	29.5	13.7	500
1344034	25.2	26.8	23.7	25.4	30.7	13.9	500

PART NUMBER	A	B	C	D	E	F	Unit Quantity
1344036	24.9	27.9	23.0	26.0	36.1	16.6	250
1344035	27.5	28.6	25.3	26.9	35.0	13.7	250
1344060	26.8	29.8	25.3	28.2	32.4	16.4	250
1344038	27.9	30.6	26.0	28.8	34.8	13.9	250
1344039	29.7	31.6	27.9	30.3	35.8	16.8	250
1344041	30.9	32.7	29.5	31.9	35.5	17.8	250
1344040	30.7	32.8	29.1	31.1	36.2	16.2	250
1344042	31.6	33.7	29.5	32.2	37.3	16.4	250
1344043	33.1	34.9	31.7	33.9	39.5	16.8	250
1344044	34.3	37.7	33.0	36.0	41.8	17.5	250
1344045	35.7	38.1	33.6	37.1	41.1	16.8	250
1344046	36.8	39.5	35.3	38.0	45.7	16.8	250
1344047	37.7	40.0	36.4	38.4	44.6	17.4	250
1344061	37.8	40.5	36.8	39.2	46.5	18.3	250
1344048	39.3	41.9	37.9	40.6	46.8	19.7	250
1344049	41.4	43.8	40.0	42.4	47.8	17.9	250
1344062	41.1	44.5	40.1	42.6	47.3	16.8	250
1344063	44.2	46.6	41.7	44.7	50.0	19.0	250
1344064	44.4	47.3	42.3	44.9	51.3	18.7	250
1344065	45.6	48.0	43.5	45.9	52.4	18.9	100
1344066	46.2	48.7	44.6	46.8	52.7	18.5	100
1344067	49.4	49.7	46.4	47.9	58.0	8.9	250
1344068	49.1	50.7	47.6	50.0	55.6	18.9	100
1344069	50.8	54.3	49.4	52.6	59.6	19.8	100
1344070	51.9	55.8	51.4	53.7	58.7	20.0	100
1344071	55.5	57.6	54.0	56.6	62.3	20.0	100
1344072	57.5	59.6	55.9	57.6	65.2	19.6	100
1344073	58.3	60.7	56.3	59.0	65.1	18.9	100
1344074	60.5	63.3	59.4	62.8	69.9	20.1	100
1344075	63.3	66.0	61.0	63.7	70.0	20.4	100
1344076	66.1	68.4	64.2	66.7	72.7	19.8	100
1344077	67.7	70.4	66.2	69.0	74.2	20.8	100
1344078	70.1	74.3	69.2	71.8	78.1	20.7	50
1344079	73.8	76.0	71.8	74.4	80.9	20.6	50
1344080	78.1	80.8	76.1	78.5	85.3	20.4	50
1344081	80.9	83.2	78.4	81.2	88.1	21.8	50
1344082	80.4	84.5	78.0	82.8	87.2	26.0	50
1344083	83.4	87.0	81.0	84.5	91.0	21.8	50
1344084	85.0	87.3	83.3	85.6	92.0	21.9	50
1344085	87.7	89.5	86.0	88.6	95.0	21.8	50
1344086	88.0	90.9	86.6	89.0	95.0	21.8	50
1344087	90.1	93.2	87.0	89.6	100.2	23.9	50
1344088	91.2	95.7	89.4	94.2	102.0	24.0	50
1344089	94.2	97.3	92.0	96.0	100.5	24.3	50
1344090	96.5	98.4	94.3	97.1	104.4	22.6	50

Pull Ring Plugs





SECTION A-A

Specifications: RoHS ✓
Material: Low Density Polyethylene
Colour: Red

- The oval shape of the pull ring ensures a good hold on the plugs
- As the pull rings lay tight to the plug, they are not easily dislodged when tubes are bundled
- Can be removed easily and quickly by using two fingers and no tools
- Ideal for several applications including rubber hoses, air conditioning systems, heat exchangers, etc



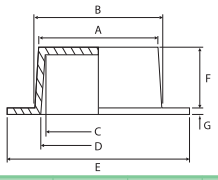
PART NUMBER	A	B	C	E	E1	Unit Quantity
1101000	9.8	11.0	8.0	14.6	24.0	1,000
1101001	11.1	12.3	9.1	14.6	23.8	1,000
1101002	13.4	14.2	12.0	19.5	29.7	1,000
1101003	14.8	16.1	13.1	19.5	29.8	1,000
1101004	15.8	16.6	14.2	19.6	29.5	1,000

Taper Plugs With Large Flange



- Provides a closure where a large flange is required

Specifications: RoHS ✓
Material: Low Density Polyethylene
Colour: Red



PART NUMBER	A	B	C	D	E	F	G	Unit Quantity
1345000	5.4	6.7	3.3	4.6	22.0	15.0	1.3	1,000
1345001	6.8	7.9	5.3	6.3	17.0	9.0	0.8	1,000
1345002	8.1	9.5	6.6	7.8	18.0	9.0	0.8	1,000
1345004	11.4	12.8	10.2	11.1	22.0	10.0	0.8	1,000
1345006	12.2	13.8	10.7	12.3	24.0	11.0	0.8	1,000
1345008	14.4	16.1	12.7	14.7	26.0	12.0	0.8	1,000
1345010	17.0	19.0	15.8	17.3	29.0	13.8	0.8	1,000
1345012	17.8	20.2	16.3	18.8	30.0	14.0	0.8	500
1345014	20.2	22.4	18.9	20.9	33.0	15.0	0.8	500
1345015	20.3	22.9	18.4	21.5	40.0	15.0	1.0	500
1345016	24.0	25.7	22.7	24.2	37.0	14.0	0.8	500

PART NUMBER	A	B	C	D	E	F	G	Unit Quantity
1345018	24.9	27.2	23.7	25.7	40.0	13.8	0.8	500
1345019	27.9	30.6	25.6	28.9	42.2	13.9	0.8	250
1345020	29.6	31.4	28.2	30.0	44.0	15.8	1.4	250
1345022	31.0	33.4	29.5	31.9	48.0	17.3	0.8	250
1345023	38.5	41.0	36.2	39.7	60.0	18.0	0.8	250
1345024	41.7	44.7	39.2	42.8	67.9	16.3	0.8	100
1345025	48.0	53.0	46.2	49.2	95.0	16.6	1.0	100
1345026	49.3	51.6	47.3	50.2	64.0	18.7	0.8	100
1345027	51.3	54.3	49.9	52.8	74.5	19.6	0.9	100
1345028	60.0	63.6	57.8	61.7	83.3	19.2	1.3	100
1345029	67.0	73.0	64.6	70.9	100.0	20.9	1.1	50

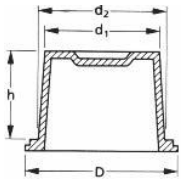
Tapered Plugs - For Internal Thread Bores



- Protects holes and prevents the ingress of unwanted debris
- Moulded in yellow for easy identification

Specifications: RoHS ✓
Material: Low Density Polyethylene
Colour: Yellow

If using in non-threaded holes - hole diameter should be 0.20 - 0.30 less than listed body diameter 'd2'



PART NUMBER	Thread Size	Body Diameter d2	Body Diameter d1	D Head Diameter	h Body Length	Suits Additional Threads	Unit Quantity
1342120	M7	6.1	4.4	10.0	10.0	-	1,000
1342123	M9	7.7	6.0	11.0	10.0	-	1,000
1342125	M10 x .75	9.3	7.6	13.0	10.0	-	1,000
1342127	M11 x 1.00	10.1	8.4	14.0	10.0	⅛" B.S.P.	1,000
1342130	M12 x 1.25	10.9	9.2	14.0	10.0	-	1,000
1342132	-	11.6	9.9	15.0	10.0	-	1,000
1342135	M14	12.3	10.6	16.0	10.0	Pg 7	1,000
1342136	M14 x 1.00	13.0	11.2	17.0	10.0	¼" B.S.P.	1,000
1342138	M15 x 1.00	14.1	12.0	18.0	12.0	-	1,000
1342140	M16 x 1.50	14.6	12.5	18.0	12.0	Pg 9	1,000
1342143	⅜" B.S.P	15.5	13.4	19.0	12.0	-	1,000
1342145	M17 x 1.00	16.1	14.0	19.0	12.0	⅜" B.S.P.	1,000
1342147	M18 x 1.00	17.0	14.7	21.0	13.0	-	1,000
1342150	M20	18.6	16.3	22.0	13.0	-	1,000
1342152	M22	19.5	17.0	22.0	13.0	Pg 11	1,000
1342153	M22 x 2.00	20.0	17.5	24.0	15.0	½" B.S.P.	1,000

PART NUMBER	Thread Size	Body Diameter d2	Body Diameter d1	D Head Diameter	h Body Length	Suits Additional Threads	Unit Quantity
1342155	M24	21.0	18.5	25.0	15.0	Pg 13.5	500
1342156	⅝" B.S.P	21.5	19.0	25.0	15.0	-	500
1342157	M24 x .75	23.3	20.5	27.0	16.0	Pg 16	500
1342158	M25 x 1.50	23.5	20.7	28.0	16.0	-	500
1342160	-	24.8	22.0	29.0	16.0	-	500
1342165	M30	26.4	23.1	30.0	18.0	¾" B.S.P	500
1342167	-	27.7	24.4	32.0	19.0	-	500
1342168	M33	29.2	26.4	33.0	19.0	Pg 21	500
1342170	M33 x 2.00	31.2	27.7	35.0	19.0	-	500
1342172	M34 x 1.50	32.6	29.8	37.0	16.0	1" B.S.P.	500
1342175	-	35.0	31.3	38.0	21.0	-	500
1342180	M39 x 2.00	37.1	33.3	41.0	22.0	Pg 29	200
1342181	M45	40.5	36.7	45.0	22.0	M42 x 1.50	200
1342182	-	42.5	39.0	48.0	23.0	-	200
1342185	M48	42.9	39.6	48.0	19.0	-	200
1342190	-	44.7	41.4	49.0	19.0	-	200
1342192	M50 x 3.00	46.9	44.3	51.0	19.0	Pg 36	200

High Temperature Tapered Plugs



- Tapered design to fit a variety of hole diameters
- Compressible for better sealing of both threaded and non-threaded holes
- Diameters upto 127mm are also available.

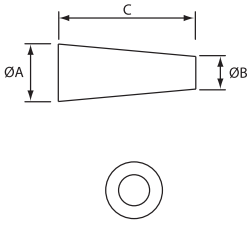
Specifications: RoHS ✓

Material: EPDM
Hardness: 55 ±5 Shore A
Temperature Range: -50°C to +175°C (short term to 245°C)

Material: Silicone
Hardness: 55 ±5 Shore A
Temperature Range: -50°C to +316°C (short term)

PART NUMBER EPDM - Black	PART NUMBER Silicone - Natural	ØA	ØB	C Length	Unit Quantity
1364800	1364850	3.20	1.60	15.88	1,000
1364801	1364851	4.75	1.57	15.88	1,000
1364802	1364852	5.08	1.57	19.05	1,000
1364803	1364853	6.35	3.18	19.05	1,000
1364804	1364854	6.35	3.20	25.40	1,000
1364805	1364855	8.70	4.75	15.88	1,000
1364806	1364856	8.70	4.75	25.40	1,000
1364807	1364857	9.53	6.35	19.05	500
1364808	1364858	11.10	6.35	25.40	500

PART NUMBER EPDM - Black	PART NUMBER Silicone - Natural	ØA	ØB	C Length	Unit Quantity
1364809	1364859	12.70	3.20	50.80	200
1364810	1364860	12.70	7.95	20.70	100
1364811	1364861	14.99	10.31	25.40	100
1364812	1364862	16.66	12.70	25.40	100
1364813	1364863	19.00	14.30	25.40	500
1364814	1364864	20.62	15.88	25.40	100
1364815	1364865	23.83	18.50	25.40	100
1364816	1364866	26.00	19.99	25.40	100



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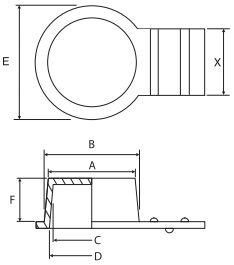
Taper Plugs With Tab



Specifications:	RoHS ✓
Material:	See Table
Colour:	See Table

- Pull tab makes the plug easy to remove after use
- Ideal for hoses and flexible tubes



PART NUMBER	Material	Colour	A	B	C	D	E	F	X	Unit Quantity
1346000	LDPE	Yellow	8.0	9.7	6.6	7.9	12.7	9.1	7.8	1,000
1346002	LDPE	Yellow	8.2	9.8	6.9	8.0	12.7	9.0	7.9	1,000
1346004	LDPE	Yellow	9.0	10.1	7.6	9.0	13.7	9.9	7.7	1,000
1346006	LDPE	Yellow	9.7	11.0	8.2	9.5	13.8	9.9	7.8	1,000
1346008	LDPE	Yellow	10.6	12.2	8.6	10.5	16.0	9.4	9.9	1,000
1346010	LDPE	Yellow	11.9	13.7	10.7	12.1	17.7	11.1	9.8	1,000
1346011	LDPE	Yellow	13.3	15.5	12.0	14.1	24.0	12.7	8.1	1,000
1346012	LDPE	Yellow	14.3	16.2	12.6	14.6	19.3	12.6	9.7	750
1346014	LDPE	Yellow	15.1	16.8	13.9	15.6	20.0	13.0	7.4	1,000
1346015	LDPE	Yellow	16.1	18.1	14.4	16.3	20.1	13.5	10.0	1,000
1346016	LDPE	Yellow	16.9	18.6	15.0	17.1	22.9	14.1	10.0	1,000
1346018	LDPE	Yellow	17.2	19.0	15.9	17.7	23.0	14.0	9.8	500
1346019	LDPE	Yellow	19.3	21.1	17.6	19.8	24.7	14.0	10.5	500
1346020	LDPE	Yellow	34.2	36.7	32.5	35.0	41.0	16.4	10.0	250
1346021	LDPE	Yellow	34.7	37.1	33.3	36.2	41.6	17.3	10.0	250
1346022	LDPE	Yellow	35.7	38.1	34.0	37.1	41.1	16.4	10.0	250
1346023	LDPE	Yellow	44.2	46.7	41.3	44.5	50.0	18.8	14.9	250
1346024	LDPE	Yellow	45.9	47.7	44.3	47.2	52.3	18.8	15.0	250
1346025	LDPE	Yellow	50.8	54.2	49.0	52.5	59.3	19.6	14.8	100
1347000	TPE	Natural	8.1	9.7	6.6	7.9	12.7	9.1	7.8	1,000
1347002	TPE	Natural	8.3	9.7	6.7	7.3	12.7	9.1	8.0	1,000
1347004	TPE	Natural	8.9	10.1	7.3	8.8	13.7	9.8	7.8	1,000
1347006	TPE	Natural	9.7	10.8	8.5	9.6	13.8	9.9	7.9	1,000
1347008	TPE	Natural	10.3	12.2	8.8	10.6	15.7	9.4	9.9	1,000
1347010	TPE	Natural	11.8	13.5	10.4	11.9	17.7	11.1	9.8	1,000
1347012	TPE	Natural	14.1	16.2	12.7	14.5	19.0	12.6	9.0	10,000
1347016	TPE	Natural	16.7	18.8	14.9	17.2	23.0	13.9	10.0	1,000

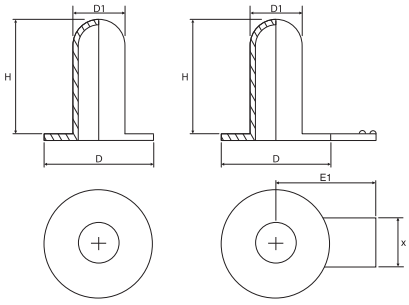
DBI plastics

Plugs With Large Flange



Specifications:	RoHS ✓
Material : Low Density Polyethylene	
Colour: Natural Transparent	

- Ideal for sealing the female part of quick connectors on brake and fuel lines
- The length of the plug ensures tight internal closure
- The large flange protects the external surface and makes the plug easy to remove
- Meets the requirements of SAE J2044



Type A Type B

* Dimension "D1" is not the size of the plug itself, but the nominal size of the pipe for which it is suitable

PART NUMBER	DIN Norm	*D1	D	H	E1	X	Type	Unit Quantity
1348010	5/16"	8.0	23.0	26.0	-	-	A	1,000
1348011	3/8"	9.6	25.0	27.0	-	-	A	1,000
1348012	3/8"	10.0	24.7	26.6	-	-	A	1,000
1348013	5/8"	16.0	35.0	37.0	-	-	A	1,000
1348004	1/4"	6.4	17.5	25.3	28.6	10	B	1,000
1348000	5/16"	8.0	23.0	25.3	24.8	10	B	1,000
1348001	3/8"	9.5	24.8	25.7	25.8	10	B	1,000
1348002	3/8"	10.0	24.8	27.0	25.8	10	B	1,000
1348005	7/16"	11.8	25.0	29.2	25.7	10	B	1,000
1348006	5/8"	15.9	34.0	33.9	48.0	10	B	1,200
1348003	5/8"	16.0	35.0	37.0	49.3	10	B	1,200

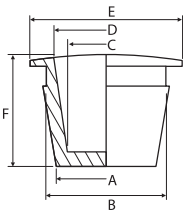
Bodywork Plugs

DBI plastics



- Ideal for covering holes in platework
- Suitable as a cover plug during anti-rust treatment
- Part has a closed bottom

Specifications: RoHS ✓
Material: Low Density Polyethylene
Colour: Black



PART NUMBER	A	B	C	D	E	F	Unit Quantity
1349000	6.0	8.5	4.0	6.9	13.2	9.5	1,000
1349010	8.4	10.2	6.1	8.9	13.4	9.0	1,000

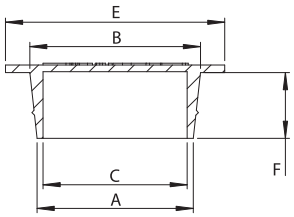
Threaded Hole Protectors

DBI plastics



- Suitable for holes with internal BSP thread
- Easy to put in and out

Specifications: RoHS ✓
Material: Low Density Polyethylene
Colour: Red



PART NUMBER	BSP Thread size	A	B	C	E	F	Unit Quantity
1101010	1/4"	11.2	12.5	9.3	17.2	7.2	1,000
1101011	3/8"	14.7	16.2	13.1	21.2	7.9	1,000
1101012	-	16.2	17.1	14.5	21.8	7.7	1,000
1101013	1/2"	18.3	20.0	16.9	25.7	7.7	500
1101014	3/4"	24.0	24.9	22.4	30.6	10.0	500
1101015	1"	30.0	31.8	28.4	37.6	11.2	250
1101016	1 1/4"	39.1	41.0	37.1	46.8	12.0	250
1101017	-	39.0	39.5	38.1	66.5	15.8	200
1101018	1 1/2"	44.6	46.0	42.9	52.5	12.0	250

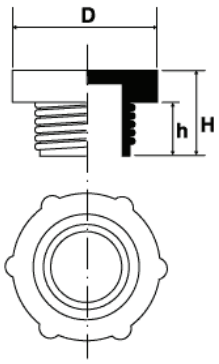
Universal Threaded Plugs - Metric



- Helps protect against ingress of dirt and moisture
- Non Corrosive
- Simple to install by hand with easy to grip head

NEW

Specifications: RoHS ✓
Material: Low Density Polyethylene
Colour: Red



Part Number	Thread Size	Dimensions			Unit Quantity
		H	D	h	
1394040	M8 x 1	14.3	12.3	9.5	250
1394041	M10 x 1	14.6	15.3	10.4	250
1394042	M12 x 1	16.7	18.5	10.7	250
1394043	M12 x 1.5	16.3	16.7	8.7	250
1394044	M14 x 1.5	17.2	18.5	9.5	250
1394045	M16 x 1.5	17.2	22.0	12.5	250
1394046	M18 x 1.5	18.3	24.4	13.7	250
1394047	M20 x 1.5	18.2	26.3	14.0	250
1394048	M22 x 1.5	18.3	28.2	13.7	250
1394049	M24 x 1.5	18.5	31.3	13.8	250
1394050	M25 x 1.5	18.5	31.3	14.0	100
1394051	M26 x 1.5	18.7	32.7	13.8	100
1394052	M52 x 1.5	21.5	63.7	15.5	50

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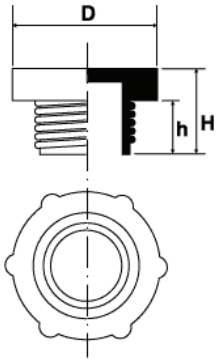
Universal Threaded Plugs - BSP/Gas



Specifications: RoHS ✓
Material: Low Density Polyethylene
Colour: Red

- Helps protect against ingress of dirt and moisture
- Non Corrosive
- Simple to install by hand with easy to grip head

NEW



Part Number	Thread Size	Dimensions			Unit QTY
		H	D	h	
1395017	1/8" x 28	10.5	16.4	4.2	500
1395018	1/4" x 19	12.8	18.8	6.5	500
1395019	3/8" x 19	12.0	22.9	5.5	500
1395020	1/2" x 14	17.3	28.0	10.3	250
1395021	5/8" x 14	18.4	31.3	13.9	250
1395022	3/4" x 14	17.0	32.3	11.0	250
1395023	7/8" x 14	18.1	38.0	13.5	250
1395024	1" x 11	16.9	39.8	10.8	250
1395025	1 1/4" x 11	20.9	49.9	15.0	100
1395026	1 1/2" x 11	16.9	55.2	10.8	100
1395027	2" x 11	17.0	73.7	10.7	100
1395028	3" x 11	16.5	105.0	11.3	50

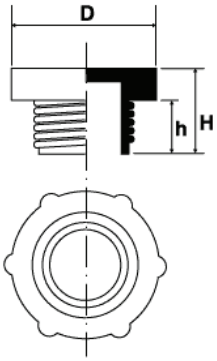
Universal Threaded Plugs - UNF/JIC



Specifications: RoHS ✓
Material: Low Density Polyethylene
Colour: Red

- Helps protect against ingress of dirt and moisture
- Non Corrosive
- Simple to install by hand with easy to grip head

NEW



Part Number	Thread Size	Dimensions			Unit QTY
		H	D	h	
1396014	5/16" x 18	12	14,5	7,4	500
1396015	5/16" x 24	12,3	14,8	7,4	500
1396016	3/8" x 24	14	13,7	9,5	500
1396017	7/16" x 20	16,1	17,4	11	500
1396018	7/16" x 24	12,1	17,8	7,1	500
1396019	1/2" x 20	15,3	18,5	10,5	500
1396020	9/16" x 18	15,4	22,6	10,7	500
1396021	9/16" x 24	13,6	18,9	9	500
1396022	5/8" x 18	14,8	21	10	500
1396023	5/8" x 24	14,8	20,7	10	500
1396024	11/16" x 16	18,1	25,6	13,5	250
1396025	3/4" x 16	18,7	27	13,8	250
1396026	13/16" x 16	18,1	26,7	13,5	250
1396027	7/8" x 14	18,5	28,8	13,6	250
1396028	1" x 14	17,8	32	13,2	250
1396029	1.1/16" x 12	18,4	33,4	13,8	250
1396030	1.1/16" x 14	18,3	33,3	13,7	250
1396031	1.3/16" x 12	18,3	36,8	13,5	250
1396032	1.5/16" x 12	16,3	39,3	11	250
1396033	1.5/8" x 12	17,3	50,6	12,9	100
1396034	1.3/4" x 12	19,7	53,2	13,8	100
1396035	1.7/8" x 12	22,5	58,4	16,7	100
1396036	2.1/2" x 12	20,6	73,6	15	50

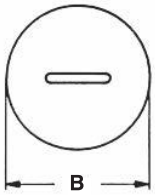


Pg Threaded Plugs

- Plugs conform to N-DIN 46320-FS/PA
- Protection DIN 40050 - IP54
- Excellent resistance to acids, alkalis, sea water, petrol and mineral oil

Specifications: RoHS ✓
Material: Glass Filled Nylon
Seal: IP54
Operating temperature: -40°C to 100°C
Tolerances:
B, C & D = ± .41





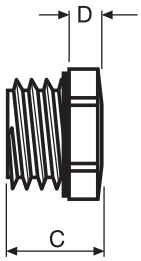
Part Number		Thread Size	Part Dimensions			Unit Quantity
Black	Grey		B Head Diameter	C Overall Height	D Head Height	
44580000	44580001	Pg 7	15.0	8.0	2.0	100
44580002	44580003	Pg 9	19.0	9.0	3.0	100
44580004	44580005	Pg 11	22.0	9.0	3.0	100
44580006	44580007	Pg 13.5	25.0	9.5	3.5	100
44580008	44580009	Pg 16	27.0	9.5	3.5	100
44580010	44580011	Pg 21	33.0	11.0	3.0	100
44580012	44580013	Pg 29	44.0	12.0	4.0	50
44580014	44580015	Pg 36	55.0	15.0	5.0	25
44580016	44580017	Pg 42	62.0	16.0	6.0	25
44580018	44580019	Pg 48	69.0	16.0	4.0	25

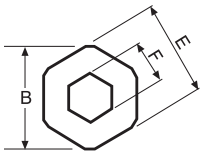


Hexagon Drive Threaded Plugs

- Provides a high-spec water tight seal

Specifications: RoHS ✓
Material: Plug - Nylon, Seal - Buna N
Colour: Black
Tolerances: B, C, D, E & F = ± .30
Protection: IP68
Operating Temperature: -20°C to 80°C





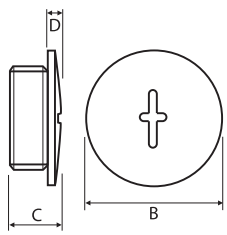
Part Number	Thread Size	Part Dimensions					Unit Quantity
		B Head Diameter	C Overall Height	D Head Height	Across Flats E External Hex	Across Flats F Internal Hex	
4461000	Pg 7	16.5	13.0	4.5	15.0	6.0	100
4461003	Pg 9	20.5	13.0	4.5	19.0	8.0	100
4461006	Pg 11	25.5	14.5	5.5	24.0	8.0	100
4461009	Pg 13.5	25.5	14.5	5.5	24.0	8.0	100
4461012	Pg 16	30.5	16.0	5.5	28.0	8.0	100
4461015	Pg 21	38.0	17.5	6.0	36.0	8.0	100
4461018	Pg 29	48.0	18.0	6.5	46.0	8.0	50
4461021	Pg 36	60.0	20.0	6.5	55.0	8.0	25
4461024	Pg 42	65.0	20.0	6.5	60.0	8.0	20
4461027	Pg 48	75.0	21.0	6.5	70.0	8.0	20
4461200	M12 x 1.5	16.5	13.0	4.5	15.0	6.0	100
4461203	M16 x 1.5	20.5	13.0	4.5	19.0	8.0	100
4461206	M20 x 1.5	25.5	14.5	5.5	24.0	8.0	100
4461209	M25 x 1.5	30.5	16.0	5.5	28.0	8.0	100
4461212	M32 x 1.5	38.0	18.0	6.5	36.0	8.0	50
4461215	M40 x 1.5	48.0	18.0	6.5	46.0	8.0	25
4461218	M50 x 1.5	60.0	20.0	6.5	55.0	8.0	25
4461225	M63 x 1.5	75.0	21.0	6.5	70.0	8.0	20



Metric Threaded Plugs

- Ideal for protecting or sealing threaded holes

Specifications: RoHS ✓
Material: Nylon 66



PART NUMBER		Thread size	C Overall Height	B Head Diameter	D Head Height	Unit Quantity
Grey RAL7035	Black RAL9005					
4452000	4452010	M12 x 1,5	9	17	3	100
4452001	4452011	M16 x 1,5	10	22	4	100
4452002	4452012	M20 x 1,5	10	25.5	4	100
4452003	4452013	M25 x 1,5	11.5	31	4,5	100
4452004	4452014	M32 x 1,5	13	38	5	100
4452005	4452015	M40 x 1,5	14	48	5	50
4452006	4452016	M50 x 1,5	15	60	5	25
4452007	4452017	M63 x 1,5	18	75	6	25

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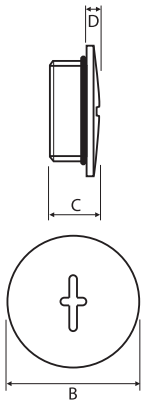
Threaded Plugs Fitted with '0' Ring



Specifications: RoHS ✓
Material: Plug: Nylon 66
0 Ring: NBR
Seal: IP68 - 5 bar
Colour: Grey RAL7035

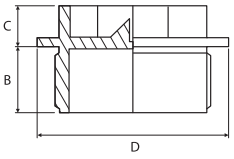
- Ideal for protecting or sealing threaded holes
- Part supplied fitted with O-Ring



PART NUMBER	Thread Size	C Overall Height	B Head Diameter	D Head Height	Unit Quantity
4455000	M12 x 1,5	9	17	3	100
4455001	M16 x 1,5	10	22	4	100
4455002	M20 x 1,5	10	25	4	100
4455003	M25 x 1,5	11.5	31	4,5	100
4455004	M32 x 1,5	13	38	5	100
4455005	M40 x 1,5	14	48	5	50
4455006	M50 x 1,5	15	60	5	25
4455007	M63 x 1,5	18	75	6	25

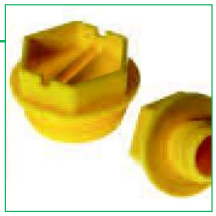
DBI plastics

Threaded Plugs



Specifications: RoHS ✓
Material: High Density Polyethylene
Colour: Yellow
Also available in Natural Nylon 66 and various sizes, please contact our Sales Department for further information.

- Ideal for protecting internal threads in hydraulic and pneumatic equipment during coating processes or transport



PART NUMBER	Thread size METRIC	Hexagon A/F	B	C	D	Unit Quantity
1394001	M8 x 1,25	12.0	8.4	7.4	16.6	250
1394002	M10 x 1,0	12.0	8.5	7.4	16.6	250
1394003	M10 x 1,5	12.0	8.5	7.4	16.6	250
1394006	M12 x 1,5	17.0	8.1	7.5	20.6	250
1394007	M12 x 1,75	17.0	8.5	7.5	20.6	250
1394008	M14 x 1,5	17.0	8.3	7.5	21.0	250
1394010	M16 x 1,5	17.0	8.5	7.5	20.6	250
1394011	M16 x 2,0	17.0	8.5	7.5	25.0	250
1394012	M18 x 1,5	22.0	8.1	7.5	26.5	250
1394018	M20 x 1,5	22.0	8.3	7.5	26.5	250
1394019	M20 x 2,5	22.0	8.5	7.5	29.0	250
1394020	M22 x 1,5	22.0	8.3	7.5	26.5	250
1394022	M24 x 1,5	22.0	8.3	7.5	26.5	250
1394024	M26 x 1,5	27.0	8.3	7.5	35.0	250
1394025	M27 x 2,0	27.0	11.5	7.5	34.8	100
1394026	M28 x 1,5	27.0	12.0	7.5	35.0	250
1394027	M30 x 2,0	27.0	8.3	7.5	35.0	100
1394028	M33 x 2,0	32.0	13.2	7.5	41.2	100
1394029	M36 x 2.0	32.0	9.3	7.2	44.0	200
1394030	M52 x 2,0	36.0	9.5	8.6	59.3	100

PART NUMBER	Thread size	Hexagon A/F	B	C	D	Unit Quantity
	BSP					
1395000	1/8"	12.0	8.7	7.4	16.8	250
1395001	1/4"	17.0	8.2	7.5	21.0	250
1395002	3/8"	17.0	8.1	7.5	20.6	250
1395003	1/2"	22.0	8.5	7.5	26.5	250
1395004	3/4"	27.0	8.5	7.5	35.0	250
1395006	1"	32.0	8.3	7.5	38.5	100
1395007	1 1/4"	36.0	13.8	8.2	53.0	100
1395008	1 1/2"	36.0	8.4	8.2	53.0	100
1395009	2"	41.0	12.0	11.0	66.0	50
1395010	3"	70.0	15.5	7.8	93.0	50
	UNF (ANSI B1.1)					
1396003	UNF 7/16	17.0	8.3	7.5	20.6	250
1396004	UNF 1/2	17.0	8.1	7.5	20.6	250
1396005	UNF 9/16	17.0	8.2	7.5	20.6	250
1396006	UNF 5/8"	17.0	7.7	7.5	20.6	250
1396007	UNF 3/4	22.0	10.5	7.5	26.5	250
1396009	UNF 7/8	22.0	11.8	7.5	26.5	250
1396010	UN 1 1/16	27.0	11.5	7.5	35.0	100
1396011	UN 1 5/16	32.0	8.5	7.5	45.0	100

DBI plastics

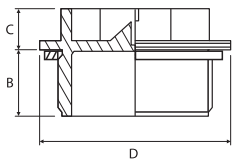
Threaded Plugs with Sealing Washer

Specifications: RoHS ✓
Washer Material: TPE
Plug & Washer Colour: Natural

- Prevents oil leakage from hydraulic components during transport
- Ideal for items that are to be pressure tested with compressed air

Other sizes available, please contact our Sales Department for further information





PART NUMBER	Thread size	Plug Material	Hexagon A/F	B	C	D	Unit Quantity
	BSP (DIN ISO 228)						
1397020	1/8 x 28	Nylon 66	12.0	8.5	7.5	17.0	250
1397021	1/4 x 19	Nylon 66	17.0	8.5	7.5	20.8	250
1397024	3/8 x 19	Nylon 66	22.0	8.5	7.5	28.9	250
1397026	1/2 x 14	Nylon 66	22.0	8.5	7.5	28.8	250
1397028	5/8 x 14	Nylon 66	22.0	8.5	7.5	29.0	250
1397029	3/4 x 14	Nylon 66	27.0	8.5	7.5	34.9	250
1397031	1 x 11	Nylon 66	32.0	8.5	7.5	44.5	100
	UNF (ANSI B1.1)						
1397035	UNF 9/16"-18	Nylon 66	17.0	8.5	7.5	20.8	250



Heyco® Liquid Tight Threaded Plugs

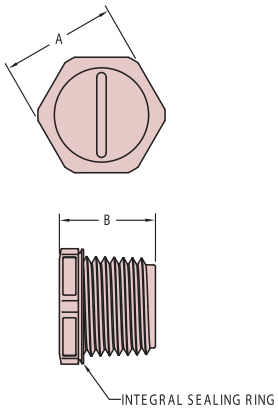
- Integral sealing ring ensures a superior seal at mounting hole location every time
- Seal threaded openings and protect against contamination and moisture
- Non-corrosive, resist to salt water, weak acids, gasoline, alcohol, oil, grease, and common solvents

Specifications: RoHS ✓
Material: Nylon 66
Flammability rating: UL94V-2
Protection: IP68 (70 psi, 5 bar)
Material Temperature Index: 125°C
Maximum Temperature on part not to exceed 105°C

NEW

Part Number		Thread Size	Description	Part Dimensions		Unit Quantity
Black	Grey			A Wrenching Flats	B Overall Length	
4463544B	4463544	NPT 1/4	LTTP NPT 1/4	16.0	16.8	100
4463545B	4463545	NPT 3/8	LTTP NPT 3/8	21.1	17.5	100
4463546B	4463546	NPT 1/2	LTTP NPT 1/2	24.9	20.6	100
4463547B	4463547	NPT 3/4	LTTP NPT 3/4	32.8	21.8	100
4463548B	4463548	NPT 1	LTTP NPT 1	44.2	26.7	100
4463549B	4463549	NPT 1-1/4	LTTP NPT 1-1/4	52.3	27.4	100
4463574B	4463574	PG 7	LTTP PG 7	16.0	13.5	100
4463575B	4463575	PG 9	LTTP PG 9	21.1	13.5	100
4463576B	4463576	PG 13.5	LTTP PG 13.5	24.9	15.8	100
4463401B	4463401	PG 21	LTTP PG 21	32.8	17.3	100
4463578B	4463578	PG 29	LTTP PG 29	44.2	22.1	100
4463579B	4463579	PG 36	LTTP PG 36	52.3	19.8	100
4463582B	4463582	M12	LTTP M12	16.0	13.5	100
4463583B	4463583	M16	LTTP M16	21.1	13.5	100
4463584B	4463584	M20	LTTP M20	24.9	15.8	100
4463586B	4463586	M32	LTTP M32	44.2	22.1	100
4463587B	4463587	M40	LTTP M40	52.3	19.8	100

Approximate Head Thickness: 5,3 mm



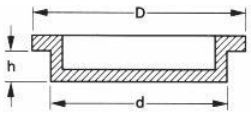


Protection Plugs For Internal Threads And Bores

- Protects tapped or plain holes and prevents the ingress of unwanted debris
- Quick and easy to install

Specifications: RoHS ✓
Material: Low Density Polyethylene
Colour: Natural

PART NUMBER	Thread Size	Body Diameter d	Head Diameter D	Body Length h	Suits Additional Threads	Unit Quantity
1332050	M10	9.1	12.9	6.5	⅛" B.S.P	1,000
1332060	M14	12.1	15.9	7.0	¼" B.S.P	1,000
1332070	M18	16.0	19.6	7.7	⅜" B.S.P	1,000
1332075	M22	19.6	23.3	8.3	Pg13.5 ½" B.S.P	1,000
1332077	-	22.3	25.0	11.7	-	1,000
1332080	M27	25.1	28.8	8.5	¾" B.S.P	500
1332085	M36	31.8	35.8	8.5	M33 x 1.5 M33 x 2.0	500
1332088	M45	40.5	47.0	9.0	M42 x 1.5 1¼" B.S.P	500
1332090	M48	46.0	51.0	9.0	Pg 36 1½" B.S.P	500
1332095	M64	58.0	66.0	8.0	Pg 48	500
1332097	M75	72.5	83.0	13.0	M76 x 4 2½" B.S.P	100
1332098	4"B.S.P	111.5	127.5	19.0	-	150



If using in non-threaded holes - the hole diameter should be 0.20 - 0.80 less than Body Diameter 'd'

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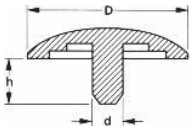
Cover Plugs For Internal Threads



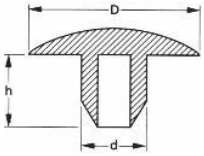
Specifications: RoHS ✓

Material: Low Density Polyethylene

- Protects tapped or plain holes and prevents the ingress of unwanted debris
- Quick and easy to install
- Domed head gives a neat appearance



Form A



Form B

PART NUMBER	Colour	Thread Size	d Body Diameter	D Head Diameter	h Body Length	Form	Unit Quantity
1311510	Black	M3	2.5	12.0	4.7	A	1,000
1311511	White	M3	2.5	12.0	4.7	A	1,000
1311530	Black	M3.5	3.2	12.0	6.0	A	1,000
1311531	White	M3.5	3.2	12.0	6.0	A	1,000
1311540	Black	M3.5	3.2	15.0	6.0	A	1,000
1311541	White	M3.5	3.2	15.0	6.0	A	1,000
1321750	Black	M5	4.4	9.0	5.5	B	1,000
1321751	White	M5	4.4	9.0	5.5	B	1,000
1321760	Black	M5 x 0.5	4.7	7.0	5.0	B	1,000
1321761	White	M5 x 0.5	4.7	7.0	5.0	B	1,000
1321765	Black	M6	5.4	12.0	7.5	B	1,000
1321766	White	M6	5.4	12.0	7.5	B	1,000
1321770	Black	M6	5.4	15.0	7.5	B	1,000
1321771	White	M6	5.4	15.0	7.5	B	1,000
1321780	Black	M7	6.0	11.0	7.0	B	1,000
1321781	White	M7	6.0	11.0	7.0	B	1,000
1321785	Black	M7	6.0	12.0	7.0	B	1,000
1321786	White	M7	6.0	12.0	7.0	B	1,000
1321790	Black	M7	6.0	15.0	7.0	B	1,000
1321791	White	M7	6.0	15.0	7.0	B	1,000
1321795	Black	M8	7.0	11.0	6.5	B	1,000
1321796	White	M8	7.0	11.0	6.5	B	1,000
1321800	Black	M8	7.0	12.0	6.5	B	1,000
1321801	White	M8	7.0	12.0	6.5	B	1,000
1321805	Black	M8	7.0	15.0	6.5	B	1,000
1321806	White	M8	7.0	15.0	6.5	B	1,000
1321810	Black	M9	8.0	12.0	7.0	B	1,000
1321811	White	M9	8.0	12.0	7.0	B	1,000
1321820	Black	M9	8.0	15.0	7.0	B	1,000
1321821	White	M9	8.0	15.0	7.0	B	1,000
1321825	Black	M10	8.5	12.0	8.0	B	1,000
1321826	White	M10	8.5	12.0	8.0	B	1,000
1321830	Black	M10	8.5	15.0	8.0	B	1,000
1321831	White	M10	8.5	15.0	8.0	B	1,000
1321835	Black	M11	10.0	12.0	9.0	B	1,000
1321836	White	M11	10.0	12.0	9.0	B	1,000
1321840	Black	M11	10.0	15.0	9.0	B	1,000
1321841	White	M11	10.0	15.0	9.0	B	1,000
1321845	Black	M11	10.0	12.0	4.0	B	1,000
1321846	White	M11	10.0	12.0	4.0	B	1,000
1321860	Black	M14	11.9	18.0	8.0	B	1,000
1321861	White	M14	11.9	18.0	8.0	B	1,000
1321870	Black	M16	15.4	19.0	8.5	B	1,000
1321871	White	M16	15.4	19.0	8.5	B	1,000

If using in non-threaded holes - hole size should be about 0.20 less than listed body diameter 'd'



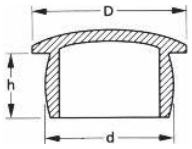
Cover Plugs For Internal Threads

- Protects tapped or plain holes and prevents the ingress of unwanted debris
- Quick and easy to install
- Domed head gives a neat appearance

Specifications: RoHS ✓

Material: Low Density Polyethylene
Colour: Natural

PART NUMBER	Thread Size	Body Diameter d	Head Diameter D	Body Length h	Suits Additional Threads	Unit Quantity
1301010	M2.5	2.0	3.5	7.0		1,000
1301015	M3.5	3.2	12.0	6.0		1,000
***1301030**	M5	4.2	9.0	4.45		1,000
1301031	M5	4.4	9.0	5.5		1,000
1301032	M5 x .5	4.7	7.0	5.0		1,000
1301040	M6	5.2	11.0	6.0		1,000
1301041	M6	5.4	12.0	7.5		1,000
1301042	M7	6.0	11.0	7.0		1,000
1301044	-	6.6	7.5	5.0		1,000
1301050	M8	7.0	11.0	6.5		1,000
1301051	M8	7.3	11.0	6.0		1,000
1301052	M8 x .75	7.5	11.0	4.5		1,000
1301060	M9	8.0	12.0	7.0		1,000
1301061	M10	8.5	12.0	8.0		1,000
1301062-	M10	8.8	11.5	8.0	a" B.S.P.	1,000
1301063	M10 x .75	9.3	12.5	9.0	a" B.S.P.	1,000
1301065	M11	10.0	15.0	9.0		1,000
1301066	M11	10.0	12.0	4.0		1,000
1301070	M12	10.7	15.0	9.0		1,000
1301075	M14	11.9	14.1	8.0	Pg 7 & s" B.S.P.	1,000
1301076	M14	11.9	23.0	8.0	Pg 7 & s" B.S.P.	1,000
1301077	M14	12.6	17.5	9.0		1,000
1301078	M14 x 1.0	13.2	17.5	8.0		1,000
1301079	M14 x .5	13.8	19.0	8.5		1,000
1301080	M16	14.8	18.5	9.5		1,000
1301081	M18	15.4	19.0	8.5	f" B.S.P.	1,000
1301082	M18	16.0	19.0	8.5	f" B.S.P.	1,000
1301083	M18 x 1.5	16.8	20.0	9.0		1,000
1301084	M18 x .75	17.2	23.0	9.5		1,000
1301086	M20 x 2.0	18.8	21.5	9.0		1,000
1301090	M22	19.6	26.0	9.0	Pg 13.5 & g" B.S.P.	1,000
1301091	M22	19.6	29.0	9.0	Pg 13.5 & g" B.S.P.	1,000
1301092	M22	20.5	25.5	9.0		1,000
1301100	M24	20.1	26.0	13.0	h" B.S.P.	500
1301102	M24 x 2.0	22.6	29.0	9.0		500
1301103	M24 x 1.0	23.0	27.3	19.3		500
1301110	M27	24.0	27.0	12.5		500
1301111	M27	25.0	32.0	13.0	k" B.S.P.	500
1301112	M27	25.0	36.0	13.0	k" B.S.P.	500
1301115	M28 x 2.0	26.0	31.5	12.0		500
1301120	M30	27.1	29.6	15.0	Pg 21	500
1301121	M30 x 1.5	29.0	34.5	15.0	l" B.S.P.	500
1301130	M33	31.2	38.0	13.0	1" B.S.P.	500
1301131	M33	31.2	45.0	13.0	1" B.S.P.	500
1301135	M35 x 1.5	33.5	41.0	11.5		500
1301140	M36 x 2.0	34.0	40.0	20.0		500
1301145	M39	35.6	47.0	15.0	Pg 29	500
1301147	M38 x 1.5	36.5	47.0	18.0	1a" B.S.P.	500
1301150	M42 x 3.0	39.7	46.0	15.0	1s" B.S.P.	500
1301151	M42 x 3.0	39.7	51.0	15.0	1s" B.S.P.	500
1301152	M42 x 3.0	39.7	42.0	15.0	1s" B.S.P.	500
1301160	M45 x 3.0	42.0	44.5	12.8		100
1301165	M48	43.3	50.5	15.0		100
1301166	M48 x 3.0	45.5	51.0	16.0		100
1301170	PG 36	45.8	51.0	16.0	1g" B.S.P.	100
1301171	PG 36	45.8	58.0	16.0	1g" B.S.P.	100
1301180	M56	50.5	57.0	15.5		100
1301185	M55 x 3.0	52.3	60.0	16.0		100
1301190	M60	55.3	59.5	19.5		100
1301191	M60	55.5	60.0	16.0		100
1301192	M60 x 2.0	58.0	63.0	18.0	Pg 48 2" B.S.P.	100
1301200	M68	61.5	74.0	20.0		100
1301205	M72 x 2.0	70.0	80.0	18.0		100
1301210	4" B.S.P.	110.0	130.0	18.0		100



* Part has Flat Head and Different Body Form
If using in non-threaded holes - hole size should be about 0.20 less than listed body diameter 'd'

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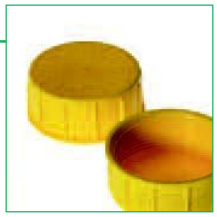
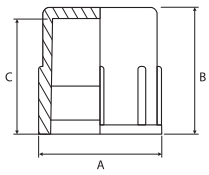
Threaded Caps



Specifications: RoHS ✓
Colour: Yellow

- Also available in other materials
- Ideal for protecting external threads on pipes and fittings



PART NUMBER	Type METRIC (DIN13/ISO 261)	Material	A	B	C	Unit Quantity
1425000	M8 x 1.0	HDPE	12.0	10.0	8.0	250
1425001	M10 x 1.0	HDPE	15.0	12.0	10.0	250
1425002	M12 x 1.0	LDPE	17.0	12.5	10.5	250
1425003	M12 x 1.5	LDPE	17.5	12.5	10.5	250
1425004	M14 x 1.5	LDPE	18.8	11.9	10.4	250
1425005	M16 x 1.5	LDPE	20.9	13.5	11.9	250
1425006	M16 x 1.5	LDPE	20.3	25.9	23.9	250
1425007	M18 x 1.5	LDPE	22.0	12.5	10.8	250
1425009	M20 x 1.5	LDPE	24.8	15.4	13.9	250
1425011	M22 x 1.5	LDPE	27.0	14.7	13.9	250
1425013	M24 x 1.5	LDPE	29.5	13.5	12.0	250
1425021	M30 x 2.0	LDPE	36.0	14.5	12.8	250
1425022	M36 x 1.5	LDPE	42.5	16.0	14.5	100
1425023	M36 x 2.0	LDPE	41.4	17.0	15.5	100
1425024	M42 x 2.0	LDPE	48.9	16.4	14.8	100
1425025	M52 x 2.0	LDPE	59.2	18.5	16.7	100
	BSP (DIN ISO 228)					
1426000	1/8"	LDPE	13.0	11.0	10.3	250
1426001	1/4"	LDPE	16.9	14.3	13.5	250
1426002	3/8"	LDPE	21.2	13.3	12.0	250
1426003	1/2"	LDPE	26.8	14.6	13.9	250
1426004	5/8"	HDPE	29.0	14.0	12.5	250
1426005	3/4"	LDPE	32.0	15.4	13.8	250
1426007	1"	LDPE	38.3	24.0	22.8	100
1426009	1 1/4"	HDPE	49.0	25.0	23.5	100
1426010	1 1/2"	HDPE	55.0	28.0	27.0	100
1426011	2"	HDPE	69.5	28.5	26.8	100
1426012	2 1/2"	HDPE	82.6	26.0	24.5	100
	UNF (ANSI B1.1)					
1427001	7/16"-20	HDPE	17.0	22.0	20.5	250
1427002	9/16"-18	LDPE	18.0	13.5	12.9	250
1427004	5/8"-18	LDPE	19.2	15.0	14.1	250
1427008	7/8"-14	LDPE	26.5	15.9	14.7	250



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Rectangular Tube Plugs

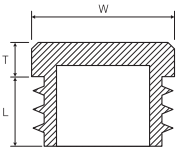
- Rugged and durable
- Ideal for plugging rectangular tube ends
- Flexible securing grip ensures a firm fit
- Masks sharp and jagged edges

Specifications: RoHS ✓
Material: Low Density Polyethylene
Colour: Black

End use applications may vary. Samples should be application tested before bulk orders are placed

Available in other sizes, please contact our Sales Department for further information

PART NUMBER	Tube Size		Part Dimensions			Unit Quantity
	Outside Dimensions	Wall Thickness	L Length	T Head Thickness	W Head Size	
1372600	12 x 20	1.0 to 1.5	9.8	2.0	12 x 20	1,000
1372610	18 x 20	1.0 to 1.5	11.5	4.85	18 x 20	1,000
1372620	15 x 30	1.0 to 2.0	12.0	4.85	15 x 30	1,000
1372622	20 x 10	1.0 to 2.0	11.5	3.0	20 x 10	1,000
1372624	20 x 15	1.0 to 2.0	11.5	4.5	20 x 15	1,000
1372630	20 x 30	1.0 to 2.0	11.9	6.13	20 x 30	1,000
1372640	20 x 40	1.5 to 2.0	13.6	5.97	20 x 40	1,000
1372650	25 x 10	1.0 to 2.0	11.5	4.5	25 x 10	500
1372652	25 x 15	1.0 to 2.0	11.5	4.5	25 x 15	500
1372654	25 x 20	1.0 to 2.0	11.5	4.5	25 x 20	500
1372660	30 x 10	1.0 to 2.0	11.5	4.5	30 x 10	100
1372662	30 x 20	1.0 to 2.0	11.5	4.5	30 x 20	100
1372664	30 x 25	1.0 to 2.0	11.5	4.5	30 x 25	100
1372670	40 x 10	1.0 to 2.0	11.5	4.5	40 x 10	100
1372672	40 x 15	1.0 to 2.0	11.5	4.5	40 x 15	100
1372676	40 x 25	1.0 to 2.0	11.5	4.5	40 x 25	100
1372678	40 x 30	1.0 to 2.0	11.5	4.5	40 x 30	100





Square Tube Plugs

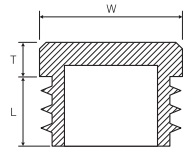
- Rugged and durable
- Ideal for plugging square tube ends
- Flexible securing grip ensures a firm fit
- Masks sharp and jagged edges

Specifications: RoHS ✓
Material: Low Density Polyethylene
Colour: Black

End use applications may vary. Samples should be application tested before bulk orders are placed

Available in other sizes, please contact our Sales Department for further information

PART NUMBER	Tube Size		Part Dimensions			Unit Quantity
	Outside Dimensions	Wall Thickness	L Length	T Head Thickness	W Head Size	
1372510	10 x 10	1.0 to 2.0	9.8	4.8	10 x 10	500
1372520	12 x 12	1.0 to 2.0	7.0	1.95	12 x 12	500
1372525	15 x 15	1.0 to 2.0	11.3	4.0	15 x 15	500
1372530	18 x 18	1.5 to 2.0	11.8	1.97	18 x 18	500
1372540	20 x 20	1.5 to 2.0	11.9	5.08	20 x 20	500
1372550	20 x 20	1.0	11.9	5.08	20 x 20	500
1372555	22 x 22	1.0 to 2.0	14.0	5.08	20 x 20	500
1372560	25 x 25	1.5 to 2.0	11.8	6.01	25 x 25	100
1372570	30 x 30	1.5 to 2.0	11.7	5.84	30 x 30	100
1372575	35 x 35	1.0 to 2.0	14.5	4.5	35 x 35	100
1372580	40 x 40	1.5 to 3.0	14.3	4.75	40 x 40	100
1372585	45 x 45	1.0 to 2.0	14.5	4.5	45 x 45	100
1372590	50 x 50	1.5 to 4.0	19.3	4.75	50 x 50	100
1372595	60 x 60	1.0 to 3.0	23.5	4.5	60 x 60	100





Round Tube Plugs

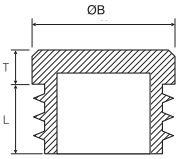
- Rugged and durable
- Ideal for plugging round tube ends
- Flexible securing grip ensures a firm fit
- Masks sharp and jagged edges

Specifications: RoHS ✓
Material: Low Density Polyethylene
Colour: Black

End use applications may vary. Samples should be application tested before bulk orders are placed

Available in other sizes, please contact our Sales Department for further information

PART NUMBER	Tube Size		Part Dimensions			Unit Quantity
	Outside Dimensions	Wall Thickness	L Length	T Head Thickness	ØB Head Diameter	
1372720	10.0	1.0 to 2.0	11.5	3.0	10.0	100
1372730	15.0	0.8 to 2.0	11.5	3.0	15.0	100
1372740	20.0	1.0 to 2.0	11.5	4.5	20.0	100
1372750	25.0	1.0 to 2.0	11.5	4.5	25.0	100
1372760	30.0	1.0 to 2.0	11.5	4.5	30.0	100
1372770	35.0	1.0 to 2.5	11.5	4.5	35.0	100
1372780	40.0	1.0 to 3.0	11.8	4.5	40.0	100
1372790	50.8	1.0 to 2.0	14.0	6.0	50.8	100



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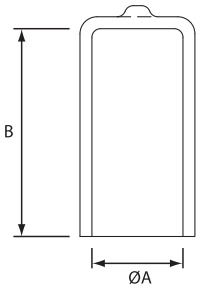
Specifications: RoHS ✓

Material: Flexible PVC (Plastisol)
Hardness: 65 ±5 Shore A
Temperature Range: -30°C to +60°C
Tolerances: Wall thickness ±0.5
Inside Length ±2.0

Applications include:

- Shipping protection
- Paint masking
- Masking for powder coating or plating processes
- Anodising
- General protection



PART NUMBER & COLOUR		To Fit Thread Size	ØA Inside Diameter	B Inside Length	Unit Quantity
Black	Red				
1364000	1364100	M3	2.85	12.70	1,000
1364001	1364101	M3	2.85	19.05	1,000
1364002	1364102	M3	2.85	25.40	1,000
1364003	1364103	M4	3.61	12.70	1,000
1364004	1364104	M4	3.61	19.05	1,000
1364005	1364105	M4	3.61	25.40	1,000
1364006	1364106	M5	4.75	12.70	1,000
1364007	1364107	M5	4.75	19.05	1,000
1364008	1364108	M5	4.75	25.40	1,000
1364009	1364109	M6	5.94	12.70	1,000
1364010	1364110	M6	5.94	19.05	1,000
1364011	1364111	M6	5.94	25.40	1,000
1364012	1364112	-	6.35	12.70	1,000
1364013	1364113	-	6.35	19.05	1,000
1364014	1364114	-	6.35	25.40	1,000
1364015	1364115	M8	7.95	12.70	1,000
1364016	1364116	M8	7.95	19.05	1,000
1364017	1364117	M8	7.95	25.40	1,000
1364201	-	M8	7.95	38.10	1,000
1364202	-	M8	7.95	50.80	750
1364203	-	M8	7.95	63.50	500
1364204	-	M8	7.95	76.20	250
1364205	-	M8	7.95	101.60	100
1364018	1364118	M10	9.53	12.70	1,000
1364019	1364119	M10	9.53	19.05	1,000
1364020	1364120	M10	9.53	25.40	1,000
1364207	-	M10	9.53	38.10	1,000
1364208	-	M10	9.53	50.80	750
1364209	-	M10	9.53	63.50	500
1364210	-	M10	9.53	76.20	250
1364211	-	M10	9.53	101.60	100
1364021	1364121	M12	11.10	12.70	1,000
1364022	1364122	M12	11.10	19.05	1,000
1364023	1364123	M12	11.10	25.40	1,000
1364024	1364124	-	12.70	12.70	1,000
1364025	1364125	-	12.70	19.05	1,000
1364026	1364126	-	12.70	25.40	1,000
1364213	-	-	12.70	38.10	1,000
1364214	-	-	12.70	50.80	750
1364215	-	-	12.70	63.50	500
1364216	-	-	12.70	76.20	250
1364217	-	-	12.70	101.60	100

PART NUMBER & COLOUR		To Fit Thread Size	ØA Inside Diameter	B Inside Length	Unit Quantity
Black	Red				
1364027	1364127	M14	13.49	12.70	1,000
1364028	1364128	M14	13.49	19.05	1,000
1364029	1364129	M14	13.49	25.40	1,000
1364030	1364130	M16	15.88	12.70	1,000
1364031	1364131	M16	15.88	19.05	1,000
1364032	1364132	M16	15.88	25.40	1,000
1364219	-	M16	15.88	38.10	1,000
1364220	-	M16	15.88	50.80	750
1364221	-	M16	15.88	63.50	500
1364222	-	M16	15.88	76.20	250
1364223	-	M16	15.88	101.60	100
1364224	-	M16	15.88	127.00	100
1364225	-	M16	15.88	152.40	100
1364033	1364133	M20	19.05	12.70	1,000
1364034	1364134	M20	19.05	19.05	1,000
1364035	1364135	M20	19.05	25.40	1,000
1364227	-	M20	19.05	38.10	1,000
1364228	-	M20	19.05	50.80	750
1364229	-	M20	19.05	63.50	500
1364230	-	M20	19.05	76.20	250
1364231	-	M20	19.05	101.60	100
1364232	-	M20	19.05	127.00	100
1364233	-	M20	19.05	152.40	100
1364036	1364136	M24	22.23	12.70	1,000
1364037	1364137	M24	22.23	19.05	1,000
1364038	1364138	M24	22.23	25.40	1,000
1364235	-	M24	22.23	38.10	1,000
1364236	-	M24	22.23	50.80	750
1364237	-	M24	22.23	63.50	500
1364238	-	M24	22.23	76.20	250
1364239	-	M24	22.23	101.60	100
1364240	-	M24	22.23	127.00	100
1364241	-	M24	22.23	152.40	100
1364039	1364139	M26	25.40	12.70	1,000
1364040	1364140	M26	25.40	19.05	1,000
1364041	1364141	M26	25.40	25.40	1,000
1364242	-	M26	25.40	50.80	750
1364243	-	M26	25.40	63.50	500
1364244	-	M26	25.40	76.20	250
1364245	-	M26	25.40	101.60	100
1364246	-	M26	25.40	127.00	100
1364247	-	M26	25.40	152.40	100



Grab Tab Caps

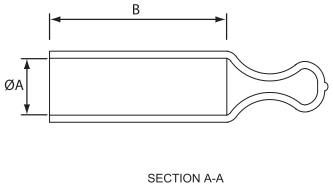
Applications include:

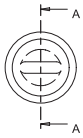
- Shipping protection
- Paint masking
- Masking for powder coating or plating processes
- Anodising
- General protection

Specifications: RoHS ✓

Material: Flexible PVC (Plastisol)
Colour: Black
Hardness: 65 ±5 Shore A
Temperature Range: -30°C to +60°C
Tolerances: Wall thickness ±0.5, Inside Length ±2.0

PART NUMBER	ØA Inside Diameter	B Inside Length	Unit Quantity
1364600	6.10	12.7	1,000
1364601	6.10	25.4	1,000
1364602	6.10	38.10	1,000
1364603	6.10	50.8	1,000
1364604	7.67	12.7	1,000
1364605	7.67	25.4	1,000
1364606	7.67	38.1	1,000
1364607	7.67	50.8	1,000
1364608	12.45	12.7	1,000
1364609	12.45	25.4	1,000
1364610	12.45	38.1	1,000
1364611	12.45	50.8	1,000
1364612	15.62	12.7	1,000
1364613	15.62	25.4	1,000
1364614	15.62	38.1	1,000
1364615	15.62	50.8	1,000
1364616	19.05	12.7	1,000
1364617	19.05	25.4	1,000
1364618	19.05	38.1	1,000
1364619	19.05	50.8	1,000







Pull Tab Caps

Applications include:

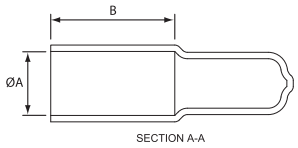
- Shipping protection
- Paint masking
- Masking for powder coating or plating processes
- Anodising
- General protection

Specifications: RoHS ✓

Material: Flexible PVC (Plastisol)
Colour: Black
Hardness: 65 ±5 Shore A
Temperature Range: -30°C to +60°C
Tolerances: Wall thickness ±0.5, Inside Length ±2.0

PART NUMBER	ØA Inside Diameter	B Inside Length	Unit Quantity
1364500	6.10	12.7	1,000
1364501	6.10	25.4	1,000
1364502	6.40	38.1	1,000
1364503	7.70	12.7	1,000
1364504	7.70	25.4	1,000
1364505	7.70	38.1	1,000
1364506	9.80	12.7	1,000
1364507	9.80	25.4	1,000
1364508	9.80	38.1	1,000
1364509	12.45	12.7	1,000
1364510	12.45	25.4	1,000
1364511	12.45	38.1	1,000

PART NUMBER	ØA Inside Diameter	B Inside Length	Unit Quantity
1364512	14.02	12.7	1,000
1364513	14.27	12.7	1,000
1364514	14.02	38.1	1,000
1364515	15.62	12.7	1,000
1364516	15.62	25.4	1,000
1364517	20.24	38.1	1,000
1364518	20.24	12.7	1,000
1364519	20.24	25.4	1,000
1364520	20.24	38.1	1,000
1364521	23.80	12.7	1,000
1364522	23.80	25.4	1,000
1364523	23.80	38.1	1,000
1364524	28.58	12.7	1,000
1364525	28.58	25.4	1,000
1364526	28.58	38.1	1,000





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Square Caps

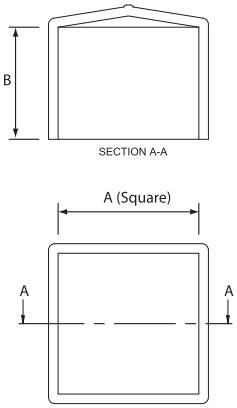


Specifications: RoHS ✓

Material: Flexible PVC (Plastisol)
Colour: Black
Hardness: 65 ±5 Shore A
Temperature Range: -30°C to +60°C
Tolerances: Wall thickness ±0.5, Inside Length ±2.0

Applications include:

- Shipping protection
- Paint masking
- Masking for powder coating or plating processes
- Anodising
- General protection



PART NUMBER	A (Square)	B Inside Length	Unit Quantity
1364400	6.35	25.40	1,000
1364401	6.35	50.80	500
1364402	6.35	76.20	250
1364403	6.35	101.60	100
1364450	10.00	25.40	1,000
1364451	10.00	50.80	500
1364452	10.00	76.20	250
1364453	10.00	101.60	100
1364454	12.00	25.40	1,000
1364455	12.00	50.80	500
1364456	12.00	76.20	250
1364457	12.00	101.60	100
1364404	12.70	25.40	1,000
1364405	12.70	50.80	500
1364406	12.70	76.20	250
1364407	12.70	101.60	100
1364408	15.87	25.40	1,000
1364409	15.87	50.80	500
1364410	15.87	76.20	250
1364411	15.87	101.60	100
1364412	19.05	25.40	1,000
1364413	19.05	50.80	500
1364414	19.05	76.20	250
1364415	19.05	101.60	100

PART NUMBER	A (Square)	B Inside Length	Unit Quantity
1364458	25.00	25.40	1,000
1364459	25.00	50.80	500
1364460	25.00	76.20	250
1364461	25.00	101.60	100
1364416	25.40	25.40	1,000
1364417	25.40	50.80	500
1364418	25.40	76.20	250
1364419	25.40	101.60	100
1364462	30.00	25.40	1,000
1364463	30.00	50.80	500
1364464	30.00	76.20	250
1364465	30.00	101.60	100
1364466	40.00	25.40	1,000
1364467	40.00	50.80	500
1364468	40.00	76.20	250
1364469	40.00	101.60	100
1364470	50.00	25.40	1,000
1364471	50.00	50.80	500
1364472	50.00	76.20	250
1364473	50.00	101.60	100
1364474	60.00	25.40	1,000
1364475	60.00	50.80	500
1364476	60.00	76.20	250
1364477	60.00	101.60	100

Rectangular Caps

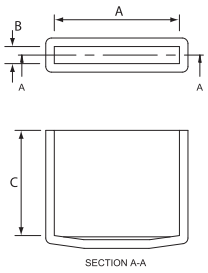


Specifications: RoHS ✓

Material: Flexible PVC (Plastisol)
Colour: Black
Hardness: 65 ±5 Shore A
Temperature Range: -30°C to +60°C
Tolerances: Wall thickness ±0.5, Inside Length ±2.0

Applications include:

- Shipping protection
- Paint masking
- Masking for powder coating or plating processes
- Anodising
- General protection



PART NUMBER	A	B	C	Unit Quantity
1364301	12.70	1.57	25.40	1,000
1364302	12.70	1.57	38.10	1,000
1364303	12.70	1.57	50.80	1,000
1364304	25.40	2.29	25.40	1,000
1364305	25.40	2.29	38.10	1,000
1364306	25.40	2.29	50.80	1,000
1364307	25.40	2.29	63.50	1,000
1364308	25.40	2.29	76.20	1,000
1364309	25.40	2.29	101.60	1,000
1364328	12.70	3.18	25.40	1,000
1364329	12.70	3.18	38.10	1,000
1364330	12.70	3.18	50.80	1,000
1364331	12.70	3.18	63.50	1,000
1364332	12.70	3.18	76.20	1,000
1364333	12.70	3.18	101.60	1,000
1364334	19.05	3.18	25.40	1,000
1364335	19.05	3.18	38.10	1,000
1364336	19.05	3.18	50.80	1,000
1364337	19.05	3.18	63.50	1,000
1364338	19.05	3.18	76.20	1,000
1364339	19.05	3.18	101.60	1,000



Round Head Caps - EPDM

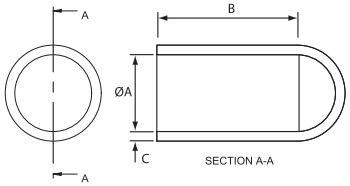
- Can be used as both a Cap and Plug
- EPDM Caps are reusable and have excellent chemical resistance
- Round top profile allows for easy insertion into holes
- Flexible enough to conform to irregular geometry

Specifications: RoHS ✓

Material: EPDM
Colour: Black
Hardness: 55 ±5 Shore A
Temperature Range: -50°C to +175°C (short term to 245°C)

PART NUMBER	ØA Inside Diameter	B Inside Length	C Wall Thickness	Unit Quantity
1364700	3.20	12.70	1.52	1,000
1364701	3.20	25.40	1.52	1,000
1364702	4.00	12.70	1.52	1,000
1364703	4.00	25.40	1.52	1,000
1364704	4.80	12.70	1.52	1,000
1364705	4.80	25.40	1.52	1,000
1364706	5.90	25.40	1.50	1,000
1364707	5.90	38.10	1.50	1,000
1364708	7.50	25.40	1.50	1,000
1364709	7.50	38.10	1.50	1,000
1364710	9.53	25.40	1.50	1,000
1364711	11.90	25.40	1.15	500

PART NUMBER	ØA Inside Diameter	B Inside Length	C Wall Thickness	Unit Quantity
1364712	12.70	38.10	1.50	200
1364713	13.60	38.10	1.85	200
1364714	15.88	38.10	1.50	200
1364715	19.05	38.10	1.50	200
1364716	23.80	38.10	1.50	100
1364717	25.40	38.10	1.50	100
1364718	28.60	38.10	1.50	100
1364719	31.75	38.10	1.50	100
1364720	38.10	38.10	1.50	100
1364721	44.50	50.80	1.50	100
1364722	47.60	50.80	1.50	50
1364723	50.80	50.80	1.50	100



HELPFUL HINTS

- When sizing parts as a cap, the ID of the cap should be 2 - 3% smaller than the stud diameter
- To ensure easy removal, select a cap length that is slightly longer than the masking length of the stud. This is especially important if the cap ID is less than 4% of the stud diameter
- When sizing parts as a plug, the OD should be at least 6% larger than the hole diameter
- If used to cover tube ends in powder coating, creating a small slit in the top of the cap will prevent blow-off
- Economical enough to be used one time in high temperature applications, or where the cap will be used during shipping after coating process

Applications include:

- Powder Coating
- E-Coating
- Plating
- Anodizing
- Sand Blasting
- Shipping Caps



Round Head Caps - Silicone

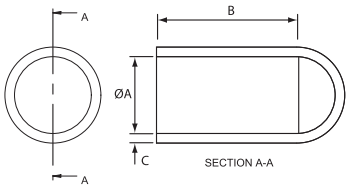
- Can be used as both a Cap and Plug
- EPDM Caps are reusable and have excellent chemical resistance
- Round top profile allows for easy insertion into holes
- Flexible enough to conform to irregular geometry

Specifications: RoHS ✓

Material: Silicone
Colour: Natural
Hardness: 55 ±5 Shore A
Temperature Range: -50°C to +316°C (short term)

PART NUMBER	ØA Inside Diameter	B Inside Length	C Wall Thickness	Unit Quantity
1364750	3.18	12.70	1.52	1,000
1364751	3.18	25.40	1.52	1,000
1364752	3.96	12.70	1.40	1,000
1364753	3.96	25.40	1.52	1,000
1364754	4.75	12.70	1.45	1,000
1364755	4.75	25.40	1.52	1,000
1364756	5.94	25.40	1.52	1,000
1364757	5.94	38.10	1.45	1,000
1364758	7.49	25.40	1.52	1,000
1364759	7.49	38.10	1.52	1,000
1364760	9.53	25.40	1.52	1,000
1364761	11.89	25.40	1.12	200

PART NUMBER	ØA Inside Diameter	B Inside Length	C Wall Thickness	Unit Quantity
1364762	12.70	38.10	1.52	200
1364763	13.59	38.10	1.85	200
1364764	15.88	38.10	1.52	200
1364765	19.05	38.10	1.52	200
1364766	23.80	38.10	1.52	100
1364767	25.40	38.10	1.52	100
1364768	28.58	38.10	1.52	100
1364769	31.75	38.10	1.52	100
1364770	38.10	38.10	1.52	50
1364771	44.45	50.80	1.52	50
1364772	47.63	50.80	1.52	20
1364773	50.80	50.80	1.52	50



HELPFUL HINTS

- When sizing parts as a cap, the ID of the cap should be 2 - 5% smaller than the stud diameter
- To ensure easy removal, select a cap length that is slightly longer than the masking length of the stud
- This is especially important if the cap ID is less than 5% of the stud diameter.
- When sizing parts as a plug, the OD should be at least 7% larger than the hole diameter
- If used to cover tube ends in powder coating, a small slit in the top of the cap will prevent blow-off

CAUTION: Due to the low tear resistance of silicone; do not use pliers or other sharp tools for removal.

Applications include:

- Powder Coating
- E-Coating
- Plating
- Anodising

Other colours are available.
Please contact our Sales Department for more information.

T: +44 (0) 1202 865222
E: sales@optimascomponents.com

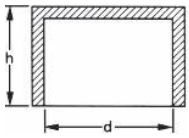
Protection Caps - For External Threads & Plain Diameters



Specifications: RoHS ✓

Material: Low Density Polyethylene
Colour: Natural
* Radiused Top Form

- Protects plain or threaded shafts
- Masks sharp edges



PART NUMBER	Thread Size	d Inside Diameter	h Length	Unit Quantity
*1352220	M6	5.7	12.0	1,000
*1352225	M8	7.8	14.0	1,000
1352228	M10	9.8	11.0	1,000
1352230	-	10.2	8.0	1,000
1352232	-	10.5	8.0	1,000
1352234	M12	11.5	12.0	1,000
1352240	s" B.S.P.	12.7	13.5	1,000
1352241	M14	13.5	13.5	1,000
1352244	M16	15.7	15.0	1,000
1352246	f" B.S.P.	15.9	14.0	1,000
1352250	M18	17.7	15.0	1,000
1352253	M20	19.7	14.0	1,000
1352256	g" B.S.P.	20.6	15.0	1,000
1352260	M22	21.3	15.5	1,000
1352261	M24	23.5	18.5	500
1352263	M26	25.4	17.5	500
1352268	k" B.S.P.	26.2	18.5	500
1352270	M30	29.3	18.0	500
1352272	1" B.S.P.	33.4	22.5	500

PART NUMBER	Thread Size	d Inside Diameter	h Length	Unit Quantity
1352273	1" B.S.P.	33.4	45.0	800
1352275	1" B.S.P.	34.8	25.0	1,500
1352280	1" B.S.P.	35.7	14.0	1,500
1352282	1" B.S.P.	37.5	20.0	1,500
1352290	1s" B.S.P.	41.9	28.0	800
1352292	1g" B.S.P.	47.8	29.5	500
1352294	1g" B.S.P.	50.6	29.0	500
1352296	1g" B.S.P.	51.6	16.0	500
1352297	1k" B.S.P.	52.5	30.0	500
1352299	1k" B.S.P.	56.7	19.0	500
1352302	2" B.S.P.	59.7	30.0	450
1352304	2" B.S.P.	59.7	with hole	400
1352306	2" B.S.P.	69.8	25.0	400
1352310	2g" B.S.P.	75.5	35.0	200
1352312	2g" B.S.P.	75.8	18.0	500
1352315	2g" B.S.P.	79.8	25.0	300
1352317	2g" B.S.P.	88.4	36.0	150
1352320	2g" B.S.P.	88.8	24.0	150
1352325	2g" B.S.P.	101.8	24.0	150

If using on a plain diameter the outside dimensions should be 0.20 - 0.30 larger than listed inside diameter 'd'

DBI plastics

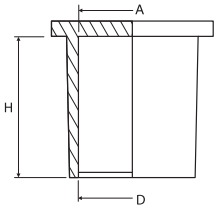
Caps with Gripping Edge



Specifications: RoHS ✓

Material : Low Density Polyethylene

- Gripping edge makes the cap easy to pull off
- Ideal for brake and fuel lines
- Meets the requirements of SAE J2044



PART NUMBER	Colour	A	D	H	Unit Quantity
1358010	Natural	6.2	6.7	19.5	1,000
1358000	Natural	6.8	7.2	9.9	1,000
1358051	Yellow	7.9	8.1	18.3	1,000
1358001	Natural	7.8	8.3	18.4	1,000
1358052	Red	7.9	8.4	19.9	1,000
1358002	Natural	7.9	8.0	12.0	1,000
1358004	Natural	8.0	8.9	16.0	1,000
1358005	Natural	9.4	10.0	21.5	1,000
1358054	Red	9.8	10.2	20.4	1,000
1358006	Natural	9.9	10.5	21.4	1,000
1358056	Red	9.9	10.5	22.6	1,000
1358011	Natural	11.6	12.2	20.0	1,000
1358007	Natural	12.8	13.4	19.7	1,000
1358012	Natural	11.8	12.3	16.0	1,000
1358008	Natural	14.6	15.5	15.9	1,000
1358057	Red	18.7	21.7	32.0	500
1358009	Natural	18.4	19.6	19.9	1,000
1358013	Natural	22.0	22.4	25.5	1,000

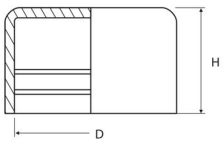


Pipe Caps

DBI plastics

- Developed especially for steel pipes in ISO standard dimensions

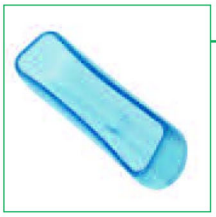
Specifications: RoHS ✓
Material: Low Density Polyethylene
Colour: Yellow



PART NUMBER	*D	H	Unit Quantity
1351000	5.4	15.7	1,000
1351001	5.6	15.0	1,000
1351002	6.3	15.7	1,000
1351003	6.3	15.0	1,000
1351004	8.0	18.1	1,000
1351005	9.6	17.0	1,000
1351006	10.0	18.8	1,000
1351007	11.0	15.0	1,000
1351008	12.0	18.0	1,000
1351009	12.7	18.0	1,000
1351010	14.0	13.0	1,000
1351011	15.0	20.0	1,000
1351012	16.0	20.0	500
1351013	17.2	20.0	500
1351014	18.4	21.0	500
1351015	19.0	20.0	500
1351016	20.8	20.0	500
1351017	20.9	20.0	500
1351018	21.3	21.0	500
1351019	22.0	25.0	500
1351020	23.0	24.0	250
1351021	24.0	26.0	250
1351022	25.0	25.0	250
1351023	26.0	26.0	250
1351024	27.0	26.0	250
1351025	28.0	26.0	250
1351026	30.0	29.0	250
1351027	30.5	29.0	250

PART NUMBER	*D	H	Unit Quantity
1351028	32.0	29.0	250
1351029	33.7	29.0	250
1351030	36.0	29.0	100
1351040	37.0	10.0	250
1351031	38.0	29.0	100
1351032	40.0	29.0	100
1351033	40.8	28.7	100
1351034	42.4	29.0	100
1351035	44.5	37.0	100
1351036	48.0	37.0	100
1351037	48.3	37.0	100
1351039	50.0	29.6	100
1351041	57.0	37.0	50
1351042	58.0	51.0	50
1351043	60.0	37.0	50
1351044	60.3	37.0	50
1351045	63.5	37.5	50
1351046	76.0	37.0	50
1351047	108.0	35.0	50
1351048	114.3	37.0	25
1351049	133.0	37.0	25
1351061	139.7	37.0	25
1351051	159.0	37.0	25
1351052	168.3	37.0	25
1351053	180.0	39.0	25
1351054	193.7	37.0	25
1351055	219.1	37.0	25

*** Dimension "D" is not the size of the plug itself, but the nominal size of the pipe for which it is suitable.**
Other sizes available, please contact our Sales Department for further information.



Dust Covers (For D-Subs) Plug Types/Receptacles-Types

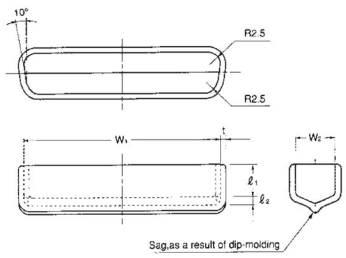
- Covers that insulate D-sub miniature connectors before they are plugged in, and protect them against dust and moisture
- Useful when transporting or storing equipment

Specifications: RoHS ✓
Material: Soft PVC UL recognised material SS107UFTT
Colour: Blue Transparent

UL recognised products: Rating 105°C, 600V
Tolerances: l1 = ± 1.0, t = + 0.3/- 0.2

Approvals:

PART NUMBER	Terminal Type	Dimensions					Unit Quantity
		W1	W2	l1	l2	t	
*1522000	P-cases (for plugs)	16.4	7.8	6.2	1.5	1.0	1,000
1522001	P-cases (for plugs)	24.6	7.8	6.2	1.5	1.0	1,000
1522002	P-cases (for plugs)	38.3	7.8	6.2	1.5	1.0	1,000
*1522003	P-cases (for plugs)	54.8	7.8	6.2	1.5	1.0	1,000
*1522004	P-cases (for plugs)	52.4	10.6	6.2	2.0	1.0	1,000
*1522005	R-cases (for receptacles)	17.7	9.2	6.0	2.0	1.0	1,000
1522006	R-cases (for receptacles)	26.0	9.2	6.0	2.0	1.0	1,000
1522007	R-cases (for receptacles)	40.0	9.4	5.9	2.0	1.0	1,000
*1522008	R-cases (for receptacles)	56.7	9.6	5.9	2.0	1.0	1,000
*1522009	R-cases (for receptacles)	54.0	12.3	5.9	2.0	1.0	1,000



*** Parts subject to minimum order quantity depending on availability, please contact our Sales Department for further information**

For further information on part approvals, please visit the Technical Resources section on our website.

OPTIMAS

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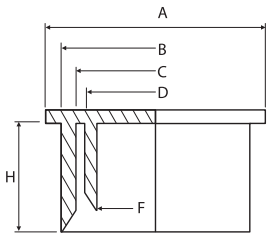
Cap With Double Edge



Specifications: RoHS ✓
Material: Low Density Polyethylene
Colour: Transparent

- Ideal for protecting solenoid valve terminals during transport
- Fits standard DIN 43 650 plugs



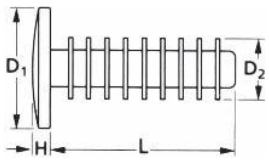
PART NUMBER	A	B	C	D	H	F	Unit Quantity
1357000	25.0	21.4	18.8	15.9	12.3	14.1	1,000

Lamination Caps



Specifications: RoHS ✓
Material: Low Density Polyethylene
Colour: Natural

- Ideal for blanking counter-bored holes in chipboard etc
- Domed head gives neat finish



PART NUMBER	No. of Laminates	Thread Size and Depth	D1 Head Diameter	D2 Body Diameter	H Head Height	L Body Height	Unit Quantity
7132710	3	M8 x 10	20.0	8.0	3.0	10.0	1,000
7132720	9	M8 x 30	20.0	8.0	3.0	28.5	1,000
7132730	6	M10 x 30	20.0	10.0	3.0	28.5	1,000
7132740	6	M12 x 30	20.0	12.0	3.0	29.0	1,000

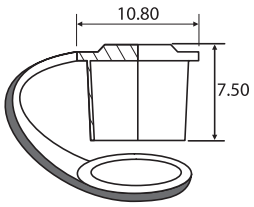
DBI plastics

Grease Nipple Caps



Specifications: RoHS ✓
Material : Low Density Polyethylene

- Prevents the ingress of dirt and grit



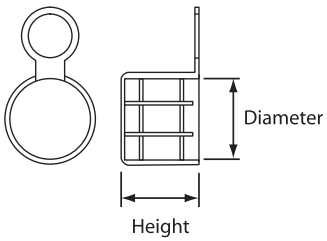
PART NUMBER	To suit	Colour	Unit Quantity
1356002	1/8 BSP	Yellow	1,000
1356003	1/8 BSP	Red	1,000

Protection Caps With Pull-Off Tabs



Specifications: RoHS ✓
Material: Low Density Polyethylene
Colour: Natural

- Unique design with integral pull-off tab to aid removal
- Ideal for protecting external threads and tubes



PART NUMBER	Diameter	Height	To suit thread sizes: DIN13	To suit thread sizes: DIN259	Pipe Size DIN2448/2458	Unit Quantity
1354000	9.8	11.25	M 10	R 1/8	13/32"	1,000
1354001	13.10	13.50		R 1/4		1,000
1354002	11.5	12.0	M 12		15/32"	1,000
1354003	13.5	13.5	M 14		17/32"	1,000
1354004	15.70	15.00	M 16		5/8"	1,000
1354005	16.80	14.80		R 3/8	11/16"	1,000
1354006	17.65	14.50	M 18		23/32"	1,000
1354007	21.10	15.00		R 1/2	25/32"	500
1354008	21.30	15.50	M 22	R 5/8	7/8"	500
1354009	26.30	18.50		R 3/4	11/16"	500
1354010	33.40	22.50		R 1	1.11/32"	500

Heyco® IEC-14 Plug

Genuine HEYCO® Parts! HEYCO®



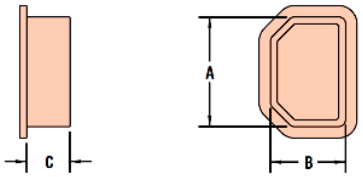
- These non-conductive plugs are used to protect female IEC-13 connectors during transit and storage.
- Will keep your connector free of dust, moisture, and contaminants.
- The flanged Plug head provides ease of installation and removal.
- Consult Heyco for the IEC-20 Plug (for IEC-19 female connectors).

Specifications: RoHS ✓
Material: LDPE
Colour: Black
Temperature range: -70°C to 66°C

NEW



PART NUMBER	Description	Part Dimensions			Unit Quantity
		A	B	C	
436G5365	IECP C14	24.4	16.8	9.7	100



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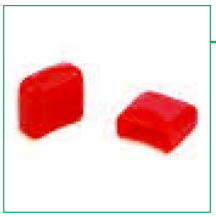
Heyco® Connector Caps

Genuine HEYCO® Parts! HEYCO®



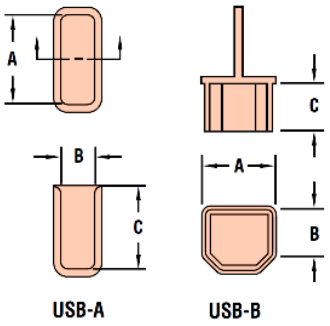
USB-A Cap
- Protects adapter's internal components with stress-free installation.

USB-B Cap
- Non-conductive, inexpensive, protects USB-B ports
- Shields female ports from dust, moisture, and contaminants.
- USB-B plugs have a convenient pull-tab for quick and easy removal.
- Applicable Specs: USB-B MS-90376-Y, MS-25177, NAS-820, NAS-837

NEW

Specifications: RoHS ✓
Material: USB-A - Vinyl, USB-B - LDPE
Flammability rating: UL94HB
Colour: Black (expept where marked * - Red)
Temperature Range: USB-A -32°C to 93°C
USB-B -18°C to 79°C

PART NUMBER	Description	Part Dimensions			Unit Quantity
		A	B	C	
4362960*	USB-A Cap	12.2	4.6	11.1	3,000
4362962	USB-B Plug	9.0	6.4	6.4	5,000



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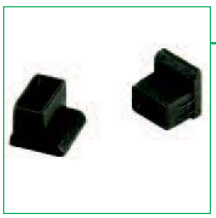
Heyco® Connector Plugs

Genuine HEYCO® Parts! HEYCO®



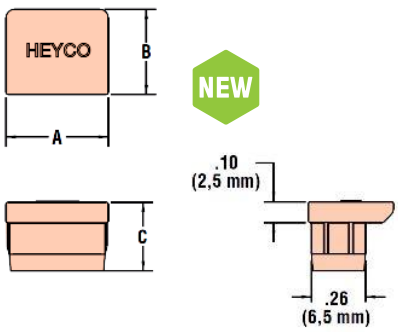
- Silicone material for high temperature applications up to 150°C.
- Protects adapter's internal components with stress-free installation.

Specifications: RoHS ✓
Material: Silicone Rubber
Flammability rating: UL94HB

Temperature Range: -32°C to 204°C

NEW

PART NUMBER	Description	Part Dimensions			Unit Quantity
		A Head Diameter	B Overall Height	C Head Height	
4362967	CP-RJ11	10.4	10.4	8.4	1,000
4362969	CP-RJ45	12.4	10.4	8.4	1,000



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OPTIMAS

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Heyco® Push-In for SAE and NPT Threaded Ports

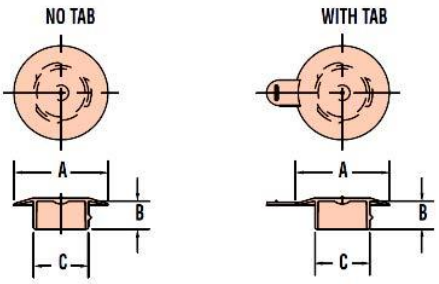


Specifications: RoHS ✓

Material: LDPE (except where marked * - EVA Ethylene Vinyl Acetate)
Colour: Black
Temperature Range : LDPE -70°C to 66°C
EVA -68°C to 60°C

- Offer the convenience of a push-in plug with the plugging quality of a threaded plug.
- Available with or without convenient Pull Tab for easy removal

NEW



PART NUMBER		Description	Thread Type / Size		Part Dimensions			Unit Quantity
No Tab	With Tab		SAE Threads	NPT Threads	A Head Diameter	B Overall Height	C Bottom Diameter	
1389680*	-	TP PI-250	1/4	-	10.2	6.4	5.3	1,000
1389681*	-	TP PI-312	5/16	-	13.2	6.1	6.4	1,000
1389682	**1389682T**	TP PI-375	3/8	1/8	15.0	6.1	8.1	1,000
1389683	**1389683T**	TP PI-437	7/16	-	16.3	6.9	9.4	1,000
1389684	**1389684T**	TP PI-500	1/2	1/4	18.3	6.9	11.2	1,000
1389685	-	TP PI-562	9/16	-	20.6	7.4	12.7	1,000
1389686	**1389686T**	TP PI-625	5/8	3/8	24.4	7.4	14.2	1,000
1389687	**1389687T**	TP PI-750	3/4	-	24.1	7.4	17.3	1,000
1389688	**1389688T**	TP PI-875	7/8	-	29.2	7.4	20.3	1,000

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Heyco® TEMPlugs™



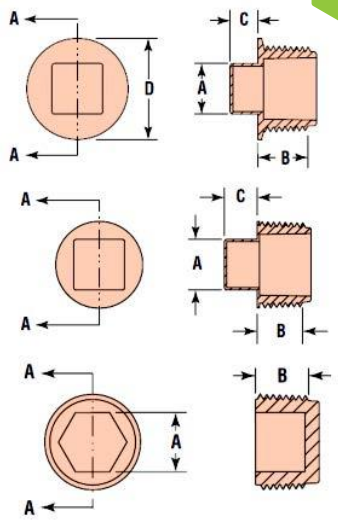
Specifications: RoHS ✓

Material: HDPE
Colour: Black

Temperature Range : -18°C to 74°C

- Not intended for permanent applications; commonly used for low-pressure testing and in-plant processing.
- Keep contaminants and moisture from threaded ports.
- Oil and heat resistant up to 250°F.
- Applicable Spec: MIL-C-5501/5, NAS 840.

NEW



PART NUMBER	Description	NPT Thread Port Size	Head and Drive Type	Part Dimensions				Unit Quantity
				A Wrench Flats	B Thread Length	C Head Height	D Flange Diameter	
138G5440	PTNS 1/8-F	1/8	Square Head with Flange	10.9	7.4	4.8	14.2	7,500
138G5441	PTNS 1/4-F	1/4	Square Head with Flange	11.2	9.0	6.4	17.5	5,000
138G5442	PTNS 3/8-F	3/8	Square Head with Flange	11.2	10.4	6.4	20.6	2,500
138G5443	PTNS 1/2-F	1/2	Square Head with Flange	14.2	11.9	6.4	25.4	1,500
138G5444	PTNS 3/4-F	3/4	Square Head with Flange	16.0	13.2	6.4	31.8	2,000
138G5449	PTNS 3/4	3/4	Square Head No Flange	15.7	13.2	6.4	-	2,000
138G5450	PTNS 1	1	Square Head No Flange	20.6	15.0	6.4	-	1,500
138G5451	PTNS 1-1/4	1-1/4	Square Head No Flange	25.4	21.1	9.7	-	500
138G5452	PTNS 1-1/2	1-1/2	Square Head No Flange	31.8	21.1	9.7	-	500
138G5455	PTNH 1/4	1/4	Hex Head	6.4	7.9	-	-	3,500
138G5456	PTNH 3/8	3/8	Hex Head	7.9	9.7	-	-	4,000
138G5457	PTNH 1/2	1/2	Hex Head	9.7	9.7	-	-	2,500
138G5458	PTNH 3/4	.3/4	Hex Head	14.2	12.7	-	-	1,500
138G5459	PTNH 1	1	Hex Head	16.0	13.5	-	-	800

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Pop-On Screw Covers

- Can also be used with No 4, 6, 8, 10 and s - 20 screws

Specifications: RoHS ✓

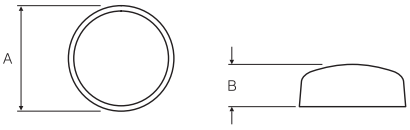
Material: Polypropylene

Allow approximately 0.50 extra for assembled height



These parts must be used with Pop-On Screw Cover Bases - see below

PART NUMBER						Screw Size	A	B	Unit Quantity
Black	White	Blue	Red	Yellow	Green				
0181020	0182020	0183020	0184020	0185020	0186020	M3/M4	12.7	5.1	1,000
0181120	0182120	0183120	0184120	0185120	0186120	M4/M5	16.0	6.5	1,000
0181220	0182220	0183220	0184220	0185220	0186220	M6	17.8	6.6	1,000



Available in other colours, please contact our Sales Department for further information



Pop-On Screw Cover Bases

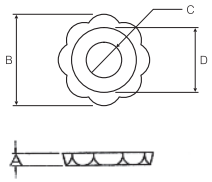
- Pop-on screw covers and bases may be used with:- flat head nails, countersunk screws, self tapping screws, rivets, drive screws, machine screws, washer faced screws and other types of fasteners
- Cover locks firmly onto base to provide a neat and decorative finish

Specifications: RoHS ✓

Material: Polypropylene

Colour: Natural

PART NUMBER	To Fit Pop-on Screw Covers	Screw Size	A	B	C	D	Unit Quantity
0181030	0181020 to 0186020	M3 & No4 Pan	2.9	10.5	3.0	7.0	1,000
0181130	0181020 to 0186020	M3.5 & No6 Pan	2.9	10.5	3.8	7.0	1,000
0181230	0181020 to 0186020	M3/M4 & No4/No8 CSK	2.9	10.5	3.8	-	1,000
0181330	0181120 to 0186120	M4 & No8 PAN	3.2	12.7	4.5	9.3	1,000
0181430	0181120 to 0186120	M5 & No10 PAN	3.2	12.8	5.0	9.3	1,000
0181530	0181120 to 0186120	M4/M5 & No8/No10 CSK	3.2	12.8	5.0	-	1,000
0181630	0181220 to 0186220	M6 & 1/4" PAN	3.2	15.7	6.2	12.4	1,000
0181730	0181220 to 0186220	M6 & 1/4" CSK	3.3	15.7	6.2	-	1,000





Hinged Screw Covers

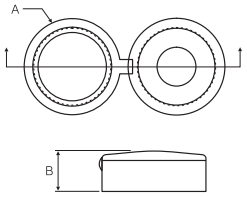
- All-in-one base and cover
- Cap snaps into base to give a neat and decorative finish

Specifications: RoHS ✓

Material: Polypropylene

Available in matt finish only

PART NUMBER						Screw Size	A	B	Unit Quantity
Black	White	Blue	Red	Yellow	Green				
0181040	0182040	0183040	0184040	0185040	0186040	M3/M4 & No4	11.5	5.0	1,000
0181140	0182140	0183140	0184140	0185140	0186140	M4/M5 & No8/No10	13.7	5.5	1,000
0181240	0182240	0183240	0184240	0185240	0186240	M6 & 1/4"	17.4	6.5	1,000



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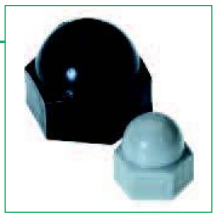
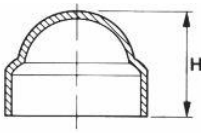
Nut And Screw Head Covers



Specifications: RoHS ✓
Material: High Density Polyethylene

- This part has a hexagonal external form and a circular internal form and is suitable for use with both Pan and Hexagon Head Screws



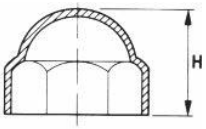
PART NUMBER			Nominal Thread Size	Across Flats Screw/Nut	Across Flats Cover	H	Unit Quantity
Black	Grey - RAL7038	Natural					
0173050	0173051	0173070	M4	6.9	9.8	11.6	1,000
0173052	0173053	0173071	M5	7.9	9.9	11.6	1,000
0173054	0173055	0173072	M6	9.8	12.9	13.8	1,000
0173056	0173057	0173073	M8	12.8	15.7	16.3	1,000
0173058	0173059	0173074	M10	16.7	21.8	19.0	1,000

Hexagon Nut And Screw Head Covers



Specifications: RoHS ✓
Material: Low Density Polyethylene

- Protects and gives a neat finish to exposed metal hexagon nuts and screw heads
- Quick and simple to install



PART NUMBER			Nominal Thread Size	Across Flats Hexagon	H	Unit Quantity
Black	Grey - RAL7038	White				
0173006	0173251	0173281	M4	6.9	8.7	1,000
0173007	0173252	0173282	M5	7.9	10.7	1,000
0173008	0173253	0173283	M6	9.8	13.0	1,000
0173010	0173255	0173284	M8	13.0	15.0	1,000
0173011	0173256	0173285	M10	16.7	19.5	1,000
0173012	0173257	0173286	M12	18.7	21.5	1,000
0173013	0173258	0173287	M14	21.7	24.0	1,000
0173014	0173259	0173288	M16	23.7	27.0	1,000
0173015	0173260	0173289	M18	26.8	30.5	1,000
0173016	0173261	0173290	M20	29.8	31.5	1,000
0173017*	0173262	0173291	M22	31.8	36.0	1,000*
0173018*	0173263	0173292	M24	35.8	39.0	1,000*
0173020*	0173264	0173293	M27	40.8	45.0	1,000*
0173021*	0173265	0173294	M30	45.8	51.0	1,000*
0173022*	0173266	0173295	M33	49.8	55.0	1,000*
0173024*	0173267	0173296	M36	54.8	56.0	1,000*
0173027*	0173268	0173297	M39	59.7	59.0	1,000*
0173030*	0173269	0173298	M42	63.7	63.0	1,000*

This part has a circular external form and a hexagonal internal form and is suitable for Hexagon Head screws and nuts.
Parts marked * will also fit the appropriate size Metric Cheese Head screw.

*** Unit quantity for these black parts is 500**

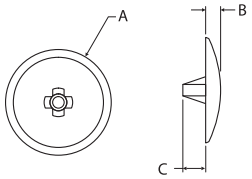
Tap-On Screw Covers



Specifications: RoHS ✓
Material: Polypropylene

Available in matt finish only

- Ideal for use with speed point dry wall and cabinet screws that utilise a Phillips drive
- Can also be used with flat head Phillips screws in size numbers 8, 10 and 12
- Head tapers down to a thin flexible edge to achieve a flush finish with the working surface
- Simple and easy to install



PART NUMBER						Coverage Area	A	B	C	Unit Quantity
Black	White	Blue	Red	Yellow	Green					
0181001	0182001	0183001	0184001	0185001	0186001	9.5	9.5	1.0	2.8	1,000
0181101	0182101	0183101	0184101	0185101	0186101	12.7	12.7	1.8	2.8	1,000

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STRAIN RELIEF BUSHINGS

A range of components to anchor your cable into the product chasis.

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CHAPTER 8



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CHAPTER 10



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Why not realise the benefits of customisation for your company?

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- Dedicated sub-assembly area and team

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PCB Card Guides
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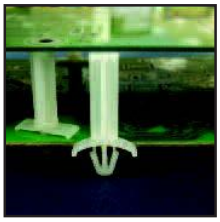
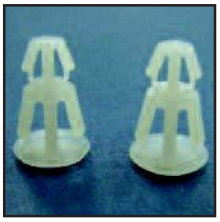
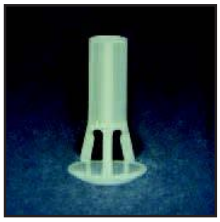
Circuit Board Spacers
LCS Series
P11-2


Circuit Board Spacers
LAS Series
P11-3


Circuit Board Spacers
LCD Series
P11-3


Circuit Board Spacers
RCM Series
P11-4


Circuit Board Spacers
RAM Series
P11-4

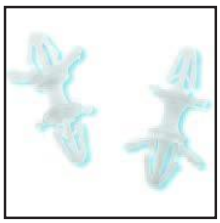

Circuit Board Spacers
RAS Series
P11-4

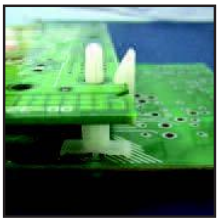

Circuit Board Spacers
DE Series
P11-5


Circuit Board Spacers
MADA Series
P11-5


Circuit Board Spacers
MAF Series
P11-5


Circuit Board Spacers
MAE Series P11-6

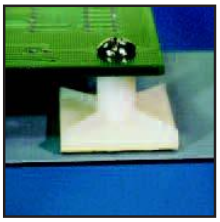

Circuit Board Spacers
LT Series P11-6


Circuit Board Spacers
ULCB Series P11-7


Circuit Board Spacers
ULCC Series P11-7

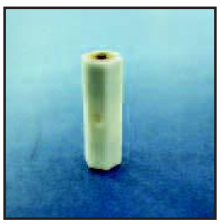

Circuit Board Spacers
LCC Series P11-7


Spacer Supports
P11-8


Self-Adhesive
Spacer Supports
P11-8


Self-Adhesive
Spacer Supports
P11-8


Micro Pillars/Standoffs
P11-9


Hexagon Pillars/Standoffs
P11-11


Male - Female
Heavy Duty Pillars/Standoffs
P11-12


Female - Female
Heavy Duty Pillars/Standoffs
P11-12


Male - Male
Heavy Duty Pillars/Standoffs
P11-13


Male - Female Metal Threaded
Pillars/Standoffs
P11-14


Female -Female Metal
Threaded Pillars/Standoffs
P11-14


Metric Hexagon Thru-Hole
Threaded Spacers
P11-15


Metric Round
Threaded Spacers
P11-15


Metric Male-Female
Threaded Standoffs
P11-16


Plain Hole Hexagon Spacers
P11-16


Metric Round
Plain Spacers
P11-17


Imperial Round
Plain Spacers
P11-18

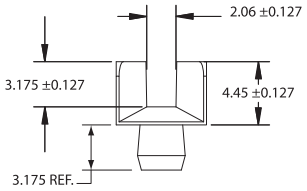

Special Round
Plain Spacers
P11-19



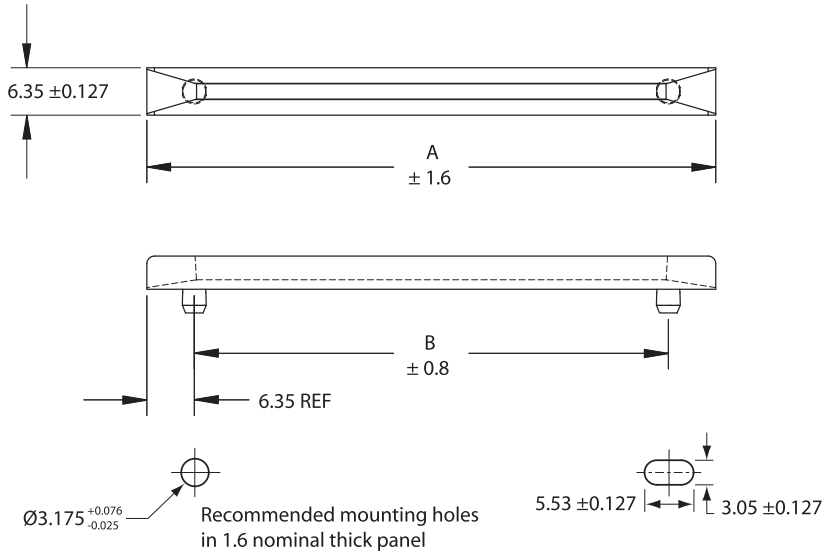
PCB Card Guides

- Fast and economical solution for mounting P.C Boards
- Card insertion is simple and fast
- Smooth positive channel firmly supports and protects the board
- Designed to snap into pre-punched holes in the chassis

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability: UL94V-2



PART NUMBER	Description	A	B	Unit Quantity
2020001	2.1/2" Guide	63.5	50.8	100
2020002	3" Guide	76.2	63.5	100
2020003	3.1/2" Guide	88.9	76.2	100
2020004	4" Guide	101.6	88.9	100
2020005	4.1/2" Guide	114.3	101.6	100
2020006	5" Guide	127.0	114.3	100
2020007	5.1/2" Guide	139.7	127.0	100
2020008	6" Guide	152.4	139.7	100



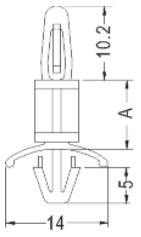


Circuit Board Spacers LCS Series

- Firmly and accurately maintains a constant distance between the chassis and PC board
- Quick and easy to install
- Easy to remove from the PC board

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability: UL94V-2

PART NUMBER	Dimensions					Unit Quantity
	A	Mounting Holes ø		Applicable Thickness		
		PCB	Chassis	PCB	Chassis	
0550025	3.5	4	4.8	1.2~1.7	0.8~2.0	1,000
0550026	4.8	4	4.8	1.2~1.7	0.8~2.0	1,000
0550027	6.4	4	4.8	1.2~1.7	0.8~2.0	1,000
0550028	7.9	4	4.8	1.2~1.7	0.8~2.0	1,000
0550029	9.5	4	4.8	1.2~1.7	0.8~2.0	1,000
0550030	11.1	4	4.8	1.2~1.7	0.8~2.0	1,000
0550031	12.7	4	4.8	1.2~1.7	0.8~2.0	1,000
0550032	15.9	4	4.8	1.2~1.7	0.8~2.0	1,000
0550033	19.1	4	4.8	1.2~1.7	0.8~2.0	1,000
0550034	22.2	4	4.8	1.2~1.7	0.8~2.0	1,000
0550035	24.0	4	4.8	1.2~1.7	0.8~2.0	1,000
0550036	25.4	4	4.8	1.2~1.7	0.8~2.0	1,000
0550037	27.5	4	4.8	1.2~1.7	0.8~2.0	1,000
0550038	28.6	4	4.8	1.2~1.7	0.8~2.0	1,000
0550039	31.7	4	4.8	1.2~1.7	0.8~2.0	1,000
0550040	34.9	4	4.8	1.2~1.7	0.8~2.0	1,000



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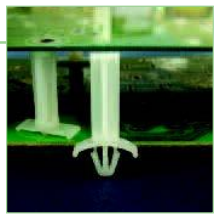
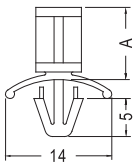
Circuit Board Spacers LAS Series



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability: UL94V-2

- Prevent the deflection of PC boards due to the weight of the mounted components
- Excellent insulating properties



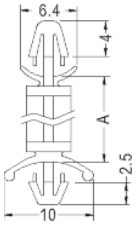
PART NUMBER	Dimensions			Unit Quantity
	A	Mounting Holes ø	Applicable Thickness	
		Chassis	Chassis	
0551025	3.5	4.8	0.8~2.0	1,000
0551026	4.8	4.8	0.8~2.0	1,000
0551027	6.4	4.8	0.8~2.0	1,000
0551028	7.9	4.8	0.8~2.0	1,000
0551029	9.5	4.8	0.8~2.0	1,000
0551030	11.1	4.8	0.8~2.0	1,000
0551031	12.7	4.8	0.8~2.0	1,000
0551032	15.9	4.8	0.8~2.0	1,000
0551033	19.1	4.8	0.8~2.0	1,000
0551034	22.2	4.8	0.8~2.0	1,000
0551035	24.0	4.8	0.8~2.0	1,000
0551036	25.4	4.8	0.8~2.0	1,000
0551037	27.5	4.8	0.8~2.0	1,000
0551038	28.6	4.8	0.8~2.0	1,000
0551039	31.7	4.8	0.8~2.0	1,000
0551040	34.9	4.8	0.8~2.0	1,000

Circuit Board Spacers LCD Series



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability: UL94V-2

- Fixes the chassis and PC board at a constant distance between each other
- Uses Ø3.5 mounting holes on both the chassis and PC board



PART NUMBER	Dimensions					Unit Quantity
	A	Mounting Holes ø		Applicable Thickness		
		PCB	Chassis	PCB	Chassis	
0552025	3.2	3.5	3.5	0.8~2.0	0.8~2.0	1,000
0552026	4.0	3.5	3.5	0.8~2.0	0.8~2.0	1,000
0552027	4.8	3.5	3.5	0.8~2.0	0.8~2.0	1,000
0552028	6.4	3.5	3.5	0.8~2.0	0.8~2.0	1,000
0552029	7.0	3.5	3.5	0.8~2.0	0.8~2.0	1,000
0552030	8.0	3.5	3.5	0.8~2.0	0.8~2.0	1,000
0552031	9.6	3.5	3.5	0.8~2.0	0.8~2.0	1,000
0552032	11.2	3.5	3.5	0.8~2.0	0.8~2.0	1,000
0552033	12.7	3.5	3.5	0.8~2.0	0.8~2.0	1,000
0552034	14.0	3.5	3.5	0.8~2.0	0.8~2.0	1,000
0552035	16.0	3.5	3.5	0.8~2.0	0.8~2.0	1,000
0552036	18.0	3.5	3.5	0.8~2.0	0.8~2.0	1,000
0552037	19.1	3.5	3.5	0.8~2.0	0.8~2.0	1,000

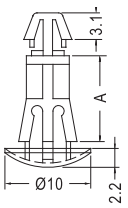


Circuit Board Spacers RCM Series

- Inserts into the underside of the chassis
- Protrusion below the chassis is less than 2.2, making this series ideal when space is limited

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability: UL94V-2

PART NUMBER	Dimensions					Unit Quantity
	A	Mounting Holes ø		Applicable Thickness		
		PCB	Chassis	PCB	Chassis	
0554025	3.5	4.0	5.5	1.2~1.7	0.8~1.6	1,000
0554026	5.0	4.0	5.5	1.2~1.7	0.8~1.6	1,000
0554027	6.35	4.0	5.5	1.2~1.7	0.8~1.6	1,000
0554028	7.0	4.0	5.5	1.2~1.7	0.8~1.6	1,000
0554029	8.0	4.0	5.5	1.2~1.7	0.8~1.6	1,000
0554030	10.0	4.0	5.5	1.2~1.7	0.8~1.6	1,000
0554031	12.0	4.0	5.5	1.2~1.7	0.8~1.6	1,000
0554032	12.7	4.0	5.5	1.2~1.7	0.8~1.6	1,000
0554033	14.0	4.0	5.5	1.2~1.7	0.8~1.6	1,000
0554034	15.9	4.0	5.5	1.2~1.7	0.8~1.6	1,000
0554035	18.0	4.0	5.5	1.2~1.7	0.8~1.6	1,000
0554036	20.0	4.0	5.5	1.2~1.7	0.8~1.6	1,000
0554037	21.7	4.0	5.5	1.2~1.7	0.8~1.6	1,000
0554038	24.0	4.0	5.5	1.2~1.7	0.8~1.6	1,000
0554039	25.4	4.0	5.5	1.2~1.7	0.8~1.6	1,000
0554040	30.0	4.0	5.5	1.2~1.7	0.8~1.6	1,000



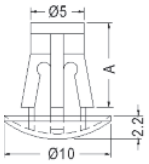


Circuit Board Spacers RAM Series

- Prevents the deflection of PC boards due to the weight of the mounted components
- Inserts into the underside of the chassis
- Protrusion below the chassis is less than 2.2, making this series ideal when space is limited
- Excellent insulating properties

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability: UL94V-2

PART NUMBER	Dimensions			Unit Quantity
	A	Mounting Holes ø	Applicable Thickness	
0555025	3.5	5.5	0.8 ~1.6	1,000
0555026	5.0	5.5	0.8 ~1.6	1,000
0555027	6.35	5.5	0.8 ~1.6	1,000
0555028	7.0	5.5	0.8 ~1.6	1,000
0555029	8.0	5.5	0.8 ~1.6	1,000
0555030	10.0	5.5	0.8 ~1.6	1,000
0555031	12.0	5.5	0.8 ~1.6	1,000
0555032	12.7	5.5	0.8 ~1.6	1,000
0555033	14.0	5.5	0.8 ~1.6	1,000
0555034	15.9	5.5	0.8 ~1.6	1,000
0555035	18.0	5.5	0.8 ~1.6	1,000
0555036	20.0	5.5	0.8 ~1.6	1,000
0555037	21.7	5.5	0.8 ~1.6	1,000
0555038	24.0	5.5	0.8 ~1.6	1,000
0555039	25.4	5.5	0.8 ~1.6	1,000
0555040	30.0	5.5	0.8 ~1.6	1,000



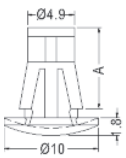


Circuit Board Spacers RAS Series

- Prevents the deflection of PC boards due to the weight of the mounted components
- Inserts into the underside of the chassis
- Protrusion below the chassis is less than 1.8, making this series ideal when space is limited
- Excellent insulating properties

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability: UL94V-2

PART NUMBER	Dimensions			Unit Quantity
	A	Mounting Holes ø	Applicable Board Thickness	
0557025	5.4	5.5	1.2 ~1.8	1,000
0557026	6.0	5.5	1.2 ~1.8	1,000
0557027	7.0	5.5	1.2 ~1.8	1,000
0557028	8.0	5.5	1.2 ~1.8	1,000
0557029	10.0	5.5	1.2 ~1.8	1,000
0557030	12.0	5.5	1.2 ~1.8	1,000
0557031	14.0	5.5	1.2 ~1.8	1,000
0557032	18.0	5.5	1.2 ~1.8	1,000



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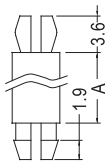
Circuit Board Spacers DE Series



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability Rating: UL94V-2
Mounting Hole Size: ø4.0
Panel Thickness: 1.2 to 1.7

- Easy to install - simply snap into place to hold the PCB in position
- Integral locking clip provides a secure yet releasable fixing



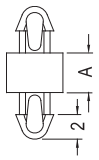
PART NUMBER	L Length	Unit Quantity
0545515	3.18	1,000
0545525	4.00	1,000
0545526	5.00	1,000
0545516	6.35	1,000
0545527	7.00	1,000
0545517	7.92	1,000
0545518	9.53	1,000
0545519	10.50	1,000
0545520	12.70	1,000
0545528	14.00	1,000
0545521	15.88	1,000
0545522	19.05	1,000
0545523	22.23	1,000
0545524	25.40	1,000

Circuit Board Spacers MADA Series



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability Rating: UL94V-2
Mounting Hole Size: ø2.5
Panel Thickness: 1.6

- Easy to install - simply snap into place to hold the PCB in position
- Integral locking clip provides a secure yet releasable fixing



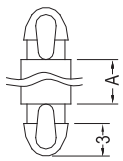
PART NUMBER	L Length	Unit Quantity
0545550	2.0	1,000
0545551	3.0	1,000
0545552	4.0	1,000
0545553	5.0	1,000
0545554	6.0	1,000
0545555	7.0	1,000
0545556	8.0	1,000
0545557	10.0	1,000
0545558	12.7	1,000
0545559	14.0	1,000
0545560	16.0	1,000
0545561	18.0	1,000
0545562	20.0	1,000
0545563	22.0	1,000

Circuit Board Spacers MAF Series



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability Rating: UL94V-2
Mounting Hole Size: ø3.5
Panel Thickness: 1.6

- Easy to install - simply snap into place to hold the PCB in position
- Integral locking clip provides a secure yet releasable fixing



PART NUMBER	L Length	Unit Quantity
0545570	2.0	1,000
0545571	3.0	1,000
0545572	4.0	1,000
0545573	5.0	1,000
0545574	6.0	1,000
0545575	7.0	1,000
0545576	8.0	1,000
0545577	10.0	1,000
0545578	12.0	1,000
0545579	14.0	1,000
0545580	16.0	1,000
0545581	18.0	1,000
0545582	20.0	1,000
0545583	22.0	1,000



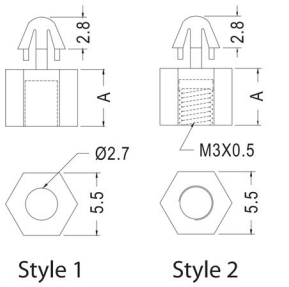
Circuit Board Spacers MAE Series

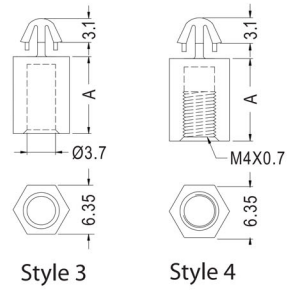
- Secured to the chassis by a self-tapping screw or screw into threaded insert
- Only the screw head protrudes below the chassis, making these spacers ideal when space is limited

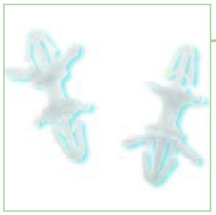
Specifications: RoHS ✓
Material: Nylon 66
Colours: Natural
Flammability: UL94V-2

PART NUMBER	Dimensions				Style	Unit Quantity
	A	PCB				
		Mounting Hole ø	Thread Size	Applicable Thickness		
0561025	5.0	3.0	-	1.6	1	1,000
0561026	6.0	3.0	-	1.6	1	1,000
0561027	7.0	3.0	-	1.6	1	1,000
0561028	8.0	3.0	-	1.6	1	1,000
0561029	9.0	3.0	-	1.6	1	1,000
0561030	10.0	3.0	-	1.6	1	1,000
0561031	11.0	3.0	-	1.6	1	1,000
0561032	12.0	3.0	-	1.6	1	1,000
0561033	13.0	3.0	-	1.6	1	1,000
0561034	14.0	3.0	-	1.6	1	1,000
0561035	15.0	3.0	-	1.6	1	1,000
0561036	16.0	3.0	-	1.6	1	1,000
0561037	17.0	3.0	-	1.6	1	1,000
0561038	18.0	3.0	-	1.6	1	1,000
0561039	19.0	3.0	-	1.6	1	1,000
0561040	20.0	3.0	-	1.6	1	1,000
0561041	22.0	3.0	-	1.6	1	1,000
0561042	26.0	3.0	-	1.6	1	1,000
0561050	5.0	3.0	M3 x .5	1.6	2	1,000
0561051	6.0	3.0	M3 x .5	1.6	2	1,000
0561052	7.0	3.0	M3 x .5	1.6	2	1,000
0561053	8.0	3.0	M3 x .5	1.6	2	1,000
0561054	9.0	3.0	M3 x .5	1.6	2	1,000
0561055	10.0	3.0	M3 x .5	1.6	2	1,000
0561056	11.0	3.0	M3 x .5	1.6	2	1,000
0561057	12.0	3.0	M3 x .5	1.6	2	1,000
0561058	13.0	3.0	M3 x .5	1.6	2	1,000
0561059	14.0	3.0	M3 x .5	1.6	2	1,000
0561060	15.0	3.0	M3 x .5	1.6	2	1,000
0561061	16.0	3.0	M3 x .5	1.6	2	1,000
0561062	17.0	3.0	M3 x .5	1.6	2	1,000
0561063	18.0	3.0	M3 x .5	1.6	2	1,000
0561064	19.0	3.0	M3 x .5	1.6	2	1,000
0561065	20.0	3.0	M3 x .5	1.6	2	1,000
0561066	22.0	3.0	M3 x .5	1.6	2	1,000
0561067	26.0	3.0	M3 x .5	1.6	2	1,000

PART NUMBER	Dimensions				Style	Unit Quantity
	A	PCB				
		Mounting Hole ø	Thread Size	Applicable Thickness		
0561100	5.0	4.0	-	1.6	3	1,000
0561101	6.0	4.0	-	1.6	3	1,000
0561102	7.0	4.0	-	1.6	3	1,000
0561103	8.0	4.0	-	1.6	3	1,000
0561104	9.0	4.0	-	1.6	3	1,000
0561105	10.0	4.0	-	1.6	3	1,000
0561106	11.0	4.0	-	1.6	3	1,000
0561107	12.7	4.0	-	1.6	3	1,000
0561108	14.0	4.0	-	1.6	3	1,000
0561109	15.9	4.0	-	1.6	3	1,000
0561110	20.0	4.0	-	1.6	3	1,000
0561125	5.0	4.0	M4 x .7	1.6	4	1,000
0561126	6.0	4.0	M4 x .7	1.6	4	1,000
0561127	7.0	4.0	M4 x .7	1.6	4	1,000
0561128	8.0	4.0	M4 x .7	1.6	4	1,000
0561129	9.0	4.0	M4 x .7	1.6	4	1,000
0561130	10.0	4.0	M4 x .7	1.6	4	1,000
0561131	11.0	4.0	M4 x .7	1.6	4	1,000
0561132	12.7	4.0	M4 x .7	1.6	4	1,000
0561133	14.0	4.0	M4 x .7	1.6	4	1,000
0561134	15.9	4.0	M4 x .7	1.6	4	1,000
0561135	20.0	4.0	M4 x .7	1.6	4	1,000







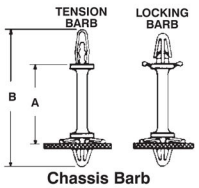
Circuit Board Spacers LT Series

- Provides spacing between the printed circuit board and chassis, or between circuit boards
- Wide, ribbed wings produce a secure fit with extra stability

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability Rating: UL94V-2
Material Temperature Rating: 85°C
Tolerances: A & B = ± 0.80

Approvals:
Recognized under the Component Program of Underwriters' Laboratories File No. E197049

PART NUMBER	Dimensions		Barb Style	Unit Quantity
	A Spacing	B Overall		
0553640	4.8	22.0	Tension	1,000
0553670	4.8	21.2	Locking	1,000
0553641	6.4	23.8	Tension	1,000
0553671	6.4	22.6	Locking	1,000
0553642	9.5	26.8	Tension	1,000
0553672	9.5	25.8	Locking	1,000
0553643	11.0	28.2	Tension	1,000
0553673	11.0	27.3	Locking	1,000
0553644	12.7	30.0	Tension	1,000
0553674	12.7	29.0	Locking	1,000



Chassis Barb

Two Styles:
1. Chassis barb end plus tension barb end for PCB
2. Chassis barb end plus locking barb end for PCB

Barb Data		Mounting Data		
Type	Length	Chassis or PCB	Mounting Hole ø	Max. Chassis or PCB Thickness
Chassis	5.1	Chassis	4.8	1.8
Tension	10.2	PCB	4.0	1.6
Locking	8.9	PCB	4.0	1.6

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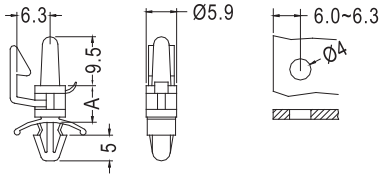
Circuit Board Spacers ULCB Series



Specifications: RoHS ✓
Material: Nylon 66
Colours: Natural
Flammability: UL94V-2

- Easily installed and removed, making inspection and maintenance of PC boards easier



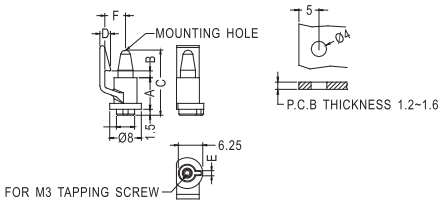
PART NUMBER	Dimensions					Unit Quantity
	A	Mounting Holes ø		Applicable Thickness		
		PCB	Chassis	PCB	Chassis	
0558025	6.3	4.0	4.8	1.6~1.8	0.5~2.0	1,000
0558026	8.0	4.0	4.8	1.6~1.8	0.5~2.0	1,000
0558027	9.5	4.0	4.8	1.6~1.8	0.5~2.0	1,000
0558028	10.0	4.0	4.8	1.6~1.8	0.5~2.0	1,000
0558029	12.7	4.0	4.8	1.6~1.8	0.5~2.0	1,000
0558030	15.9	4.0	4.8	1.6~1.8	0.5~2.0	1,000
0558031	23.0	4.0	4.8	1.6~1.8	0.5~2.0	1,000

Circuit Board Spacers ULCC Series



Specifications: RoHS ✓
Material: Nylon 66
Colours: Natural
Flammability: UL94V-2

- Easily installed and removed, making inspection and maintenance of PC boards easier



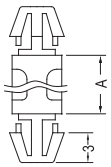
PART NUMBER	A	B	C	D	E	F	Unit Quantity
0558032	6.3	1.73	14.8	2.7	1.3	5.25	1,000
0558033	8.0	1.70	16.5	2.7	1.3	5.25	1,000
0558034	10.0	2.24	19.0	2.85	1.4	5.25	1,000
0558035	12.0	1.75	19.8	2.85	1.4	5.25	1,000
0558036	18.55	1.90	27.05	3.8	1.3	5.5	1,000

Circuit Board Spacers LCC Series



Specifications: RoHS ✓
Material: Nylon 66
Colours: Natural
Flammability: UL94V-2

- Ideal for spacing between PCBs



PART NUMBER	Dimensions			Unit Quantity
	A	Mounting Hole ø	Applicable Thickness	
0561150	3.0	4.0	1.2 ~ 1.7	1,000
0561151	4.0	4.0	1.2 ~ 1.7	1,000
0561152	6.0	4.0	1.2 ~ 1.7	1,000
0561153	8.0	4.0	1.2 ~ 1.7	1,000
0561154	10.0	4.0	1.2 ~ 1.7	1,000
0561155	12.0	4.0	1.2 ~ 1.7	1,000
0561156	12.7	4.0	1.2 ~ 1.7	1,000
0561157	14.0	4.0	1.2 ~ 1.7	1,000
0561158	15.0	4.0	1.2 ~ 1.7	1,000
0561159	18.0	4.0	1.2 ~ 1.7	1,000
0561160	20.0	4.0	1.2 ~ 1.7	1,000
0561161	25.0	4.0	1.2 ~ 1.7	1,000
0561162	30.0	4.0	1.2 ~ 1.7	1,000



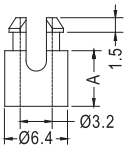
Spacer Supports

- Secured to the chassis by passing a screw through the spacer
- Only the screw head protrudes below the chassis, making these spacers ideal when space is limited

Specifications: RoHS ✓
Material: Nylon 66
Colours: Natural
Flammability: UL94V-2

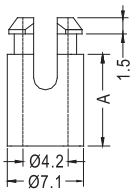
PART NUMBER	Dimensions			Style	Unit Quantity
	A	PCB			
		Mounting Hole ø	Applicable Thickness		
0561175	3.5	4.8	1.2 ~ 1.7	1	1,000
0561176	4.0	4.8	1.2 ~ 1.7	1	1,000
0561177	5.0	4.8	1.2 ~ 1.7	1	1,000
0561178	6.0	4.8	1.2 ~ 1.7	1	1,000
0561179	8.0	4.8	1.2 ~ 1.7	1	1,000
0561180	10.0	4.8	1.2 ~ 1.7	1	1,000
0561181	12.0	4.8	1.2 ~ 1.7	1	1,000
0561182	12.7	4.8	1.2 ~ 1.7	1	1,000
0561183	14.2	4.8	1.2 ~ 1.7	1	1,000
0561184	15.9	4.8	1.2 ~ 1.7	1	1,000
0561185	19.1	4.8	1.2 ~ 1.7	1	1,000
0561186	22.2	4.8	1.2 ~ 1.7	1	1,000
0561187	25.4	4.8	1.2 ~ 1.7	1	1,000
0561188	3.0	5.9	1.2 ~ 1.7	2	1,000
0561189	4.0	5.9	1.2 ~ 1.7	2	1,000
0561190	5.0	5.9	1.2 ~ 1.7	2	1,000
0561191	6.4	5.9	1.2 ~ 1.7	2	1,000
0561192	7.9	5.9	1.2 ~ 1.7	2	1,000
0561193	9.5	5.9	1.2 ~ 1.7	2	1,000
0561194	12.7	5.9	1.2 ~ 1.7	2	1,000
0561195	15.9	5.9	1.2 ~ 1.7	2	1,000
0561196	17.0	5.9	1.2 ~ 1.7	2	1,000
0561197	19.1	5.9	1.2 ~ 1.7	2	1,000
0561198	22.2	5.9	1.2 ~ 1.7	2	1,000
0561199	25.4	5.9	1.2 ~ 1.7	2	1,000
0561200	30.0	5.9	1.2 ~ 1.7	2	1,000

STYLE 1

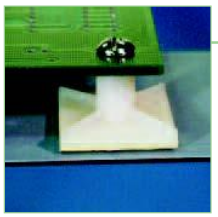


FOR #4(M3) SCREW

STYLE 2



FOR #6(M3.5) SCREW
OR #8(M4) SCREW

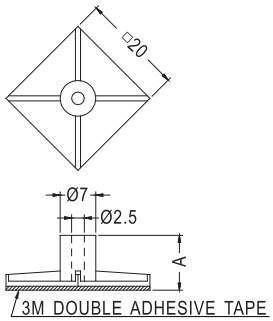


Self-Adhesive Spacer Supports

- Secured to the chassis by a self-adhesive pad
- No need for screw holes in the chassis
- PCB secured to spacer with a No.4 self-tapping screw (not supplied)

Specifications: RoHS ✓
Material: Nylon 66
Colours: Natural
Flammability: UL94V-2

PART NUMBER	A	Unit Quantity
0561225	5.0	1,000
0561226	6.4	1,000
0561227	7.0	1,000
0561228	9.0	1,000
0561229	10.8	1,000
0561230	12.7	1,000
0561231	15.9	1,000
0561232	19.1	1,000



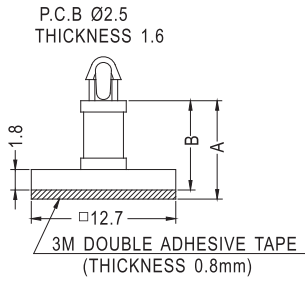


Self-Adhesive Spacer Supports

- Secured to the chassis by a self-adhesive pad
- No need for screw holes in the chassis
- Quick and simple to install without the need for special tooling

Specifications: RoHS ✓
Material: Nylon 66
Colours: Natural
Flammability: UL94V-2

PART NUMBER	A	B	Unit Quantity
0561233	4.8	4.0	1,000
0561234	6.4	5.6	1,000
0561235	8.0	7.2	1,000
0561236	9.5	8.7	1,000
0561237	11.1	10.3	1,000
0561238	12.7	11.9	1,000
0561239	15.9	15.1	1,000
0561240	19.1	18.3	1,000



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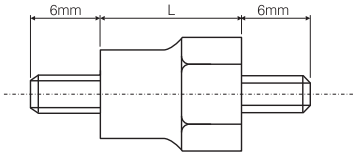
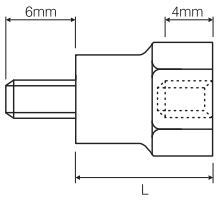
Specifications: RoHS ✓

Material: Body: Nylon 6 Insert: Brass
Colour: Body: Natural Insert: Bright Nickel
Flammability: UL94HB
Operating Temperature: -30°C to +85°C

- Can be supplied in intermediate body and non-standard thread lengths if required



Type A



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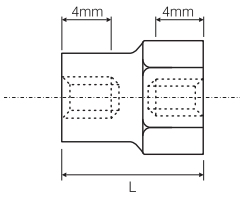

Type C

PART NUMBER	Thread	Hexagon A/F	L	Type	External Thread Length	Internal Thread Depth	Unit Quantity
0534000	M2.5	6.0	4.0	A	6.0	-	100
0534001	M2.5	6.0	5.0	A	6.0	-	100
0534002	M2.5	6.0	6.0	A	6.0	-	100
0534003	M2.5	6.0	7.0	A	6.0	-	100
0534004	M2.5	6.0	8.0	A	6.0	-	100
0534005	M2.5	6.0	9.0	A	6.0	-	100
0534006	M2.5	6.0	10.0	A	6.0	-	100
0534007	M2.5	6.0	11.0	A	6.0	-	100
0534008	M2.5	6.0	12.0	A	6.0	-	100
0534009	M2.5	6.0	7.0	B	6.0	4.0	100
0534010	M2.5	6.0	8.0	B	6.0	4.0	100
0534011	M2.5	6.0	9.0	B	6.0	4.0	100
0534012	M2.5	6.0	10.0	B	6.0	4.0	100
0534013	M2.5	6.0	11.0	B	6.0	4.0	100
0534014	M2.5	6.0	12.0	B	6.0	4.0	100
0534015	M2.5	6.0	9.0	C	-	4.0	100
0534016	M2.5	6.0	10.0	C	-	4.0	100
0534017	M2.5	6.0	11.0	C	-	4.0	100
0534018	M2.5	6.0	12.0	C	-	4.0	100
0534050	M3	7.0	4.0	A	6.0	-	100
0534051	M3	7.0	5.0	A	6.0	-	100
0534052	M3	7.0	6.0	A	6.0	-	100
0534053	M3	7.0	7.0	A	6.0	-	100
0534054	M3	7.0	8.0	A	6.0	-	100
0534055	M3	7.0	9.0	A	6.0	-	100
0534056	M3	7.0	10.0	A	6.0	-	100
0534057	M3	7.0	11.0	A	6.0	-	100
0534058	M3	7.0	12.0	A	6.0	-	100
0534059	M3	7.0	7.0	B	6.0	4.0	100
0534060	M3	7.0	8.0	B	6.0	4.0	100
0534061	M3	7.0	9.0	B	6.0	4.0	100
0534062	M3	7.0	10.0	B	6.0	4.0	100
0534063	M3	7.0	11.0	B	6.0	4.0	100
0534064	M3	7.0	12.0	B	6.0	4.0	100
0534065	M3	7.0	9.0	C	-	4.0	100
0534066	M3	7.0	10.0	C	-	4.0	100
0534067	M3	7.0	11.0	C	-	4.0	100
0534068	M3	7.0	12.0	C	-	4.0	100

Other thread sizes and body colours are also available. Please contact our Sales Department for further information



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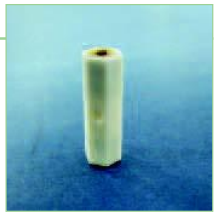
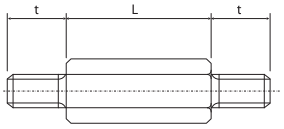


Specifications: RoHS ✓

Material: Body: Nylon 6 Insert: Brass
Colour: Body: Natural Insert: Bright nickel
Flammability: UL94HB
Operating Temperature: -30°C to +85°C

- Can be supplied in intermediate body and non-standard thread lengths if required



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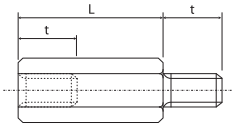
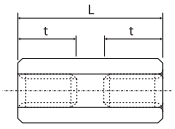


Type B



Type C

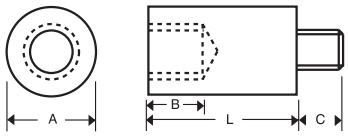
PART NUMBER	Thread	Hexagon A/F	L	Type	t	Unit Quantity
0539000	M3	6.4	15.0	A	6.0	100
0539001	M3	6.4	20.0	A	6.0	100
0539002	M3	6.4	25.0	A	6.0	100
0539003	M3	6.4	30.0	A	6.0	100
0539004	M3	6.4	35.0	A	6.0	100
0539005	M3	6.4	40.0	A	6.0	100
0539006	M3	6.4	45.0	A	6.0	100
0539007	M3	6.4	50.0	A	6.0	100
0539008	M4	8.0	15.0	A	6.0	100
0539009	M4	8.0	20.0	A	6.0	100
0539010	M4	8.0	25.0	A	6.0	100
0539011	M4	8.0	30.0	A	6.0	100
0539012	M4	8.0	35.0	A	6.0	100
0539013	M4	8.0	40.0	A	6.0	100
0539014	M4	8.0	45.0	A	6.0	100
0539015	M4	8.0	50.0	A	6.0	100
0539016	M4	8.0	55.0	A	6.0	100
0539017	M4	8.0	60.0	A	6.0	100
0539018	M4	8.0	65.0	A	6.0	100
0539019	M4	8.0	70.0	A	6.0	100
0539020	M4	8.0	75.0	A	6.0	100
0539044	M3	6.4	15.0	B	6.0	100
0539045	M3	6.4	20.0	B	6.0	100
0539046	M3	6.4	25.0	B	6.0	100
0539047	M3	6.4	30.0	B	6.0	100
0539048	M3	6.4	35.0	B	6.0	100
0539049	M3	6.4	40.0	B	6.0	100
0539050	M3	6.4	45.0	B	6.0	100
0539051	M3	6.4	50.0	B	6.0	100
0539052	M4	8.0	15.0	B	6.0	100
0539053	M4	8.0	20.0	B	6.0	100
0539054	M4	8.0	25.0	B	6.0	100
0539055	M4	8.0	30.0	B	6.0	100
0539056	M4	8.0	35.0	B	6.0	100
0539057	M4	8.0	40.0	B	6.0	100
0539058	M4	8.0	45.0	B	6.0	100
0539059	M4	8.0	50.0	B	6.0	100
0539060	M4	8.0	55.0	B	6.0	100
0539061	M4	8.0	60.0	B	6.0	100
0539062	M4	8.0	65.0	B	6.0	100
0539063	M4	8.0	70.0	B	6.0	100
0539064	M4	8.0	75.0	B	6.0	100
0539088	M3	6.4	15.0	C	6.0	100
0539089	M3	6.4	20.0	C	6.0	100
0539090	M3	6.4	25.0	C	6.0	100
0539091	M3	6.4	30.0	C	6.0	100
0539092	M3	6.4	35.0	C	6.0	100
0539093	M3	6.4	40.0	C	6.0	100
0539094	M3	6.4	45.0	C	6.0	100
0539095	M3	6.4	50.0	C	6.0	100
0539096	M4	8.0	15.0	C	6.0	100
0539097	M4	8.0	20.0	C	6.0	100
0539098	M4	8.0	25.0	C	6.0	100
0539099	M4	8.0	30.0	C	6.0	100
0539100	M4	8.0	35.0	C	6.0	100
0539101	M4	8.0	40.0	C	6.0	100
0539102	M4	8.0	45.0	C	6.0	100
0539103	M4	8.0	50.0	C	6.0	100
0539104	M4	8.0	55.0	C	6.0	100
0539105	M4	8.0	60.0	C	6.0	100
0539106	M4	8.0	65.0	C	6.0	100
0539107	M4	8.0	70.0	C	6.0	100
0539108	M4	8.0	75.0	C	6.0	100



Male - Female Heavy Duty Pillars/Standoffs

- Nylon 66 body combined with Brass insert provides fully insulated and strong fixing for Printed Circuit Boards and Busbars etc

Specifications: RoHS ✓
Material:
Body: Nylon 66, Insert: Brass CZ121
Colour: Ivory
Flammability: UL94HB
Operating Temperature: -30°C to +85°C



PART NUMBER	L Length	B & C Thread Length	A Body Dia.	Thread Size	Unit Quantity
0537002	15	6.0	8.0	M2.5 x .45	100
0537007	20	6.0	8.0	M2.5 x .45	100
0537012	25	6.0	8.0	M2.5 x .45	100
0537017	30	6.0	8.0	M2.5 x .45	100
0537022	35	6.0	8.0	M2.5 x .45	100
0537028	40	6.0	8.0	M2.5 x .45	100
0537033	45	6.0	8.0	M2.5 x .45	100
0537038	50	6.0	8.0	M2.5 x .45	100
0537102	15	6.0	8.0	M3 x .5	100
0537107	20	6.0	8.0	M3 x .5	100
0537112	25	6.0	8.0	M3 x .5	100
0537117	30	6.0	8.0	M3 x .5	100
0537122	35	6.0	8.0	M3 x .5	100
0537128	40	6.0	8.0	M3 x .5	100
0537133	45	6.0	8.0	M3 x .5	100
0537138	50	6.0	8.0	M3 x .5	100

PART NUMBER	L Length	B & C Thread Length	A Body Dia.	Thread Size	Unit Quantity
0537307	20	6.0	8.0	M4 x .7	100
0537312	25	6.0	8.0	M4 x .7	100
0537317	30	6.0	8.0	M4 x .7	100
0537322	35	6.0	8.0	M4 x .7	100
0537328	40	6.0	8.0	M4 x .7	100
0537333	45	6.0	8.0	M4 x .7	100
0537338	50	6.0	8.0	M4 x .7	100
0537407	20	8.90	9.5	M5 x .8	100
0537412	25	10.0	9.5	M5 x .8	100
0537417	30	10.0	9.5	M5 x .8	100
*0537428	40	10.0	9.5	M5 x .8	100
*0537433	45	10.0	9.5	M5 x .8	100
*0537438	50	10.0	9.5	M5 x .8	100
0537512	25	11.5	12.7	M6 x 1.00	100
0537517	30	12.0	12.7	M6 x 1.00	100
0537528	40	12.0	12.7	M6 x 1.00	100
0537533	45	12.0	12.7	M6 x 1.00	100
0537538	50	12.0	12.7	M6 x 1.00	100

PART NUMBER	L Length	B & C Thread Length	A Body Dia.	Thread Size	Unit Quantity
*0537617	30	14.0	15.9	M8 x 1.25	100
*0537622	35	14.0	15.9	M8 x 1.25	100
*0537628	40	14.0	15.9	M8 x 1.25	100
*0537633	45	14.0	15.9	M8 x 1.25	100
*0537638	50	14.0	15.9	M8 x 1.25	100
*0537643	55	14.0	15.9	M8 x 1.25	100
*0537648	60	14.0	15.9	M8 x 1.25	100
*0537654	65	14.0	15.9	M8 x 1.25	100
*0537659	70	14.0	15.9	M8 x 1.25	100
*0537717	30	14.0	19.0	M8 x 1.25	100
*0537722	35	14.0	19.0	M8 x 1.25	100
*0537728	40	14.0	19.0	M8 x 1.25	100
*0537733	45	14.0	19.0	M8 x 1.25	100
*0537738	50	14.0	19.0	M8 x 1.25	100
*0537743	55	14.0	19.0	M8 x 1.25	100
*0537748	60	14.0	19.0	M8 x 1.25	100
*0537754	65	14.0	19.0	M8 x 1.25	100
*0537759	70	14.0	19.0	M8 x 1.25	100
*0537833	45	20.0	25.0	M10 x 1.50	100
*0537838	50	20.0	25.0	M10 x 1.50	100
*0537843	55	20.0	25.0	M10 x 1.50	100
*0537848	60	20.0	25.0	M10 x 1.50	100
*0537854	65	20.0	25.0	M10 x 1.50	100
*0537859	70	20.0	25.0	M10 x 1.50	100
*0537864	75	20.0	25.0	M10 x 1.50	100
*0537869	80	20.0	25.0	M10 x 1.50	100

* Available in natural nylon only.

'A' dimension swells up to 0.5 around insert.
Body diameter is nominal.

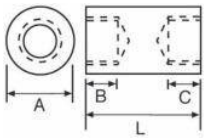
Other thread sizes and body colours are also available.
Please contact our Sales Department for further information



Female - Female Heavy Duty Pillars/Standoffs

- Nylon 66 body combined with Brass insert provides fully insulated and strong fixing for Printed Circuit Boards and Busbars etc

Specifications: RoHS ✓
Material:
Body: Nylon 66, Insert: Brass CZ121
Colour: Ivory
Flammability: UL94HB
Operating Temperature: -30°C to +85°C



PART NUMBER	L Length	B & C Thread Length	A Body Dia.	Thread Size	Unit Quantity
0536002	15	6.0	8.0	M2.5 x .45	100
0536007	20	6.0	8.0	M2.5 x .45	100
0536012	25	6.0	8.0	M2.5 x .45	100
0536017	30	6.0	8.0	M2.5 x .45	100
0536022	35	6.0	8.0	M2.5 x .45	100
0536028	40	6.0	8.0	M2.5 x .45	100
0536033	45	6.0	8.0	M2.5 x .45	100
0536038	50	6.0	8.0	M2.5 x .45	100
0536102	15	6.0	8.0	M3 x .5	100
0536107	20	6.0	8.0	M3 x .5	100
0536112	25	6.0	8.0	M3 x .5	100
0536117	30	6.0	8.0	M3 x .5	100
0536122	35	6.0	8.0	M3 x .5	100
0536128	40	6.0	8.0	M3 x .5	100
0536133	45	6.0	8.0	M3 x .5	100
0536138	50	6.0	8.0	M3 x .5	100

PART NUMBER	L Length	B & C Thread Length	A Body Dia.	Thread Size	Unit Quantity
0536307	20	6.0	8.0	M4 x .7	100
0536312	25	6.0	8.0	M4 x .7	100
0536317	30	6.0	8.0	M4 x .7	100
0536322	35	6.0	8.0	M4 x .7	100
0536326	38	6.0	8.0	M4 x .7	100
0536328	40	6.0	8.0	M4 x .7	100
0536333	45	6.0	8.0	M4 x .7	100
0536338	50	6.0	8.0	M4 x .7	100
0536407	20	8.90	9.5	M5 x .8	100
0536412	25	10.0	9.5	M5 x .8	100
0536417	30	10.0	9.5	M5 x .8	100
*0536428	40	10.0	9.5	M5 x .8	100
*0536433	45	10.0	9.5	M5 x .8	100
*0536438	50	10.0	9.5	M5 x .8	100
0536512	25	11.5	12.7	M6 x 1.00	100
0536517	30	12.0	12.7	M6 x 1.00	100
0536528	40	12.0	12.7	M6 x 1.00	100
0536533	45	12.0	12.7	M6 x 1.00	100
0536538	50	12.0	12.7	M6 x 1.00	100
*0536617	30	12.0	15.9	M8 x 1.25	100
*0536622	35	12.0	15.9	M8 x 1.25	100
*0536628	40	12.0	15.9	M8 x 1.25	100
*0536633	45	12.0	15.9	M8 x 1.25	100
*0536638	50	12.0	15.9	M8 x 1.25	100

PART NUMBER	L Length	B & C Thread Length	A Body Dia.	Thread Size	Unit Quantity
*0536643	55	12.0	15.9	M8 x 1.25	100
*0536648	60	12.0	15.9	M8 x 1.25	100
*0536654	65	12.0	15.9	M8 x 1.25	100
*0536659	70	12.0	15.9	M8 x 1.25	100
*0536717	30	14.0	19.0	M8 x 1.25	100
*0536722	35	14.0	19.0	M8 x 1.25	100
*0536728	40	14.0	19.0	M8 x 1.25	100
*0536733	45	14.0	19.0	M8 x 1.25	100
*0536738	50	14.0	19.0	M8 x 1.25	100
*0536743	55	14.0	19.0	M8 x 1.25	100
*0536748	60	14.0	19.0	M8 x 1.25	100
*0536754	65	14.0	19.0	M8 x 1.25	100
*0536759	70	14.0	19.0	M8 x 1.25	100
*0536833	45	20.0	25.0	M10 x 1.50	100
*0536838	50	20.0	25.0	M10 x 1.50	100
*0536843	55	20.0	25.0	M10 x 1.50	100
*0536848	60	20.0	25.0	M10 x 1.50	100
*0536854	65	20.0	25.0	M10 x 1.50	100
*0536859	70	20.0	25.0	M10 x 1.50	100
*0536864	75	20.0	25.0	M10 x 1.50	100
*0536869	80	20.0	25.0	M10 x 1.50	100

* Available in natural nylon only.

'A' dimension swells up to 0.5 around insert.
Body diameter is nominal.

Other thread sizes and body colours are also available.
Please contact our Sales Department for further information

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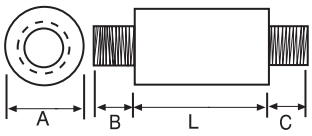
Male - Male Heavy Duty Pillars/Standoffs



Specifications: RoHS ✓

Material:
Body: Nylon 66, Insert: Brass CZ121
Colour: Ivory
Flammability: UL94HB
Operating Temperature: -30°C to +85°C

- Nylon 66 body combined with Brass insert provides fully insulated and strong fixing for Printed Circuit Boards and Busbars etc



PART NUMBER	L Length	B & C Thread Length	A Body Dia.	Thread Size	Unit Quantity
0538002	15	6.0	8.0	M2.5 x .45	100
0538007	20	6.0	8.0	M2.5 x .45	100
0538012	25	6.0	8.0	M2.5 x .45	100
0538017	30	6.0	8.0	M2.5 x .45	100
0538022	35	6.0	8.0	M2.5 x .45	100
0538028	40	6.0	8.0	M2.5 x .45	100
0538033	45	6.0	8.0	M2.5 x .45	100
0538038	50	6.0	8.0	M2.5 x .45	100
0538102	15	6.0	8.0	M3 x .5	100
0538107	20	6.0	8.0	M3 x .5	100
0538112	25	6.0	8.0	M3 x .5	100
0538117	30	6.0	8.0	M3 x .5	100
0538122	35	6.0	8.0	M3 x .5	100
0538128	40	6.0	8.0	M3 x .5	100
0538133	45	6.0	8.0	M3 x .5	100
0538138	50	6.0	8.0	M3 x .5	100

* Available in natural nylon only.

'A' dimension swells up to 0.5 around insert.
Body diameter is nominal.

Other thread sizes and body colours are also available.
Please contact our Sales Department for further information

PART NUMBER	L Length	B & C Thread Length	A Body Dia.	Thread Size	Unit Quantity
0538307	20	6.0	8.0	M4 x .7	100
0538312	25	6.0	8.0	M4 x .7	100
0538317	30	6.0	8.0	M4 x .7	100
0538322	35	6.0	8.0	M4 x .7	100
0538328	40	6.0	8.0	M4 x .7	100
0538333	45	6.0	8.0	M4 x .7	100
0538338	50	6.0	8.0	M4 x .7	100
0538407	20	8.90	9.5	M5 x .8	100
0538412	25	10.0	9.5	M5 x .8	100
0538417	30	10.0	9.5	M5 x .8	100
***0538428**	40	10.0	9.5	M5 x .8	100
***0538433**	45	10.0	9.5	M5 x .8	100
***0538438**	50	10.0	9.5	M5 x .8	100
0538512	25	11.5	12.7	M6 x 1.00	100
0538517	30	12.0	12.7	M6 x 1.00	100
0538528	40	12.0	12.7	M6 x 1.00	100
0538533	45	12.0	12.7	M6 x 1.00	100
0538538	50	12.0	12.7	M6 x 1.00	100

PART NUMBER	L Length	B & C Thread Length	A Body Dia.	Thread Size	Unit Quantity
***0538617**	30	14.0	15.9	M8 x 1.25	100
***0538622**	35	14.0	15.9	M8 x 1.25	100
***0538628**	40	14.0	15.9	M8 x 1.25	100
***0538633**	45	14.0	15.9	M8 x 1.25	100
***0538638**	50	14.0	15.9	M8 x 1.25	100
***0538643**	55	14.0	15.9	M8 x 1.25	100
***0538648**	60	14.0	15.9	M8 x 1.25	100
***0538654**	65	14.0	15.9	M8 x 1.25	100
***0538659**	70	14.0	15.9	M8 x 1.25	100
***0538717**	30	14.0	19.0	M8 x 1.25	100
***0538722**	35	14.0	19.0	M8 x 1.25	100
***0538728**	40	14.0	19.0	M8 x 1.25	100
***0538733**	45	14.0	19.0	M8 x 1.25	100
***0538738**	50	14.0	19.0	M8 x 1.25	100
***0538743**	55	14.0	19.0	M8 x 1.25	100
***0538748**	60	14.0	19.0	M8 x 1.25	100
***0538754**	65	14.0	19.0	M8 x 1.25	100
***0538759**	70	14.0	19.0	M8 x 1.25	100
***0538833**	45	20.0	25.0	M10 x 1.50	100
***0538838**	50	20.0	25.0	M10 x 1.50	100
***0538543**	55	20.0	25.0	M10 x 1.50	100
***0538848**	60	20.0	25.0	M10 x 1.50	100
***0538854**	65	20.0	25.0	M10 x 1.50	100
***0538859**	70	20.0	25.0	M10 x 1.50	100
***0538864**	75	20.0	25.0	M10 x 1.50	100
***0538869**	80	20.0	25.0	M10 x 1.50	100



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- Have only one source for all your component needs

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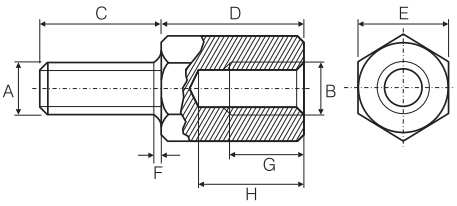
Male - Female Metal Threaded Pillars/Standoffs

- Ideal for heavy duty and high temperature applications

Specifications: RoHS ✓
Material: Nickel Plated Brass
Colour: Silver
Operating Temperature: -50°C to +300°C

PART NUMBER	A & B	C	D	E	F	G	H	Unit Quantity
0532000	M3	8.0	5.0	5.0	1.0	3.0	4.0	500
0532001	M3	8.0	6.0	5.0	1.0	3.0	4.0	500
0532002	M3	8.0	7.0	5.0	1.0	3.0	4.0	500
0532003	M3	8.0	8.0	5.0	1.0	4.0	6.0	500
0532004	M3	8.0	9.0	5.0	1.0	4.0	6.0	500
0532005	M3	8.0	10.0	5.0	1.0	6.0	8.0	500
0532006	M3	8.0	11.0	5.0	1.0	6.0	8.0	500
0532007	M3	8.0	12.0	5.0	1.0	8.0	10.0	500
0532008	M3	8.0	13.0	5.0	1.0	8.0	10.0	500
0532009	M3	8.0	14.0	5.0	1.0	8.0	10.0	500
0532010	M3	8.0	15.0	5.0	1.0	8.0	13.0	500
0532011	M3	8.0	16.0	5.0	1.0	8.0	13.0	500
0532012	M3	8.0	17.0	5.0	1.0	8.0	13.0	500
0532013	M3	8.0	18.0	5.0	1.0	8.0	14.0	500
0532014	M3	8.0	20.0	5.0	1.0	8.0	15.0	500
0532016	M3	10.0	25.0	5.0	1.0	10.0	15.0	500
0532017	M3	10.0	30.0	5.0	1.0	10.0	15.0	500
0532019	M3	10.0	35.0	5.0	1.0	10.0	15.0	500
0532020	M3	10.0	40.0	5.0	1.0	10.0	15.0	500
0532021	M3	10.0	45.0	5.0	1.0	10.0	15.0	500
0532022	M3	10.0	50.0	5.0	1.0	10.0	15.0	500

PART NUMBER	A & B	C	D	E	F	G	H	Unit Quantity
0532036	M4	8.0	5.0	7.0	1.4	2.5	4.0	500
0532037	M4	8.0	8.0	7.0	1.4	4.0	6.0	500
0532038	M4	8.0	10.0	7.0	1.4	6.0	8.0	500
0532039	M4	8.0	12.0	7.0	1.4	8.0	10.0	500
0532040	M4	8.0	15.0	7.0	1.4	8.0	13.0	500
0532041	M4	8.0	18.0	7.0	1.4	8.0	15.0	500
0532042	M4	8.0	20.0	7.0	1.4	8.0	15.0	500
0532043	M4	10.0	25.0	7.0	1.4	10.0	15.0	500
0532044	M4	10.0	30.0	7.0	1.4	10.0	15.0	500
0532045	M4	10.0	35.0	7.0	1.4	10.0	15.0	500
0532046	M4	10.0	40.0	7.0	1.4	10.0	15.0	500
0532047	M4	10.0	45.0	7.0	1.4	10.0	15.0	500
0532048	M4	10.0	50.0	7.0	1.4	10.0	15.0	500



Can be supplied in other sizes and materials. Please contact our Sales Department for further information



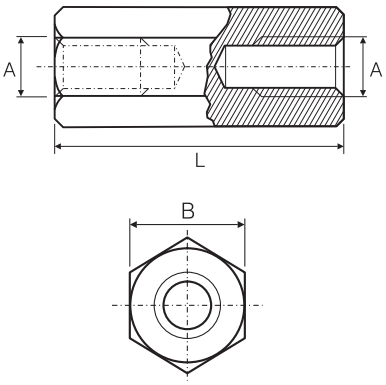
Female - Female Metal Threaded Pillars/Standoffs

- Ideal for heavy duty and high temperature applications

Specifications: RoHS ✓
Material: Nickel Plated Brass
Colour: Silver
Operating Temperature: -50°C to +300°C

PART NUMBER	L	A	B	Unit Quantity
0531000	5.0	M3	5.0	500
0531001	6.0	M3	5.0	500
0531002	7.0	M3	5.0	500
0531003	8.0	M3	5.0	500
0531004	9.0	M3	5.0	500
0531005	10.0	M3	5.0	500
0531006	11.0	M3	5.0	500
0531007	12.0	M3	5.0	500
0531008	13.0	M3	5.0	500
0531009	14.0	M3	5.0	500
0531010	15.0	M3	5.0	500
0531011	16.0	M3	5.0	500
0531012	17.0	M3	5.0	500
0531013	18.0	M3	5.0	500
0531014	20.0	M3	5.0	500
0531016	25.0	M3	5.0	500
0531017	30.0	M3	5.0	500
0531019	35.0	M3	5.0	500
0531020	40.0	M3	5.0	500
0531021	45.0	M3	5.0	500
0531022	50.0	M3	5.0	500

PART NUMBER	L	A	B	Unit Quantity
0531036	5.0	M4	7.0	500
0531037	8.0	M4	7.0	500
0531038	10.0	M4	7.0	500
0531039	12.0	M4	7.0	500
0531040	15.0	M4	7.0	500
0531041	18.0	M4	7.0	500
0531042	20.0	M4	7.0	500
0531043	25.0	M4	7.0	500
0531044	30.0	M4	7.0	500
0531045	35.0	M4	7.0	500
0531046	40.0	M4	7.0	500
0531047	45.0	M4	7.0	500
0531048	50.0	M4	7.0	500



Parts of length up to and including 20mm are threaded all the way through

Parts of length of 25mm and over are threaded 10mm in from each end

Can be supplied in other sizes and materials.
Please contact our Sales Department for further information

T: +44 (0) 1202 865222
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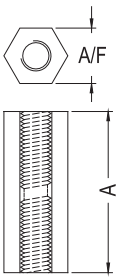
Metric Hexagon Thru-Hole Threaded Spacers



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability: UL94V-2
Tolerances: L & A/F = ± .38

- Hexagon form allows easy retention during installation of fixing
- Threaded bore provides a positive fixing to machine screws & studs



PART NUMBER	Thread Size	L Length	A/F	Unit Quantity
0130855	M3 x .5	6.35	6.35	1,000
0130856	M3 x .5	9.53	6.35	1,000
0130857	M3 x .5	12.70	6.35	1,000
0130858	M3 x .5	15.88	6.35	1,000
0130859	M3 x .5	19.05	6.35	1,000
0130860	M3 x .5	22.22	6.35	1,000
0130861	M3 x .5	25.40	6.35	1,000
0130900	M3 x .5	4.0	5.50	1,000
0130901	M3 x .5	6.0	5.50	1,000
0130902	M3 x .5	8.0	5.50	1,000
0130903	M3 x .5	10.0	5.50	1,000
0130904	M3 x .5	12.0	5.50	1,000
0130905	M3 x .5	14.0	5.50	1,000
0130906	M3 x .5	16.0	5.50	1,000
0130907	M3 x .5	18.0	5.50	1,000
0130908	M3 x .5	20.0	5.50	1,000
0130909	M3 x .5	22.0	5.50	1,000
0130910	M3 x .5	24.0	5.50	1,000
0130911	M3 x .5	25.0	5.50	1,000
0130912	M3 x .5	30.0	5.50	1,000
0130913	M3 x .5	32.0	5.50	1,000
0130914	M3 x .5	38.0	5.50	1,000
0130915	M3 x .5	40.0	5.50	1,000
0130916	M3 x .5	42.0	5.50	1,000
0130917	M3 x .5	45.0	5.50	1,000
0130918	M3 x .5	49.0	5.50	1,000
0130919	M3 x .5	52.0	5.50	1,000

PART NUMBER	Thread Size	L Length	A/F	Unit Quantity
0130873	M4 x .7	6.35	6.35	1,000
0130874	M4 x .7	9.53	6.35	1,000
0130875	M4 x .7	12.70	6.35	1,000
0130876	M4 x .7	15.88	6.35	1,000
0130877	M4 x .7	19.05	6.35	1,000
0130878	M4 x .7	22.22	6.35	1,000
0130879	M4 x .7	25.40	6.35	1,000
0130950	M4 x .7	6.0	7.00	1,000
0130951	M4 x .7	8.0	7.00	1,000
0130952	M4 x .7	10.0	7.00	1,000
0130953	M4 x .7	12.0	7.00	1,000
0130954	M4 x .7	14.0	7.00	1,000
0130955	M4 x .7	16.0	7.00	1,000
0130957	M4 x .7	20.0	7.00	1,000
0130958	M4 x .7	25.0	7.00	1,000
0130959	M4 x .7	30.0	7.00	1,000
0130960	M4 x .7	35.0	7.00	1,000
0130961	M4 x .7	40.0	7.00	1,000
0130962	M4 x .7	45.5	7.00	1,000

In range 0130855 to 0130879 the Spacers 19.05 long and over are only tapped 9.53 in from each end.

In range 0130900 to 0130961 the Spacers 12.0 long and over are only tapped 6.00 in from each end

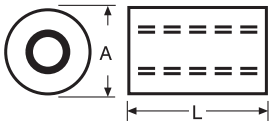
Metric Round Threaded Spacers



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability: UL94V-2
Tolerances: L & A = ± 0.38

- Threaded bore provides a positive fixing to machine screws and studs

Spacers 19.05 long and over are only tapped 9.53 in from each end



PART NUMBER	Thread Size	L Length	A	Unit Quantity
0120780	M3 x .5	6.35	6.35	1,000
0120781	M3 x .5	9.53	6.35	1,000
0120782	M3 x .5	12.70	6.35	1,000
0120783	M3 x .5	15.88	6.35	1,000
0120784	M3 x .5	19.05	6.35	1,000
0120785	M3 x .5	22.22	6.35	1,000
0120786	M3 x .5	25.40	6.35	1,000
0120800	M3.5 x .6	6.35	6.35	1,000
0120801	M3.5 x .6	9.53	6.35	1,000
0120802	M3.5 x .6	12.70	6.35	1,000
0120803	M3.5 x .6	15.88	6.35	1,000
0120804	M3.5 x .6	19.05	6.35	1,000
0120805	M3.5 x .6	22.22	6.35	1,000
0120806	M3.5 x .6	25.40	6.35	1,000
0120810	M4 x .7	6.35	6.35	1,000
0120811	M4 x .7	9.53	6.35	1,000
0120812	M4 x .7	12.70	6.35	1,000
0120813	M4 x .7	15.88	6.35	1,000
0120814	M4 x .7	19.05	6.35	1,000
0120815	M4 x .7	22.22	6.35	1,000
0120816	M4 x .7	25.40	6.35	1,000

PART NUMBER	Thread Size	L Length	A	Unit Quantity
0120822	M4 x.7	6.35	7.94	1,000
0120823	M4 x.7	9.53	7.94	1,000
0120824	M4 x.7	12.70	7.94	1,000
0120825	M4 x.7	15.88	7.94	1,000
0120826	M4 x.7	19.05	7.94	1,000
0120827	M4 x.7	22.22	7.94	1,000
0120828	M4 x.7	25.40	7.94	1,000
0120832	M5 x.8	6.35	9.53	1,000
0120833	M5 x.8	9.53	9.53	1,000
0120834	M5 x.8	12.70	9.53	1,000
0120835	M5 x.8	15.88	9.53	1,000
0120836	M5 x.8	19.05	9.53	1,000
0120837	M5 x.8	22.22	9.53	1,000
0120838	M5 x.8	25.40	9.53	1,000
0120842	M5 x.8	6.35	12.70	1,000
0120843	M5 x.8	9.53	12.70	1,000
0120844	M5 x.8	12.70	12.70	1,000
0120845	M5 x.8	15.88	12.70	1,000
0120846	M5 x.8	19.05	12.70	1,000
0120847	M5 x.8	22.22	12.70	1,000
0120848	M5 x.8	25.40	12.70	1,000

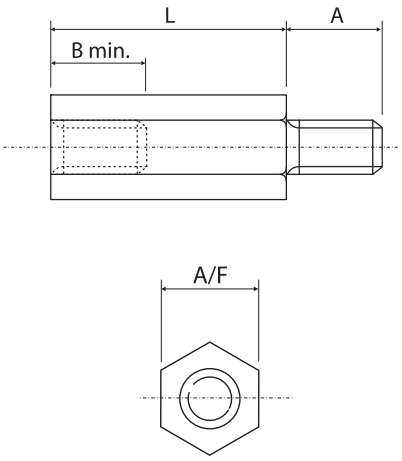


Metric Male - Female Hexagon Threaded Standoffs

- Hexagon form allows easy retention during installation of fixing
- Threaded bore provides a positive fixing to metric screws & studs
- Threaded stud provides a positive fixing to metric threaded nuts
- Excellent electrical insulative properties

Specifications: RoHS ✓
Material: Nylon 66, Colour: Natural
Flammability: UL94V-2
Tolerances:
A/F, A & L = ± 0.38
B = +0.15 / -0

PART NUMBER	Thread Size	A/F	A	B min.	L	Unit Quantity
0532100	M3 x 0.5	6.00	4.76	4.76	8.00	1,000
0532101	M3 x 0.5	6.00	4.76	4.76	10.00	1,000
0532102	M3 x 0.5	6.00	4.76	4.76	11.00	1,000
0532103	M3 x 0.5	6.00	4.76	4.76	12.00	1,000
0532104	M3 x 0.5	6.00	4.76	4.76	13.00	1,000
0532105	M3 x 0.5	6.00	4.76	4.76	14.00	1,000
0532106	M3 x 0.5	6.00	4.76	4.76	16.00	1,000
0532107	M3 x 0.5	6.00	4.76	4.76	22.00	1,000
0532108	M3 x 0.5	6.00	4.76	4.76	25.00	1,000
0532200	M3.5 x 0.6	6.00	6.35	6.35	10.00	1,000
0532201	M3.5 x 0.6	6.00	6.35	6.35	11.00	1,000
0532202	M3.5 x 0.6	6.00	6.35	6.35	12.00	1,000
0532203	M3.5 x 0.6	6.00	6.35	6.35	13.00	1,000
0532204	M3.5 x 0.6	6.00	6.35	6.35	14.00	1,000
0532205	M3.5 x 0.6	6.00	6.35	6.35	16.00	1,000
0532206	M3.5 x 0.6	6.00	6.35	6.35	19.00	1,000
0532207	M3.5 x 0.6	6.00	6.35	6.35	20.00	1,000
0532208	M3.5 x 0.6	6.00	6.35	6.35	22.00	1,000
0532209	M3.5 x 0.6	6.00	6.35	6.35	25.00	1,000
0532300	M4 x 0.7	6.00	9.53	9.53	12.00	1,000
0532301	M4 x 0.7	6.00	9.53	9.53	13.00	1,000
0532302	M4 x 0.7	6.00	9.53	9.53	14.00	1,000
0532303	M4 x 0.7	6.00	9.53	9.53	15.00	1,000
0532304	M4 x 0.7	6.00	9.53	9.53	16.00	1,000
0532305	M4 x 0.7	6.00	9.53	9.53	18.00	1,000
0532306	M4 x 0.7	6.00	9.53	9.53	19.00	1,000
0532307	M4 x 0.7	6.00	9.53	9.53	20.00	1,000
0532308	M4 x 0.7	6.00	9.53	9.53	22.00	1,000
0532309	M4 x 0.7	6.00	9.53	9.53	25.00	1,000





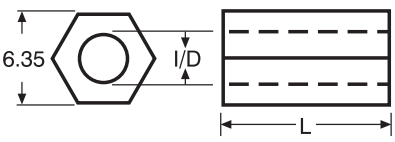
Plain Hole Hexagon Spacers

- Hexagon form allows easy retention during installation of fixing
- Ideal for use with metal self tapping screws

Specifications: RoHS ✓
Material: Nylon 66, Colour: Natural
Flammability: UL94V-2
Tolerances:
I/D = ± 0.13
L & A/F = ± 0.38

PART NUMBER	L Length	I/D	Self Tapping Screw Size	Unit Quantity
0505312	6.35	2.31	No.4	1,000
0505313	9.53	2.31	No.4	1,000
0505314	12.70	2.31	No.4	1,000
0505315	15.88	2.31	No.4	1,000
0505316	19.05	2.31	No.4	1,000
0505317	22.22	2.31	No.4	1,000
0505318	25.40	2.31	No.4	1,000
0505321	6.35	2.92	No.6	1,000
0505322	9.53	2.92	No.6	1,000
0505323	12.70	2.92	No.6	1,000
0505324	15.88	2.92	No.6	1,000
0505325	19.05	2.92	No.6	1,000
0505326	22.22	2.92	No.6	1,000
0505327	25.40	2.92	No.6	1,000

PART NUMBER	L Length	I/D	Self Tapping Screw Size	Unit Quantity
0505331	6.35	3.56	No.8	1,000
0505332	9.53	3.56	No.8	1,000
0505333	12.70	3.56	No.8	1,000
0505334	15.88	3.56	No.8	1,000
0505335	19.05	3.56	No.8	1,000
0505336	22.22	3.56	No.8	1,000
0505337	25.40	3.56	No.8	1,000



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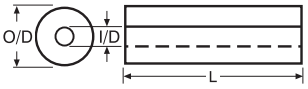
E: sales@optimascomponents.com

Metric Round Plain Spacers



Specifications: RoHS ✓

Material: Nylon 66, Colour: Natural
Flammability: UL94V-2
Tolerances:
O/D = ± 0.25, I/D = ± 0.13
L = ± 0.38

- Ideal for use in electrical assemblies for numerous applications
- Can also be used as bushings, bearings, rollers and glides
- Smaller sizes are ideal as LED supports



PART NUMBER	O/D	I/D	L Length	Unit Quantity
0484000	3.7	2.2	2.0	1,000
0484001	3.7	2.2	4.0	1,000
0484002	3.7	2.2	6.0	1,000
0484003	3.7	2.2	8.0	1,000
0484004	3.7	2.2	10.0	1,000
0484005	3.7	2.2	12.0	1,000
0484006	3.7	2.2	14.0	1,000
0484007	3.7	2.2	16.0	1,000
0484008	4.5	2.6	2.0	1,000
0484009	4.5	2.6	4.0	1,000
0484010	4.5	2.6	6.0	1,000
0484011	4.5	2.6	8.0	1,000
0484012	4.5	2.6	10.0	1,000
0484013	4.5	2.6	12.0	1,000
0484014	4.5	2.6	14.0	1,000
0484015	4.5	2.6	15.0	1,000
0484016	5.0	3.2	2.0	1,000
0484017	5.0	3.2	4.0	1,000
0484018	5.0	3.2	5.0	1,000
0484019	5.0	3.2	6.0	1,000
0484020	5.0	3.2	8.0	1,000
0484021	5.0	3.2	10.0	1,000
0484022	5.0	3.2	12.0	1,000
0484023	5.0	3.2	14.0	1,000
0484024	5.0	3.2	15.0	1,000
0484025	5.0	3.2	16.0	1,000
0484026	5.0	3.2	18.0	1,000
0484027	5.0	3.2	20.0	1,000
0484028	5.0	3.2	22.0	1,000
0484029	5.0	3.2	24.0	1,000
0484030	5.0	3.2	25.0	1,000
0484031	5.0	3.2	30.0	1,000
0484032	6.3	4.2	2.0	1,000
0484033	6.3	4.2	4.0	1,000
0484034	6.3	4.2	5.0	1,000
0484035	6.3	4.2	6.0	1,000
0484036	6.3	4.2	8.0	1,000
0484037	6.3	4.2	10.0	1,000
0484038	6.3	4.2	12.0	1,000
0484039	6.3	4.2	14.0	1,000
0484040	6.3	4.2	15.0	1,000
0484041	6.3	4.2	16.0	1,000
0484042	6.3	4.2	18.0	1,000
0484043	6.3	4.2	20.0	1,000
0484044	6.3	4.2	22.0	1,000
0484045	6.3	4.2	24.0	1,000
0484046	6.3	4.2	25.0	1,000
0484047	6.3	4.2	30.0	1,000
0484048	6.3	4.2	40.0	1,000

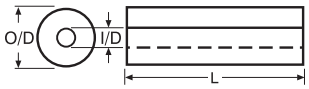


Imperial Round Plain Spacers

- Ideal for use in electrical assemblies for numerous applications
- Can also be used as bushings, bearings, rollers and glides
- Smaller sizes are ideal as LED supports

Specifications: RoHS ✓

Material: Nylon 66, Colour: Natural
Flammability: UL94V-2
Tolerances:
O/D = ± 0.25, I/D = ± 0.13
L = ± 0.38



PART NUMBER	O/D	I/D	Unified Screw Size	L Length	Unit Quantity
0484750	4.76	2.31	No. 2	3.18	1,000
0484753	4.76	2.92	No. 4	3.18	1,000
0484754	6.35	2.92	No. 4	3.18	1,000
0484755	7.94	2.92	No. 4	3.18	1,000
0484756	6.35	3.56	No. 6	3.18	1,000
0484757	7.94	3.56	No. 6	3.18	1,000
0484758	9.53	3.56	No. 6	3.18	1,000
0484760	6.35	4.34	No. 8	3.18	1,000
0484762	9.53	4.34	No. 8	3.18	1,000
0484763	12.70	4.34	No. 8	3.18	1,000
0484764	7.94	4.93	No. 10	3.18	1,000
0484767	12.70	5.56	No. 12	3.18	1,000
0484771	3.18	1.60	No. 1	4.76	1,000
0484772	4.76	2.31	No. 2	4.76	1,000
0484774	4.76	2.92	No. 4	4.76	1,000
0484775	6.35	2.92	No. 4	4.76	1,000
0484777	6.35	3.56	No. 6	4.76	1,000
0484778	7.94	3.56	No. 6	4.76	1,000
0484781	6.35	4.34	No. 8	4.76	1,000
0484782	7.94	4.34	No. 8	4.76	1,000
0484783	9.53	4.34	No. 8	4.76	1,000
0484784	12.70	4.34	No. 8	4.76	1,000
0484785	7.94	4.93	No. 10	4.76	1,000
0484789	12.70	6.53	¼	4.76	1,000
0484793	4.76	2.31	No. 2	6.35	1,000
0484795	4.76	2.92	No. 4	6.35	1,000
0484796	6.35	2.92	No. 4	6.35	1,000
0484797	7.94	2.92	No. 4	6.35	1,000
0484798	6.35	3.56	No. 6	6.35	1,000
0484799	7.94	3.56	No. 6	6.35	1,000
0484802	6.35	4.34	No. 8	6.35	1,000
0484803	7.94	4.34	No. 8	6.35	1,000
0484804	9.53	4.34	No. 8	6.35	1,000
0484805	12.70	4.34	No. 8	6.35	1,000
0484806	7.94	4.93	No. 10	6.35	1,000
0484807	9.53	4.93	No. 10	6.35	1,000
0484808	12.70	4.93	No. 10	6.35	1,000
0484809	12.70	5.56	No. 12	6.35	1,000
0484810	12.70	6.53	¼	6.35	1,000

PART NUMBER	O/D	I/D	Unified Screw Size	L Length	Unit Quantity
0484814	4.76	2.31	No. 2	7.94	1,000
0484817	6.35	2.92	No. 4	7.94	1,000
0484819	6.35	3.56	No. 6	7.94	1,000
0484820	7.94	3.56	No. 6	7.94	1,000
0484821	9.53	3.56	No. 6	7.94	1,000
0484823	6.35	4.34	No. 8	7.94	1,000
0484824	7.94	4.34	No. 8	7.94	1,000
0484825	9.53	4.34	No. 8	7.94	1,000
0484826	12.70	4.34	No. 8	7.94	1,000
0484827	7.94	4.93	No. 10	7.94	1,000
0484828	9.53	4.93	No. 10	7.94	1,000
0484829	12.70	4.93	No. 10	7.94	1,000
0484831	12.70	6.53	¼	7.94	1,000
0484834	4.76	2.31	No. 2	9.53	1,000
0484836	4.76	2.92	No. 4	9.53	1,000
0484837	6.35	2.92	No. 4	9.53	1,000
0484839	6.35	3.56	No. 6	9.53	1,000
0484840	7.94	3.56	No. 6	9.53	1,000
0484841	9.53	3.56	No. 6	9.53	1,000
0484843	6.35	4.34	No. 8	9.53	1,000
0484844	7.94	4.34	No. 8	9.53	1,000
0484845	9.53	4.34	No. 8	9.53	1,000
0484846	12.70	4.34	No. 8	9.53	1,000
0484847	7.94	4.93	No. 10	9.53	1,000
0484848	9.53	4.93	No. 10	9.53	1,000
0484850	12.70	5.56	No. 12	9.53	1,000
0484851	12.70	6.53	¼	9.53	1,000
0484856	4.76	2.92	No. 4	11.11	1,000
0484857	6.35	2.92	No. 4	11.11	1,000
0484858	7.94	2.92	No. 4	11.11	1,000
0484859	6.35	3.56	No. 6	11.11	1,000
0484863	6.35	4.34	No. 8	11.11	1,000
0484864	7.94	4.34	No. 8	11.11	1,000
0484865	9.53	4.34	No. 8	11.11	1,000
0484867	7.94	4.93	No. 10	11.11	1,000
0484868	9.53	4.93	No. 10	11.11	1,000
0484869	12.70	4.93	No. 10	11.11	1,000
0484870	12.70	5.56	No. 12	11.11	1,000
0484871	12.70	6.53	¼	11.11	1,000

PART NUMBER	O/D	I/D	Unified Screw Size	L Length	Unit Quantity
0484877	4.76	2.92	No. 4	12.70	1,000
0484879	7.94	2.92	No. 4	12.70	1,000
0484881	7.94	3.56	No. 6	12.70	1,000
0484882	9.53	3.56	No. 6	12.70	1,000
0484884	6.35	4.34	No. 8	12.70	1,000
0484886	9.53	4.34	No. 8	12.70	1,000
0484888	7.94	4.93	No. 10	12.70	1,000
0484889	9.53	4.93	No. 10	12.70	1,000
0484890	12.70	4.93	No. 10	12.70	1,000
0484891	12.70	5.56	No. 12	12.70	1,000
0484892	12.70	6.53	¼	12.70	1,000
0484901	6.35	3.56	No. 6	14.29	1,000
0484903	9.53	3.56	No. 6	14.29	1,000
0484905	6.35	4.34	No. 8	14.29	1,000
0484906	7.94	4.34	No. 8	14.29	1,000
0484912	12.70	5.56	No. 12	14.29	1,000
0484913	12.70	6.53	¼	14.29	1,000
0484922	6.35	3.56	No. 6	15.88	1,000
0484931	9.53	4.93	No. 10	15.88	1,000
0484931	9.53	4.93	No. 10	15.88	1,000
0484931	9.53	4.93	No. 10	15.88	1,000
0484933	12.70	5.56	No. 12	15.88	1,000
0484934	12.70	6.53	¼	15.88	1,000
0484943	6.35	3.56	No. 6	17.46	1,000
0484948	7.94	4.34	No. 8	17.46	1,000
0484954	12.70	5.56	No. 12	17.46	1,000
0484961	4.76	2.92	No. 4	19.05	1,000
0484962	6.35	2.92	No. 4	19.05	1,000
0484968	6.35	4.34	No. 8	19.05	1,000
0484969	7.94	4.34	No. 8	19.05	1,000
0484974	12.70	4.93	No. 10	19.05	1,000
0484975	12.70	5.56	No. 12	19.05	1,000
0484976	12.70	6.53	¼	19.05	1,000
0484983	6.35	2.92	No. 4	20.64	1,000
0484985	6.35	3.56	No. 6	20.64	1,000
0485005	12.70	5.56	No. 12	20.64	1,000
0485006	12.70	6.53	¼	20.64	1,000
0485020	7.94	4.34	No. 8	22.22	1,000
0485024	9.53	4.93	No. 10	22.22	1,000
0485025	12.70	4.93	No. 10	22.22	1,000
0485027	12.70	6.53	¼	22.22	1,000
0485048	12.70	6.53	¼	23.81	1,000
0485058	7.94	3.56	No. 6	25.40	1,000
0485067	12.70	4.93	No. 10	25.40	1,000
0485068	12.70	5.56	No. 12	25.40	1,000
0485069	12.70	6.53	¼	25.40	1,000

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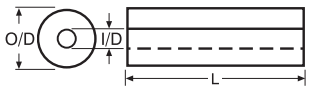

Specifications: RoHS ✓

Material: Nylon 66, Colour: Natural
Flammability: UL94V-2
Tolerances:
O/D = ± 0.25, I/D = ± 0.13
L = ± 0.38

- Ideal for use in electrical assemblies for numerous applications
- Can also be used as bushings, bearings, rollers and glides
- Smaller sizes are ideal as LED supports



PART NUMBER	O/D	I/D	L Length	Unit Quantity
0495120	7.52	3.18	2.38	1,000
0495128	9.53	5.54	3.18	1,000
0495129	9.88	6.38	3.18	1,000
0495141	5.49	3.18	3.43	1,000
0495148	4.75	2.92	3.96	1,000
0495151	6.38	3.86	3.96	1,000
0495155	6.35	3.56	4.06	1,000
0495157	5.08	3.68	4.34	1,000
0414101	19.05	9.53	5.08	1,000
0495173	6.35	3.56	5.33	1,000
0495175	7.93	4.75	5.46	1,000
0495178	6.35	2.92	5.54	1,000
0414104	18.24	13.36	5.56	1,000
0495183	9.53	6.35	5.59	1,000
0495186	9.98	4.29	5.94	1,000
0414107	15.88	4.19	6.35	1,000
0495193	9.53	5.56	6.35	1,000
0495194	19.05	6.35	6.35	1,000
0495195	9.53	6.53	6.35	1,000
0495196	10.31	6.53	6.35	1,000
0495201	15.88	6.6	6.35	1,000
0414113	31.40	6.35	6.48	1,000
0495215	18.24	13.36	7.14	1,000
0495217	7.11	3.18	7.52	1,000
0495221	5.46	3.68	8.33	1,000
0495224	16.71	7.11	9.12	1,000
0495228	15.88	6.35	9.53	1,000
0495229	19.05	6.35	9.53	1,000
0495234	19.05	12.45	9.53	1,000
0495235	25.40	12.70	9.53	1,000
0495239	4.06	2.54	10.31	1,000
0495240	7.87	3.20	10.41	1,000
0495245	11.43	8.26	10.72	1,000
0495253	9.53	6.50	12.70	1,000
0495255	15.88	7.14	12.70	1,000
0495256	14.27	9.53	12.70	1,000
0495266	11.68	6.35	14.27	1,000
0495269	15.88	9.80	15.47	1,000
0495275	10.31	6.53	19.05	1,000
0495288	15.88	7.14	20.62	1,000
0495289	15.75	12.80	20.62	1,000
0495297	10.31	6.53	25.40	1,000
0495299	12.70	9.78	25.40	1,000
0495302	12.70	6.35	34.93	1,000
0495303	15.88	6.50	38.10	1,000

BOCUBE
ENCLOSURE BOXES

BOPLA
A Phoenix Mecano Company





SCREWLESS AND HINGED ENCLOSURE BOXES FOR FAST INSTALLATION AND MAINTENANCE

BOCUBE is a new range of enclosure boxes that can be opened with a screwdriver and snapped shut by hand, thereby saving time during installation or maintenance.

KEY BENEFITS:

- Time saving patented hinged, quick-release technology – open either side with a screwdriver, snap shut by hand
- No screws to drop or misplace
- IP66/67 foam seal guarantees high ingress protection for wet & dusty environments
- Available in ABS or UL94V-0 Polycarbonate
- Available in a range of sizes and colours to suit all applications
- Can be supplied pre-customsied with holes machined and components mounted

SEE OUR FULL STANDARD RANGE IN CHAPTER 2 OR AT:
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OPTIMAS

CHAPTER 12

RIVETS & PANEL FASTENERS

BESPOKE PARTS DESIGN AND MANUFACTURE



FRESH PRODUCT DEVELOPMENT

When an off the shelf part doesn't exist, or you simply prefer the benefits of a completely bespoke part, our Bespoke Parts Design and Manufacture service provides a fresh and creative approach to overcoming everyday cable management and fastening challenges.

Projects can range from an adaptation of an existing part, through to a complete bespoke product or assembly. We can take your brief of an idea or a product requirement and manage the project right through to delivery of the final parts. The whole process is controlled by our ISO 9001 quality systems.

THE BENEFITS OF THIS SERVICE:

- A fresh, creative approach to overcoming cable management and fastening challenges
- Unique solutions developed to suit your exact needs
- Reduces your labour-intensive assembly tasks
- Typically increases the strength and reliability of your end product
- We can produce your new part in just a few days

TO KICK START YOUR PROJECT:

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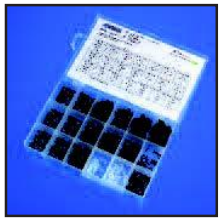
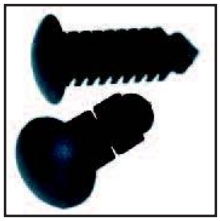
OPTIMAS


Nylon Panel Fastener Assortment Box P12-3


Double Ended Pine Tree Clips P12-3


Pine Tree Clips P12-4


Latched Pine Tree Clips P12-5


Looped Pine Tree Clips P12-5

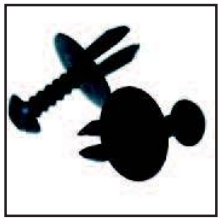

Push Fasteners P12-5

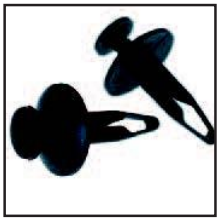

Push Clips P12-6

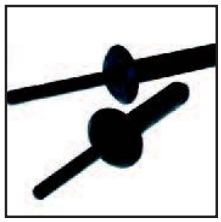

Drive Rivets P12-6, 7


Drive Rivet Insertion Tool P12-7


Quarter Turn Rivets P12-7


Screw Rivets P12-8


Drive Lock Blind Rivets P 12-8, 9


R-Lok Expansion Rivets P12-10


R-Tite Rivets P12-10


R-Lok Setting Tool P12-10


Push Rivets P12-11, 12


Snap Latches P12-12


Panel Rivets P12-12



Push to Lock Rivets P12-13



Door Lock Latch and Strike P12-14



Door Lock Tip P12-14



Door Lock P12-14



Magnetic Door Latch P12-14


Push Lock Access Panel Fasteners P12-15


Male Strike for Access Panel Fasteners P12-15



Aluminium Open Domed Head Pop Rivet P12-16



Aluminium Open Large Flange Pop Rivet P12-16



Aluminium Open Countersunk Pop Rivet P12-16



Aluminium Multigrip Domed Head Pop Rivet P12-17



Aluminium Domed Head Peel Pop Rivet P12-17



Aluminium Closed Domed Head Pop Rivet P12-18



Steel Open Domed Head Pop Rivet P12-18



Stainless Steel Break Stem Open Pop Rivet P12-19



Stainless Steel Closed Domed Head Pop Rivet P12-19


Expansion Nuts P12-20, 21


Ratchet Rivets P12-21



Ratchet Rivet Extender
P12-21



Viking Screws
P12-21



Snap Rivets
P12-22



Binder Posts & Drive Caps
P12-22

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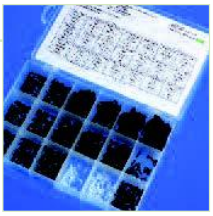
Nylon Panel Fastener Assortment Box



- Ideal for product design departments and R&D labs

Specifications: RoHS ✓
Material: Nylon 66

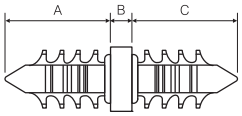
PART NUMBER	Description	Unit Quantity
0826645	This kit contains an assortment of 18 popular sizes and styles of rivets & panel fasteners covering hole sizes from Ø3.0 to Ø10.0mm.	1

Kit Contents

Part Number & Style	0666001 Pine Tree	0666013 Pine Tree	0666042 Pine Tree	0666048 Pine Tree	0666084 Pine Tree	0666167 Pine Tree
Hole Diameter	3.00mm	5.00mm	6.35mm	6.35mm	7.01mm	10.01mm
Panel Range	4.06 - 11.99mm	1.52 - 10.92mm	1.02 - 18.03mm	1.02 - 33.02mm	2.03 - 32.02mm	1.52 - 19.99mm
Colour	Black	Black	Black	Black	Black	Black
Quantity	25	25	25	10	8	10
Part Number & Style	0655727 Canoe	0655729 Canoe	0655731 Multi Step	0655737 Pine Tree	0655732 Canoe	0725212 Push Rivet
Hole Diameter	3.45mm	4.75mm	5.54mm	6.00mm	6.35mm	3.10mm
Panel Range	2.41 - 5.84mm	0.79 - 3.96mm	2.79 - 10.92mm	0.8 - 10.0mm	0.79 - 5.08mm	4.0 - 5.0mm
Colour	Black	Black	Black	Black	Black	Black
Quantity	25	25	25	25	25	25
Part Number & Style	0725227 Push Rivet	0725235 Push Rivet	0725238 Push Rivet	0585600 Drive Rivet	0585601 Drive Rivet	0588603 Drive Rivet
Hole Diameter	4.10mm	5.10mm	6.10mm	3.0mm	4.0mm	4.8mm
Panel Range	5.5 - 6.5mm	6.5 - 7.5mm	4.5 - 5.5mm	1.0 - 3.5mm	4.0 - 6.4mm	4.0 - 8.7mm
Colour	Black	Black	Black	Natural	Natural	Black
Quantity	25	25	25	25	25	25

Double Ended Pine Tree Clips







Specifications: RoHS ✓
Material: Nylon 66

- Allows 2 panels to be connected from the centre
- No fastener head will be visable
- Simple and quick to install under fingertip pressure

PART NUMBER	Colour	"A" Prong				"C" Prong					Unit Quantity
		Point Style	Hole Diameter	Panel Thickness	A Prong Length	B Head Thickness	Point Style	Hole Diameter	Panel Thickness	C Prong Length	
0668010	Natural	ROUND	7.93-8.33	3.2 - 9.5	11.2-11.9	0.9 - 1.1	ROUND	7.92-8.33	3.5 - 19.0	21.33-22.10	5,000
0668011	Black	CONICAL	3.81-4.11	2.67 - 6.35	7.4-8.0	1.6 - 1.8	CONICAL	3.81-4.11	2.67 - 6.35	7.4-8.0	Please Call
0668012	Natural	BLUNT	6.35	0.5 - 6.9	11.43	2.79	BLUNT	6.35	0.5 - 6.9	11.43	5,000
0668013	Natural	BLUNT	7.93-8.33	2.4 - 7.6	8.76	1	BLUNT	7.93-8.33	2.4 - 7.6	8.76	5,000



Pine Tree Clips

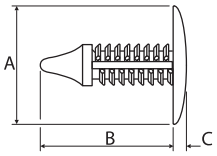
- Quick and simple to install
- Non-corrosive, non-conductive and lightweight
- "Twist-In" multiple head design for blind mounting of panels has a 360° anchorage surface to provide a stronger hold on thin materials
- Securely holds wood, particle board, metal, solid or foam plastic and rubber sheets/panels
- Can be used with threaded or non-threaded holes as well as in blind hole assemblies

Specifications: RoHS ✓

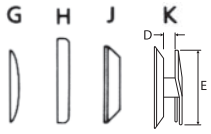
Material: See Table

Tolerances: A, B, C, D & E = ± 0.25

Part Number	Colour	Material	Hole Size	Panel Range	A Head Dia.	B Length	C Head Height	D Head Spacing	E Top Head Dia	Form	Special Features	Unit Qty
0666000	Black	Nylon 6,6	3.00	1.75 - 5.00	5.50	9.80	1.50	-	-	H	-	1,000
0666001	Black	Nylon 6,6	3.00	4.00 - 12.00	5.50	16.80	1.50	-	-	H	-	1,000
0665010	Clear	Polypropylene	4.80	0.70 - 13.00	11.00	17.30	1.70	-	-	G	-	1,000
0666010	Black	Nylon 6,6	5.00	1.60 - 5.40	10.90	12.60	1.00	-	-	H	-	1,000
0666011	Black	Nylon 6,6	5.00	1.60 - 6.40	10.00	11.50	1.00	-	-	G	PA	1,000
0666012	Black	Nylon 6,6	5.00	1.50 - 8.90	10.90	15.00	1.00	-	-	H	-	1,000
0666013	Black	Nylon 6,6	5.00	1.50 - 10.90	10.90	17.80	1.00	-	-	H	-	1,000
0666014	Black	Nylon 6,6	5.00	2.54 - 12.70	15.00	17.80	1.50	-	-	H	-	1,000
0666035	Black	Nylon 6,6	6.00	2.00 - 6.00	12.00	12.00	2.54	-	-	G	-	1,000
0666123	Black	Nylon 6,6	6.00	3.00 - 8.00	16.00	15.10	2.00	-	-	G	TH	5,000
0666124	Black	Nylon 6,6	6.00	1.50 -7.50	20.00	12.00	2.25	-	-	G	TH	1,000
0667123	Natural	Nylon 6,6	6.00	3.00 - 8.00	16.00	15.10	2.00	-	-	G	TH	5,000
0665011	Clear	Polypropylene	6.0 to 6.3	2.30 - 8.90	17.80	15.50	2.40	-	-	G	-	1,000
0665012	Clear	Polypropylene	6.0 to 6.3	2.50 - 12.00	17.80	20.40	2.40	-	-	G	-	1,000
0666041	Black	Nylon 6,6	6.35	0.70 - 12.95	18.50	19.00	3.00	-	-	G	-	1,000
0666042	Black	Nylon 6,6	6.35	1.00 - 18.00	12.70	22.50	2.54	-	-	G	HT	1,000
0666048	Black	Nylon 6,6	6.35	1.00 - 33.00	12.70	38.10	2.54	-	-	G	HT	1,000
0666049	Black	Nylon 6,6	6.35	1.90 - 15.90	25.40	20.30	3.00	-	-	G	HT	3,000
0666050	Black	Nylon 6,6	6.35	2.00 - 20.00	25.40	27.00	3.00	-	-	G	HT	1,000
0666053	Black	Nylon 6,6	6.35	2.50 - 12.00	17.80	19.50	2.54	-	-	G	PA	1,000
0666054	Black	Nylon 6,6	6.35	3.60 - 10.00	15.90	16.50	1.50	-	-	G	-	1,000
0666055	Black	Nylon 6,6	6.35	4.40 - 14.50	15.90	20.30	1.50	-	-	G	-	1,000
0666043	Black	Nylon 6,6	6.40	1.00 - 19.50	12.60	30.00	2.50	-	-	G	HT	10,000
0665013	Clear	Polypropylene	6.40	10.70 - 28.80	17.80	35.10	2.50	-	-	G	-	1,000
0665014	Clear	Polypropylene	6.40	2.70 - 7.30	19.10	15.90	0.90	-	-	H	-	1,000
0666130	Black	Nylon 6,6	6.70	3.50 - 14.00	36.00	20.00	3.00	-	-	G	TH	1,000
0666131	Black	Nylon 6,6	6.70	1.50 - 8.50	20.00	15.50	2.20	-	-	G	-	3,000
0666132	Black	Nylon 6,6	6.70	6.50 - 17.00	20.00	22.80	2.00	-	-	G	-	1,000
0666133	Black	Nylon 6,6	6.70	1.50 - 12.50	20.00	14.30	2.25	-	-	G	TH	2,000
0666085	Black	Nylon 6,6	7.00	2.00 - 32.00	20.00	38.50	3.00	-	-	G	-	2,400
0666138	Black	Nylon 6,6	7.00	0.70 - 20.00	18.00	27.30	2.00	-	-	G	-	1,000
0667138	Natural	Nylon 6,6	7.00	0.70 - 20.00	18.00	27.30	2.00	-	-	G	-	1,000
0665015	Clear	Polypropylene	7.00	0.70 - 20.00	18.00	27.30	2.00	-	-	G	-	1,000
0666073	Black	Nylon 6,6	7.00	1.00 - 15.00	8.00	15.10	0.80	2.75	14.00	K	TR.H	2,000
0666078	Natural	Nylon 6,6	7.00	1.60 - 25.40	19.00	33.30	1.50	-	-	G	-	1,000
0666080	Black	Nylon 6,6	7.00	2.00 - 13.50	25.40	20.00	3.00	-	-	G	TH	1,000
0666084	Black	Nylon 6,6	7.00	2.00 - 32.00	25.40	38.50	3.00	-	-	G	TH	1,000
0665016	Clear	Polypropylene	7.00	2.50 - 25.00	30.30	34.80	2.20	-	-	G	-	1,000
0666101	Black	Nylon 6,6	7.14	1.50 - 19.50	19.30	24.00	2.90	2.40	13.20	K	SIH	1,500
0666113	Black	Nylon 6,6	7.90	0.64 - 8.00	19.10	17.90	2.70	-	-	J	-	9,000
0666118	Black	Nylon 6,6	7.90	1.00 - 12.00	25.40	24.00	3.00	-	-	G	-	10,000
0666120	Black	Nylon 6,6	7.90	2.00 - 5.00	13.00	14.90	1.50	-	-	H	-	1,000
0666142	Black	Nylon 6,6	8.20	3.00 - 10.00	16.00	19.50	1.50	-	-	G	-	1,000
0666143	Black	Nylon 6,6	*8.0 & 9.0	2.00 - 14.00	36.00	20.00	3.00	-	-	G	TH	3,000
0666167	Black	Nylon 6,6	10.00	1.50 - 20.00	21.50	28.30	4.00	-	-	G	PA	1,000
0666400	Black	Nylon 6,6	18.00	2.00 - 12.00	22.00	24.60	3.40	-	-	G	-	1,000



Head Forms



Character Key:

* Shoulder under head Ø9 x 1.8 high

Key to Special Features:

HT: High Tensile
TH: Textured Head
PA: Permanent Assembly
SIH: Slip-in Head
TR.H: Triple Head

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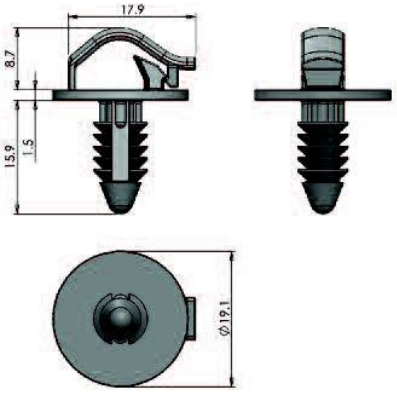
Latched Pine Tree Clips



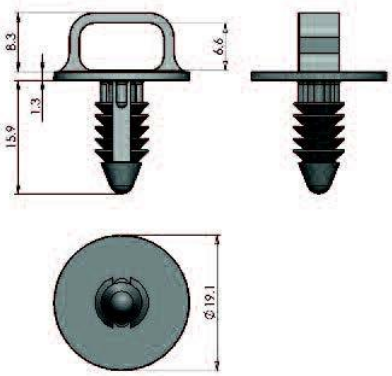
Specifications: RoHS ✓
Material: See Table
Tolerance: ± 0.25

- Ideal for use with wires or tubes
- Covers a wide panel range
- Simple and quick to install under fingertip pressure



Part Number	Material	Colour	Hole Size	Panel Range	Head Diameter	Head Height	Length	Unit Quantity
0665003	Polypropylene	Clear	6.40	2.70 - 7.30	19.10	1.50	15.90	1,000
0666003	Nylon 6,6	Black	6.40	2.70 - 7.30	19.10	1.50	15.90	1,000
0667003	Nylon 6,6	Natural	6.40	2.70 - 7.30	19.10	1.50	15.90	1,000

Looped Pine Tree Clips



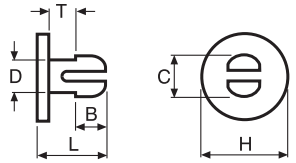
Specifications: RoHS ✓
Material: See Table
Tolerance: ± 0.25

- Ideal for use with wires, tubes or cable ties
- Covers a wide panel range
- Simple and quick to install under fingertip pressure



Part Number	Material	Colour	Hole Size	Panel Range	Head Diameter	Head Height	Length	Unit Quantity
0665002	Polypropylene	Clear	6.40	2.70 - 7.30	19.10	1.30	15.90	1,000
0666002	Nylon 6,6	Black	6.40	2.70 - 7.30	19.10	1.30	15.90	1,000
0667002	Nylon 6,6	Natural	6.40	2.70 - 7.30	19.10	1.30	15.90	1,000

Push Fasteners



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Tolerances:
H, B, L = ± 0.38
C, D, & T = ± 0.13

- Ideal for light assemblies
- Can be used as glides, bumpers, hole plugs etc
- Ideal for securing delicate materials when used in conjunction with Nylon washers



Part Number	***Approx. Hole Size	T - (Max. Panel Size)	B	C	D	H	L	Unit Quantity
**0635660	2.97	3.07	2.16	3.68	2.26	7.94	6.25	1,000
**0635661	2.52	1.60	1.98	2.67	2.36	7.14	4.47	1,000
**0635662	2.52	2.36	1.98	2.67	2.36	7.14	5.23	1,000
†0635663	3.02	2.92	2.16	3.68	2.36	6.35	6.10	1,000
0635664	3.30	3.07	3.18	3.68	2.92	5.16	7.24	1,000
0635665	3.24	3.43	3.43	3.56	2.92	5.16	7.75	1,000
0635666	3.24	3.96	3.43	3.56	2.92	5.16	8.28	1,000
0635667	3.20	6.35	1.78	3.48	2.92	5.16	8.89	1,000
0635668	3.30	6.35	3.43	3.68	2.92	5.16	10.80	1,000
0635669	3.94	4.83	2.29	4.57	3.30	5.16	8.13	1,000
0635670	4.52	8.00	2.87	5.28	3.76	9.93	12.40	1,000
*†0635671	4.66	1.65	3.48	5.13	4.19	8.73	8.23	1,000
0635672	4.66	3.18	3.48	5.13	4.19	8.73	7.75	1,000

Part Number	***Approx. Hole Size	T - (Max. Panel Size)	B	C	D	H	L	Unit Quantity
0635673	5.07	6.35	4.42	5.69	4.45	8.73	12.45	1,000
0635674	5.15	14.12	3.89	5.72	4.57	8.73	19.81	1,000
0635675	5.57	3.07	3.89	6.05	5.08	11.90	8.23	1,000
0635676	5.57	3.96	3.89	6.05	5.08	11.90	9.12	1,000
0635677	5.58	9.53	3.48	5.99	5.16	8.73	14.02	1,000
0635678	6.67	43.94	5.33	7.49	5.84	9.93	51.05	1,000
0635679	6.80	6.86	4.75	7.49	6.10	11.51	13.08	1,000
0635680	6.80	7.62	4.75	7.49	6.10	11.51	13.89	1,000
0635681	6.80	8.38	4.75	7.49	6.10	11.51	14.66	1,000
0635682	6.92	6.35	4.75	7.62	6.30	15.08	12.65	1,000
0635683	6.92	9.53	4.75	7.62	6.22	15.08	15.80	1,000
0635684	6.92	12.45	4.75	7.62	6.22	15.08	18.16	1,000
0635685	7.11	4.34	4.75	7.62	6.60	8.73	9.88	1,000
0635686	7.11	4.34	4.75	7.49	6.60	12.70	10.29	1,000
0635687	7.11	4.34	4.75	7.62	6.60	15.08	10.62	1,000
0635688	7.50	10.29	4.88	8.00	6.99	15.08	16.26	1,000

Symbol Key:

* Dome head form
† Have full diameter on 'C' dimension for improved performance in flexible materials
** Have no slot
*** Adjust hole size to suit application if necessary

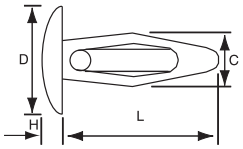


Push Clips

- Unique body design gives ease of assembly
- Reusable
- Resists abrasion and corrosion
- Good electrical insulators
- Can be dyed for colour match identification

Specifications: RoHS ✓
Material: Nylon 66

Tolerances:
C, D, H & L = ± 0.13



Part Number & Colour		Hole Size	Panel Thickness	C	D	H	L	Unit Quantity
Natural	Black							
0646000	0647000	3.00 - 3.10	1.58 to 3.18	3.81	7.11	1.52	9.91	1,000
0646003	0647003	3.30 - 3.35	3.18 to 3.56	4.11	7.11	1.52	8.08	1,000
0646006	0647006	3.33 - 3.43	1.58 to 3.18	4.11	7.11	1.52	9.91	1,000
0646009	0647009	3.68 - 3.81	7.37 to 7.62	4.98	6.86	1.78	13.46	1,000
0646012	0647012	3.84 - 4.09	1.58 to 3.68	4.57	7.11	1.52	10.16	1,000
0646015	0647015	4.62 - 4.88	1.58 to 3.18	5.72	9.14	1.52	10.16	1,000

Part Number & Colour		Hole Size	Panel Thickness	C	D	H	L	Unit Quantity
Natural	Black							
0646018	0647018	4.62 - 4.88	4.19 to 4.75	5.23	9.40	1.52	13.16	1,000
0646021	0647021	4.62 - 4.88	7.87 to 8.38	5.72	9.40	1.52	13.97	1,000
0646024	0647024	5.41 - 5.66	1.58 to 3.18	5.59	9.40	1.52	11.43	1,000
0646027	0647027	5.41 - 5.66	3.18 to 4.75	6.30	9.40	1.52	13.72	1,000
0646030	0647030	6.35 - 6.60	3.18 to 4.75	7.37	12.29	1.52	14.61	1,000
0646033	0647033	6.35 - 6.60	9.14 to 9.65	6.22	15.49	1.65	20.57	1,000
0646036	0647036	8.13 - 8.64	1.58 to 8.64	9.53	17.35	1.78	22.86	1,000

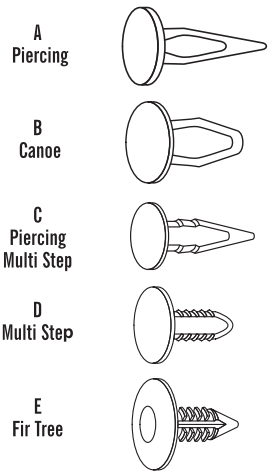


Special Push Clips

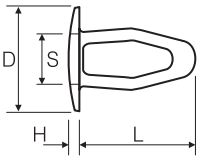
- Quick and simple to install
- Re-usable
- Resists abrasion
- Will not corrode
- Good electrical insulators

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

Tolerances:
C, D, H & L = ± 0.13



Part Number	Material	Colour	Hole Size	Panel Thickness	Type	S	D	H	L	Unit Quantity
0655725	Nylon	Black	2.69	0.8 - 3.56	A	2.62	7.92	1.27	12.29	1,000
0654727	Nylon	Natural	3.45	2.41 - 5.84	B	3.17	7.62	1.14	12.95	1,000
0655727	Nylon	Black	3.45	2.41 - 5.84	B	3.17	7.62	1.14	12.95	1,000
0655728	Nylon	Black	3.45	0.9 - 3.96	B	3.17	10.31	2.54	11.10	1,000
0655729	Nylon	Black	4.75	0.79 - 3.96	B	4.57	9.52	1.52	11.10	1,000
0655741	Nylon	Black	5.34 - 5.71	3.05 - 11.00	D	5.60	12.70	1.60	15.20	1,000
0654730	Nylon	Natural	5.54	3.05 - 6.98	C	5.59	12.70	1.65	20.01	4,000
0655730	Nylon	Black	5.54	3.05 - 6.98	C	5.59	12.70	1.65	20.01	2,000
0655731	Nylon	Black	5.54	2.79 - 10.92	D	5.59	16.51	1.52	15.24	1,000
0655737	Nylon	Black	6.00	0.8 - 10.00	E	5.70	13.00	2.00	19.00	1,000
0654732	Nylon	Natural	6.35	0.79 -5.08	B	6.10	12.70	1.40	14.27	1,000
0655732	Nylon	Black	6.35	0.79 -5.08	B	6.10	12.70	1.40	14.27	1.000
0655738	Nylon	Black	7.00	0.70 - 11.00	E	5.00	18.00	2.00	22.00	2,000

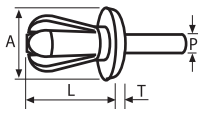




Imperial Drive Rivets

- Quick and easy to install
- Ideal for applications where one side of the work is accessible

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Tolerances: A, T, & P = ± 0.13
L = ± 0.38



Drive rivets are permanent fasteners.
Drive pin is pushed in to expand the rivet.

Part Number	Nominal Hole Size	Panel Thickness	A Head Dia.	T Head Height	L Body Length	P Drive Pin Dia.	Insertion Tool Colour	Unit Quantity
0575551	3.18	0.79 to 3.56	5.54	1.27	5.72	1.91	Red	1,000
0575554	3.96	5.54 to 9.53	5.54	1.27	10.69	2.36	Yellow	1,000
0575557	4.75	1.57 to 3.18	10.92	3.05	5.54	3.18	Yellow	1,000
0575559	4.57	1.57 to 4.75	7.14	1.27	7.52	3.18	Yellow	1,000
0575568	4.75	1.98 to 9.53	7.92	1.57	11.30	3.18	Yellow	1,000
0575570	4.75	3.96 to 7.14	10.92	1.91	9.65	3.18	Yellow	1,000
0575572	4.75	7.92 to 11.18	7.14	1.91	13.59	3.18	Yellow	1,000
0575578	4.75	9.53 to 19.05	8.13	2.77	21.59	3.18	Yellow	1,000
0575579	5.54	0.79 to 1.57	9.53	5.66	4.32	3.18	Yellow	1,000
0575580	5.54	2.36 to 8.89	9.40	2.03	11.43	3.05	Yellow	1,000
0575586	6.35	2.36 to 7.92	11.89	2.03	12.70	3.81	Green	1,000
0575593	6.99	2.36 to 8.89	15.75	2.77	12.19	3.81	Green	1,000

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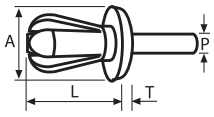
Drive Rivets



Specifications: RoHS ✓
Material: Nylon 66
Tolerances: A, T, & P = ± 0.13
L = ± 0.38

- Quick and easy to install
- Ideal for applications where only one side of the work is accessible



PART NUMBER	Colour	Hole Size	Panel Range	Head Dia. A	Head Height T	Body Length L	Pin Dia. P	Insertion Tool Colour	Special Feature	Unit Quantity
0585600	Natural	3.00	1.0 - 3.5	4.75	1.25	5.00	2.00	Red	-	10,000
0588600	Black	3.00	1.0 - 3.5	4.75	1.25	5.00	2.00	Red	-	1,000
0583600	White	3.00	1.0 - 3.5	4.75	1.25	5.00	2.00	Red	-	2,500
0583609	Natural	3.70	2.5 - 5.0	8.00	2.00	7.00	2.10	Red	-	6,000
0585601	Natural	4.00	4.0 - 6.4	7.60	1.30	8.20	2.40	Yellow	Pre-driven Pin	1,000
0588601	Black	4.00	4.0 - 6.4	7.60	1.30	8.20	2.40	Yellow	Pre-driven Pin	10,000
0585603	Natural	4.80	4.0 - 8.7	7.10	1.20	11.20	3.20	Yellow	-	1,000
0588603	Black	4.80	4.0 - 8.7	7.10	1.20	11.20	3.20	Yellow	-	10,000
0588613	Black	4.80	3.7 - 8.0	10.50	2.00	12.10	3.00	Yellow	-	2,000
0585602	Natural	4.80	1.6 - 4.8	7.10	1.90	7.50	3.00	Yellow	Pre-driven Pin	5,000
0588602	Black	4.80	1.6 - 4.8	7.10	1.90	7.50	3.00	Yellow	Pre-driven Pin	5,000
0588616	Black	5.00	2.5 - 8.0	10.00	2.00	11.40	3.20	Yellow	Pre-driven Pin	5,000
0585606	Natural	5.50	2.4 - 7.9	9.50	2.00	11.90	3.10	Yellow	-	5,000
0585617	Natural	6.00	2.4 - 2.6	4.00	5.07	12.20	4.00	Green	-	5,000
0588617	Black	6.00	2.4 - 2.6	4.00	5.07	12.20	4.00	Green	-	5,000
0588618	Black	6.00	2.5 - 8.0	13.00	2.00	10.00	4.00	Green	-	12,000
0588620	Black	6.0 - 7.0	0.5 - 8.5	10.00	2.00	12.00	4.00	Green	-	6,000
0588621	Black	6.20	0.8 - 2.0	14.00	2.00	5.50	4.00	Green	8.0 dia shoulder x 3.7 high	1,000
0585607	Natural	6.40	5.5 - 9.5	11.00	2.00	12.30	3.90	Green	-	1,000
0588623	Black	8.00	3.4 - 5.0	12.50	1.00	11.00	4.95	-	-	5,000
0588624	Black	8.50	6.5 - 7.0	16.00	2.50	13.50	4.00	Green	-	5,000

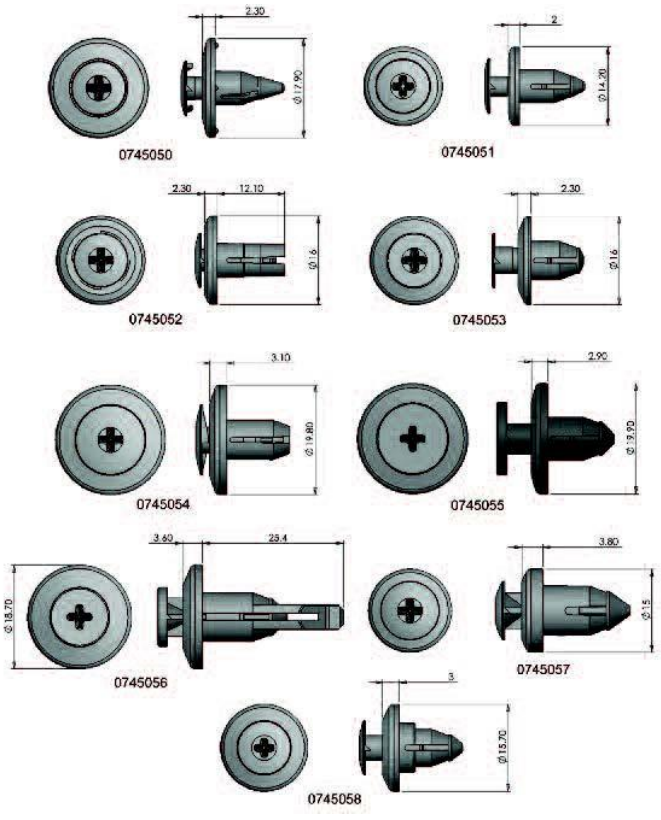
Drive Rivet Insertion Tool



PART NUMBER	Colour
8005650	Red
8005652	Yellow
8005653	Green

Quarter Turn Rivets





Specifications: RoHS ✓
Material: Acetal (POM)
Colour: Black
Tolerance: ± 0.25

- Ideal for use with wires, tubes or cable ties
- Covers a wide panel range
- Simple and quick to install under fingertip pressure

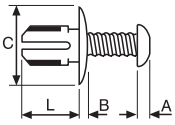
PART NUMBER	Hole Size	Panel Range	Head Diameter	Head Height	Length	Unit Quantity
0745050	6.00	3.00 - 5.00	17.90	2.30	16.20	1,000
0745051	6.00	4.50 - 6.00	14.20	2.00	16.00	1,000
0745052	6.00	4.50 - 6.00	16.00	2.30	12.10	1,000
0745053	7.00	2.50 - 5.00	16.00	2.30	14.20	1,000
0745054	7.50	4.50 - 7.00	19.80	3.10	13.70	1,000
0745055	8.00	3.50 - 6.00	19.90	2.90	18.30	1,000
0745056	9.00	4.00 - 7.50	18.70	3.60	25.40	1,000
0745057	9.00	6.00 - 8.20	15.00	3.80	20.40	1,000
0745058	7.00 + 9.00	4.50 - 6.50	15.70	3.00	15.50	1,000



Screw Rivets

- Designed for rapid assembly
- Removable and re-usable
- Will not damage soft or brittle materials
- Will not corrode
- Can be removed by using a screwdriver

Specifications: RoHS ✓
Material: Nylon 66, † Nylon 46
Colour: Black
Tolerances:
A, B, C & L = ± 0.50
* Torx® Drive XT 30



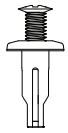
PART NUMBER	Approximate Hole Size	Panel Thickness	A Screw Head Height /Protrusion	B Body Head Height	C Body Head Diameter	L Body Length	Form	Unit Quantity
0715840	5.0	3.75 to 6.00	2.5	1.5	12.0	11.0	A	1,000
0744115	5.0	4.00 to 6.00	0.5	1.75	10.0	13.4	B	1,000
***0715854**	6.2	3.00 to 5.80	2.6	1.6	12.0	9.3	C	1,000
†0715855	6.2	3.00 to 5.80	3.0	2.0	20.0	10.5	D	4,500
0744109	6.35	3.60 to 4.40	0.2	3.0	12.5 x 12.5	16.4	E	1,000
0715841	6.5	4.00 to 6.50	2.5	1.5	16.0	11.0	D	1,000
0715842	8.0	3.00 to 10.00	2.5	1.3	20.0	14.0	C	1,000
0715843	8.0	6.00 to 14.00	2.0	2.0	18.0	19.0	D	1,000
0715845	9.0	6.00 to 14.00	2.1	2.1	18.0	19.0	D	1,000
0744102	10.0	6.00 to 9.00	0.5	2.2	20.0	13.9	F	1,000
0715846	10.0	6.00 to 14.00	2.0	2.2	18.0	19.0	D	1,000

Drill or punch hole, insert rivet and push screw head fully home. Unless otherwise indicated mounting holes are round. Hole size may require adjustment depending upon material to be fixed.

Form A



Form B



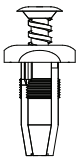
Form C



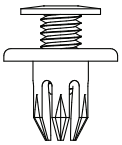
Form D



Form E



Form F

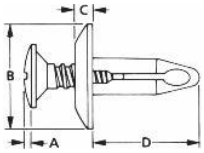




Drive Lock Blind Rivets - Screw Type

- Designed for rapid assembly
- Removable and re-usable
- Will not damage soft or brittle materials
- Will not corrode
- The closed end feature acts as a self-aligning mechanism
- Can be removed by using a screwdriver

Specifications: RoHS ✓
Material: Nylon 66
Colour: Black
Tolerances:
A, B, C & D = ± 0.25



Head Form



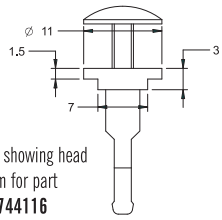


Diagram showing head form for part **0744116**

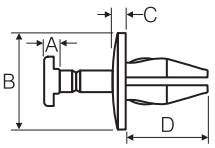
PART NUMBER	Hole Size	Panel Thickness	Body Detail B HD. Dia.	Body Detail C HD.HT.	Body Detail D Length	A Screw HD. HT.	Special Features	Unit Quantity
0744101	4.45 - 4.75	8.38 to 9.91	9.65	1.52	18.29	N/A		1,000
0744116	5.00 - 5.26	2.49 to 3.51	11.00	3.00	17.50	2.49	Relieved Head (See Diagram)	8,000
0744130	5.79 - 6.05	3.00 to 5.00	11.00	1.50	17.50	2.49		1,000
0744131	5.79 - 6.05	4.50 to 7.49	11.00	1.50	19.99	2.49		1,000
0744114	6.30	9.00 to 11.00	25.40	3.00	25.00	0.70		1,000
0744151	6.30 - 6.81	2.49 to 7.98	17.78	3.00	22.81	0.76		1,000
0744152	6.30 - 6.81	2.49 to 7.98	15.49	3.00	22.81	0.76		1,000
0744170	7.01 - 7.26	13.49 to 16.51	12.70	3.00	30.81	0.76		2,000
0744171	7.01 - 7.26	16.51 to 19.51	12.70	3.00	30.81	0.76		4,000
0744200	8.00 - 8.51	3.53 to 8.48	14.99	3.00	19.99	0.76		3,000
0744103	10.40	4.00 to 7.00	21.50	3.00	25.60	0.50		1,000
0744252	10.49 - 10.74	8.99 to 11.99	21.49	3.00	25.40	0.51		2,300
0744104	11.00	6.00 to 9.00	18.00	2.60	25.00	0.20		1,000



Drive Lock Blind Rivets - Open End Type

- Quick and easy to install by hand or with automatic equipment
- Removable and re-usable
- Double locking construction prevents the pin from disengaging during shipment or assembly

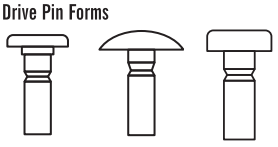
Specifications: RoHS ✓
Material: Nylon 66
Colour: Black
Tolerances:
A, B, C & D = ± 0.25



PART NUMBER	Hole Size	Panel Thickness	Body Detail B HD. Dia.	Body Detail C HD.HT.	Body Detail D Length	Body Detail Head Form	Body Detail Legs	Special Features	Drive Pin Detail A Hd. HT.	Drive Pin Detail Form	Unit Quantity
0742100	4.90 - 5.21	4.60 to 7.49	7.19	0.99	13.21	Round	3	9.5 Pin Head	2.11	H	1,000
0742113	6.20 - 6.71	1.50 to 5.79	17.81	2.49	14.20	Round	2		2.49	E	1,000
0742116	5.99 - 6.60sq	4.80 to 8.41	16.00	2.49	14.00	Round	2		2.49	E	10,000
0742136	8.00 - 8.51	3.99 to 4.24	13.49	2.49	8.00	Round	3		1.50	J	9,000

Drive pin can be disengaged by inserting a flat screw driver or knife edge in the undercut of the head

Drive Pin Forms



E **H** **J**

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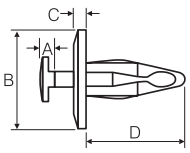
Drive Lock Blind Rivets - Closed End Type



Drive Pin Forms



Specifications: RoHS ✓

Material: Nylon 66
Colour: Black
Tolerances:
A, B, C & D = ± 0.25

- Quick and easy to install by hand or with automatic equipment
- Removable and re-usable
- Closed end feature acts as a self-aligning mechanism
- Double locking construction prevents the pin from disengaging during shipment or assembly

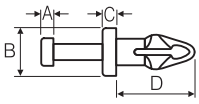


PART NUMBER	Hole Size	Panel Thickness	Body Detail					Special Features See Key	Drive Pin Detail			Unit Quantity
			B HD. Dia.	C HD.HT.	D Length	Head Form	Legs		A Hd. HT.	Form	Key	
0741100	4.90 to 5.21	1.50 to 4.60	7.19	1.00	11.30	Round	3	9.5 Pin Head	2.11	H	(1)	2,000
0741125	5.99 to 6.20	5.00 to 6.00	17.00	2.50	18.00	Round	2	10.0 Shoulder	1.24	J		5,000
0741129	6.20 to 7.01	1.50 to 7.59	17.80	2.00	20.40	Round	2		2.49	E		10,000
0741140	6.29 to 7.01	2.50 to 8.90	25.40	2.50	22.80	Round	2		3.51	E		4,000
0741143	6.29 to 7.01	2.50 to 8.90	15.00	2.00	22.80	Round	2		3.00	E		3,500
0741151	6.29 to 7.01	5.60 to 11.00	25.40	2.00	28.50	Round	2	Hole Finder	3.00	H		5,000
0744113	7.00	9.00 to 13.00	18.00	2.50	23.00	Round	2		1.50	H		1,000
0744112	7.00	12.00 to 15.00	25.40	2.50	27.00	Round	2		3.50	E		1,000
0744105	8.00	4.00 to 8.00	18.00	2.90	23.00	Round	2		1.80	H		1,000
0744106	8.00	12.00 to 16.00	18.00	3.00	29.00	Round	2		2.70	H		1,000
0741211	8.00 to 8.26	3.00 to 8.00	20.00	2.70	20.00	Round	2		2.31	H		5,000
0744110	9.00	3.00 to 7.00	16.00	2.60	20.00	Round	2		1.70	J		1,000
0744107	9.50	0.90 to 4.80	25.00	2.40	25.40	Round	2	ø12.7 x 3.5 Shoulder	3.00	E		1,000
0744111	9.50	3.50 to 7.00	17.90	2.50	23.00	Round	2		3.40	E		1,000
0741226	9.50 to 10.31	6.00 to 9.00	25.40	2.49	29.00	Round	2	ø12.7 Shoulder	N/A		SP	1,700
0744108	11.50	29.00 to 31.00	30.00	2.50	50.00	Round	2		3.20	E		1,000

Key to special features and drive pin columns:
SP: Special
(1): Nylon Body - ABS Pin

Parts having shoulder feature on body require clearance hole in top panel for shoulder and hole size per table to accommodate expanding body in bottom panel
Drive pin can be disengaged by inserting a flat screw driver or knife edge in the undercut of the head

Drive Lock Blind Rivets - Miniature Range



Specifications: RoHS ✓

Material: Nylon 66
Colour: Black
Tolerances:
A, B, C & D = ± 0.25

- Ideal for surface mount printed circuit board applications
- Designed for automated assembly
- Can withstand solder reflow temperatures
- High resistance to vibration



PART NUMBER	Hole Size	Panel Thickness	Body Detail				Special Features	A Drive Pin Head HT.	Unit Quantity
			B Head Dia.	C HD.HT.	D Length	Legs			
0743100	2.46 - 2.62	4.06 to 4.57	4.83	1.52	8.76	2		1.02	16,000
0743128	3.10 - 3.25	3.94 to 4.57	5.54	1.52	9.40	2		1.02	1,000
0743170	3.66 - 3.91	6.73 to 7.37	7.62	1.52	11.94	2	4.19 Shoulder	1.27	12,000

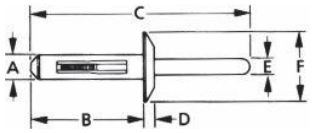


R-Lok Expansion Rivets

- Ideal for automotive, appliance, business machines, computer, telecommunications, electronic and construction applications
- Will not damage or disfigure painted, plated or other easily marred surfaces
- Quick and easy insertion with standard, commercially available rivet tools
- Eliminates the galvanic corrosion that occurs when dissimilar metals are in contact
- Non-conductive and will not corrode

Specifications: RoHS ✓

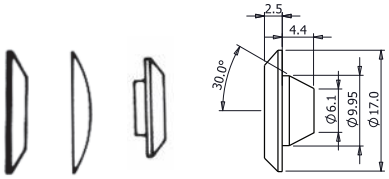
Material: Body: Nylon 66, Pin: Acetal
Colour: Black (*except part 0755109: Natural)
Tolerances: A, B, C, D, E & F = ± 0.25
Key to special features:
(SS): Sealing Shoulder, (S): Shoulder
Natural: Material colour is natural
C-Sunk: Countersunk Head Style (K)



PART NUMBER	Hole Size	Panel Thickness	A Body Diameter	B Body Length	C Total Length	D Head Height	E Pin Diameter	F Head Diameter	Head Form	Special Features	Unit Quantity
0755101	3.96	1.40 to 4.50	3.90	19.02	48.00	2.48	2.39	7.98	G		1,000
0755102	3.96	6.00 to 10.50	3.90	26.00	65.50	2.48	2.39	15.50 x 8.50	RECT		6,000
0755103	4.20	1.50 to 4.50	4.00	19.00	48.20	2.70	2.40	15.00 x 7.60	RECT		1,000
0755113	4.75	4.00 to 6.00	4.70	20.00	48.00	2.48	2.90	8.99	H		8,000
0755104	5.00	1.60 to 3.00	4.80	19.00	49.20	2.60	3.00	9.00	G		1,000
0755105	5.00	1.70 to 3.00	5.00	17.00	46.50	1.80	2.80	9.00	G		1,000
0755124	5.00	1.40 to 4.50	4.95	18.85	48.00	3.30	2.90	8.40	G		1,000
0755125	5.00	3.00 to 4.50	4.95	20.00	48.00	1.80	2.90	12.00	G		1,000
0755127	5.00	3.00 to 6.00	4.95	16.50	46.50	3.30	2.90	12.00	H		1,000
0755128	5.00	4.50 to 6.00	4.95	16.50	46.50	1.80	2.90	9.00	G		1,000
0755129	5.00	6.00 to 10.00	4.95	25.00	51.00	1.80	2.90	12.00	G		1,000
0755106	6.00	3.50 to 5.00	5.80	21.50	53.5	2.50	3.50	20.00	G		1,000
0755140	6.00	4.00 to 8.50	5.94	28.00	56.00	2.48	3.60	13.00	G		3,800
0755141	6.00	6.00 to 10.00	5.94	28.00	56.00	2.48	3.50	13.00	G		10,500
0755107	6.10	3.90 to 6.00	5.80	18.30	55.00	2.60	2.80	17.00	G		1,000
0755147	6.30	0.70 to 3.80	6.25	20.00	56.00	3.00	3.90	18.00	J	9.5 (SS)	9,000
0755108	6.30	1.20 to 4.00	6.10	29.00	77.30	2.50	3.90	17.00	K	C-Sunk	1,000
***0755109**	6.30	3.90 to 5.00	6.10	18.20	45.40	2.70	3.90	17.00	G	Natural	1,000
0755151	6.30	4.00 to 6.00	6.25	28.00	56.00	2.48	3.90	17.00	G		12,000
0755154	6.30	4.00 to 10.00	6.25	28.00	56.00	2.48	3.90	13.00	G		14,000
0755161	6.30	7.50 to 10.50	6.25	20.50	54.50	2.48	3.90	17.00	G		6,000
0755165	6.30	8.00 to 12.00	6.25	31.20	58.40	2.48	3.90	16.80	G		2,500
0755181	6.60	1.00 to 4.00	6.60	25.00	56.00	2.48	3.90	21.00	J	4 x 10 (S)	6,600
0755110	7.10	2.40 to 4.00	6.80	20.50	47.30	2.50	3.90	13.00	G		1,000
0755200	7.00-7.50	2.50 to 5.00	6.96	24.00	54.50	2.48	3.90	18.00	G		5,000

Head Forms

G H J K



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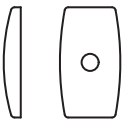




R-Lok Expansion Rivets

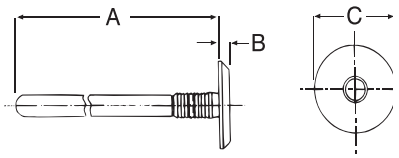
- Provides a controlled grip range through a built-in stop on the rivet body
- Quick and easy insertion with standard, commercially available rivet tools
- Provides a neat finished appearance on both sides of a panel

Specifications: RoHS ✓

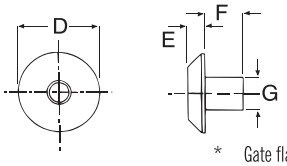
Colour: Black
Tolerances:
A, B, C, D, E, F & G = ± 0.25

PART NUMBER	Material	Description	Hole Size	Panel Thickness	Dimensions							Unit Quantity
					A	B	C	D	E	F	G	
0751000	Acetal	Male	5.0 to 5.31	6.0 to 6.5	45.0	1.50	12.0	-	-	-	-	1,000
***0751001**	Nylon	Female	5.0 to 5.31	6.0 to 6.5	-	-	-	12.0	2.49	5.49	5.03	1,000

MALE PORTION



FEMALE PORTION



* Gate flat on side of head



R-Lok Setting Tool

- Sets expansion rivet in one single-motion operation
- Intended for utility needs, service and repair applications and general assembly line use

Specifications: RoHS ✓

PART NUMBER	Application
800 5999	For the R-Lok & R-Tite rivet range with hole diameters from 3.96 to 7.49mm

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Push Rivets



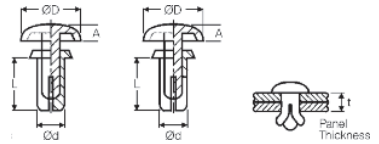


Fig.1 Fig. 2 Fig.3

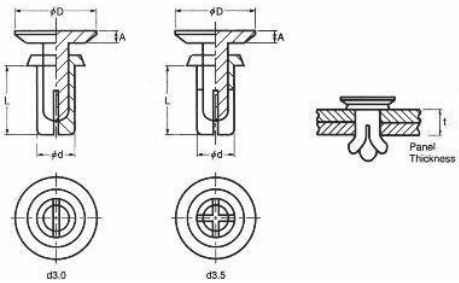
Specifications: RoHS ✓
Material: Nylon 6
* Nylon 6,6
Flammability: UL94V-2

- Neat appearance
- Simple application
- Requires no tooling
- Non-conducting
- Non-corrosive
- Installs from one side only
- Removable for servicing parts

PART NUMBER		Dimensions						Fig.	Extraction Force N(kgf)	Unit Quantity
Black	White	Mounting Hole Ø	t - Panel Thickness	ØD	A	Ød	L			
0725200	0725100	2.1	0.6 to 1.2	4.2	1.2	2.0	2.4	1	29.4(3)	1,000
0725201	0725101	2.1	1.3 to 2.0	4.2	1.2	2.0	3.2	1	29.4(3)	1,000
0725202	0725102	2.1	2.1 to 2.8	4.2	1.2	2.0	4.0	1	29.4(3)	1,000
0725203	0725103	2.1	2.9 to 3.6	4.2	1.2	2.0	4.8	1	29.4(3)	1,000
0725204	0725104	2.1	3.7 to 4.4	4.2	1.2	2.0	5.6	1	29.4(3)	1,000
0725205	0725105	2.7	1.0 to 2.0	5.0	1.4	2.6	3.2	1	49.0(5)	1,000
0725206	0725106	2.7	2.1 to 3.0	5.0	1.4	2.6	4.2	1	49.0(5)	1,000
0725207	0725107	2.7	2.7 to 3.6	5.0	1.4	2.6	4.8	1	49.0(5)	1,000
0725208	0725108	2.7	3.4 to 4.3	5.0	1.4	2.6	5.5	1	49.0(5)	1,000
0725209	0725109	3.1	1.0 to 2.0	6.4	1.6	3.0	3.5	1	78.4(8)	1,000
0725210	0725110	3.1	2.0 to 3.0	6.4	1.6	3.0	4.5	1	78.4(8)	1,000
0725211	0725111	3.1	3.0 to 4.0	6.4	1.6	3.0	5.5	1	78.4(8)	1,000
0725212	0725112	3.1	4.0 to 5.0	6.4	1.6	3.0	6.5	1	78.4(8)	1,000
0725213	0725113	3.1	5.0 to 6.0	6.4	1.6	3.0	7.5	1	78.4(8)	1,000
0725214	0725114	3.1	5.5 to 6.5	6.4	1.6	3.0	8.0	1	78.4(8)	1,000
0725215	0725115	3.1	6.5 to 7.5	6.4	1.6	3.0	9.0	1	78.4(8)	1,000
0725216	0725116	3.1	7.5 to 8.5	6.4	1.6	3.0	10.0	1	78.4(8)	1,000
0725217	0725117	3.6	1.2 to 2.1	6.4	1.6	3.5	3.5	2	117.6(12)	1,000
0725218	0725118	3.6	2.2 to 3.1	6.4	1.6	3.5	4.5	2	117.6(12)	1,000
0725219	0725119	3.6	2.7 to 3.6	6.4	1.6	3.5	5.0	2	117.6(12)	1,000
0725220	0725120	3.6	3.2 to 4.1	6.4	1.6	3.5	5.5	2	117.6(12)	1,000
0725221	0725121	3.6	3.7 to 4.6	6.4	1.6	3.5	6.0	2	117.6(12)	1,000
0725222	0725122	3.6	4.7 to 5.6	6.4	1.6	3.5	7.0	2	117.6(12)	1,000
0725223	0725123	3.6	5.7 to 6.6	6.4	1.6	3.5	8.0	2	117.6(12)	1,000
0725224	0725124	4.1	2.5 to 3.5	8.0	1.8	4.0	5.0	2	196.0(20)	1,000
0725225	0725125	4.1	3.5 to 4.5	8.0	1.8	4.0	6.0	2	196.0(20)	1,000
0725226	0725126	4.1	4.5 to 5.5	8.0	1.8	4.0	7.0	2	196.0(20)	1,000
0725227	0725127	4.1	5.5 to 6.5	8.0	1.8	4.0	8.0	2	196.0(20)	1,000
0725228	0725128	4.1	6.5 to 7.5	8.0	1.8	4.0	9.0	2	196.0(20)	1,000
0725229	0725129	4.1	7.5 to 8.5	8.0	1.8	4.0	10.0	2	196.0(20)	1,000
0725230	0725130	5.1	1.5 to 2.5	9.0	2.2	5.0	4.5	2	245.0(25)	1,000
0725231	0725131	5.1	2.5 to 3.5	9.0	2.2	5.0	5.5	2	245.0(25)	1,000
0725232	0725132	5.1	3.5 to 4.5	9.0	2.2	5.0	6.5	2	245.0(25)	1,000
0725233	0725133	5.1	4.5 to 5.5	9.0	2.2	5.0	7.5	2	245.0(25)	1,000
0725234	0725134	5.1	5.5 to 6.5	9.0	2.2	5.0	8.5	2	245.0(25)	1,000
0725235	0725135	5.1	6.5 to 7.5	9.0	2.2	5.0	9.5	2	245.0(25)	1,000
0725236	0725136	5.1	7.5 to 8.5	9.0	2.2	5.0	10.5	2	245.0(25)	1,000
*0725928	*0725929	6.05	5.5 to 6.4	11.0	3.0	6.0	8.5	3	Not tested	1,000
*0725930	*0725931	6.05	6.5 to 7.4	11.0	3.0	6.0	9.5	3	Not tested	1,000
*0725932	*0725933	6.05	7.5 to 8.5	11.0	3.0	6.0	10.5	3	Not tested	1,000
0725237	0725137	6.1	2.5 to 4.0	12.0	2.5	6.0	6.0	2	294.0(30)	1,000
0725238	0725138	6.1	4.5 to 5.5	12.0	3.0	6.0	8.0	2	294.0(30)	1,000

Push Rivets H-Type





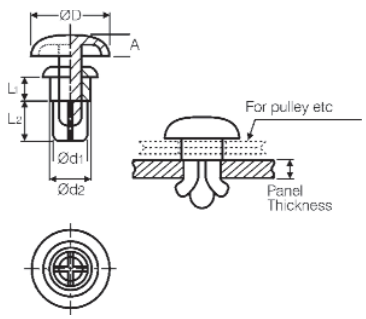
Specifications: RoHS ✓
Material: Nylon 6
Colour: Black
Flammability: UL94V-2

- The head design enables assembly and disassembly
- Securely locks components

PART NUMBER	Hole Diameter	t - Panel Thickness	d	L	D	A	Extraction Force	Unit Quantity
0721102	3.1	3.0 to 4.0	3.0	5.5	6.4	1.0	78N	1,000
0721105	3.6	2.0 to 3.0	3.5	4.5	6.4	1.0	118N	1,000

Shouldered Push Rivets PSR-Type





Specifications: RoHS ✓
Material: Nylon 6
Colour: White
Flammability: UL94V-2

- L1: Shouldered portion, L2: Lock portion
- Ideal for numerous applications, i.e., rotary shaft, hook support or fastenings that require mobility in the hood of a ventilation fan

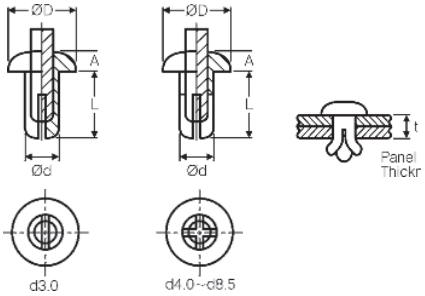
PART NUMBER	Hole Diameter	Panel Thickness	Ød1	Ød2	L1	L2	ØD	A	Extraction Force	Unit Quantity
0723000	5.1	1.5 to 3.0	5.0	5.6	2.0	5.0	9.5	1.6	245N	1,000
0723001	5.1	1.5 to 3.0	5.0	5.6	5.3	5.0	10.5	1.6	245N	1,000



Push Rivets S-Type

- Quick and simple to install with just a hammer tap

Specifications: RoHS ✓
Materials: Nylon 6 & Polyethylene



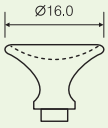
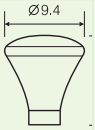
PART NUMBER		Material	Hole Diameter	t - Panel Thickness	Ød	L	ØD	A	Extraction Force	Unit Quantity
Black	White									
0724100	0724000	Nylon 6	3.1	3.0 to 4.0	3.0	5.5	5.8	2.0	78N	1,000
0724102	0724002	Nylon 6	5.1	2.0 to 3.0	5.0	5.0	9.5	2.8	441N	1,000
0724103	0724003	Nylon 6	5.1	3.0 to 4.0	5.0	6.0	9.5	2.8	441N	1,000
0724104	0724004	Nylon 6	5.1	4.0 to 5.0	5.0	7.0	9.5	2.8	441N	1,000
0724105	0724005	Nylon 6	5.1	5.0 to 6.0	5.0	8.0	9.5	2.8	441N	1,000
0724106	0724006	Nylon 6	5.1	6.0 to 7.0	5.0	9.0	9.5	2.8	441N	1,000
0724108	0724008	Polyethylene	6.1	2.5 to 4.0	6.0	6.0	11.0	1.5	294N	1,000
0724109	0724009	Nylon 6	4.8	1.2 to 3.0	4.8	5.0	9.8	3.2	196N	1,000

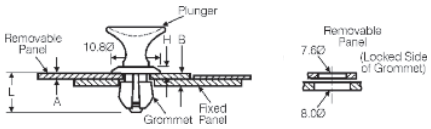


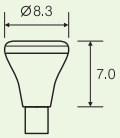
Snap Latches

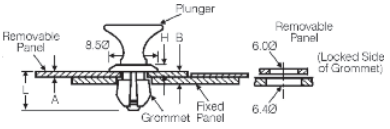
- Captive latch assembly prevents misplaced parts during installation and usage
- Snap installation into panel or frame holes
- Good for over 30,000 cycles

Specifications: RoHS ✓
Material: Plunger – Nylon 6 – UL94V-2
Grommet: Polycarbonate – UL94V-2
Temperature range: 50°C - 80°C
Unit Qty: 1,000

Grommet (For holes Ø7.6 & Ø8.0 - see diagram)						Plunger 		Plunger 	
PART NUMBER		Panel Thickness A	Panel Thickness B	H	L				
Black	White					Black	White	Black	White
0728002	0728000	1.5	1.9~4.2	2.0	9.0	0729004	0729000	0729005	0729001
0728003	0728001	2.5	3.0~5.2	2.0	10.0	0729007	0729003	-	-



Grommet (For holes Ø6.0 & Ø6.4 - see diagram)						Plunger 	
PART NUMBER		Panel Thickness A	Panel Thickness B	H	L		
Black	White					Black	White
0728006	0728004	1.5	1.9~4.2	1.8	8.5	0729010	0729008
0728007	0728005	2.5	3.0~5.2	1.8	9.5	0729011	0729009



Snap Latch Selection Instructions:

Grommet Selection:

1) Establish which set of hole sizes best suits your application (Ø7.6 & Ø8.0 or Ø6.0 & Ø6.4)
2) Establish which panel thickness (for the removable panel - A) best suits your application
3) Select the desired colour (black or white)

Plunger Selection (for Ø7.6 & Ø8.0 panel holes only):

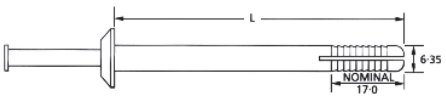
4) Establish which plunger style best suits your application
5) Select the desired colour (black or white)
6) Read across the table from the selected grommet part number (established in steps 1 to 3) to find the corresponding plunger part number



Panel Rivets

- Ideal for fastening sheets and fixtures
- Quick and easy to install - no special tooling
- Ideal for hygiene applications in food industries
- Can also be used for fixing to any solid substrate such as brick, stone, concrete, steel, timber, etc
- Non-corrosive, non-conductive
- Gives neat finished appearance

Specifications: RoHS ✓
Material:
Body: Nylon 66
Drive Pin: Polycarbonate



PART NUMBER		L Length	Panel Thickness	Head Diameter	Unit Quantity
Black	White				
0735970	0735971	19.05	9.53 to 19.05	16.00	1,000
0735980	0735981	25.40	12.70 to 25.40	16.00	1,000
0735990	0735991	38.10	25.40 to 38.10	16.00	1,000
0736000	0736001	50.80	38.10 to 50.80	16.00	1,000
0736010	0736011	76.20	63.50 to 76.20	16.00	1,000
-	0736031	127.00	114.30 to 127.00	16.00	200
-	0736041	152.40	139.70 to 152.40	16.00	200

Requires 6.53 clearance hole - for fixing into solid material, the hole size may have to be increased.

The depth of the hole should be slightly greater than the rivet length.

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Push to Lock Rivets



Specifications: RoHS ✓

Materials: See Table

Colour: Black (Except where marked * - Grey)

- To hold two panels together
- The pin ensures a high pull out resistance
- Easy push to lock system
- Disassemble by pulling out the pin

NEW



Type 1

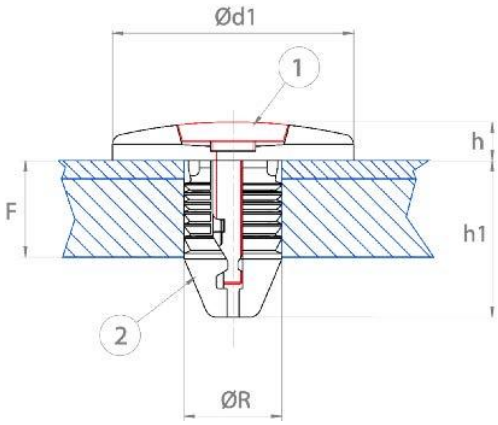


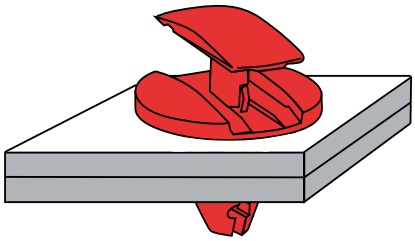
Type 2



Type 3

PART NUMBER	Design Type	Panel Thickness (F)	Hole Diameter (R)	Head Diameter (d1)	Head Thickness (h)	Height (h1)	Material	Unit Quantity
0746000	1	2.0-7.0	6.5	22.0	2.6	14.0	PA66	450
0746001	2	2.0-7.5	8.1-8.3	20.0	3.2	13.0	PA66	450
0746002*	2	2.0-7.5	8.1-8.3	20.0	3.2	13.0	PA66	450
0746003*	3	0.8-7.0	7.8-8.8	17.0	4.5	13.0	PA66	300
0746004	3	0.8-7.0	7.8-8.8	17.0	4.5	13.0	PA66	300
0746005	3	2.5-8.5	7.0	15.0	6.0	17.0	PA6	500
0746006	3	3.0-6.0	4.6-4.9	15.0	3.0	11.5	PA6	500
0746007	3	4.5	15.0	22.0	4.5	13.7	PA66	500
0746008	3	4.5-5.0	10.0	17.8	5.0	11.5	PA6	500
0746009	3	4.6	12.0	18.0	6.0	10.0	PA66	500





Door Lock Latch & Strike



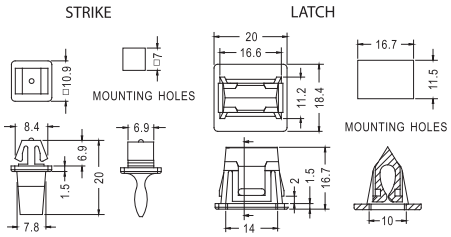
- Rapid assembly
- Self-retaining

NEW

Specifications: RoHS ✓

Materials:	Strike - Nylon 6,6
	Latch - POM
Flammability:	Nylon 6,6 - UL94V-2
	POM - UL94HB
Colour:	Black

PART NUMBER	Item	Hole Size	Panel Range	Head Size	Head Height	Unit Quantity
5111050	Strike	7.0 x 7.0	1.2 to 1.5	10.9 x 10.9	1.5	100
5111051	Latch	16.7 x 11.5	1.6 to 1.8	20.0 x 18.4	1.5	100



Door Lock Tip



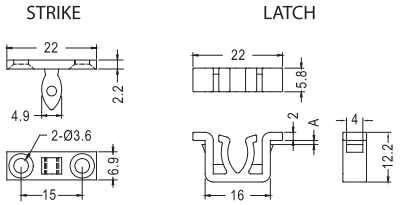
- Rapid assembly
- Self-retaining

NEW

Specifications: RoHS ✓

Material:	ABS
Flammability:	UL94HB
Colour:	Natural

PART NUMBER	Item	Hole Size	Max Panel Thickness	Head Size	Head Height	Unit Quantity
5111056	Strike	N/A	N/A	22.0 x 6.9	2.2	100
5111057	Latch	6.0 x 16.2	1.0	22.0 x 5.8	2.0	100



Door Lock



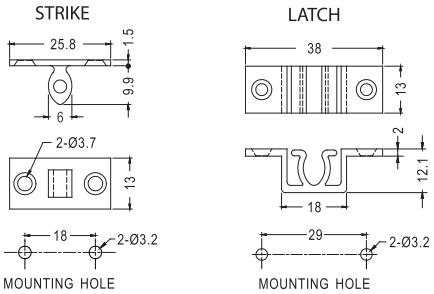
- Screw mounting with countersunk screws

NEW

Specifications: RoHS ✓

Materials:	Strike - Nylon 6,6
	Latch - POM
Flammability:	Nylon 6,6 - UL94V-2
	POM - UL94HB
Colour:	Natural

PART NUMBER	Item	Head Size	Head Height	Unit Quantity
5111054	Latch	13.0 x 38.0	2.0	100
5111055	Strike	13.0 x 25.8	1.5	100



Magnetic Door Latch



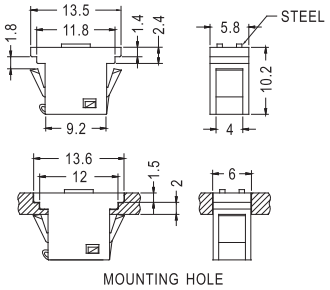
- Self retaining
- No need for mating strike

NEW

Specifications: RoHS ✓

Materials:	Body - Nylon 6,6
	Magnets- Steel
Flammability:	Nylon 6,6 - UL94V-2
Body Colour:	Black

PART NUMBER	Head Size	Head Height	Unit Quantity
5111052	13.5 x 5.8	2.4	100



Magnetic Door Latch



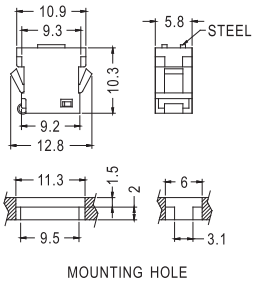
- Self retaining
- No need for mating strike

NEW

Specifications: RoHS ✓

Materials:	Body - Nylon 6,6
	Magnets- Steel
Flammability:	Nylon 6,6 - UL94V-2
Body Colour:	Black

PART NUMBER	Head Size	Head Height	Unit Quantity
5111053	10.9 x 5.8	3.5	100



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Push Lock Access Panel Fasteners



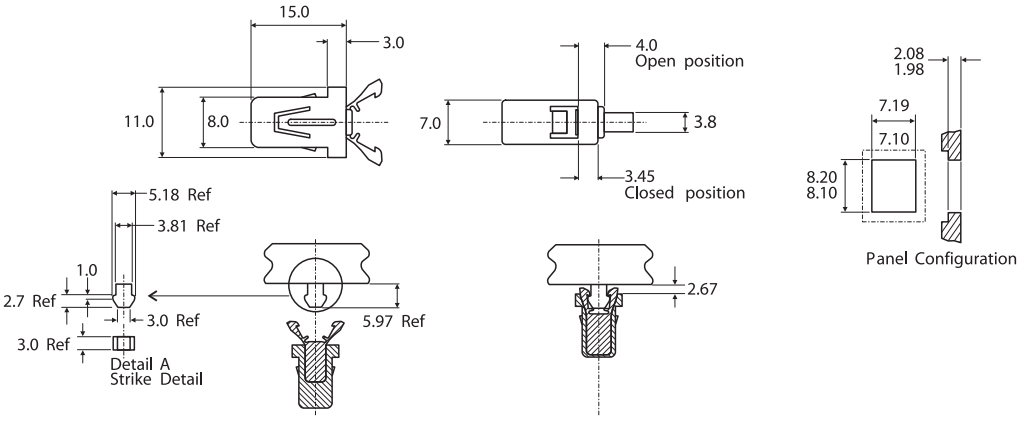
The performance figures shown are given only as a guideline. User should evaluate for specific applications.

PLEASE NOTE:
Strike details shown are for information only. This profile is to be designed into the mating part to ensure a secure fit in the latch.

Specifications: RoHS ✓
Materials: Body - Polycarbonate & Acetal
Spring - Steel
Colour: Black
Push-In force = 11.5N, Pull out force = 16N
Operating Temperature: -10°C to +60°C

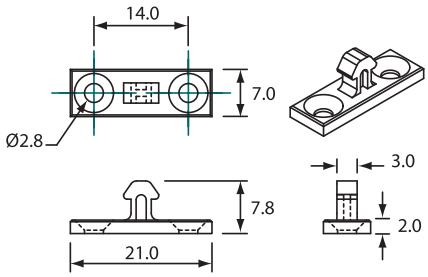
- Fast, easy installation from front panel
- Reliable long life closure
- Ideal for light weight doors, compartments and control panel covers
- No screws, bolts or rivets required
- Ideal for low profile applications

PART NUMBER	Colour	Hole Size	Panel Range	Body Dimensions	Body Head Dimensions	Head Height	Length	Unit Quantity
2014200	Black	See Diag	See Diag	8.0 x 7.0	11.0 x 7.0	3.00	12.0	1,000



Male Strike for 2014200 Push Lock Access Panel Fasteners





Specifications: RoHS ✓
Material: Acetal
Colour: Black

- Part is specifically designed to mate with Type 'A' Push Lock Access Panel Fasteners (part number 2014200)
- Ideal for use in applications where strike profile cannot be formed in chassis material

PART NUMBER	Mounting Screw Size	Unit Quantity
2014208	N°4 Countersunk (not included)	1,000

Push Lock Access Panel Fasteners



Specifications: Type B RoHS ✓
Materials: Body - Polycarbonate , Spring - Steel
Colour: Black
Closing force = 13-15N, Opening force = 13-15N
Holding force when pushed closed = 70 - 82N
(at 20°C ambient temperature)

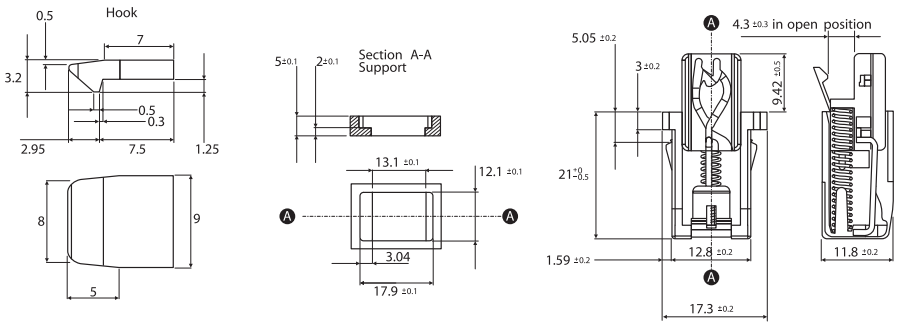
Specifications: Type C RoHS ✓
Materials: Body - Polycarbonate, Spring - Steel
Colour: White
Closing force = 2-5N, Opening force = 2-5N
Holding force when pushed closed = 70 - 82N
(at 20°C ambient temperature)

- Fast, easy installation from front panel
- Reliable long life closure
- Ideal for light weight doors, compartments and control panel covers
- No screws, bolts or rivets required
- Ideal for low profile applications

The performance figures shown are given only as a guideline. User should evaluate for specific applications.

PLEASE NOTE:
Hook details shown are for information only. This profile is to be designed into the mating part to ensure a secure fit in the latch.

PART NUMBER	Colour	Hole Size	Panel Range	Body Dimensions	Body Head Dimensions	Head Height	Type	Length	Unit Quantity
2014204	Black	See Diag	See Diag	12.8 x 11.8	17.3 x 11.8	3.00	B	18.0	2,500
2014206	White	See Diag	See Diag	12.8 x 11.8	17.3 x 11.8	3.00	C	18.0	2,500





Aluminium Pop Rivets - Standard Open Type: Domed Head

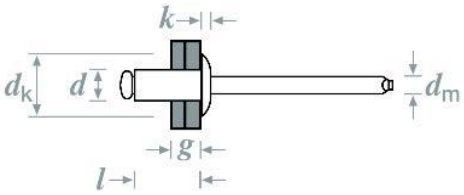
POP Avdel STANLEY Engineered Fastening

- Suitable for General Purpose Use

NEW

Specifications: RoHS ✓
Material: Aluminium 3.5% Magnesium Alloy
Mandrel: Carbon Steel

PART NUMBER	Nominal Diameter (d)	Description	Hole Size Min-Max	Body Length Min-Max	Panel Range (g)	Body Diameter Min-Max	Flange Diameter (dk)	Max Flange Thickness (k)	Mandrel Diameter Nominal (dm)	Shear (N)	Tensile (N)	Unit Quantity
20124	3.2	TAPD42BS	3.3 - 3.4	4.5	Up to 1.6	3.10 - 3.28	6.05 - 6.65	1.10	1.83	800	1,200	1,000
20125	3.2	TAPD44BS	3.3 - 3.4	6.0	1.6 - 3.2	3.10 - 3.28	6.05 - 6.65	1.10	1.83	800	1,200	1,000
20127	3.2	TAPD46BS	3.3 - 3.4	8.0	3.2 - 4.8	3.10 - 3.28	6.05 - 6.65	1.10	1.83	800	1,200	1,000
20128	3.2	TAPD48BS	3.3 - 3.4	9.7	4.8 - 6.4	3.10 - 3.28	6.05 - 6.65	1.10	1.83	800	1,200	1,000
20129	3.2	TAPD410BS	3.3 - 3.4	11.5	6.4 - 7.9	3.10 - 3.28	6.05 - 6.65	1.10	1.83	800	1,200	1,000
20130	4.0	TAPD54BS	4.1 - 4.2	7.0	1.6 - 3.2	3.90 - 4.08	7.62 - 8.22	1.22	2.29	1,330	1,910	500
20131	4.0	TAPD56BS	4.1 - 4.2	8.5	3.2 - 4.8	3.90 - 4.08	7.62 - 8.22	1.22	2.29	1,330	1,910	500
20132	4.0	TAPD58BS	4.1 - 4.2	10.5	4.8 - 6.4	3.90 - 4.08	7.62 - 8.22	1.22	2.29	1,330	1,910	500
20133	4.0	TAPD510BS	4.1 - 4.2	12.2	6.4 - 7.9	3.90 - 4.08	7.62 - 8.22	1.22	2.29	1,330	1,910	500
20136	4.8	TAPD64BS	4.9 - 5.0	7.5	2.4 - 3.2	4.70 - 4.88	9.20 - 9.80	1.60	2.64	2,020	2,800	500
20137	4.8	TAPD66BS	4.9 - 5.0	9.2	3.2 - 4.8	4.70 - 4.88	9.20 - 9.80	1.60	2.64	2,020	2,800	500
20138	4.8	TAPD68BS	4.9 - 5.0	11.0	4.8 - 6.4	4.70 - 4.88	9.20 - 9.80	1.60	2.64	2,020	2,800	500
20139	4.8	TAPD610BS	4.9 - 5.0	12.7	6.4 - 7.9	4.70 - 4.88	9.20 - 9.80	1.60	2.64	2,020	2,800	500
20140	4.8	TAPD612BS	4.9 - 5.0	14.7	7.9 - 9.5	4.70 - 4.88	9.20 - 9.80	1.60	2.64	2,020	2,800	250





Aluminium Pop Rivets - Standard Open Type: Large Flange

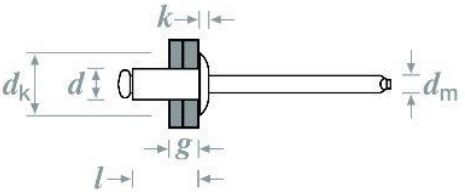
POP Avdel STANLEY Engineered Fastening

- Suitable for General Purpose Use
- Large Flange increases bearing surface for weaker, thinner materials
- Suitable for oversized holes or slots under the head

NEW

Specifications: RoHS ✓
Material: Aluminium 3.5% Magnesium Alloy
Mandrel: Carbon Steel

PART NUMBER	Nominal Diameter (d)	Description	Hole Size Min-Max	Body Length Min-Max	Panel Range (g)	Body Diameter Min-Max	Flange Diameter (dk)	Max Flange Thickness (k)	Mandrel Diameter Nominal (dm)	Shear (N)	Tensile (N)	Unit Quantity
22050	4.8	TAPD68BS LF14	4.9 - 5.0	11.0	4.8 - 6.4	4.70 - 4.88	13.70 - 14.30	2.00	2.64	2,020	2,800	250
22053	4.8	TAPD612BS LF14	4.9 - 5.0	14.5	7.9 - 9.5	4.70 - 4.88	13.70 - 14.30	2.00	2.64	2,020	2,800	250
22052	4.8	TAPD614BS LF14	4.9 - 5.0	16.5	9.5 - 11.1	4.70 - 4.88	13.70 - 14.30	2.00	2.64	2,020	2,800	250
22042	4.8	TAPD617BS LF14	4.9 - 5.0	19.0	12.7 - 13.5	4.70 - 4.88	13.70 - 14.30	2.00	2.64	2,020	2,800	250
23355	4.8	TAPD625BS LF14	4.9 - 5.0	25.5	13.5 - 19.8	4.70 - 4.88	13.70 - 14.30	2.00	2.64	2,020	2,800	250



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Aluminium Pop Rivets - Standard Open Type: Countersunk

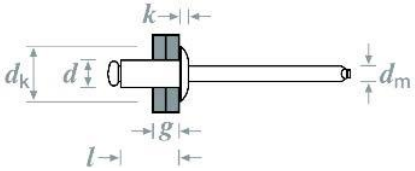
Specifications: RoHS ✓
Material: Aluminium 3.5% Magnesium Alloy
Mandrel: Carbon Steel

- Suitable for general purpose use
- For a flush surface after setting
- 120° counter sunk flange

NEW



PART NUMBER	Nominal Diameter (d)	Description	Hole Size Min-Max	Body Length Min-Max	Panel Range (g)	Body Diameter Min-Max	Flange Diameter (dk)	Mandrel Diameter Nominal (dm)	Shear (N)	Tensile (N)	Unit Quantity
24484	3.2	TAPK44BS	3.3 - 3.4	7.5	2.7 - 4.3	3.10 - 3.28	6.05 - 6.65	1.83	800	1,200	500
20144	3.2	TAPK46BS	3.3 - 3.4	9.0	4.3 - 5.8	3.10 - 3.28	6.05 - 6.65	1.83	800	1,200	500
20147	4.0	TAPK56BS	4.1 - 4.2	10.0	4.5 - 6.1	3.90 - 4.08	7.75 - 8.05	2.29	1,330	1,910	500
20148	4.0	TAPK58BS	4.1 - 4.2	12.0	6.1 - 7.7	3.90 - 4.08	7.75 - 8.05	2.29	1,330	1,910	500
21256	4.8	TAPK66BS	4.9 - 5.0	11.0	4.8 - 6.4	4.70 - 4.88	9.33 - 9.73	2.64	2,020	2,800	500
21269	4.8	TAPK68BS	4.9 - 5.0	13.0	6.4 - 7.9	4.70 - 4.88	9.33 - 9.73	2.64	2,020	2,800	500



Aluminium Pop Rivets - Aluminium Multigrip: Domed Head

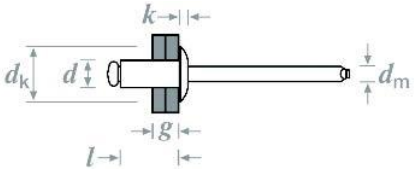
Specifications: RoHS ✓
Material: Aluminium 2.5% Magnesium Alloy
Mandrel: Carbon Steel

- Extended grip range capability
- Good, rattle free, joint construction even in irregular holes

NEW



PART NUMBER	Nominal Diameter (d)	Description	Hole Size Min-Max	Body Length Min-Max	Panel Range (g)	Body Diameter Min-Max	Flange Diameter (dk)	Flange Thickness (k)	Mandrel Diameter Nominal (dm)	Shear (N)	Tensile (N)	Unit Quantity
82786	3.2	EBD406BS	3.3 - 3.4	7.9	Up to 4.8	3.10 - 3.28	6.00 - 6.60	1.10	1.83	690	930	500
82785	3.2	EBD410BS	3.3 - 3.4	11.5	4.8 - 7.9	3.10 - 3.28	6.00 - 6.60	1.10	1.83	690	930	500
82784	4.0	EBD508BS	4.1 - 4.2	10.3	Up to 6.4	3.85 - 4.08	7.74 - 8.10	1.25	2.29	1,000	1,570	500
82783	4.0	EBD512BS	4.1 - 4.2	14.0	3.0 - 9.5	3.85 - 4.08	7.74 - 8.10	1.25	2.29	1,000	1,570	500
82782	4.8	EBD608BS	4.9 - 5.0	11.0	0.8 - 6.4	4.65 - 4.88	9.20 - 9.80	1.60	2.64	1,570	2,250	500
82781	4.8	EBD614BS	4.9 - 5.0	16.5	6.4 - 11.1	4.65 - 4.88	9.20 - 9.80	1.60	2.64	1,570	2,250	500



Aluminium Pop Rivets - Peel Rivet: Domed Head

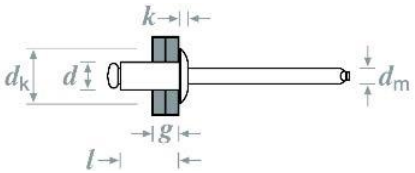
Specifications: RoHS ✓
Material: Aluminium 3.5% Magnesium Alloy
Mandrel: Carbon Steel

- Extended grip range capability
- Good, rattle free, joint construction even in irregular holes

NEW



PART NUMBER	Nominal Diameter (d)	Description	Hole Size Min-Max	Body Length Min-Max	Panel Range (g)	Body Diameter Min-Max	Flange Diameter (dk)	Flange Thickness (k)	Mandrel Diameter Nominal (dm)	Shear (N)	Tensile (N)	Unit Quantity
75400	4.8	TAPD614S0	5.0 - 5.2	16.4	9.3 - 10.6	4.65 - 4.88	9.20 - 9.80	1.60	2.64	2,000	2,000	500
25968	4.8	TAPD617S0	5.0 - 5.2	19.1	10.6 - 13.5	4.65 - 4.88	9.20 - 9.80	1.60	2.64	2,000	2,000	500



Aluminium Pop Rivets - Closed End: Domed Head

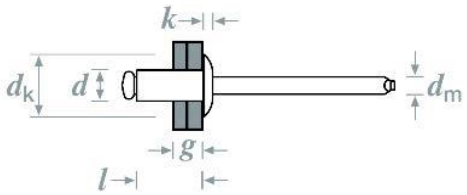


- Moisture and pressure tight
- Guaranteed mandrel head retention
- Good hole filling for good joint construction

NEW

Specifications: RoHS ✓
Material: Aluminium 5% Magnesium Alloy
Mandrel: Carbon Steel

PART NUMBER	Nominal Diameter (d)	Description	Hole Size Min-Max	Body Length Min-Max	Panel Range (g)	Body Diameter Min-Max	Flange Diameter (dk)	Max Flange Thickness (k)	Mandrel Diameter Nominal (dm)	Shear (N)	Tensile (N)	Unit Quantity
80392	3.2	AD44SB	3.3 - 3.4	7.5	1.6 - 3.2	3.10 - 3.28	5.70 - 6.30	1.10	1.63	1,110	1,400	500
80402	3.2	AD46SB	3.3 - 3.4	9.0	3.2 - 4.8	3.10 - 3.28	5.70 - 6.30	1.10	1.63	1,110	1,400	500
80407	3.2	AD48SB	3.3 - 3.4	11.0	4.8 - 6.4	3.10 - 3.28	5.70 - 6.30	1.10	1.63	1,110	1,400	500
80448	3.2	AD410SB	3.3 - 3.4	12.5	6.4 - 7.9	3.10 - 3.28	5.70 - 6.30	1.10	1.63	1,110	1,400	500
80414	4.0	AD54SB	4.1 - 4.2	8.0	Up To 3.2	3.90 - 4.08	7.62 - 8.22	1.50	2.18	1,640	2,220	500
80419	4.0	AD56SB	4.1 - 4.2	9.5	3.2 - 4.8	3.90 - 4.08	7.62 - 8.22	1.50	2.18	1,640	2,220	500
80376	4.0	AD510SB	4.1 - 4.2	12.5	6.4 - 7.9	3.90 - 4.08	7.62 - 8.22	1.50	2.18	1,640	2,220	500
80427	4.8	AD64SB	4.9 - 5.0	8.3	Up To 3.2	4.73 - 4.88	9.20 - 9.85	1.75	2.64	2,260	3,110	500
80434	4.8	AD66SB	4.9 - 5.0	10.0	3.2 - 4.8	4.73 - 4.88	9.20 - 9.85	1.75	2.64	2,260	3,110	500
80442	4.8	AD68SB	4.9 - 5.0	11.5	4.8 - 6.4	4.73 - 4.88	9.20 - 9.85	1.75	2.64	2,260	3,110	500
80458	4.8	AD610SB	4.9 - 5.0	13.0	6.4 - 7.9	4.73 - 4.88	9.20 - 9.85	1.75	2.64	2,260	3,110	500
80466	4.8	AD612SB	4.9 - 5.0	14.5	7.9 - 9.5	4.73 - 4.88	9.20 - 9.85	1.75	2.64	2,260	3,110	500



Steel Pop Rivets - Standard Open Type: Domed Head

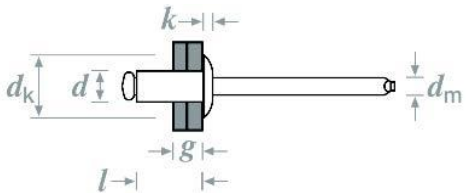


- General purpose rivet

NEW

Specifications: RoHS ✓
Material: Carbon Steel
Mandrel: Carbon Steel

PART NUMBER	Nominal Diameter (d)	Description	Hole Size Min-Max	Body Length Min-Max	Panel Range (g)	Body Diameter Min-Max	Flange Diameter (dk)	Max Flange Thickness (k)	Mandrel Diameter Nominal (dm)	Shear (N)	Tensile (N)	Unit Quantity
81796	3.2	TSPD44BS	3.3 - 3.4	6.0	1.6 - 3.2	3.10 - 3.28	6.05 - 6.65	1.10	1.93	1,150	1,550	500
81728	3.2	TSPD46BS	3.3 - 3.4	8.0	3.2 - 4.8	3.10 - 3.28	6.05 - 6.65	1.10	1.93	1,150	1,550	500
77932	4.0	TSPD54BS	4.1 - 4.2	7.0	1.6 - 3.2	3.85 - 4.08	7.72 - 8.22	1.35	2.29	1,730	2,500	500
78009	4.0	TSPD56BS	4.1 - 4.2	8.5	3.2 - 4.8	3.85 - 4.08	7.72 - 8.22	1.35	2.29	1,730	2,500	500
78049	4.8	TSPD66BS	4.9 - 5.0	9.3	3.2 - 4.8	4.65 - 4.88	9.22 - 9.82	1.60	2.90	2,620	3,500	500
81727	4.8	TSPD68BS	4.9 - 5.0	11.0	4.8 - 6.4	4.65 - 4.88	9.22 - 9.82	1.60	2.90	2,620	3,500	500



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STANLEY Engineered Fastening | POP Avdel

Stainless Steel Pop Rivet - Break Stem Open Type: Domed

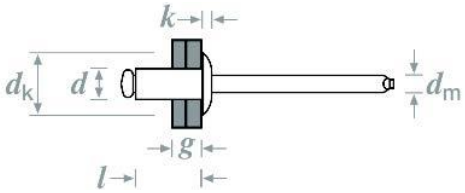
Specifications: RoHS ✓
Material: A2 Stainless Steel
Mandrel: Stainless Steel

- High strength at high temperatures
- Good corrosion resistance

NEW



PART NUMBER	Nominal Diameter (d)	Description	Hole Size Min-Max	Body Length Min-Max	Panel Range (g)	Body Diameter Min-Max	Flange Diameter (dk)	Max Flange Thickness (k)	Mandrel Diameter Nominal (dm)	Shear (N)	Tensile (N)	Unit Quantity
22000	3.2	SSD42SSBS	3.3 - 3.4	6.4	1.6 - 3.2	3.10 - 3.28	6.04 - 6.65	1.10	1.93	2,400	3,000	500
22002	3.2	SSD44SSBS	3.3 - 3.4	9.5	4.8 - 6.4	3.10 - 3.28	6.04 - 6.65	1.10	1.93	2,400	3,000	500
78528	4.0	SSD54SSBS	4.1 - 4.2	10.2	3.2 - 6.4	3.88 - 4.08	7.53 - 8.33	1.20	2.41	4,000	5,000	500



STANLEY Engineered Fastening | POP Avdel

Stainless Steel Pop Rivet - Closed End: Domed

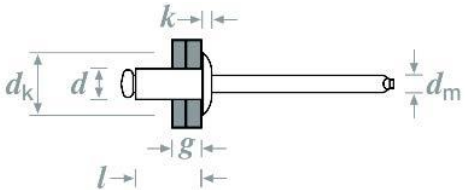
Specifications: RoHS ✓
Material: A2 Stainless Steel
Mandrel: Grooved Stainless Steel

- High strength at high temperatures
- Good corrosion resistance
- Moisture and pressure tight

NEW



PART NUMBER	Nominal Diameter (d)	Description	Hole Size Min-Max	Body Length Min-Max	Panel Range (g)	Body Diameter Min-Max	Flange Diameter (dk)	Max Flange Thickness (k)	Mandrel Diameter Nominal (dm)	Shear (N)	Tensile (N)	Unit Quantity
82068	3.2	TD44GT	3.3 - 3.4	8.0	1.6 - 3.2	3.15 - 3.28	6.12 - 6.65	0.87	2.00	2,100	2,220	500
82067	3.2	TD46GT	3.3 - 3.4	9.7	3.2 - 4.8	3.15 - 3.28	6.12 - 6.65	0.87	2.00	2,100	2,220	500





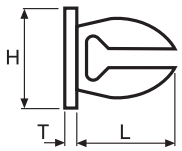
Round Head Expansion Nuts

- Ideal for self-threading screws
- Securely lock screws and assemble parts in place
- Ideal for connecting thin-gauge materials
- Will not corrode

Specifications: RoHS ✓

Material: Nylon 66
Colour: Natural

Tolerances:
H, L & T = ± 0.13



PART NUMBER	Square Hole Size	Panel Range	H Head Diameter	L Body Length	T Head Thickness	Screw Size	Unit Quantity
0675767	6.35 to 7.37	0.79 to 3.96	11.10	8.26	0.81	No 8 to 10	1,000
0675768	6.88 to 7.37	0.79 to 3.18	12.70	8.13	1.57	No 8 to 10	1,000
0675769	6.88 to 7.37	0.79 to 3.18	12.70	8.13	3.18	No 8 to 10	1,000
0675770	6.99 to 7.37	0.79 to 2.77	13.41	6.99	26.26	No 8 to 10	1,000
0675771	6.99 to 7.37	0.79 to 3.18	12.70	8.13	0.79	No 8 to 10	1,000
0675772	6.99 to 7.37	0.79 to 3.18	12.70	8.13	6.35	No 8 to 10	1,000
0675773	6.99 to 7.37	0.79 to 3.96	12.70	8.31	9.53	No 8	1,000
0675774	6.99 to 7.37	0.79 to 3.96	12.70	8.74	18.24	No 8 to 10	1,000
0675776	10.80 to 10.90	0.79 to 2.79	19.05	7.92	4.83	No 14	1,000

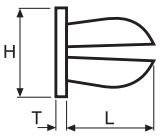


Expansion Nuts

- Ideal for self-threading screws
- Securely locks screws and assembled parts in place
- Ideal for connecting thin-gauge materials
- Will not corrode

Specifications: RoHS ✓

Material: Nylon 66 - unless otherwise indicated



PART NUMBER	Colour	Hole Size	Panel Range	H	Type	Head Form	L	T	Screw Size	Key	Unit Quantity
0685780	Natural	4.3 Sq	0.8 - 2.0	6.80	A	Round	5.50	16.20	No 4		20,000
0682780	Black	4.3 Sq	0.8 - 2.0	6.80	A	Round	5.50	16.20	No 4		20,000
0685781	Natural	4.3 Sq	0.8 - 2.0	5.6 Sq	A	Square	5.60	1.30	No 4		10,000
0682781	Black	4.3 Sq	0.8 - 2.0	5.6 Sq	A	Square	5.60	1.30	No 4		10,000
0685782	Natural	6.2 - 6.4 Sq	0.8 - 3.2	9.8 Sq	A	Square	7.40	0.80	No 6-8		Please Call
0682786	Black	6.5 Sq	0.8 - 2.0	10.00	A	Round	6.00	0.80	No 6		4,500
0685787	Natural	6.86 Sq	0.8 - 2.4	12.70	A	Round	7.10	21.40	No 10		8,000
0682787	Black	6.86 Sq	0.8 - 2.4	12.70	A	Round	7.10	21.40	No 10		8,000
0685791	Natural	6.86 Sq	0.8 - 2.4	12.70	A	Round	7.15	14.00	No 8		16,000
0682791	Black	6.86 Sq	0.8 - 2.4	12.70	A	Round	7.15	14.00	No 8		8,000
0685792	Natural	6.86 Sq	0.79 - 2.36	12.70	A	Round	7.10	2.80	No 6		7,500
0682792	Black	6.86 Sq	0.79 - 2.36	12.70	A	Round	7.10	2.80	No 6		7,500
0685793	Natural	7 Sq	0.5 - 2.0	9.0 Sq	A	Square	8.00	1.00	No 8		7,500
0685794	Natural	7.0 Sq	0.8 - 4.0	13.00	A	Round	8.00	0.80	No 8		5,000
0685795	Natural	7.0 Sq	0.5 - 4.0	9.30	A	Round	8.80	1.00	No 8		Please Call
0685783	Natural	7.15 - 7.37 Sq	0.79 - 3.96	12.70	A	Round	8.25	2.49	No 8-10		1,000
0682783	Black	7.15 - 7.37 Sq	0.79 - 3.96	12.70	A	Round	8.25	2.49	No 8-10		Please Call
0685796	Natural	7.2 Sq	0.8 - 2.5	9.60	A	Square	7.00	1.20	No 6		5,500
0685797	Natural	7.2 Sq	0.8 - 4.0	13.10	A	Round	8.10	1.00	No 8		4,000
0684818	Red	8.5 Sq	0.5 - 3.5	15.5 Sq	A	Square	11.20	1.70	No 10	PRT	Please Call
0685799	Natural	10.00 Sq	1.0 - 2.0	16.0 Sq	A	Square	8.00	2.00	No 14		1,000
0685785	Natural	6.86 Sq	0.79 - 2.03	9.52 Sq	B	Square	10.69	1.27	No 8-10		1,000
0682785	Black	6.86 Sq	0.79 - 2.03	9.52 Sq	B	Square	10.69	1.27	No 8-10		Please Call
0685800	Natural	6.86 x 9.40	0.79 - 2.03	9.53	B	Square	10.72	1.27	No 8-10		5,000
0682800	Black	6.86 x 9.40	0.79 - 2.03	9.53	B	Square	10.72	1.27	No 8-10		5,000
0685803	Natural	9.4 Sq	0.8 - 1.6	12.3 Sq	B	Square	18.20	1.10	No 10		Please Call
0682803	Black	9.4 Sq	0.8 - 1.6	12.3 Sq	B	Square	18.20	1.10	No 10		Please Call
0685804	Natural	9.7 Sq	0.7 - 1.5	12.7 Sq	B	Square	22.90	1.10	No 14	GF	15,400
0685805	Natural	9.8 Sq	1.25 - 1.55	12.7 Sq	B	Square	20.00	1.50	No 14	POM	10,000
0685806	Natural	5.5 Dia	0.9 - 1.2	9.00	C	Round	10.00	0.70	No 6		10,000
0682806	Black	5.5 Dia	0.9 - 1.2	9.00	C	Round	10.00	0.70	No 6		Please Call
0685784	Natural	7.1 Dia	2.4 Min	12.70	C	Round	12.70	0.80	No 8-10		1,000

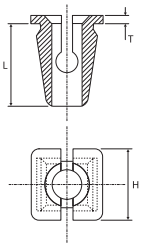
Standard Type A (Round Head)



Standard Type A (Square Head)



Type B



Type C



Key:
PRT: Head has square protrusion 7.2 sq x 3.4 high
GF: Material: 30% Glass filled nylon
POM: Material: Acetal

OPTIMAS

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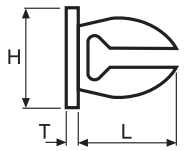
Square Head Expansion Nuts



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

Tolerances: H, L & T = ± 0.13

- Ideal for self-threading screws
- Securely locks screws and assembled parts in place
- Ideal for connecting thin gauge materials
- Will not corrode



PART NUMBER	Square Hole Size	Panel Range	H Head Diameter	L Body Length	T Head Thickness	Screw Size	Unit Quantity
0675755	6.35 to 6.48	2.79 to 3.18	9.53	6.73	0.79	No 6	1,000
0675756	6.99 to 7.11	1.02 to 1.14	9.40	8.38	0.81	No 8 to 10	1,000
0675757	6.99 to 7.37	0.79 to 3.18	9.53	8.13	0.79	No 8 to 10	1,000
0675758	6.99 to 7.37	0.79 to 3.18	9.53	8.13	1.57	No 8 to 10	1,000
0675759	6.99 to 7.37	0.79 to 3.18	9.53	8.13	3.18	No 8 to 10	1,000
0675760	6.99 to 7.37	0.79 to 3.18	9.53	8.13	6.35	No 8 to 10	1,000
0675761	8.89 to 9.02	5.54 to 5.84	12.07	10.69	1.57	No 8 to 10	1,000

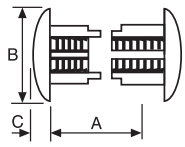
Ratchet Rivets

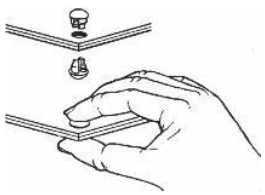


Hole size must be within ± 0.1 of size quoted in table
When ordering please note that 2 identical rivets are required per fixing

Specifications: RoHS ✓
Material: Nylon 66

- Simple to use, no tooling required - just press together
- Gives neat finished appearance
- Tamper resistant
- Will not crush or damage soft or brittle materials
- Range to suit various panel thicknesses

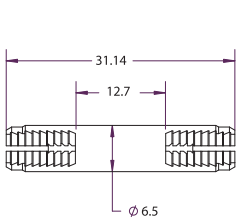


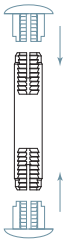


PART NUMBER	Colour	A Panel Thickness	B Head Dia.	C Head Height	Nominal Hole Size	Unit Quantity
0705815	Black	3.0 to 3.7	9.0	1.50	5.0	1,000
0705819	Natural	5.7 to 8.7	10.3	2.30	7.0	2,000
0705820	Black	5.7 to 8.7	10.3	2.30	7.0	2,000
0705821	White	5.7 to 8.7	10.3	2.30	7.0	2,000
0705822	Natural	5.9 to 7.5	19.0	2.36	7.14	1,000
0703822	Black	5.9 to 7.5	19.0	2.36	7.14	1,000
0705825	Natural	8.8 to 12.7	19.0	2.36	7.14	1,000
0703825	Black	8.8 to 12.7	19.0	2.36	7.14	1,000
0705828	Natural	12.7 to 20.6	19.0	2.36	7.14	1,000
0703828	Black	12.7 to 20.6	19.0	2.36	7.14	1,000
0705831	Natural	19.8 to 35.0	19.0	2.36	7.14	1,000
0705835	Natural	6.0 to 7.5	10.3	1.58	7.14	1,000
0705838	Natural	8.8 to 12.7	10.3	1.58	7.14	1,000
0705841	Natural	12.7 to 20.6	10.3	1.58	7.14	1,000

Ratchet Rivet Extender







Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

- Designed for use with Ø7.0/7.14 Ratchet Rivets
- Simple to use, no tooling required - just press together

Ratchet Rivets sold separately

PART NUMBER	Overall Length	Body Diameter	Nominal Hole Size	Unit Quantity
0705800	31.14	6.50	7.0 - 7.14	1,000

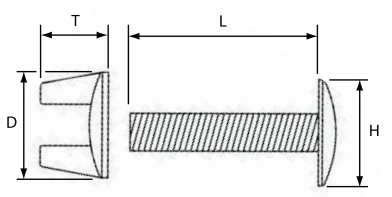
Viking Screws



Specifications: RoHS ✓
Material: Polystyrene

Note: Nut and screw are supplied as a set.

- Quick and simple to install
- Reusable
- Ideal for hanging signs and light weight displays



PART NUMBER	Colour	Mounting Hole Diameter	L	H	T	D	Unit Quantity
0776000	Clear	5.5	12.7	14.0	9.0	13.5	100
0776001	Black	5.5	12.7	14.0	9.0	13.5	100
0776002	White	5.5	12.7	14.0	9.0	13.5	100
0776003	Clear	5.5	25.4	14.0	9.0	13.5	100
0776004	Black	5.5	25.4	14.0	9.0	13.5	100
0776005	White	5.5	25.4	14.0	9.0	13.5	100

Snap Rivets



- Simple to use, no tooling required - just press together
- Gives neat finish appearance
- Ideal for both rigid and compressible materials
- Available in clear Polycarbonate - ideal for signs and displays

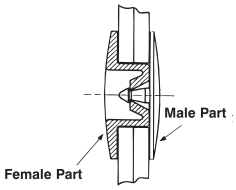
Specifications: RoHS ✓

Male and Female parts are supplied unassembled and must be ordered separately using part numbers listed

Material: See Table
Colour: See Table

PART NUMBER		Material	Colour	Panel Thickness	Hole Size	Head Dia.	Head Thickness	Unit Quantity
Male	Female							
0712000	0712001	Heat Stabilised Nylon	Black	4.31 - 4.82	8.13	15.87	1.57	1,000
0713000	0713001	Polycarbonate	Clear	4.31 - 4.82	8.13	15.87	1.57	10,000
0711000	0711001	Nylon	Natural	4.31 - 4.82	8.13	15.87	1.57	1,000
0712015	0712016	Heat Stabilised Nylon	Black	4.31 - 4.82	8.13	11.68	1.57	10,000
0711015	0711016	Nylon	Natural	4.31 - 4.82	8.13	11.68	1.57	10,000
0712005	0712001	Heat Stabilised Nylon	Black	5.6 - 6.1	8.13	15.87	1.57	1,000
0713005	0713001	Polycarbonate	Clear	5.6 - 6.1	8.13	15.87	1.57	10,000
0711005	0711001	Nylon	Natural	5.6 - 6.1	8.13	15.87	1.57	1,000
0712010	0712001	Heat Stabilised Nylon	Black	8.12 - 8.64	8.13	15.87	1.57	1,000
0713010	0713001	Polycarbonate	Clear	8.12 - 8.64	8.13	15.87	1.57	10,000
0711010	0711001	Nylon	Natural	8.12 - 8.64	8.13	15.87	1.57	1,000
0711010	0711017	Nylon	Natural	13.9 - 19.59	8.13	15.87	1.57	1,000

Assembled



Binder Posts & Drive Caps



- Lower cost than metal posts and caps
- Faster assembly
- Easily installed with just a hammer tap
- Choice of permanent or removable cap
- Will not damage table tops or stain operator's hands

Specifications: RoHS ✓

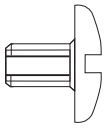
Material:
Post - Polypropylene
Cap - Polycarbonate

Tolerances: ± 0.38

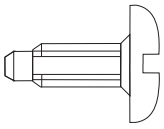
PART NUMBER		L Length	A Head Diameter	B Head Thickness	C Body Diameter	Item	Unit Quantity
Black	White						
7153007	7153008	9.65	10.29	2.03	5.59	Post	10,000
7153014	7153015	12.70	10.05	2.03	5.59	Post	10,000
7153028	7153029	19.05	10.05	2.03	5.59	Post	10,000
7153035	7153036	25.40	10.05	2.03	5.59	Post	10,000
7154000	7154001	6.60	10.82	2.54	3.66	Cap Form A	10,000
7154007	7154008	11.18	10.84	2.54	3.66	Cap Form B	10,000
7154014	7154015	10.92	10.99	1.78	3.86	Cap Form C	10,000

Posts and Caps are supplied separately
When ordering please quote Post and Cap numbers required

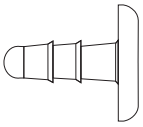
Cap Form A (Removable)



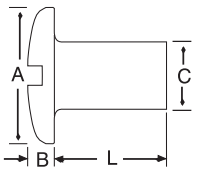
Cap Form B (Removable)



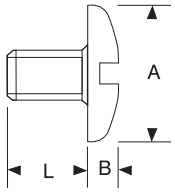
Cap Form C (Permanent Fix)



Post



Cap



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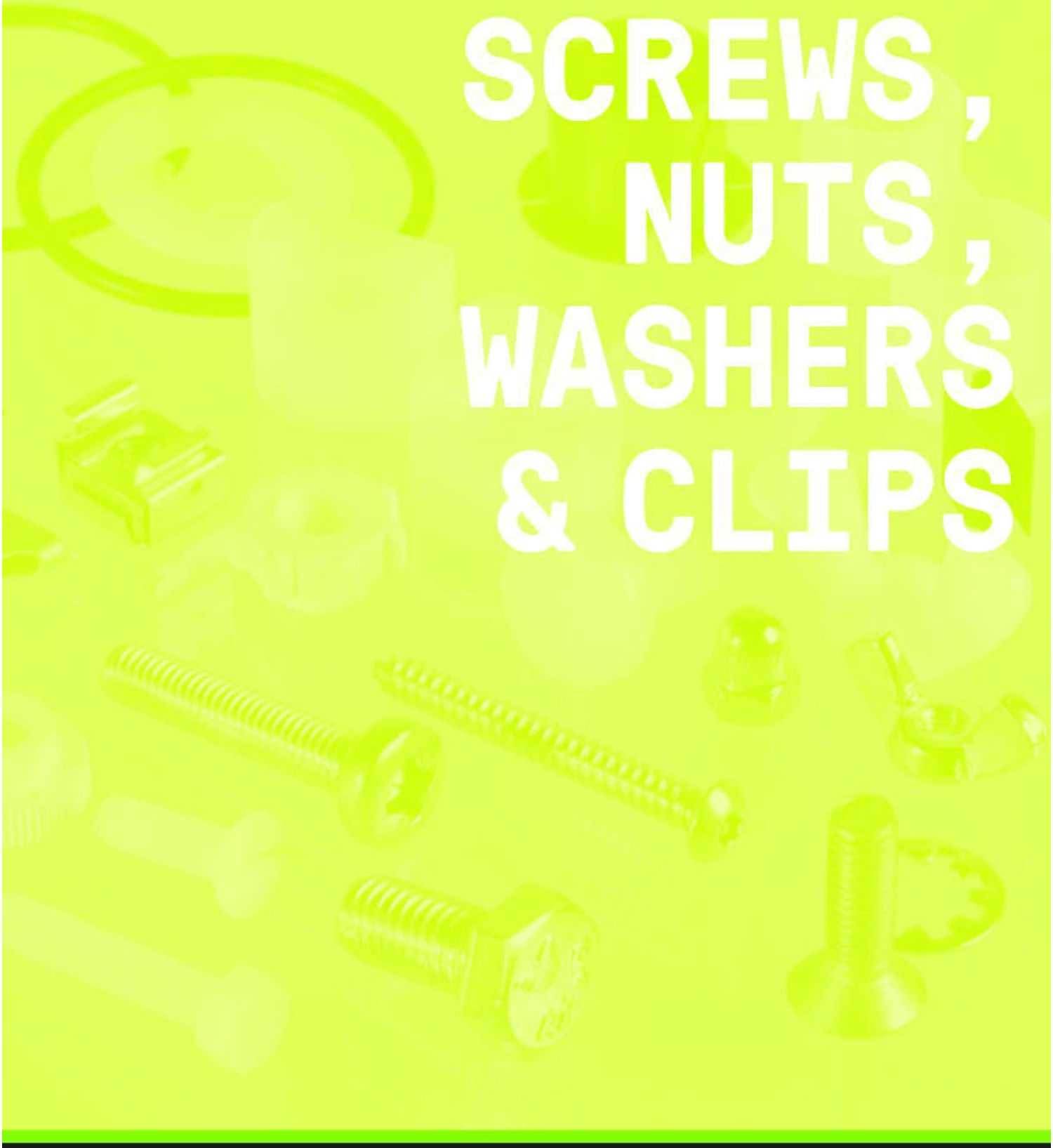
CHAPTER 13

SCREWS, NUTS, WASHERS & CLIPS



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OPTIMAS


DIN 85 Pan Head Slotted Metric Machine Screws - Steel P13-4


DIN 7985/Z Pozi Pan Head Metric Machine Screws -Steel P13-4


DIN 963 Slotted Countersunk Head Metric Machine Screws - Steel P13-5


DIN 965/Z Pozi Countersunk Head Metric Machine Screws - Steel P13-5


DIN 7991 Socket Countersunk Head Metric Screws - Steel P13-6


ISO 7380 Socket Button Head Metric Screws - Steel P13-6


DIN 912 Socket Head Metric Cap Screws - Stainless Steel P13-7


DIN 933 Hexagon Head Metric Set Screws - Steel P13-7


Tamper TX Button Head Security Machine Screws - Stainless Steel P13-8


Tamper TX Countersunk Security Machine Screws - Stainless Steel P13-8


Tamper TX Button Head Security Self Tapping Screws - Stainless Steel P13-8


Tamper TX Countersunk Security Self Tapping Screws - Stainless Steel P13-9


Tamper TX Security Insert Bits P13-9


Tamper TX SecurityAllen Keys P13-9


DIN 975 Allthread Studding - Stainless Steel P13-9


DIN 934 Hexagon Full Nuts Steel P13-10


DIN 1587 Hexagon Dome Nuts Steel P13-10


DIN 985 Self-Locking Nylon Insert Hexagon Nuts (Type T) - Steel P13-10


Metric Wing Nuts - Steel P13-10


Flat Washers - Steel P13-11


DIN 6797/J Internal Toothed Shakeproof Washers -Steel P13-11


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Cage Nuts P13-13


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Hexagon Head Screws
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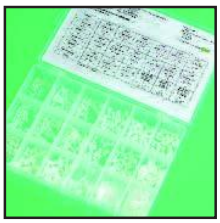
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Metric P13-22


Thumb Nuts
Metric P13-22


Hexagon Washer Faced Nuts
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Bearing Bushings - Clip
P13-40

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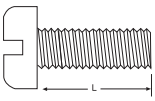
OPTIMAS

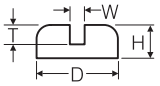


DIN 85 Pan Head Slotted Metric Machine Screws - Steel

Specifications: RoHS ✓

Material: Stainless Steel or BZP Steel
Colour: Self





Dim	Screw Size						
	M2	M2.5	M3	M4	M5	M6	M8
D	4.00	5.00	6.00	8.00	10.00	12.00	16.00
H	1.30	1.50	1.80	2.40	3.00	3.60	4.80
T (min)	0.50	0.60	0.70	1.00	1.20	1.40	1.90
W	0.50	0.60	0.80	1.20	1.20	1.60	2.00

PART NUMBER & MATERIAL GRADE			Thread Size	L Length	Unit Quantity		
Stainless - A2	Stainless - A4	Steel - BZP			A2	A4	Steel - BZP
0028122	0029122	-	M2 x .4	6	1,000	1,000	-
0028125	0029125	-	M2 x .4	12	1,000	1,000	-
0028134	0029134	-	M2.5 x .45	6	500	1,000	-
0028137	0029137	-	M2.5 x .45	12	500	1,000	-
0028138	0029138	-	M2.5 x .45	16	500	1,000	-
0028145	0029145	0027145	M3 x .5	6	500	250	1,000
0028146	0029146	0027146	M3 x .5	8	500	250	1,000
0028147	0029147	0027147	M3 x .5	10	500	250	1,000
0028148	0029148	0027148	M3 x .5	12	500	250	1,000
0028149	0029149	0027149	M3 x .5	16	500	250	1,000
0028150	0029150	0027150	M3 x .5	20	500	250	1,000
0028151	0029151	0027151	M3 x .5	25	500	250	1,000
0028152	0029152	-	M3 x .5	30	250	250	-
0028168	0029168	0027168	M4 x .7	6	250	250	1,000
0028169	0029169	0027169	M4 x .7	8	250	250	1,000
0028170	0029170	0027170	M4 x .7	10	250	250	1,000
0028171	0029171	0027171	M4 x .7	12	250	250	1,000
0028172	0029172	0027172	M4 x .7	16	250	250	1,000
0028173	0029173	0027173	M4 x .7	20	250	250	1,000
0028174	0029174	0027174	M4 x .7	25	250	250	500
0028175	0029175	0027175	M4 x .7	30	250	250	500
0028177	0029177	0027177	M4 x .7	40	250	500	500
0028178	0029178	0027178	M4 x .7	50	100	500	250

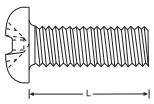
PART NUMBER & MATERIAL GRADE			Thread Size	L Length	Unit Quantity		
Stainless - A2	Stainless - A4	Steel - BZP			A2	A4	Steel - BZP
0028182	0029182	-	M5 x .8	8	250	250	-
0028183	0029183	-	M5 x .8	10	250	200	-
0028184	0029184	0027184	M5 x .8	12	250	200	1,000
0028185	0029185	0027185	M5 x .8	16	250	200	500
0028186	0029186	0027186	M5 x .8	20	250	200	500
0028187	0029187	0027187	M5 x .8	25	250	100	500
0028188	0029188	0027188	M5 x .8	30	250	100	250
0028190	0029190	0027190	M5 x .8	40	250	100	250
0028192	0029192	0027192	M5 x .8	50	250	200	250
0028197	0029197	-	M6 x 1.0	10	250	100	-
0028198	0029198	0027198	M6 x 1.0	12	250	100	250
0028199	0029199	0027199	M6 x 1.0	16	250	100	250
0028200	0029200	0027200	M6 x 1.0	20	250	100	250
0028201	0029201	0027201	M6 x 1.0	25	250	100	200
0028202	0029202	0027202	M6 x 1.0	30	250	100	200
0028204	0029204	0027204	M6 x 1.0	40	250	100	200
0028206	0029206	0027206	M6 x 1.0	50	250	50	100
0028207	0029207	-	M6 x 1.0	60	50	200	-
0028211	0029211	-	M8 x 1.25	12	100	50	-
0028212	0029212	0027212	M8 x 1.25	16	100	50	200
0028213	0029213	0027213	M8 x 1.25	20	50	50	200
0028214	0029214	0027214	M8 x 1.25	25	50	50	200
0028215	0029215	0027215	M8 x 1.25	30	50	50	100
0028217	0029217	0027217	M8 x 1.25	40	50	25	100
0028219	0029219	0027219	M8 x 1.25	50	25	25	100
0028220	0029220	-	M8 x 1.25	60	25	50	-

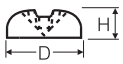


DIN 7985/Z Pozi® Pan Head Metric Machine Screws - Steel

Specifications: RoHS ✓

Material: Stainless Steel or BZP Steel
Colour: Self





Dim	Screw Size				
	M2	M3	M4	M5	M6
D (max)	4.0	6.0	8.0	10.0	12.0
H (max)	1.72	2.52	3.25	3.95	4.75
Recess No.	1	1	2	2	3

PART NUMBER & MATERIAL GRADE			Thread Size	L Length	Unit Quantity		
Stainless - A2	Stainless - A4	Steel - BZP			A2	A4	Steel - BZP
0198100	0199100	0197100	M2 x .4	6	1,000	1,000	1,000
0198103	0199103	0197103	M2 x .4	12	1,000	1,000	1,000
0198038	0199038	0197010	M2.5 x .45	6	500	1,000	1,000
0198039	0199039	0197013	M2.5 x .45	12	500	1,000	1,000
0198000	0199000	0197000	M3 x .5	6	500	500	1,000
0198001	0199001	-	M3 x .5	8	500	500	-
0198002	0199002	0197002	M3 x .5	10	500	500	1,000
0198003	0199003	0197003	M3 x .5	12	500	500	1,000
0198004	0199004	0197004	M3 x .5	16	500	500	1,000
0198005	0199005	0197005	M3 x .5	20	500	500	1,000
0198008	0199008	0197008	M4 x .7	6	500	250	1,000
0198009	0199009	-	M4 x .7	8	500	250	-
0198010	0199010	0197010	M4 x .7	10	500	250	1,000
0198011	0199011	0197011	M4 x .7	12	500	250	1,000
0198012	0199012	0197012	M4 x .7	16	500	250	1,000
0198013	0199013	0197013	M4 x .7	20	500	250	1,000
0198014	0199014	0197014	M4 x .7	25	250	200	500

PART NUMBER & MATERIAL GRADE			Thread Size	L Length	Unit Quantity		
Stainless - A2	Stainless - A4	Steel - BZP			A2	A4	Steel - BZP
0198020	0199020	-	M5 x .8	10	250	200	-
0198021	0199021	0197021	M5 x .8	12	250	100	1,000
0198022	0199022	0197022	M5 x .8	16	250	100	500
0198023	0199023	0197023	M5 x .8	20	250	100	500
0198024	0199024	0197024	M5 x .8	25	200	100	500
0198032	0199032	-	M6 x 1.0	10	200	100	-
0198033	0199033	0197033	M6 x 1.0	12	200	100	250
0198034	0199034	0197034	M6 x 1.0	16	200	100	250
0198035	0199035	0197035	M6 x 1.0	20	100	100	250
0198036	0199036	0197036	M6 x 1.0	25	100	100	200
0198037	0199037	-	M6 x 1.0	30	100	100	-



NEED A SCREW HEAD COVER?

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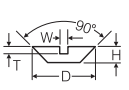
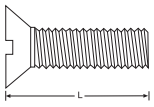
DIN 963 Slotted Countersunk Head Metric Machine Screws - Steel

Dim	Screw Size			
	M3	M4	M5	M6
D	5.60	7.5	9.20	11.00
H (max)	1.65	2.20	2.50	3.00
T (min)	0.60	0.80	1.00	1.20
W	0.80	1.00	1.20	1.60





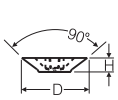
Specifications: RoHS ✓
Material: Stainless Steel or BZP Steel
Colour: Self

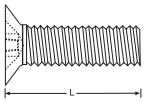


PART NUMBER & MATERIAL GRADE			Thread Size	L Length	Unit Quantity		
Stainless - A2	Stainless - A4	Steel - BZP			A2	A4	Steel - BZP
0048408	0049408	0047408	M3 x .5	6	500	500	1,000
0048411	0049411	0047411	M3 x .5	12	500	500	1,000
0048413	0049413	-	M3 x .5	16	500	500	-
0048414	0049414	0047414	M3 x .5	20	500	500	1,000
0048429	0049429	-	M4 x .7	6	250	500	-
0048432	0049432	0047432	M4 x .7	12	250	500	1,000
0048434	0049434	0047434	M4 x .7	16	250	250	1,000
0048435	0049435	0047435	M4 x .7	20	250	250	1,000
0048436	0049436	-	M4 x .7	25	250	250	-
0048444	0049444	0047444	M5 x .8	12	200	200	1,000
0048446	0049446	0047446	M5 x .8	16	200	200	500
0048447	0049447	0047447	M5 x .8	20	200	200	500
0048448	0049448	0047448	M5 x .8	25	200	100	500
0048449	0049449	-	M5 x .8	30	100	100	-
0048457	0049457	0047457	M6 x 1.0	12	100	100	250
0048458	0049458	0047458	M6 x 1.0	16	100	100	250
0048459	0049459	0047459	M6 x 1.0	20	100	100	250
0048460	0049460	0047460	M6 x 1.0	25	100	100	250
0048461	0049461	-	M6 x 1.0	30	100	100	-
0048463	0049463	-	M6 x 1.0	40	100	50	-

DIN 965/Z Pozi® Countersunk Head Metric Machine Screws - Steel

Dim	Screw Size			
	M3	M4	M5	M6
D	5.60	7.50	9.20	11.00
H (max)	1.65	2.20	2.50	3.00
Recess No.	1	2	2	3





Specifications: RoHS ✓
Material: Stainless Steel or BZP Steel
Colour: Self

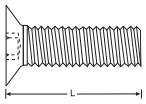


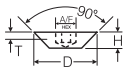
PART NUMBER & MATERIAL GRADE			Thread Size	L Length	Unit Quantity		
Stainless - A2	Stainless - A4	Steel - BZP			A2	A4	Steel - BZP
0238000	0239000	0237000	M3 x .5	6	500	1,000	1,000
0238003	0239003	0237003	M3 x .5	12	500	500	1,000
0238005	0239005	0237005	M3 x .5	16	500	500	1,000
0238006	0239006	0237006	M3 x .5	20	500	500	1,000
0238009	0239009	0237009	M4 x .7	6	500	500	1,000
0238012	0239012	0237012	M4 x .7	12	500	500	1,000
0238013	0239013	0237013	M4 x .7	16	250	250	1,000
0238014	0239014	0237014	M4 x .7	20	250	250	1,000
0238015	0239015	0237015	M4 x .7	25	250	250	500
0238021	0239021	0237021	M5 x .8	12	250	200	1,000
0238022	0239022	0237022	M5 x .8	16	250	200	500
0238023	0239023	0237023	M5 x .8	20	250	200	500
0238024	0239024	0237024	M5 x .8	25	200	200	500
0238025	0239025	0237025	M5 x .8	30	200	100	250
0238050	0239050	0237050	M6 x 1.0	12	200	100	250
0238051	0239051	0237051	M6 x 1.0	16	100	100	250
0238052	0239052	0237052	M6 x 1.0	20	100	100	250
0238053	0239053	0237053	M6 x 1.0	25	100	100	250
0238054	0239054	0237054	M6 x 1.0	30	100	100	200
0238055	0239055	0237055	M6 x 1.0	40	100	100	200



DIN 7991 Socket Countersunk Head Screws - Steel

Specifications: RoHS ✓
Material: Stainless Steel or BZP Steel
Colour: Self





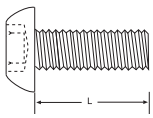
Dim	Screw Size			
	M3	M4	M5	M6
D	6.00	8.00	10.00	12.00
H (max)	1.70	2.30	2.80	3.30
T (min)	1.20	1.80	2.30	2.50
A/F	2.00	2.50	3.00	4.00

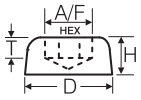
PART NUMBER & MATERIAL GRADE			Thread Size	L Length	Unit Quantity		
Stainless - A2	Stainless - A4	Steel - BZP			A2	A4	Steel - BZP
0078100	0079100	-	M3 x .5	6	500	1,000	-
0078101	0079101	-	M3 x .5	8	500	1,000	-
0078102	0079102	0077102	M3 x .5	10	500	500	200
0078103	0079103	0077103	M3 x .5	12	500	500	200
0078104	0079104	-	M4 x .7	8	250	500	-
0078105	0079105	0077105	M4 x .7	10	250	250	200
0078106	0079106	0077106	M4 x .7	12	250	250	200
0078107	0079107	0077107	M4 x .7	16	250	250	200
0078108	0079108	-	M4 x .7	20	250	250	-
0078109	0079109	-	M5 x .8	10	250	200	-
0078110	0079110	0077110	M5 x .8	12	250	200	200
0078111	0079111	0077111	M5 x .8	16	250	200	200
0078112	0079112	0077112	M5 x .8	20	250	200	200
0078113	0079113	0077113	M5 x .8	25	200	200	200
0078114	0079114	-	M5 x .8	30	100	100	-
0078115	0079115	-	M6 x 1.0	10	100	200	-
0078116	0079116	0077116	M6 x 1.0	12	200	200	200
0078117	0079117	0077117	M6 x 1.0	16	200	200	200
0078118	0079118	0077118	M6 x 1.0	20	200	200	200
0078119	0079119	0077119	M6 x 1.0	25	100	100	200
0078120	0079120	0077120	M6 x 1.0	30	100	100	200



ISO 7380 Socket Button Head Screws - Steel

Specifications: RoHS ✓
Material: Stainless Steel or BZP Steel
Colour: Self





Dim	Screw Size				
	M3	M4	M5	M6	M8
A/F	2.00	2.50	3.00	4.00	5.00
D (max)	5.70	7.60	9.50	10.50	14.00
H (max)	1.65	2.20	2.75	3.30	4.40
T (min)	1.04	1.30	1.56	2.08	2.60

PART NUMBER & MATERIAL GRADE			Thread Size	L Length	Unit Quantity		
Stainless - A2	Stainless - A4	Steel - BZP			A2	A4	Steel - BZP
0078300	0079300	0077300	M3 x .5	8	500	500	200
0078301	0079301	0077301	M3 x .5	10	500	500	200
0078302	0079302	0077302	M3 x .5	12	500	500	200
0078303	0079303	0077303	M4 x .7	8	500	500	200
0078304	0079304	0077304	M4 x .7	10	500	500	200
0078305	0079305	0077305	M4 x .7	12	500	500	200
0078306	0079306	0077306	M4 x .7	16	500	500	200
0078307	0079307	0077307	M5 x .8	10	250	250	200
0078308	0079308	0077308	M5 x .8	12	250	250	200
0078309	0079309	0077309	M5 x .8	16	250	250	200
0078310	0079310	0077310	M5 x .8	20	250	250	200
0078311	0079311	-	M5 x .8	25	200	250	-
0078312	0079312	-	M5 x .8	30	200	250	-
0078313	0079313	-	M5 x .8	40	100	250	-
0078314	0079314	-	M5 x .8	50	100	250	-

PART NUMBER & MATERIAL GRADE			Thread Size	L Length	Unit Quantity		
Stainless - A2	Stainless - A4	Steel - BZP			A2	A4	Steel - BZP
0078315	0079315	0077315	M6 x 1.0	12	250	250	200
0078316	0079316	0077316	M6 x 1.0	16	250	250	200
0078317	0079317	0077317	M6 x 1.0	20	250	250	200
0078318	0079318	0077318	M6 x 1.0	25	200	200	200
0078319	0079319	-	M6 x 1.0	30	100	100	-
0078320	0079320	-	M6 x 1.0	40	100	100	-
0078321	0079321	-	M6 x 1.0	50	100	100	-
0078322	0079322	-	M6 x 1.0	60	100	100	-
0078323	0079323	0077323	M8 x 1.25	12	100	100	200
0078324	0079324	0077324	M8 x 1.25	16	100	100	200
0078325	0079325	0077325	M8 x 1.25	20	100	100	200
0078326	0079326	0077326	M8 x 1.25	25	100	100	200
0078327	0079327	-	M8 x 1.25	30	100	100	-
0078328	0079328	-	M8 x 1.25	40	50	100	-
0078329	0079329	-	M8 x 1.25	50	50	100	-

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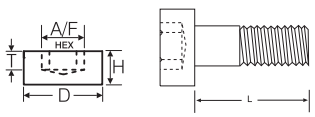
DIN 912 Socket Head Metric Cap Screws - Stainless Steel

Dim	Screw Size						
	M3	M4	M5	M6	M8	M10	M12
D	5.50	7.00	8.50	10.00	13.00	16.00	18.00
H	3.00	4.00	5.00	6.00	8.00	10.00	12.00
T (min)	1.30	2.00	2.50	3.00	4.00	5.00	6.00
A/F	2.50	3.00	4.00	5.00	6.00	8.00	10.00



Specifications: RoHS ✓
Material: Stainless Steel
Colour: Self

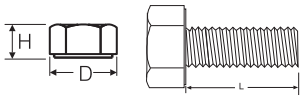


PART NUMBER & MATERIAL		Thread Size	L Length	Unit Quantity	
Stainless - A2	Stainless - A4			A2	A4
0078200	0079200	M3 x .5	6	200	250
0078201	0079201	M3 x .5	8	200	250
0078202	0079202	M3 x .5	10	200	250
0078203	0079203	M3 x .5	12	200	200
0078204	0079204	M3 x .5	16	200	200
0078205	0079205	M3 x .5	20	200	200
0078206	0079206	M3 x .5	25	200	200
0078207	0079207	M3 x .5	30	100	100
0078208	0079208	M4 x .7	8	200	200
0078209	0079209	M4 x .7	10	200	100
0078210	0079210	M4 x .7	12	200	100
0078211	0079211	M4 x .7	16	200	100
0078212	0079212	M4 x .7	20	200	100
0078213	0079213	M4 x .7	25	100	100
0078214	0079214	M4 x .7	30	100	100
0078215	0079215	M4 x .7	40	100	100
0078216	0079216	M5 x .8	10	100	100
0078217	0079217	M5 x .8	12	100	100
0078218	0079218	M5 x .8	16	100	100
0078219	0079219	M5 x .8	20	100	100
0078220	0079220	M5 x .8	25	100	100
0078221	0079221	M5 x .8	30	100	100
0078222	0079222	M5 x .8	40	100	50
0078223	0079223	M5 x .8	50	100	100

PART NUMBER & MATERIAL		Thread Size	L Length	Unit Quantity	
Stainless - A2	Stainless - A4			A2	A4
0078224	0079224	M6 x 1.0	12	100	100
0078225	0079225	M6 x 1.0	16	100	100
0078226	0079226	M6 x 1.0	20	100	100
0078227	0079227	M6 x 1.0	25	100	100
0078228	0079228	M6 x 1.0	30	100	100
0078229	0079229	M6 x 1.0	40	100	50
0078230	0079230	M6 x 1.0	50	50	50
0078231	0079231	M6 x 1.0	60	50	50
0078232	0079232	M8 x 1.25	16	50	50
0078233	0079233	M8 x 1.25	20	50	50
0078234	0079234	M8 x 1.25	25	50	50
0078235	0079235	M8 x 1.25	30	50	50
0078236	0079236	M8 x 1.25	40	50	50
0078237	0079237	M8 x 1.25	50	25	50
0078238	0079238	M8 x 1.25	60	25	25
0078239	0079239	M10 x 1.5	20	50	25
0078240	0079240	M10 x 1.5	30	25	25
0078241	0079241	M10 x 1.5	40	25	25
0078242	0079242	M10 x 1.5	50	25	25
0078243	0079243	M10 x 1.5	60	25	25
0078244	0079244	M10 x 1.5	70	25	10
0078245	0079245	M12 x 1.75	20	25	50
0078246	0079246	M12 x 1.75	30	25	10
0078247	0079247	M12 x 1.75	40	25	10
0078248	0079248	M12 x 1.75	50	25	10
0078249	0079249	M12 x 1.75	60	25	10

DIN 933 Hexagon Head Metric Set Screws - Steel

Dim	Screw Size						
	M3	M4	M5	M6	M8	M10	M12
D	5.50	7.00	8.00	10.00	13.00	17.00	19.00
H	2.00	2.80	3.50	4.00	5.30	6.40	7.50



Specifications: RoHS ✓
Material: Stainless Steel or BZP Steel
Colour: Self



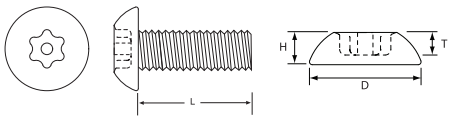
PART NUMBER & MATERIAL GRADE			Thread Size	L Length	Unit Quantity		
Stainless - A2	Stainless - A4	Steel - BZP			A2	A4	Steel - BZP
0038292	0039292	-	M4 x .7	8	200	200	-
0038293	0039293	0037293	M4 x .7	10	200	200	500
0038294	0039294	0037294	M4 x .7	12	200	200	500
0038295	0039295	0037295	M4 x .7	16	200	200	500
0038296	0039296	0037296	M4 x .7	20	200	200	500
0038297	0039297	0037297	M4 x .7	25	200	200	500
0038305	0039305	0037305	M5 x .8	8	200	200	500
0038306	0039306	0037306	M5 x .8	10	200	200	500
0038307	0039307	0037307	M5 x .8	12	200	200	500
0038308	0039308	0037308	M5 x .8	16	200	200	500
0038309	0039309	0037309	M5 x .8	20	200	200	500
0038310	0039310	0037310	M5 x .8	25	200	100	500
0038311	0039311	0037311	M5 x .8	30	200	100	500
0038313	0039313	0037313	M5 x .8	40	200	100	200
0038319	0039319	0037319	M6 x 1.0	10	200	100	500
0038320	0039320	0037320	M6 x 1.0	12	200	100	500
0038321	0039321	0037321	M6 x 1.0	16	200	100	500
0038322	0039322	0037322	M6 x 1.0	20	200	100	500
0038323	0039323	0037323	M6 x 1.0	25	100	100	500
0038324	0039324	0037324	M6 x 1.0	30	100	100	500
0038325	0039325	0037325	M6 x 1.0	35	100	100	200
0038326	0039326	0037326	M6 x 1.0	40	100	100	200
0038327	0039327	0037327	M6 x 1.0	45	100	100	200
0038328	0039328	0037328	M6 x 1.0	50	100	100	200

PART NUMBER & MATERIAL GRADE			Thread Size	L Length	Unit Quantity		
Stainless - A2	Stainless - A4	Steel - BZP			A2	A4	Steel - BZP
0038331	0039331	0037331	M8 x 1.25	12	100	100	200
0038332	0039332	0037332	M8 x 1.25	16	100	100	200
0038333	0039333	0037333	M8 x 1.25	20	100	100	200
0038334	0039334	0037334	M8 x 1.25	25	100	100	200
0038335	0039335	0037335	M8 x 1.25	30	100	50	200
0038336	0039336	0037336	M8 x 1.25	35	100	50	200
0038337	0039337	0037337	M8 x 1.25	40	100	50	200
0038338	0039338	0037338	M8 x 1.25	45	50	50	200
0038339	0039339	0037339	M8 x 1.25	50	50	50	200
0038341	0039341	0037341	M8 x 1.25	60	50	50	200
0038349	0039349	0037349	M10 x 1.5	25	50	25	200
0038350	0039350	0037350	M10 x 1.5	30	50	25	200
0038351	0039351	0037351	M10 x 1.5	35	50	25	100
0038352	0039352	0037352	M10 x 1.5	40	50	25	100
0038353	0039353	0037353	M10 x 1.5	45	50	25	100
0038354	0039354	0037354	M10 x 1.5	50	50	25	100
0038356	0039356	0037356	M10 x 1.5	60	25	25	100
0038362	0039362	0037362	M12 x 1.75	30	25	25	100
0038364	0039364	0037364	M12 x 1.75	40	25	25	100
0038366	0039366	0037366	M12 x 1.75	50	25	25	100
0038368	0039368	0037368	M12 x 1.75	60	25	10	100
0038370	0039370	0037370	M12 x 1.75	70	25	10	50
0038372	0039372	0037372	M12 x 1.75	80	25	10	50



Tamper TX Button Head Security Machine Screws - Stainless Steel

Specifications: RoHS ✓
Material: A2 Stainless Steel
Colour: Self



Dim	Screw Size					
	M3	M4	M5	M6	M8	M10
D	5.6	7.4	9.3	10.25	13.8	17.3
H	1.5	2.0	2.65	3.15	4.25	5.35
T (min)	0.8	1.2	1.3	1.4	2.7	2.8
Drive	TX-10	TX-20	TX-25	TX-30	TX-40	TX-45

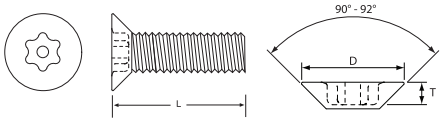
PART NUMBER	Thread Size	L - Length	Bit/Key	Unit Quantity
0228101	M3 x 0.5	6	TX-10	200
0228102	M3 x 0.5	8	TX-10	200
0228103	M3 x 0.5	10	TX-10	200
0228104	M3 x 0.5	12	TX-10	200
0228105	M3 x 0.5	16	TX-10	200
0228106	M3 x 0.5	20	TX-10	200
0228107	M4 x 0.7	8	TX-20	200
0228108	M4 x 0.7	10	TX-20	200
0228109	M4 x 0.7	12	TX-20	200
0228110	M4 x 0.7	16	TX-20	200
0228111	M4 x 0.7	20	TX-20	200
0228112	M4 x 0.7	25	TX-20	200
0228113	M4 x 0.7	30	TX-20	200
0228114	M5 x 0.8	10	TX-25	200
0228115	M5 x 0.8	12	TX-25	200
0228116	M5 x 0.8	16	TX-25	200
0228117	M5 x 0.8	20	TX-25	200
0228118	M5 x 0.8	25	TX-25	200
0228119	M5 x 0.8	30	TX-25	200

PART NUMBER	Thread Size	L - Length	Bit/Key	Unit Quantity
0228120	M6 x 1.0	12	TX-30	100
0228121	M6 x 1.0	16	TX-30	100
0228122	M6 x 1.0	20	TX-30	100
0228123	M6 x 1.0	25	TX-30	100
0228124	M6 x 1.0	30	TX-30	100
0228125	M6 x 1.0	40	TX-30	100
0228126	M6 x 1.0	50	TX-30	100
0228127	M8 x 1.25	12	TX-40	100
0228128	M8 x 1.25	16	TX-40	100
0228129	M8 x 1.25	20	TX-40	100
0228130	M8 x 1.25	25	TX-40	100
0228131	M8 x 1.25	30	TX-40	100
0228132	M8 x 1.25	40	TX-40	100
0228133	M8 x 1.25	50	TX-40	100
0228134	M10 x 1.5	20	TX-45	100
0228135	M10 x 1.5	25	TX-45	100
0228136	M10 x 1.5	30	TX-45	100
0228137	M10 x 1.5	40	TX-45	100
0228138	M10 x 1.5	50	TX-45	100



Tamper TX Countersunk Security Machine Screws - Stainless Steel

Specifications: RoHS ✓
Material: A2 Stainless Steel
Colour: Self



Dim	Screw Size			
	M3	M4	M5	M6
D	5.8	7.8	9.8	11.8
T (min)	0.8	1.2	1.3	1.4
Drive	TX-10	TX-20	TX-25	TX-30

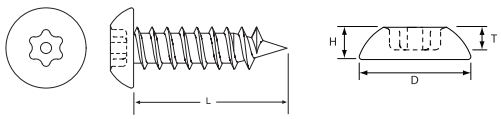
PART NUMBER	Thread Size	L - Length	Bit/Key	Unit Quantity
0228151	M3 x 0.5	6	TX-10	200
0228152	M3 x 0.5	8	TX-10	200
0228153	M3 x 0.5	10	TX-10	200
0228154	M3 x 0.5	12	TX-10	200
0228155	M3 x 0.5	16	TX-10	200
0228156	M3 x 0.5	20	TX-10	200
0228157	M4 x 0.7	8	TX-20	200
0228158	M4 x 0.7	10	TX-20	200
0228159	M4 x 0.7	12	TX-20	200
0228160	M4 x 0.7	16	TX-20	200
0228161	M4 x 0.7	20	TX-20	200
0228162	M4 x 0.7	25	TX-20	200
0228163	M4 x 0.7	30	TX-20	200

PART NUMBER	Thread Size	L - Length	Bit/Key	Unit Quantity
0228164	M5 x 0.8	10	TX-25	200
0228156	M5 x 0.8	12	TX-25	200
0228166	M5 x 0.8	16	TX-25	200
0228167	M5 x 0.8	20	TX-25	200
0228168	M5 x 0.8	25	TX-25	200
0228169	M5 x 0.8	30	TX-25	200
0228170	M6 x 1.0	12	TX-30	100
0228171	M6 x 1.0	16	TX-30	100
0228172	M6 x 1.0	20	TX-30	100
0228173	M6 x 1.0	25	TX-30	100
0228174	M6 x 1.0	30	TX-30	100
0228175	M6 x 1.0	40	TX-30	100



Tamper TX Button Head Security Self Tapping Screws - Stainless Steel

Specifications: RoHS ✓
Material: A2 Stainless Steel
Colour: Self



Dim	Screw Size			
	3.5	4.2	4.8	5.5
D	6.45	7.75	9.0	9.95
H	1.7	2.1	2.45	2.8
T (min)	0.8	0.9	1.5	1.8
Drive	TX-10	TX-15	TX-25	TX-27

PART NUMBER	Thread Size	L Length	Bit/Key	Unit Quantity
0228001	No.6 (3.5)	13	TX-10	200
0228002	No.6 (3.5)	19	TX-10	200
0228003	No.6 (3.5)	25	TX-10	200
0228004	No.6 (3.5)	38	TX-10	200
0228005	No.8 (4.2)	13	TX-15	200
0228006	No.8 (4.2)	19	TX-15	200
0228007	No.8 (4.2)	25	TX-15	200
0228008	No.8 (4.2)	32	TX-15	200
0228009	No.8 (4.2)	38	TX-15	200

PART NUMBER	Thread Size	L Length	Bit/Key	Unit Quantity
0228010	No.10 (4.8)	19	TX-25	200
0228011	No.10 (4.8)	25	TX-25	200
0228012	No.10 (4.8)	32	TX-25	200
0228013	No.10 (4.8)	38	TX-25	100
0228014	No.12 (5.5)	19	TX-27	100
0228015	No.12 (5.5)	25	TX-27	100
0228016	No.12 (5.5)	32	TX-27	100
0228017	No.12 (5.5)	38	TX-27	100

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Tamper TX Countersunk Security Self Tapping Screws - Stainless Steel

Dim	Screw Size			
	3.5	4.2	4.8	5.5
D	7.65	8.95	10.2	11.5
H	3.3	3.8	4.3	4.75
T (min)	1.15	1.3	1.8	1.93
Drive	TX-15	TX-20	TX-25	TX-27



Specifications: RoHS ✓
Material: A2 Stainless Steel
Colour: Self



PART NUMBER	Thread Size	L Length	Bit/Key	Unit Quantity
0228051	No.6 (3.5)	13	TX-15	200
0228052	No.6 (3.5)	19	TX-15	200
0228053	No.6 (3.5)	25	TX-15	200
0228054	No.6 (3.5)	38	TX-15	200
0228055	No.8 (4.2)	13	TX-20	200
0228056	No.8 (4.2)	19	TX-20	200
0228057	No.8 (4.2)	25	TX-20	200
0228058	No.8 (4.2)	32	TX-20	200
0228059	No.8 (4.2)	38	TX-20	200
0228060	No.8 (4.2)	50	TX-20	200

PART NUMBER	Thread Size	L Length	Bit/Key	Unit Quantity
0228061	No.10 (4.8)	13	TX-25	200
0228062	No.10 (4.8)	19	TX-25	200
0228063	No.10 (4.8)	25	TX-25	200
0228064	No.10 (4.8)	32	TX-25	200
0228056	No.10 (4.8)	38	TX-25	100
0228066	No.12 (5.5)	19	TX-30	100
0228067	No.12 (5.5)	25	TX-30	100
0228068	No.12 (5.5)	32	TX-30	100
0228069	No.12 (5.5)	38	TX-30	100

Tamper TX Security Allen Keys

Specifications: RoHS ✓
Material: Carbon Steel



PART NUMBER	Bit	Unit Quantity
8000108	TX-10	1
8000109	TX-15	1
8000110	TX-20	1
8000111	TX-25	1
8000112	TX-27	1
8000113	TX-30	1
8000114	TX-40	1
8000115	TX-45	1

Tamper TX Security Insert Bits

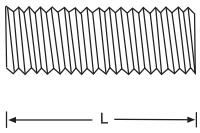
Specifications: RoHS ✓
Material: Carbon Steel

All bits are 1/4" A/F x 25mm long



PART NUMBER	Bit	Unit Quantity
8000100	TX-10	1
8000101	TX-15	1
8000102	TX-20	1
8000103	TX-25	1
8000104	TX-27	1
8000105	TX-30	1
8000106	TX-40	1
8000107	TX-45	1

DIN 975 Allthread Studding - Stainless Steel



Specifications: RoHS ✓
Material: Stainless Steel
Colour: Self



PART NUMBER & MATERIAL GRADE		Thread Size	L Length	Unit Quantity	
A2	A4			A2	A4
0148910	0149910	M3 x 0.5	1 metre	10	10
0148919	0149919	M4 x 0.7	1 metre	10	10
0148920	0149920	M5 x 0.8	1 metre	10	1
0148921	0149921	M6 x 1.0	1 metre	10	5
0148922	0149922	M8 x 1.25	1 metre	10	5
0148923	0149923	M10 x 1.5	1 metre	3	1
0148924	0149924	M12 x 1.75	1 metre	1	1
0148928	0149928	M16 x 2.0	1 metre	1	1
0148932	0149932	M20 x 2.5	1 metre	1	1

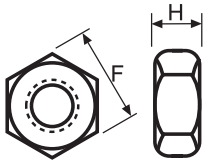
Cut lengths are also available to order.

Please contact our Sales Department for further information.



DIN 934 Hexagon Full Nuts - Steel

Specifications: RoHS ✓
Material: Stainless Steel or BZP Steel
Colour: Self

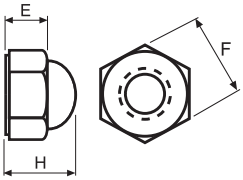


PART NUMBER & MATERIAL GRADE			Thread Size	F	H	Unit Quantity		
A2	A4	BZP Steel			(max)	A2	A4	BZP Steel
0088000	0089000	-	M2 x 0.4	4.0	1.6	1,000	500	-
0088001	0089001	-	M2.5 x 0.45	5.0	2.0	1,000	500	-
0088002	0089002	-	M3 x 0.5	5.5	2.4	1,000	1,000	-
0088003	0089003	0087003	M4 x 0.7	7.0	3.2	1,000	1,000	1,000
0088004	0089004	0087004	M5 x 0.8	8.0	4.0	1,000	1,000	1,000
0088005	0089005	0087005	M6 x 1.0	10.0	5.0	1,000	500	200
0088006	0089006	0087006	M8 x 1.25	13.0	6.5	500	250	200
0088007	0089007	0087007	M10 x 1.5	17.0	8.0	200	100	200
0088008	0089008	0087008	M12 x 1.75	19.0	10.0	50	100	100
0088009	0089009	0087009	M16 x 2.0	24.0	13.0	50	50	100
0088010	0089010	0087010	M20 x 2.5	30.0	16.0	25	250	100



DIN 1587 Hexagon Dome Nuts - Steel

Specifications: RoHS ✓
Material: Stainless Steel or BZP Steel
Colour: Self

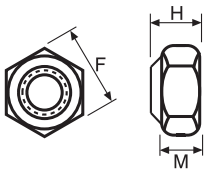


PART NUMBER & MATERIAL GRADE			Thread Size	Thread Depth (min)	F	H	E	Unit Quantity		
A2	A4	BZP Steel					(max)	A2	A4	BZP Steel
0098000	0099000	0097000	M3 x 0.5	3.6	5.5	6.0	2.4	100	50	500
0098001	0099001	0097001	M4 x 0.7	5.26	7.0	8.0	3.2	100	100	500
0098002	0099002	0097002	M5 x 0.8	7.21	8.0	10.0	4.0	100	100	200
0098003	0099003	0097003	M6 x 1.0	7.71	10.0	12.0	5.0	100	100	200
0098004	0099004	0097004	M8 x 1.25	10.65	13.0	15.0	6.5	50	50	100
0098005	0099005	0097005	M10 x 1.5	12.65	17.0	18.0	8.0	25	250	100
0098006	0099006	0097006	M12 x 1.75	15.65	19.0	22.0	10.0	25	10	50



DIN 985 Self-Locking Nylon Insert Hexagon Nuts (Type T) - Steel

Specifications: RoHS ✓
Material: Insert: Nylon
Nut: Stainless Steel or BZP Steel
Colour: Self

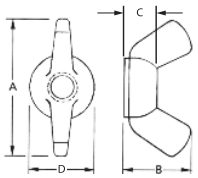


PART NUMBER & MATERIAL GRADE			Thread Size	F	H	M	Unit Quantity		
A2	A4	BZP Steel					A2	A4	BZP Steel
0088100	0089100	0087100	M3 x 0.5	5.5	4.0	2.4	1,000	500	1,000
0088101	0089101	0087101	M4 x 0.7	7.0	5.0	2.9	1,000	500	1,000
0088102	0089102	0087102	M5 x 0.8	8.0	5.0	3.2	1,000	500	1,000
0088103	0089103	0087103	M6 x 1.0	10.0	6.0	4.0	500	500	200
0088104	0089104	0087104	M8 x 1.25	13.0	8.0	5.5	250	250	200
0088105	0089105	0087105	M10 x 1.5	17.0	10.0	6.5	100	200	200
0088106	0089106	0087106	M12 x 1.75	19.0	12.0	8.0	100	100	100



Metric Wing Nuts (Light Pattern CF) - Steel

Specifications: RoHS ✓
Material: Stainless Steel or BZP Steel
Colour: Self



PART NUMBER & MATERIAL GRADE			Thread Size	A	B	C	D	Unit Quantity		
A2	A4	BZP Steel						A2	A4	BZP Steel
0108754	0109754	0107754	M3 x 0.5	18.7	8.6	3.3	8.0	100	200	200
0108755	0109755	0107755	M4 x 0.7	18.7	8.6	3.3	8.0	100	200	500
0108756	0109756	0107756	M5 x 0.8	22.5	10.5	3.8	11.0	100	200	200
0108757	0109757	0107757	M6 x 1.0	27.2	12.7	4.7	13.0	100	100	200
0108758	0109758	0107758	M8 x 1.25	30.0	14.6	5.6	16.0	50	100	400
0108759	0109759	0107759	M10 x 1.5	35.0	16.7	6.3	20.0	25	100	250
0108760	0109760	0107760	M12 x 1.75	47.6	22.3	7.5	23.0	10	50	100

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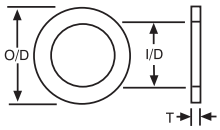
Flat Washers - Steel



Specifications: RoHS ✓
Material: Stainless Steel or BZP Steel
Colour: Self



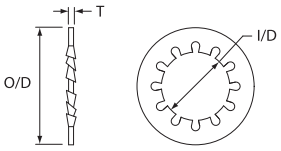
DIN 125 Form A

PART NUMBER & MATERIAL GRADE			I/D (Nom.)	O/D	T	Unit Quantity		
A2	A4	BZP - Steel				A2	A4	BZP Steel
0110863	0110963	-	M2	5.0	0.3	2,000	1,000	-
0110864	0110964	-	M2.5	6.0	0.5	4,000	1,000	-
0110865	0110965	0111065	M3	7.0	0.5	2,500	1,000	500
0110867	0110967	0111067	M4	9.0	0.8	2,000	1,000	500
0110868	0110968	0111068	M5	10.0	1.0	2,000	1,000	200
0110869	0110969	0111069	M6	12.0	1.6	1,000	1,000	200
0110870	0110970	0111070	M8	16.0	1.6	500	500	200
0110871	0110971	0111071	M10	20.0	2.0	250	200	200
0110872	0110972	0111072	M12	24.0	2.5	200	100	200
0110873	0110973	0111073	M16	30.0	3.0	100	50	200
0110874	0110974	0111074	M20	37.0	3.0	50	25	100

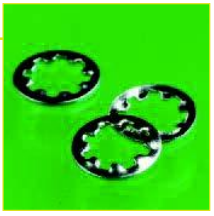
BS4320 Form B

PART NUMBER & MATERIAL GRADE		I/D (Nom.)	O/D	T	Unit Quantity	
A2	A4				A2	A4
0110568	-	M5	10.0	0.8	1,000	-
0110569	0110669	M6	12.5	0.9	1,000	1,000
0110570	0110670	M8	17.0	1.1	1,000	500
0110571	0110671	M10	21.0	1.45	500	250
0110572	0110672	M12	24.0	1.8	250	200
0110573	0110673	M16	30.0	2.2	200	100
0110574	0110674	M20	37.0	2.2	100	50

DIN 6797/J Internal Toothed Shakeproof Washers - Steel

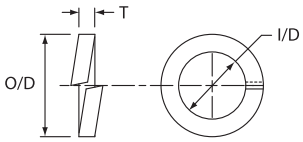


Specifications: RoHS ✓
Material: Stainless Steel or BZP Steel
Colour: Self



PART NUMBER & MATERIAL GRADE			I/D (Nominal)	O/D	T	Unit Quantity		
A2	A4	BZP - Steel				A2	A4	BZP - Steel
-	0110463	-	M2	4.5	0.3	-	1,000	-
0110364	0110464	-	M2.5	5.5	0.4	1,000	1,000	-
0110365	0110465	0111365	M3	6	0.4	1,000	1,000	2,000
0110367	0110467	0111367	M4	8	0.5	1,000	1,000	2,000
0110368	0110468	0111368	M5	10	0.6	1,000	1,000	1,000
0110369	0110469	0111369	M6	11	0.7	1,000	1,000	1,000
0110370	0110470	0111370	M8	15	0.8	500	500	1,000
0110371	0110471	0111371	M10	18	0.9	250	250	1,000
0110372	0110472	0111372	M12	20.5	1	250	250	1,000
0110373	0110473	0111373	M16	26	1.2	100	100	500
0110374	0110474	0111374	M20	33	1.4	50	50	250

DIN 7980 Single Coil Square Section Spring Washers - Steel



Specifications: RoHS ✓
Material: Stainless Steel or BZP Steel
Colour: Self



PART NUMBER & MATERIAL GRADE			I/D (Nominal)	O/D	T	Unit Quantity		
A2	A4	BZP - Steel				A2	A4	BZP - Steel
0110163	0110263	-	M2	4	0.89	2,000	1,000	-
0110164	-	-	M2.5	4.4	0.89	2,000	1,000	-
0110165	0110265	0111165	M3	5.6	1	2,000	1,000	1,000
0110167	0110267	0111167	M4	7	1.2	2,000	1,000	1,000
0110168	0110268	0111168	M5	8.8	1.6	1,000	1,000	1,000
0110169	0110269	0111169	M6	9.9	1.6	1,000	1,000	1,000
0110170	0110270	0111170	M8	12.7	2	1,000	500	1,000
0110171	0110271	0111171	M10	16	2.5	500	500	1,000
0110172	0110272	0111172	M12	18	2.5	250	250	500
0110173	0110273	0111173	M16	24.4	3.5	100	100	250
0110174	0110274	0111174	M20	30.6	4.5	50	50	100

Self Threading Stamped Nuts - For Smooth Pins



- To lock smooth shafts in panels or any elements with a flat surface
- To be screwed onto smooth metal studs/shafts with a hardness of 50kg/mm² max

NEW

Specifications: RoHS ✓
Material: Carbon Steel
Finish: See Table

Salt Spray Protection: See table



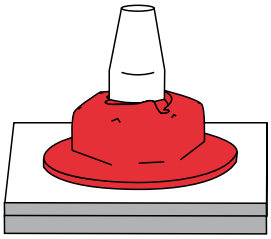
Type 1

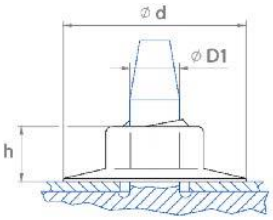


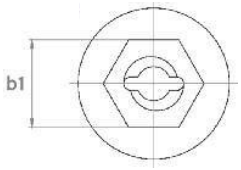
Type 2

PART NUMBER	Design Type	Stud Size (D1)	Outside Diameter (d)	Height (h)	Across Flats (b1)	Material Thickness	Finish	Salt Spray Resistance Hours*	Unit Quantity
0251350	1	3.0	13.5	4.25	8.0	0.5	Zinc Plated Chromate3 Silver	200/384	500
0251351	1	4.0	14.5	4.5	9.0	0.5	Zinc Plated Chromate3 Silver	200/384	500
0251352	1	5.0	14.5	4.5	9.0	0.5	Zinc Plated Chromate3 Silver	200/384	500
0251353	1	6.0	15.1	5.8	11.0	0.5	Zinc Plated Chromate3 Silver	200/384	1,000
0251354	2	5.0	15.0	5.4	10.0	0.4	Zinc Nickel Silver	200/400	1,000
0251355	2	8.0	13.0	7.9	20.0	0.6	Zinc Plated Silver	- / 96	1,000

*Salt Spray Protection data for reference only







Self Threading Stamped Nuts - For Threaded Studs



- To lock threaded metric shafts, studs or bolts in panels or any elements with a flat surface
- For installation with open ended or ring spanners

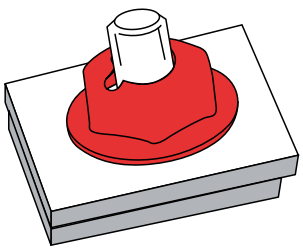
NEW

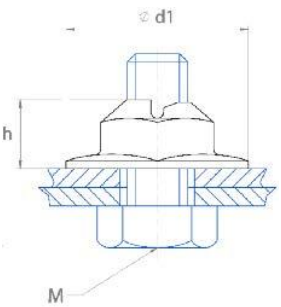
Specifications: RoHS ✓
Material: Carbon Steel (Except marked * - Copper)
Finish: See Table

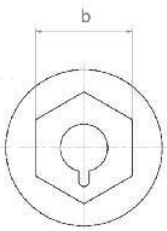
Salt Spray Protection: See table

PART NUMBER	Thread Size (M)	Outside Diameter (d1)	Height (h)	Across Flats (b)	Material Thickness	Finish	Salt Spray Resistance Hours*	Unit Quantity
0251356	M4	13.0	5.2	9.0	0.4	Phosphated - Silver	- / 20	1,000
0251357	M5	14.0	5.8	10.0	0.38	Copper - Natural	N/A	1,000
0251358	M5	14.0	6.4	10.0	0.46	Zinc Plated - Silver	- / 96	1,000
0251359	M5	14.5	5.0	9.0	0.45	Zinc Plated Chromate3 - Silver	200/384	500
0251360	M6	15.0	6.5	11.0	0.55	Zinc Plated Chromate3 - Silver	200/384	1,000
0251361	M6	24.0	7.8	11.0	0.46	Zinc Plated/Aluminium	- / 96	1,000

*Salt Spray Protection data for reference only







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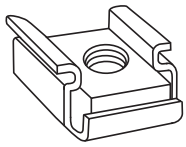
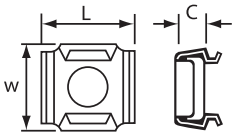
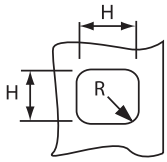
Cage Nuts









Specifications: RoHS ✓

Material: Cage - CS70 Carbon Spring Steel
Nut: - Low Carbon Mild Steel

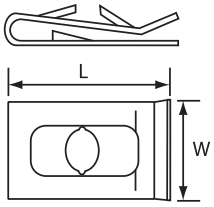
Plating: Electroplate & Clear Passivate
Salt Spray Protection: 72 Hours minimum

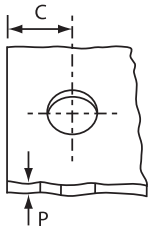
- Cage nuts combine the best advantages of spring steel fasteners with the high strength of a multi-threaded nut
- Snaps easily into position without the need for special tools
- The nut floats within the cage to offset normal hole misalignment

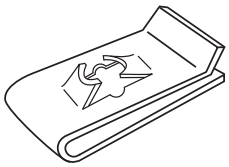
PART NUMBER	Thread Size	Panel Range	L	W	C	H	R	Unit Quantity
0251000CP	M4	0.7/1.6	13.5	13.5	6.5	9.5	0.8	1,000
0251001CP	M4	1.8/2.6	13.5	13.5	6.5	9.5	0.8	1,000
0251002CP	M5	0.7/1.6	13.5	13.5	6.5	9.5	0.8	1,000
0251003CP	M5	1.8/2.6	13.5	13.5	6.5	9.5	0.8	1,000
0251006CP	M6	0.7/1.6	13.5	13.5	6.5	9.5	0.8	1,000
0251007CP	M6	1.8/2.6	13.5	13.5	6.5	9.5	0.8	1,000
0251012CP	M8	0.7/1.7	17.8	17.8	7.2	12.8	3.2	1,000
0251013CP	M8	1.7/3.1	17.8	17.8	7.2	12.8	3.2	1,000
0252000CP	M4	0.7/1.6	13.5	13.5	6.5	9.5	0.8	1,000
0252001CP	M4	2.2/3.1	13.5	13.5	6.5	9.5	0.8	1,000
0252002CP	M5	0.7/1.6	13.5	13.5	6.5	9.5	0.8	1,000
0252003CP	M5	2.2/3.1	13.5	13.5	6.5	9.5	0.8	1,000
0252004CP	M6	0.7/1.6	13.5	13.5	6.5	9.5	0.8	1,000
0252005CP	M6	2.2/3.1	13.5	13.5	6.5	9.5	0.8	1,000

'U' Nuts









Specifications: RoHS ✓

Material: Austempered CS70 Carbon Spring Steel
Salt Spray Protection:
Electroplate & Colour Passivate, Electroplate & Clear Passivate: 72 hours minimum
Phosphate & Delta Tone Black: 250 hours minimum

- 'U' Nut Fasteners press easily into self retained position over panel edges or in centre panel locations
- They are ideally suited for blind assembly installations and offer floating alignment to speed production

PART NUMBER & PLATING		Screw Size	P	C	L	W	Unit Quantity
Electroplate & Colour Passivate	Electroplate & Clear Passivate						
0257001ZP	0257001CP	4	0.7/1.2	4.8	11.2	7.9	1,000
0257006ZP	0257006CP	6	0.7/1.6	6.7	16.5	11.2	1,000
0257008ZP	0257008CP	6	0.9/1.2	5.5	11.7	7.9	1,000
0257013ZP	0257013CP	6	1.9/2.1	3.0	9.4	7.9	1,000
0257016ZP	0257016CP	8	0.7/1.6	6.7	16.5	11.2	1,000
0257021ZP	0257021CP	8	1.2/1.6	5.5	14.5	12.7	1,000
0257031ZP	0257031CP	10	0.9/2.1	7.9	19.8	12.7	1,000
0257047ZP	0257047CP	M4	0.7/1.6	6.7	16.5	11.2	1,000
0257049ZP	0257049CP	M5	0.7/1.7	8.0	17.5	11.9	1,000
0257050ZP	0257050CP	M6	0.9/2.6	10.3	21.1	14.0	1,000

Recommended Installation Torque Data for 'U' Nuts

Screw Size	lbs.ins	N.m
4	6	0.68
6	12	1.35
8	18	2.03
10	24	2.71
M6	16	1.81
M5	11	1.24
M4	6	0.68

Snap on Panel Nuts for Metric Threads



- To fix elements with metric bolts in a panel with holes
- The nut is slid onto the panel edge and over the panel hole (or through a second hole when fitted mid panel)
- Design allows variable panel thickness with the thread remaining parallel to the surface

Specifications: RoHS ✓

Material: Carbon Steel (Except marked * - Stainless Steel)

Finish: See Table

Salt Spray Protection: See table

PART NUMBER	Design Type	Thread Size (M)	Panel Thickness (F)	Length x Width (l x b)	Max Distance (A)	Hole Diameter (R)	Material Thickness (s)	Finish	Salt Spray Resistance Hours*	Unit Quantity
0251302	1	M5	0.5-4.0	15.2x12.0	6.8	6.0	0.6	Magni 2.1 Silver	200/600	1,000
0251303	1	M5	0.5-4.0	15.2x12.0	6.8	6.0	0.6	Zinc Plated Chromate3 Silver	200/384	1,000
0251304	1	M5	0.5-4.0	19.9x13.8	10.0	7.5	0.6	Zinc Plated Chromate3 Silver	200/384	1,000
0251309	1	M6	0.5-4.0	24.1x16.0	11.5	7.0	0.8	Magni 2.2 Black	200/600	500
0251310	1	M6	0.5-4.0	24.1x16.0	11.5	7.0	0.8	Zinc Plated Chromate3 Silver	200/384	500
0251312	1	M8	0.8-4.0	28.0x18.0	13.0	9.0	1.0	Zinc Plated Chromate3 Silver	200/384	400
0251313	1	M8	0.8-4.0	28.0x18.0	13.0	9.0	1.0	Magni 3.0 Silver	200/720	400
0251305	2	M5	0.8-4.3	20.8x15.0	10.5	7.5	0.6	Magni 2.1 Silver	200/600	2 ,300
0251306	2	M5	0.8-4.3	20.8x15.0	10.5	7.5	0.6	Zinc Plated Chromate3 Silver	200/384	2 ,300
0251308	2	M6	0.5-4.0	22.3x15.0	11.0	8.5	0.8	Zinc Plated Chromate3 Silver	200/384	600
0251311	2	M8	0.5-4.0	25.5x17.0	13.0	11.2	1.0	Zinc Plated Chromate3 Silver	200/384	500
0251317	3	M6	0.8-4.0	24.3x15.0	12.5	10.0	0.8	Magni 2.0 Silver	200/600	500
0251316	3	M6	0.8-4.0	30.3x15.0	18.5	10.0	0.8	Magni 1.1 Silver	-	400
0251314	3	M8	1.5-5.5	24.9x17.0	13.0	11.7	1.0	Zinc Plated	- / 96	400
0251315	3	M10	1.5-5.5	32.5x24.5	17.5	15.0	1.4	Phosphated	- / 20	350
0251300	4	M4	0.8-4.3	16.9x15.0	7.0	7.0	0.5	Magni 2.0 Silver	200/600	1,000
0251301*	4	M4	0.8-4.3	16.9x15.0	7.0	7.0	0.5	Stainless - Natural	N/A	1,000
0251307	4	M5	0.8-4.3	16.9x17.0	7.0	8.0	0.6	Zinc Plated Chromate3 Silver	200/384	500

*Salt Spray Protection data for reference only



Type 1



Type 2

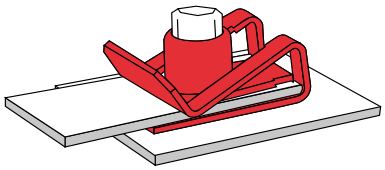


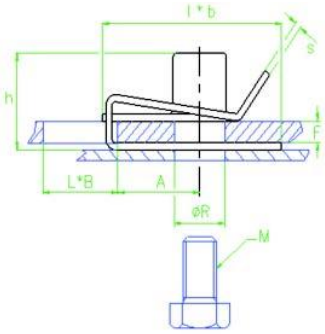
Type 3



Type 4

NEW





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Stainless Steel Fastener Assortment Kits



Specifications: RoHS ✓
Material: Stainless Steel
Colour: Self

PART NUMBER	Description	Unit Quantity
0821005	DIN 933 Hexagon Set Screws Assortment Kit	1
0821006	DIN 7982C Pozi Countersunk Self Tapping Screws Assortment Kit	1
0821007	DIN 934 Nuts & BS4320 Washers Assortment Kit	1
0821008	DIN 7981C Pozi Pan Self Tapping Screws Assortment Kit	1
0821009	DIN 7991 Socket Countersunk Screws Assortment Kit	1
0821010	DIN 7985Z Pozi Pan Machine Screws Assortment Kit	1
0821011	DIN 7997Z Pozi Countersunk Woodscrews Assortment Kit	1
0821012	DIN 965Z Pozi Countersunk Machine Screws Assortment Kit	1
0821013	DIN 912 Socket Cap Screws Assortment Kit	1
0821014	ISO 7380 Socket Button Screws Assortment Kit	1

0821005
DIN 933 Hex Set Screws

Items	Quantity
M6 x 12	25
M6 x 16	25
M6 x 20	25
M6 x 25	25
M8 x 16	20
M8 x 20	20
M8 x 25	20
M8 x 30	20
M10 x 25	10
M10 x 30	10

0821006
DIN 7982C Pozi Countersunk Self Tapping Screws

Items	Quantity
2.9 x 13	100
2.9 x 16	100
3.5 x 13	100
3.5 x 19	100
3.5 x 25	100
4.2 x 13	100
4.2 x 19	100
4.2 x 25	100
4.8 x 16	50
4.8 x 25	50

0821007
DIN 934 Nuts & BS4320 Washers

Items	Quantity
M5 Full Nut	150
M6 Full Nut	100
M8 Full Nut	50
M10 Full Nut	25
M12 Full Nut	15
M5 Form B Washer	200
M6 Form B Washer	150
M8 Form B Washer	100
M10 Form B Washer	50
M12 Form B Washer	50

0821008
DIN 7981C Pozi Pan Self Tapping Screws

Items	Quantity
2.9 x 13	100
2.9 x 16	100
3.5 x 13	100
3.5 x 19	100
3.5 x 25	100
4.2 x 13	100
4.2 x 19	100
4.2 x 25	100
4.8 x 16	50
4.8 x 25	50

0821009
DIN 7991 Socket Countersunk Screws

Items	Quantity
M5 x 12	50
M5 x 16	50
M5 x 20	50
M6 x 12	50
M6 x 16	50
M6 x 20	50
M6 x 25	50
M8 x 20	20
M8 x 25	20
M8 x 30	20

0821010
DIN 7985Z Pozi Pan Machine Screws

Items	Quantity
M4 x 10	50
M4 x 12	50
M4 x 16	50
M5 x 12	50
M5 x 16	50
M5 x 20	50
M6 x 12	25
M6 x 16	25
M6 x 20	25
M6 x 25	25

0821011
DIN 7997Z Pozi Countersunk Woodscrews

Items	Quantity
3.5 x 16	100
3.5 x 20	100
3.5 x 25	100
4.0 x 20	50
4.0 x 25	50
4.0 x 30	50
5.0 x 25	50
5.0 x 30	50
5.0 x 40	50
5.0 x 50	25

0821012
DIN 965Z Pozi Countersunk Machine Screws

Items	Quantity
M4 x 10	50
M4 x 12	50
M4 x 16	50
M5 x 12	50
M5 x 16	50
M5 x 20	50
M6 x 12	50
M6 x 16	50
M6 x 20	50
M6 x 25	50

0821013
DIN 912 Socket Cap Screws

Items	Quantity
M5 x 12	25
M5 x 16	25
M5 x 20	25
M6 x 12	25
M6 x 16	25
M6 x 20	25
M6 x 25	25
M8 x 16	25
M8 x 20	25
M8 x 25	25

0821014
ISO 7380 Socket Button Screws

Items	Quantity
M5 x 12	50
M5 x 16	50
M5 x 20	50
M6 x 12	25
M6 x 16	25
M6 x 20	25
M6 x 25	25
M8 x 20	20
M8 x 25	20
M8 x 30	20

CANNOT FIND THE KIT YOU NEED?

We can supply kits of screws in various other sizes and head forms.

Please contact our Sales Dept to discuss your requirements on 01202 865222



Edge Clips - Standard Type

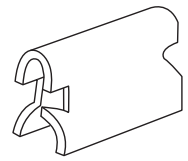
- Edge Clips are economical, lightweight fasteners which can be used to hold panels or components to other panels or flanges
- They are simply pushed or tapped into place where the barbs retain them securely in position

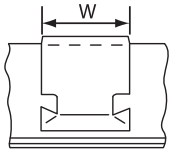
Specifications: RoHS ✓

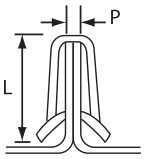
Material:
Austempered CS70 Carbon Spring Steel

Salt Spray Protection:
250 hours minimum

PART NUMBER & PLATING Phosphate & Delta Tone Black	P	L	W	Unit Quantity
0255000BP	0.4/1.1	8.7	12.7	1,000
0255001BP	0.4/1.2	8.7	15.9	1,000
0255002BP	0.4/2.0	9.4	12.7	1,000
0255003BP	0.4/2.0	14.3	12.7	1,000
0255004BP	0.4/2.4	6.4	38.1	1,000
0255005BP	0.8/1.6	8.3	12.7	1,000
0255006BP	0.8/2.0	8.0	12.7	1,000
0255007BP	0.8/2.0	8.7	12.7	1,000
0255008BP	0.9/1.6	4.3	13.0	1,000
0255009BP	1.0/2.0	8.7	12.7	1,000
0255010BP	1.2/2.0	6.4	38.1	1,000
0255011BP	1.2/2.0	8.7	12.7	1,000
0255012BP	1.2/2.0	14.3	12.7	1,000
0255013BP	1.4/1.6	8.7	12.7	1,000
0255014BP	1.4/2.6	4.3	13.0	1,000
0255015BP	1.6/2.0	8.7	6.3	1,000
0255016BP	1.6/2.0	8.7	13.0	1,000
0255017BP	1.6/2.4	8.7	14.3	1,000
0255018BP	1.7/3.3	12.5	12.7	1,000
0255019BP	2.0/2.8	8.7	12.7	1,000
0255021BP	2.0/2.9	14.0	12.7	1,000
0255022BP	2.2/4.4	10.7	12.7	1,000
0255023BP	2.3/2.6	6.8	8.0	1,000
0255024BP	2.8/4.0	8.7	12.7	1,000
0255025BP	2.9/3.3	12.5	12.7	1,000
0255026BP	3.1/3.8	12.7	12.7	1,000
0255027BP	3.2/3.6	6.4	13.0	1,000
0255028BP	3.2/3.6	8.7	12.7	1,000
0255029BP	3.2/4.0	8.7	12.7	1,000
0255030BP	3.2/4.8	8.7	12.7	1,000
0255031BP	3.6/4.8	8.7	12.7	1,000
0255032BP	4.4/5.5	9.9	12.7	1,000
0255033BP	4.4/5.6	9.3	12.7	1,000
0255034BP	4.4/5.9	7.1	12.0	1,000
0255035BP	5.2/6.7	10.3	11.1	1,000
0255036BP	5.5/6.0	11.1	12.7	1,000
0255037BP	6.4/7.9	9.9	12.7	1,000
0255038BP	9.2/10.0	10.0	13.0	1,000
0255039BP	10.5/11.5	11.0	15.0	1,000









Edge Clips - 'S' Type

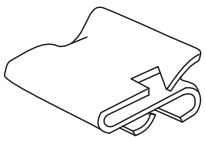
- 'S' Type Edge Clips are designed to hold metal, plastic or wooden panels at 180 degrees to each other
- They are low cost, removable and reusable, requiring only the simplest assembly procedure

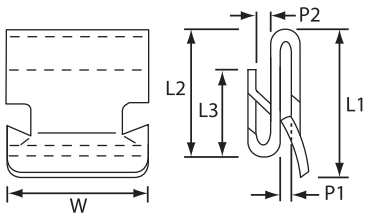
Specifications: RoHS ✓

Material:
Austempered CS70 Carbon Spring Steel

Salt Spray Protection:
250 hours minimum

PART NUMBER & PLATING Phosphate & Delta Tone Black	P1	P2	L1	L2	L3	W	Unit Quantity
0256000BP	0.2/1.2	1.8/2.1	11.9	11.9	8.5	12.7	1,000
0256001BP	0.2/1.2	1.8/2.8	9.9	9.9	9.9	12.7	1,000
0256002BP	0.2/2.0	0.5/0.9	7.9	8.7	7.9	15.9	1,000
0256003BP	0.4/0.5	0.4/0.5	6.9	9.9	11.4	12.7	1,000
0256004BP	0.4/1.4	2.4/4.0	10.5	16.8	7.5	16.0	1,000
0256005BP	0.5/1.2	0.5/1.2	7.9	8.3	7.9	12.7	1,000
0256006BP	0.5/1.2	0.5/1.2	9.7	12.7	9.7	12.7	1,000
0256007BP	0.6/1.2	0.6/1.2	11.2	11.2	11.2	12.7	1,000
0256008BP	0.7/1.2	0.7/1.2	9.9	9.9	9.9	12.7	1,000
0256009BP	0.9/1.9	1.8/2.9	11.1	11.1	11.1	12.7	1,000
0256010BP	1.0/2.0	1.4/2.0	8.7	8.7	8.7	12.7	1,000
0256011BP	1.5/2.4	2.6/3.2	11.9	11.9	11.9	12.7	1,000



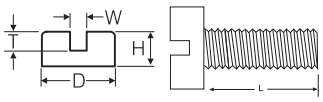


OPTIMAS

T: +44 (0) 1202 865222
E: sales@optimascomponents.com

Cheese Head Slotted Metric Machine Screws - Nylon

Dim	Screw Size								
	M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10
D	3.80	4.50	5.50	6.00	7.00	8.50	10.00	13.00	16.00
H	1.30	1.60	2.00	2.40	2.60	3.30	3.90	5.00	6.00
T	0.90	1.00	1.30	1.40	1.60	2.00	2.30	2.80	3.20
W	0.70	0.80	1.00	1.10	1.20	1.50	1.90	2.30	2.80



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability: UL94V-2



PART NUMBER	Thread Size	L	Unit Qty
0010001	M2 x 0.4	4	1,000
0010002	M2 x 0.4	5	1,000
0010003	M2 x 0.4	6	1,000
0010004	M2 x 0.4	8	1,000
0010005	M2 x 0.4	10	1,000
0010006	M2 x 0.4	12	1,000
0010007	M2 x 0.4	16	1,000
0010009	M2 x 0.4	20	1,000
0010010	M2 x 0.4	25	1,000
0010014	M2.5 x 0.45	4	1,000
0010015	M2.5 x 0.45	5	1,000
0010016	M2.5 x 0.45	6	1,000
0010017	M2.5 x 0.45	8	1,000
0010018	M2.5 x 0.45	10	1,000
0010019	M2.5 x 0.45	12	1,000
0010020	M2.5 x 0.45	16	1,000
0010021	M2.5 x 0.45	20	1,000
0010022	M2.5 x 0.45	25	1,000

PART NUMBER	Thread Size	L	Unit Qty
0010024	M3 x 0.5	3	1,000
0010025	M3 x 0.5	4	1,000
0010026	M3 x 0.5	5	1,000
0010027	M3 x 0.5	6	1,000
0010028	M3 x 0.5	8	1,000
0010029	M3 x 0.5	10	1,000
0010030	M3 x 0.5	12	1,000
0010031	M3 x 0.5	16	1,000
0010032	M3 x 0.5	20	1,000
0010033	M3 x 0.5	25	1,000
0010034	M3 x 0.5	30	1,000
0010038	M3.5 x 0.6	5	1,000
0010039	M3.5 x 0.6	6	1,000
0010040	M3.5 x 0.6	8	1,000
0010041	M3.5 x 0.6	10	1,000
0010042	M3.5 x 0.6	12	1,000
0010043	M3.5 x 0.6	16	1,000
0010044	M3.5 x 0.6	20	1,000
0010045	M3.5 x 0.6	25	1,000
0010047	M3.5 x 0.6	35	1,000

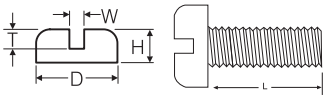
PART NUMBER	Thread Size	L	Unit Qty
0010050	M4 x 0.7	5	1,000
0010051	M4 x 0.7	6	1,000
0010052	M4 x 0.7	8	1,000
0010053	M4 x 0.7	10	1,000
0010054	M4 x 0.7	12	1,000
0010055	M4 x 0.7	16	1,000
0010056	M4 x 0.7	20	1,000
0010057	M4 x 0.7	25	1,000
0010058	M4 x 0.7	30	1,000
0010059	M4 x 0.7	35	1,000
0010060	M4 x 0.7	40	1,000
0010064	M5 x 0.8	6	1,000
0010065	M5 x 0.8	8	1,000
0010066	M5 x 0.8	10	1,000
0010067	M5 x 0.8	12	1,000
0010068	M5 x 0.8	16	1,000
0010069	M5 x 0.8	20	1,000
0010070	M5 x 0.8	25	1,000
0010071	M5 x 0.8	30	1,000
0010072	M5 x 0.8	35	1,000
0010073	M5 x 0.8	40	1,000
0010075	M5 x 0.8	50	1,000

PART NUMBER	Thread Size	L	Unit Qty
0010076	M6 x 1.0	5	1,000
0010077	M6 x 1.0	6	1,000
0010078	M6 x 1.0	8	1,000
0010079	M6 x 1.0	10	1,000
0010080	M6 x 1.0	12	1,000
0010081	M6 x 1.0	16	1,000
0010082	M6 x 1.0	20	1,000
0010083	M6 x 1.0	25	1,000
0010084	M6 x 1.0	30	1,000
0010085	M6 x 1.0	35	1,000
0010086	M6 x 1.0	40	1,000
0010087	M6 x 1.0	45	1,000
0010088	M6 x 1.0	50	1,000
0010090	M6 x 1.0	60	1,000
0010092	M6 x 1.0	70	1,000
0010093	M6 x 1.0	75	1,000

PART NUMBER	Thread Size	L	Unit Qty
0010095	M8 x 1.25	10	1,000
0010096	M8 x 1.25	16	1,000
0010097	M8 x 1.25	20	1,000
0010098	M8 x 1.25	25	1,000
0010099	M8 x 1.25	30	1,000
0010100	M8 x 1.25	35	1,000
0010101	M8 x 1.25	40	1,000
0010103	M8 x 1.25	50	1,000
0010104	M8 x 1.25	60	1,000
0010105	M8 x 1.25	70	1,000
0010106	M8 x 1.25	80	1,000
0010107	M10 x 1.5	16	1,000
0010108	M10 x 1.5	20	1,000
0010109	M10 x 1.5	25	1,000
0010110	M10 x 1.5	30	1,000
0010111	M10 x 1.5	35	1,000
0010114	M10 x 1.5	50	1,000
0010116	M10 x 1.5	60	1,000

Pan Head Slotted Metric Machine Screws - Nylon

Dim	Screw Size								
	M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10
D	3.80	5.00	6.00	7.00	8.00	10.00	12.00	16.00	20.00
H	1.30	1.50	1.80	2.10	2.40	3.00	3.60	4.80	6.00
T	0.60	0.75	0.80	0.95	1.15	1.35	1.70	2.20	2.70
W	0.60	0.70	0.80	1.10	1.30	1.40	1.70	2.10	2.60



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability: UL94V-2



PART NUMBER	Thread Size	L	Unit Qty
0020120	M2 x 0.4	4	1,000
0020121	M2 x 0.4	5	1,000
0020122	M2 x 0.4	6	1,000
0020123	M2 x 0.4	8	1,000
0020124	M2 x 0.4	10	1,000
0020125	M2 x 0.4	12	1,000
0020126	M2 x 0.4	16	1,000
0020127	M2 x 0.4	20	1,000
0020128	M2 x 0.4	25	1,000
0020132	M2.5 x 0.45	4	1,000
0020133	M2.5 x 0.45	5	1,000
0020134	M2.5 x 0.45	6	1,000
0020135	M2.5 x 0.45	8	1,000
0020136	M2.5 x 0.45	10	1,000
0020137	M2.5 x 0.45	12	1,000
0020138	M2.5 x 0.45	16	1,000
0020139	M2.5 x 0.45	20	1,000
0020140	M2.5 x 0.45	25	1,000

PART NUMBER	Thread Size	L	Unit Qty
0020142	M3 x 0.5	3	1,000
0020143	M3 x 0.5	4	1,000
0020144	M3 x 0.5	5	1,000
0020145	M3 x 0.5	6	1,000
0020146	M3 x 0.5	8	1,000
0020147	M3 x 0.5	10	1,000
0020148	M3 x 0.5	12	1,000
0020149	M3 x 0.5	16	1,000
0020150	M3 x 0.5	20	1,000
0020151	M3 x 0.5	25	1,000
0020152	M3 x 0.5	30	1,000
0020156	M3.5 x 0.6	5	1,000
0020157	M3.5 x 0.6	6	1,000
0020158	M3.5 x 0.6	8	1,000
0020159	M3.5 x 0.6	10	1,000
0020160	M3.5 x 0.6	12	1,000
0020161	M3.5 x 0.6	16	1,000
0020162	M3.5 x 0.6	20	1,000
0020163	M3.5 x 0.6	25	1,000
0020164	M3.5 x 0.6	35	1,000

PART NUMBER	Thread Size	L	Unit Qty
0020167	M4 x 0.7	5	1,000
0020168	M4 x 0.7	6	1,000
0020169	M4 x 0.7	8	1,000
0020170	M4 x 0.7	10	1,000
0020171	M4 x 0.7	12	1,000
0020172	M4 x 0.7	16	1,000
0020173	M4 x 0.7	20	1,000
0020174	M4 x 0.7	25	1,000
0020175	M4 x 0.7	30	1,000
0020176	M4 x 0.7	35	1,000
0020177	M4 x 0.7	40	1,000
0020181	M5 x 0.8	6	1,000
0020182	M5 x 0.8	8	1,000
0020183	M5 x 0.8	10	1,000
0020184	M5 x 0.8	12	1,000
0020185	M5 x 0.8	16	1,000
0020186	M5 x 0.8	20	1,000
0020187	M5 x 0.8	25	1,000
0020188	M5 x 0.8	30	1,000
0020189	M5 x 0.8	35	1,000
0020190	M5 x 0.8	40	1,000
0020191	M5 x 0.8	45	1,000
0020192	M5 x 0.8	50	1,000

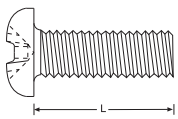
PART NUMBER	Thread Size	L	Unit Qty
0020194	M6 x 1.0	5	1,000
0020196	M6 x 1.0	8	1,000
0020197	M6 x 1.0	10	1,000
0020198	M6 x 1.0	12	1,000
0020199	M6 x 1.0	16	1,000
0020200	M6 x 1.0	20	1,000
0020201	M6 x 1.0	25	1,000
0020202	M6 x 1.0	30	1,000
0020203	M6 x 1.0	35	1,000
0020204	M6 x 1.0	40	1,000
0020205	M6 x 1.0	45	1,000
0020206	M6 x 1.0	50	1,000
0020207	M6 x 1.0	60	1,000
0020208	M6 x 1.0	70	1,000
0020209	M6 x 1.0	75	1,000

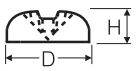
PART NUMBER	Thread Size	L	Unit Qty
0020210	M8 x 1.25	10	1,000
0020212	M8 x 1.25	16	1,000
0020213	M8 x 1.25	20	1,000
0020214	M8 x 1.25	25	1,000
0020215	M8 x 1.25	30	1,000
0020216	M8 x 1.25	35	1,000
0020219	M8 x 1.25	50	1,000
0020220	M8 x 1.25	60	1,000
0020221	M8 x 1.25	70	1,000
0020222	M10 x 1.5	16	1,000
0020223	M10 x 1.5	20	1,000
0020224	M10 x 1.5	25	1,000
0020225	M10 x 1.5	30	1,000
0020226	M10 x 1.5	35	1,000
0020229	M10 x 1.5	50	1,000
0020231	M10 x 1.5	60	1,000



Pan Head Cross Recessed Metric Machine Screws - Nylon

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability: UL94V-2
To DIN34812
(similar to DIN 7985 / EN ISO 7045)





Dim	Screw Size			
	M3	M4	M5	M6
D	5.60	8.00	9.50	12.00
H	2.40	3.10	3.70	4.60

PART NUMBER	Thread Size	L	Unit Qty
0191000	M3 x 0.5	6	1,000
0191001	M3 x 0.5	8	1,000
0191002	M3 x 0.5	10	1,000
0191003	M3 x 0.5	12	1,000
0191004	M3 x 0.5	16	1,000
0191005	M3 x 0.5	20	1,000
0191006	M3 x 0.5	25	1,000
0191007	M3 x 0.5	30	1,000

PART NUMBER	Thread Size	L	Unit Qty
0191008	M4 x 0.7	6	1,000
0191009	M4 x 0.7	8	1,000
0191010	M4 x 0.7	10	1,000
0191011	M4 x 0.7	12	1,000
0191012	M4 x 0.7	16	1,000
0191013	M4 x 0.7	20	1,000
0191014	M4 x 0.7	25	1,000
0191015	M4 x 0.7	30	1,000
0191016	M4 x 0.7	35	1,000
0191017	M4 x 0.7	40	1,000

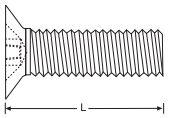
PART NUMBER	Thread Size	L	Unit Qty
0191018	M5 x 0.8	6	1,000
0191019	M5 x 0.8	8	1,000
0191020	M5 x 0.8	10	1,000
0191021	M5 x 0.8	12	1,000
0191022	M5 x 0.8	16	1,000
0191023	M5 x 0.8	20	1,000
0191024	M5 x 0.8	25	1,000
0191025	M5 x 0.8	30	1,000
0191026	M5 x 0.8	35	1,000
0191027	M5 x 0.8	40	1,000
0191028	M5 x 0.8	45	1,000
0191029	M5 x 0.8	50	1,000

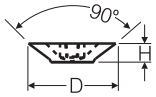
PART NUMBER	Thread Size	L	Unit Qty
0191030	M6 x 1.0	5	1,000
0191031	M6 x 1.0	8	1,000
0191032	M6 x 1.0	10	1,000
0191033	M6 x 1.0	12	1,000
0191034	M6 x 1.0	16	1,000
0191035	M6 x 1.0	20	1,000
0191036	M6 x 1.0	25	1,000
0191037	M6 x 1.0	30	1,000
0191038	M6 x 1.0	35	1,000
0191039	M6 x 1.0	40	1,000
0191040	M6 x 1.0	50	1,000
0191041	M6 x 1.0	60	1,000



Countersunk Head Cross Recessed Metric Machine Screws - Nylon

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability: UL94V-2
To DIN 34811
(similar to DIN 965 / EN ISO 7046)





Dim	Screw Size			
	M3	M4	M5	M6
D	5.50	8.40	9.30	11.30
H	1.65	2.70	2.70	3.30

PART NUMBER	Thread Size	L	Unit Qty
0231000	M3 x 0.5	6	1,000
0231001	M3 x 0.5	8	1,000
0231002	M3 x 0.5	10	1,000
0231003	M3 x 0.5	12	1,000
0231004	M3 x 0.5	15	1,000

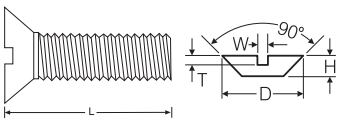
PART NUMBER	Thread Size	L	Unit Qty
0231009	M4 x 0.7	6	1,000
0231010	M4 x 0.7	8	1,000
0231011	M4 x 0.7	10	1,000
0231012	M4 x 0.7	12	1,000
0231013	M4 x 0.7	16	1,000
0231014	M4 x 0.7	20	1,000
0231015	M4 x 0.7	25	1,000

PART NUMBER	Thread Size	L	Unit Qty
0231020	M5 x 0.8	10	1,000
0231021	M5 x 0.8	12	1,000
0231022	M5 x 0.8	16	1,000
0231033	M6 x 1.0	15	1,000
0231036	M6 x 1.0	30	1,000



Countersunk Head Slotted Metric Machine Screws - Nylon

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural



Dim	Screw Size								
	M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10
D	3.80	4.70	5.60	6.5-8.2	7.5-9.4	9.20	11.00	14.5-17.3	18.00
H	1.20	1.50	1.65	2.30	2.70	2.50	3.00	4.00	5.00
T	0.50	0.60	0.70	1.20	1.30	1.20	1.50	1.80	2.30
W	0.50	0.60	0.80	1.20	1.50	1.20	1.60	2.00	2.50

PART NUMBER	Thread Size	L	Unit Qty
0040386	M2 x 0.4	5	1,000
0040387	M2 x 0.4	6	1,000
0040388	M2 x 0.4	8	1,000
0040389	M2 x 0.4	10	1,000
0040390	M2 x 0.4	12	1,000
0040391	M2 x 0.4	16	1,000
0040393	M2 x 0.4	25	1,000
0040395	M2.5 x 0.45	4	1,000
0040396	M2.5 x 0.45	5	1,000
0040397	M2.5 x 0.45	6	1,000
0040398	M2.5 x 0.45	8	1,000
0040399	M2.5 x 0.45	10	1,000
0040400	M2.5 x 0.45	12	1,000
0040401	M2.5 x 0.45	16	1,000
0040402	M2.5 x 0.45	20	1,000
0040403	M2.5 x 0.45	25	1,000

PART NUMBER	Thread Size	L	Unit Qty
0040407	M3 x 0.5	5	1,000
0040408	M3 x 0.5	6	1,000
0040409	M3 x 0.5	8	1,000
0040410	M3 x 0.5	10	1,000
0040411	M3 x 0.5	12	1,000
0040412	M3 x 0.5	15	1,000
0040413	M3 x 0.5	16	1,000
0040414	M3 x 0.5	20	1,000
0040415	M3 x 0.5	25	1,000
0040416	M3 x 0.5	30	1,000
0040417	M3 x 0.5	42	1,000
0040420	M3.5 x 0.6	5	1,000
0040421	M3.5 x 0.6	6	1,000
0040422	M3.5 x 0.6	8	1,000
0040423	M3.5 x 0.6	10	1,000
0040424	M3.5 x 0.6	16	1,000
0040425	M3.5 x 0.6	20	1,000
0040426	M3.5 x 0.6	25	1,000
0040428	M3.5 x 0.6	35	1,000

PART NUMBER	Thread Size	L	Unit Qty
0040429	M4 x 0.7	6	1,000
0040430	M4 x 0.7	8	1,000
0040431	M4 x 0.7	10	1,000
0040432	M4 x 0.7	12	1,000
0040433	M4 x 0.7	15	1,000
0040434	M4 x 0.7	16	1,000
0040435	M4 x 0.7	20	1,000
0040436	M4 x 0.7	25	1,000
0040437	M4 x 0.7	30	1,000
0040438	M4 x 0.7	35	1,000
0040441	M5 x 0.8	6	1,000
0040442	M5 x 0.8	8	1,000
0040443	M5 x 0.8	10	1,000
0040444	M5 x 0.8	12	1,000
0040445	M5 x 0.8	15	1,000
0040446	M5 x 0.8	16	1,000
0040447	M5 x 0.8	20	1,000
0040448	M5 x 0.8	25	1,000
0040449	M5 x 0.8	30	1,000
0040451	M5 x 0.8	40	1,000

PART NUMBER	Thread Size	L	Unit Qty
0040455	M6 x 1.0	8	1,000
0040456	M6 x 1.0	10	1,000
0040457	M6 x 1.0	12	1,000
0040458	M6 x 1.0	16	1,000
0040459	M6 x 1.0	20	1,000
0040460	M6 x 1.0	25	1,000
0040461	M6 x 1.0	30	1,000
0040462	M6 x 1.0	35	1,000
0040463	M6 x 1.0	40	500
0040464	M6 x 1.0	45	500
0040465	M6 x 1.0	50	500
0040467	M6 x 1.0	60	500

PART NUMBER	Thread Size	L	Unit Qty
0040469	M8 x 1.25	16	1,000
0040470	M8 x 1.25	20	1,000
0040471	M8 x 1.25	25	1,000
0040472	M8 x 1.25	30	1,000
0040474	M8 x 1.25	40	500
0040476	M8 x 1.25	50	500
0040480	M10 x 1.5	20	500
0040481	M10 x 1.5	25	500
0040482	M10 x 1.5	30	500
0040483	M10 x 1.5	35	500

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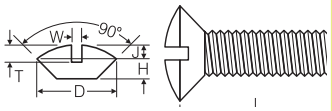
Raised Countersunk Head Slotted Metric Machine Screws - Nylon

Dim	Screw Size								
	M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10
D	4.00	4.70	5.60	6.50	8.0-9.4	9.20	11.00	14.50	18.00
H	1.70	1.85	2.25	2.65	3.00	3.75	4.50	6.00	7.50
J	0.50	0.60	0.75	0.90	1.00	1.25	1.50	2.00	2.50
T	1.00	1.20	1.45	1.70	1.90	2.30	2.80	3.70	4.60
W	0.50	0.60	0.80	0.80	1.00	1.20	1.60	2.00	2.50



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability: UL94V-2



PART NUMBER	Thread Size	L	Unit Qty
0050490	M2 x 0.4	8	1,000
0050492	M2 x 0.4	12	1,000
0050496	M2 x 0.4	25	1,000
0050498	M2.5 x 0.45	4	1,000
0050499	M2.5 x 0.45	5	1,000
0050500	M2.5 x 0.45	6	1,000
0050501	M2.5 x 0.45	8	1,000
0050502	M2.5 x 0.45	10	1,000
0050503	M2.5 x 0.45	12	1,000
0050505	M2.5 x 0.45	16	1,000
0050506	M2.5 x 0.45	20	1,000
0050507	M2.5 x 0.45	25	1,000

PART NUMBER	Thread Size	L	Unit Qty
0050511	M3 x 0.5	5	1,000
0050512	M3 x 0.5	6	10,000
0050513	M3 x 0.5	8	10,000
0050514	M3 x 0.5	10	10,000
0050515	M3 x 0.5	12	10,000
0050516	M3 x 0.5	15	10,000
0050517	M3 x 0.5	16	1,000
0050518	M3 x 0.5	20	1,000
0050519	M3 x 0.5	25	1,000
0050520	M3 x 0.5	30	1,000
0050524	M3 x 0.5	42	1,000
0050527	M3.5 x 0.6	5	1,000
0050528	M3.5 x 0.6	6	1,000
0050529	M3.5 x 0.6	10	1,000
0050531	M3.5 x 0.6	16	1,000
0050533	M3.5 x 0.6	25	1,000
0050535	M3.5 x 0.6	35	1,000

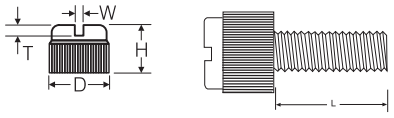
PART NUMBER	Thread Size	L	Unit Qty
0050539	M4 x 0.7	6	1,000
0050540	M4 x 0.7	8	1,000
0050541	M4 x 0.7	10	1,000
0050542	M4 x 0.7	12	1,000
0050543	M4 x 0.7	15	1,000
0050544	M4 x 0.7	16	1,000
0050545	M4 x 0.7	20	1,000
0050546	M4 x 0.7	25	1,000
0050547	M4 x 0.7	30	1,000
0050548	M4 x 0.7	35	1,000
0050553	M5 x 0.8	6	1,000
0050554	M5 x 0.8	8	1,000
0050555	M5 x 0.8	10	1,000
0050556	M5 x 0.8	12	1,000
0050557	M5 x 0.8	15	1,000
0050558	M5 x 0.8	16	1,000
0050559	M5 x 0.8	20	1,000
0050560	M5 x 0.8	25	1,000
0050561	M5 x 0.8	30	1,000
0050562	M5 x 0.8	35	1,000
0050563	M5 x 0.8	40	1,000

PART NUMBER	Thread Size	L	Unit Qty
0050567	M6 x 1.0	8	1,000
0050568	M6 x 1.0	10	1,000
0050569	M6 x 1.0	12	1,000
0050570	M6 x 1.0	16	1,000
0050571	M6 x 1.0	20	1,000
0050572	M6 x 1.0	25	1,000
0050574	M6 x 1.0	35	500
0050575	M6 x 1.0	40	500
0050577	M6 x 1.0	50	500

PART NUMBER	Thread Size	L	Unit Qty
0050581	M8 x 1.25	16	500
0050582	M8 x 1.25	20	500
0050583	M8 x 1.25	25	500
0050584	M8 x 1.25	30	500
0050585	M8 x 1.25	35	200
0050586	M8 x 1.25	40	200
0050588	M8 x 1.25	50	200
0050589	M8 x 1.25	60	200
0050590	M8 x 1.25	70	200
0050592	M10 x 1.5	20	200
0050593	M10 x 1.5	25	200
0050594	M10 x 1.5	30	200
0050595	M10 x 1.5	35	200

Thumb Slotted Metric Machine Screws - Nylon

Dim	Screw Size				
	M3	M3.5	M4	M5	M6
D	8.10	8.80	9.70	10.50	12.50
H	5.50	6.40	7.10	8.10	8.30
T	1.10	1.30	1.50	1.70	2.20
W	1.00	1.10	1.20	1.40	1.80



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Flammability: UL94V-2



PART NUMBER	Thread Size	L	Unit Qty
0070665	M3 x 0.5	5	1,000
0070666	M3 x 0.5	6	1,000
0070667	M3 x 0.5	8	1,000
0070668	M3 x 0.5	10	1,000
0070669	M3 x 0.5	12	1,000
0070670	M3 x 0.5	16	1,000
0070671	M3 x 0.5	20	1,000
0070672	M3 x 0.5	25	1,000
0070673	M3 x 0.5	30	1,000

PART NUMBER	Thread Size	L	Unit Qty
0070675	M3.5 x 0.6	5	1,000
0070676	M3.5 x 0.6	6	1,000
0070677	M3.5 x 0.6	8	1,000
0070678	M3.5 x 0.6	10	1,000
0070679	M3.5 x 0.6	12	1,000
0070680	M3.5 x 0.6	16	1,000
0070681	M3.5 x 0.6	20	1,000
0070682	M3.5 x 0.6	25	1,000
0070684	M3.5 x 0.6	35	1,000

PART NUMBER	Thread Size	L	Unit Qty
0070688	M4 x 0.7	6	1,000
0070689	M4 x 0.7	8	1,000
0070690	M4 x 0.7	10	1,000
0070691	M4 x 0.7	12	1,000
0070692	M4 x 0.7	16	1,000
0070693	M4 x 0.7	20	1,000
0070694	M4 x 0.7	25	1,000

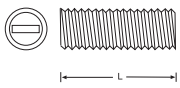
PART NUMBER	Thread Size	L	Unit Qty
0070698	M5 x 0.8	6	1,000
0070700	M5 x 0.8	8	1,000
0070701	M5 x 0.8	10	1,000
0070702	M5 x 0.8	12	100
0070703	M5 x 0.8	16	1,000
0070704	M5 x 0.8	20	1,000
0070705	M5 x 0.8	25	1,000
0070706	M5 x 0.8	30	1,000
0070708	M5 x 0.8	40	1,000

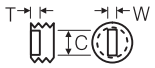
PART NUMBER	Thread Size	L	Unit Qty
0070712	M6 x 1.0	8	1,000
0070713	M6 x 1.0	10	1,000
0070714	M6 x 1.0	12	1,000
0070715	M6 x 1.0	16	1,000
0070716	M6 x 1.0	20	1,000
0070717	M6 x 1.0	25	1,000
0070719	M6 x 1.0	35	1,000
0070721	M6 x 1.0	45	1,000

Grub Slotted Metric Machine Screws - Nylon



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural





Dim	Screw Size			
	M4	M5	M6	M8
C	2.00	3.30	4.10	5.20
T	0.76	1.30	1.50	2.40
W	0.64	0.89	1.00	1.45

PART NUMBER	+Thread Size	L	Unit Qty
0060613	M4 x 0.7	6	1,000
0060614	M4 x 0.7	8	1,000
0060615	M4 x 0.7	10	1,000
0060616	M4 x 0.7	12	1,000
0060617	M4 x 0.7	16	1,000
0060618	M4 x 0.7	20	1,000
0060619	M4 x 0.7	25	1,000

PART NUMBER	Thread Size	L	Unit Qty
0060622	M5 x 0.8	6	1,000
0060623	M5 x 0.8	8	1,000
0060624	M5 x 0.8	10	1,000
0060625	M5 x 0.8	12	1,000
0060626	M5 x 0.8	16	1,000
0060627	M5 x 0.8	20	1,000
0060628	M5 x 0.8	25	1,000
0060629	M5 x 0.8	30	1,000
0060631	M5 x 0.8	40	1,000

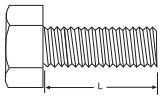
PART NUMBER	Thread Size	L	Unit Qty
0060634	M6 x 1.0	8	1,000
0060635	M6 x 1.0	10	1,000
0060636	M6 x 1.0	12	1,000
0060637	M6 x 1.0	16	1,000
0060638	M6 x 1.0	20	1,000
0060639	M6 x 1.0	25	1,000
0060640	M6 x 1.0	30	1,000
0060641	M6 x 1.0	35	1,000
0060643	M6 x 1.0	45	1,000

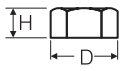
PART NUMBER	Thread Size	L	Unit Qty
0060646	M8 x 1.25	10	1,000
0060647	M8 x 1.25	16	1,000
0060648	M8 x 1.25	20	1,000
0060649	M8 x 1.25	25	1,000
0060650	M8 x 1.25	30	1,000
0060654	M8 x 1.25	50	1,000

Hexagon Head Metric Machine Screws - Nylon



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural





Dim	Screw Size									
	M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10	M12
A/F	3.20	4.00	5.50	6.00	7.00	8.00	10.00	13.00	17.00	19.00
D	3.70	4.62	6.40	7.20	8.10	9.20	11.50	15.00	19.60	21.90
H	1.15	1.30	2.00	2.40	2.80	3.50	4.00	5.50	7.00	8.00

PART NUMBER	Thread Size	L	Unit Qty
0030240	M2 x 0.4	4	1,000
0030241	M2 x 0.4	5	1,000
0030242	M2 x 0.4	6	1,000
0030243	M2 x 0.4	8	1,000
0030244	M2 x 0.4	10	1,000
0030245	M2 x 0.4	12	1,000
0030246	M2 x 0.4	16	1,000
0030247	M2 x 0.4	20	1,000
0030248	M2 x 0.4	25	1,000
0030252	M2.5 x 0.45	4	1,000
0030253	M2.5 x 0.45	5	1,000
0030254	M2.5 x 0.45	6	1,000
0030255	M2.5 x 0.45	8	1,000
0030256	M2.5 x 0.45	10	1,000
0030257	M2.5 x 0.45	12	1,000
0030258	M2.5 x 0.45	16	1,000
0030259	M2.5 x 0.45	20	1,000
0030260	M2.5 x 0.45	25	1,000

PART NUMBER	Thread Size	L	Unit Qty
0030263	M3 x 0.5	4	1,000
0030264	M3 x 0.5	5	1,000
0030265	M3 x 0.5	6	1,000
0030266	M3 x 0.5	8	1,000
0030267	M3 x 0.5	10	1,000
0030268	M3 x 0.5	12	1,000
0030269	M3 x 0.5	16	1,000
0030270	M3 x 0.5	20	1,000
0030271	M3 x 0.5	25	1,000
0030272	M3 x 0.5	30	1,000
0030278	M3.5 x 0.6	5	1,000
0030279	M3.5 x 0.6	6	1,000
0030280	M3.5 x 0.6	8	1,000
0030281	M3.5 x 0.6	10	1,000
0030282	M3.5 x 0.6	12	1,000
0030283	M3.5 x 0.6	16	1,000
0030284	M3.5 x 0.6	20	1,000
0030285	M3.5 x 0.6	25	1,000
0030287	M3.5 x 0.6	35	1,000

PART NUMBER	Thread Size	L	Unit Qty
0030291	M4 x 0.7	6	1,000
0030292	M4 x 0.7	8	1,000
0030293	M4 x 0.7	10	1,000
0030294	M4 x 0.7	12	1,000
0030295	M4 x 0.7	16	1,000
0030296	M4 x 0.7	20	1,000
0030297	M4 x 0.7	25	1,000
0030298	M4 x 0.7	30	1,000
0030299	M4 x 0.7	35	1,000
0030300	M4 x 0.7	40	1,000
0030304	M5 x 0.8	6	1,000
0030305	M5 x 0.8	8	1,000
0030306	M5 x 0.8	10	1,000
0030307	M5 x 0.8	12	1,000
0030308	M5 x 0.8	16	1,000
0030309	M5 x 0.8	20	1,000
0030310	M5 x 0.8	25	1,000
0030311	M5 x 0.8	30	500

PART NUMBER	Thread Size	L	Unit Qty
0030317	M6 x 1.0	5	1,000
0030318	M6 x 1.0	8	1,000
0030319	M6 x 1.0	10	1,000
0030320	M6 x 1.0	12	1,000
0030321	M6 x 1.0	16	1,000
0030322	M6 x 1.0	20	1,000
0030323	M6 x 1.0	25	1,000
0030324	M6 x 1.0	30	1,000
0030325	M6 x 1.0	35	500
0030326	M6 x 1.0	40	500
0030327	M6 x 1.0	45	500
0030328	M6 x 1.0	50	500
0030329	M6 x 1.0	60	500
0030330	M8 x 1.25	10	500
0030332	M8 x 1.25	16	500
0030333	M8 x 1.25	20	500
0030334	M8 x 1.25	25	500
0030335	M8 x 1.25	30	500
0030336	M8 x 1.25	35	200
0030337	M8 x 1.25	40	200
0030339	M8 x 1.25	50	200
0030341	M8 x 1.25	60	200
0030343	M8 x 1.25	70	200
0030345	M8 x 1.25	80	200

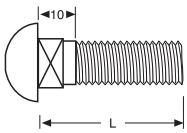
PART NUMBER	Thread Size	L	Unit Qty
0030347	M10 x 1.5	16	200
0030348	M10 x 1.5	20	200
0030349	M10 x 1.5	25	200
0030350	M10 x 1.5	30	200
0030351	M10 x 1.5	35	200
0030352	M10 x 1.5	40	200
0030354	M10 x 1.5	50	200
0030356	M10 x 1.5	60	200
0030357	M10 x 1.5	65	200
0030358	M10 x 1.5	70	200
0030359	M10 x 1.5	80	200
0030360	M12 x 1.75	20	200
0030361	M12 x 1.75	25	200
0030362	M12 x 1.75	30	200
0030363	M12 x 1.75	35	200
0030364	M12 x 1.75	40	200
0030365	M12 x 1.75	45	200
0030366	M12 x 1.75	50	200
0030368	M12 x 1.75	60	200

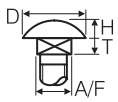
Cup Square Head Metric Machine Screws - Nylon



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

Head sizes based on DIN603





Dim	Screw Size		
	M5	M6	M8
A/F	5.48	6.48	8.58
D	13.55	16.55	20.65
H	3.30	3.88	4.88
T	4.10	4.60	5.60

PART NUMBER	Thread Size	Length	Unit Quantity
0070860	M5 x 0.8	12	1,000
0070861	M5 x 0.8	15	1,000
0070862	M5 x 0.8	20	1,000
0070864	M5 x 0.8	30	1,000
0070865	M5 x 0.8	40	1,000
0070866	M5 x 0.8	45	1,000

PART NUMBER	Thread Size	Length	Unit Quantity
0070872	M6 x 1.0	20	1,000
0070874	M6 x 1.0	30	1,000
0070877	M6 x 1.0	45	1,000
0070878	M6 x 1.0	50	1,000

PART NUMBER	Thread Size	Length	Unit Quantity
0070887	M8 x 1.25	20	1,000
0070889	M8 x 1.25	30	1,000
0070890	M8 x 1.25	40	1,000
0070892	M8 x 1.25	50	1,000
0070898	M8 x 1.25	80	1,000

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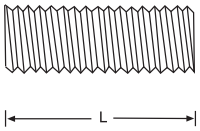
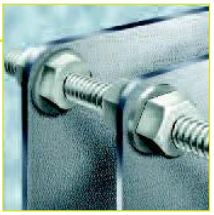
Metric Studding (Allthread) - Nylon



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural



PART NUMBER	Thread Size	Length - L	Unit Quantity
0140910	M3 x 0.5	1 metre	1
0140919	M4 x 0.7	1 metre	1
0140920	M5 x 0.8	1 metre	1
0140921	M6 x 1.0	1 metre	1
0140922	M8 x 1.25	1 metre	1
0140923	M10 x 1.5	1 metre	1
0140924	M12 x 1.75	1 metre	1
0140926	M14 x 2.0	1 metre	1
0140928	M16 x 2.0	1 metre	1

Metric Nylon Screw Assortment Box

Specifications: RoHS ✓
Material: Nylon 66

- Ideal for product design departments and R&D labs



PART NUMBER	Description	Unit Quantity
0826642	This kit contains an assortment of 18 popular sizes of Countersunk & Cheese Head Slotted Screws, Hexagon Nuts & Washers ranging in sizes from M3 to M5	1

Kit Contents:

Part Number	0040409	0040413	0040430	0040434	0040442	0040446
Style	Countersunk Slotted	Countersunk Slotted	Countersunk Slotted	Countersunk Slotted	Countersunk Slotted	Countersunk Slotted
Thread Size & Length	M3 x 8.0mm	M3 x 16.0mm	M4 x 8.0mm	M4 x 16.0mm	M5 x 8.0mm	M5 x 16.0mm
Quantity	25	25	25	25	25	25
Part Number	0010027	0010030	0010033	0010051	0010054	0010057
Style	Cheese Head Slotted	Cheese Head Slotted	Cheese Head Slotted	Cheese Head Slotted	Cheese Head Slotted	Cheese Head Slotted
Thread Size & Length	M3 x 6.0mm	M3 x 12.0mm	M3 x 25.0mm	M4 x 6.0mm	M4 x 12.0mm	M4 x 25.0mm
Quantity	25	25	25	25	25	25
Part Number	0010064	0010067	0010070	Nut: 0080729 Washer: 0110765	Nut: 0080731 Washer: 0110767	Nut: 0080732 Washer: 0110768
Style	Cheese Head Slotted	Cheese Head Slotted	Cheese Head Slotted	Hexagon Nut & Flat Washer	Hexagon Nut & Flat Washer	Hexagon Nut & Flat Washer
Thread Size & Length	M5 x 6.0mm	M5 x 12.0mm	M5 x 25.0mm	M3	M4	M5
Quantity	25	25	15	25 Nuts 50 Washers	25 Nuts 50 Washers	25 Nuts 50 Washers

Nylon Metric Screws Test Data

Nylon Screws offer:

- Good chemical resistance
- Superior electrical insulation
- Corrosion resistance
- Protection against damage caused by over tightening
- A wide variety of head styles and thread lengths

...and can be dyed to achieve a specific colour match.

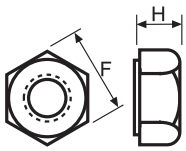
Moulded threads approximate to Class 6g/6H for metric parts and 2A/2B for unified parts. Screws are moulded in tools which part along the length of the screw and it is not possible to guarantee production of perfectly round threads. In addition nylon will absorb moisture causing changes in screw thread dimensions. For these reasons it is not possible to guarantee threads on standard parts to tolerances usually applied to metal threads. Customers are advised to evaluate samples before placing production orders.

Thread Size	Suggested Max. Tightening Torque (Nm) for Nylon 6,6 screws as per DIN3481X
M2	N/A
M2.5	N/A
M3	0.10
M3.5	N/A
M4	0.25
M5	0.50
M6	0.80
M8	1.80
M10	3.50

N/A = Test data not available
1Nm = 8.851lbf-in
Above information is for guidance only and should not be used to establish specifications or as the basis of a design

Hexagon Metric Nuts - Nylon





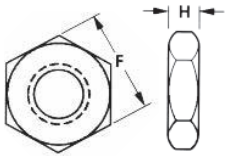
Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

PART NUMBER	Thread Size	F	H	Unit Quantity
0080727	M2 x 0.4	3.9	1.2	1,000
0080728	M2.5 x 0.45	4.9	1.8	1,000
0080729	M3 x 0.5	5.4	2.3	1,000
0080730	M3.5 x 0.6	6.9	2.7	1,000
0080731	M4 x 0.7	6.9	3.0	1,000
0080732	M5 x 0.8	7.8	4.0	1,000

PART NUMBER	Thread Size	F	H	Unit Quantity
0080733	M6 x 1.0	9.8	5.0	1,000
0080734	M8 x 1.25	12.9	6.3	1,000
0080735	M10 x 1.5	16.0	8.04-8.4	1,000
0080736	M12 x 1.75	18.0	10.37-10.8	500
0080737	M16 x 2.0	23.8	12.7	500
0080738	M20 x 2.5	30.0	16.0	500
0080740	M24 x 3.0	36.0	19.0	500

Hexagon Thin Metric Nuts - Nylon





Specifications: RoHS ✓
Material: Nylon 66
Colour: Black

PART NUMBER	Thread Size	F	H	Unit Quantity
0080820	M8 x 1.0	13.0	4.0	1,000
0080822	M10 x 1.5	14.0	2.5	1,000
0080824	M10 x 0.75	14.0	2.5	1,000
0080826	M12 x 1.0	17.0	4.0	1,000
0080828	M12 x 1.0	16.0	5.0	1,000
0080830	M14 x 1.0	22.0	4.0	1,000

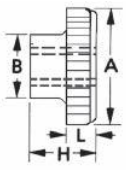
PART NUMBER	Thread Size	F	H	Unit Quantity
0080831	M14 x 1.5	22.0	4.0	1,000
0080833	M15 x 1.0	18.0	3.0	10,000
0080835	M16 x 1.0	24.0	4.0	500
0080837	M18 x 1.0	24.0	4.0	500
0080839	M20 x 1.5	27.0	8.0	500
0080845	M30 x 1.5	36.0	5.0	500

Metric Knurled Thumb Nuts - Nylon

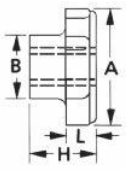


Specifications: RoHS ✓
Material: Nylon 66
Colour: White





FORM A

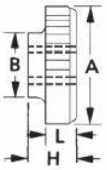


FORM B

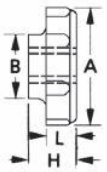
PART NUMBER	Thread Size	A	B	H	L	Form	Unit Qty
0100975	M3 x .5	12.0	7.0	7.0	3.5	A	1,000
0100977	M4 x .7	12.0	7.0	7.0	3.5	A	1,000
0100979	M4 x .7	16.0	9.5	8.0	4.5	A	1,000
0100980	M5 x .8	16.0	9.5	8.0	4.5	A	1,000
0100981	M6 x 1.0	16.0	9.5	8.0	4.5	A	1,000
0100983	M5 x .8	14.0	8.8	7.0	3.5	A	1,000
0100984	M5 x .8	20.0	13.0	11.0	6.0	A	1,000
0100987	M4 x .7	16.0	9.5	8.0	4.5	B	1,000
0100988	M5 x .8	16.0	9.5	8.0	4.5	B	1,000
0100989	M6 x 1.0	16.0	9.5	8.0	4.5	B	1,000
0100990	M6 x 1.0	24.0	13.0	11.0	6.0	B	1,000

PART NUMBER	Thread Size	A	B	H	L	Form	Unit Qty
0100992	M4 x .7	16.0	10.0	6.0	4.5	C	1,000
0100993	M5 x .8	16.0	10.0	6.0	4.5	C	1,000
0100994	M6 x 1.0	16.0	10.0	6.0	4.5	C	1,000
0100996	M4 x .7	20.0	10.0	7.5	6.0	C	1,000
0100997	M5 x .8	19.0	10.0	7.5	6.0	C	1,000
0100998	M6 x 1.0	19.0	10.0	7.5	6.0	C	1,000
0101000	M4 x .7	16.0	10.0	6.0	4.5	D	1,000
0101001	M5 x .8	16.0	10.0	6.0	4.5	D	1,000
0101002	M6 x 1.0	16.0	10.0	6.0	4.5	D	1,000
0101005	M4 x .7	20.0	10.0	6.5	5.0	D	1,000
0101006	M5 x .8	20.0	10.0	6.5	5.0	D	1,000
0101007	M6 x 1.0	20.0	10.0	6.5	5.0	D	1,000





FORM C



FORM D

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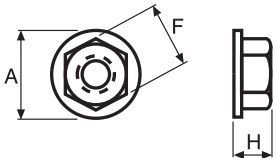
Hexagon Washer Faced Metric Nuts - Nylon



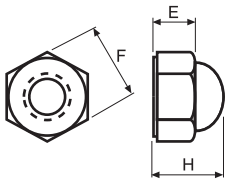
Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural



PART NUMBER	Thread Size	A	F	H	Unit Quantity
0080902	M3 x 0.5	6.6	5.5	3.1	1,000
0080904	M4 x 0.7	8.8	7.0	3.4	1,000
0080905	M5 x 0.8	9.8	7.9	5.2	1,000
0080906	M6 x 1.0	13.0	10.0	6.0	1,000

PART NUMBER	Thread Size	A	F	H	Unit Quantity
0080907	M8 x 1.25	17.0	13.0	8.0	1,000
0080908	M10 x 1.5	22.0	16.0	10.0	1,000
0080909	M12 x 1.75	27.0	19.0	14.5	1,000
0080910	M16 x 2.0	39.0	24.0	19.5	500

Hexagon Dome Metric Nuts - Nylon



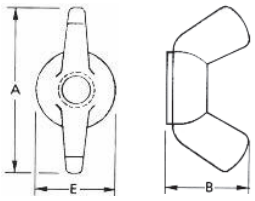
Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural



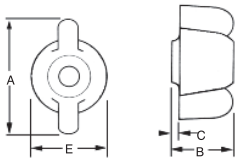
PART NUMBER	Thread Size	F	H	E	Unit Quantity
0090741	M3 x .5	5.5	6.4	2.6	1,000
0090743	M4 x .7	7.0	8.0	3.2	1,000
0090744	M5 x .8	8.0	10.0	4.0	1,000
0090745	M6 x 1.0	10.0	12.0	5.0	1,000

PART NUMBER	Thread Size	F	H	E	Unit Quantity
0090746	M8 x 1.25	13.0	15.0	6.5	1,000
0090747	M10 x 1.5	17.0	18.0	8.0	500
0090748	M12 x 1.75	19.0	22.0	10.0	200
0090749	M16 x 2.0	24.0	28.0	13.0	200

Metric Wing Nuts - Nylon



FORM A



FORM B

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural



PART NUMBER	Thread Size	A	B	C	E	Form	Unit Quantity
0100755	M4 x .7	22.8	12.2	-	10.2	A	1,000
0100756	M5 x .8	22.8	12.2	-	10.2	A	1,000
0100757	M6 x 1.0	28.0	16.0	-	14.2	A	1,000
0100758	M8 x 1.25	35.1	18.3	-	16.5	A	1,000
0100759	M10 x 1.5	35.1	18.3	-	16.5	A	1,000
*0100956	M4 x .7	23.0	13.5	1.0	12.0	B	1,000
*0100957	M4 x .7	26.0	13.0	1.5	12.0	B	1,000
*0100959	M5 x .8	26.0	13.0	1.5	12.0	B	1,000
*0100961	M6 x 1.0	26.0	13.0	1.5	12.0	B	1,000

*Available in White only



Metric Nylon Nut Assortment Box

- Ideal for product design departments and R&D labs

Specifications: RoHS ✓
Material: Nylon 66

PART NUMBER	Description	Unit Quantity
0826706	This kit contains an assortment of 9 popular sizes of Hexagon Nuts ranging in sizes from M2 to M12	1

Part Number	0080727	0080728	0080729	0080731	0080732	0080733
Thread Size	M2	M2.5	M3	M4	M5	M6
Quantity	100	100	100	100	100	50
Part Number	0080736					
Thread Size	M12					
Quantity	25					
Part Number	0080734			0080735		
Thread Size	M8			M10		
Quantity	50			25		



Metric Washers - Nylon

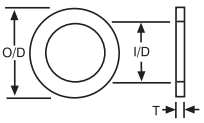
- Provides electrical insulation
- Ideal for use as a bearing surface
- Will not corrode
- Good chemical resistance

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

Tolerances: O/D, I/D & T = ± 0.26

PART NUMBER	Nominal Size	O/D	I/D	T	Unit Quantity
0110763	M2	5.0	2.15	0.8	1,000
0110764	M2.5	5.6	2.65	0.8	1,000
0110765	M3	8.0	3.20	0.8	1,000
0110766	M3.5	8.0	3.70	0.8	1,000
0110767	M4	9.0	4.30	0.8	1,000
0110768	M5	11.0	5.30	1.0	1,000
0110769	M6	12.0	6.40	1.5	1,000

PART NUMBER	Nominal Size	O/D	I/D	T	Unit Quantity
0110770	M8	18.0	8.40	2.0	1,000
0110771	M10	22.0	10.50	2.5	1,000
0110772	M12	24.0	13.00	2.5	1,000
0110777	M14	28.0	15.00	2.5	1,000
0110773	M16	30.0	17.00	3.0	1,000
0110774	M20	37.0	21.00	3.0	1,000
0110776	M24	44.0	25.00	5.0	1,000





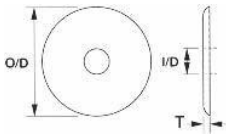
Load Bearing Washers - Nylon

- Provides electrical insulation
- Ideal for use as a bearing surface
- Will not corrode
- Good chemical resistance

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

Tolerances:
± 0.38 all dimensions

PART NUMBER	Nominal Size	O/D	I/D	T	Unit Quantity
0070996	M10	51.00	10.40	3.15	100
0070997	M12	51.00	12.50	3.15	100



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Metric Nylon Washer Assortment Box



Specifications:	RoHS ✓
Material: Nylon 66	

- Ideal for product design departments and R&D labs

PART NUMBER	Description	Unit Quantity
0826707	This kit contains an assortment of 9 popular sizes of Washers ranging in sizes from M2 to M12	1

Part Number	0110763	0110764	0110765	0110767	0110768	0110769
Thread Size	M2	M2.5	M3	M4	M5	M6
Quantity	250	250	500	100	100	100

Part Number	0110772
Thread Size	M12
Quantity	100

Part Number	0110770	0110771
Thread Size	M8	M10
Quantity	100	50

Custom Made High Performance Fasteners



PRODUCTION QUANTITES:

Quantities as small as 20 pieces can be supplied. Parts are manufactured either by injection moulding or auto-turning depending upon the quantity and material. Tooling costs may be incurred.

For further information on High Performance Fasteners, please contact our Sales Department on: +44 (0) 1202 865222

Our range of standard fasteners is produced in Nylon 6,6 which is suitable for the majority of applications. With advances in technology, we recognise that a specialist demand exists for non-metallic fasteners capable of withstanding higher temperatures, higher loadings and providing resistance to harsh environments; requirements which Nylon 6,6 cannot meet. To satisfy this demand we are able to offer products in a wide variety of higher performance materials including:

- Glass Filled Nylon
- PEEK™
- Halar®
- Isoplast™
- IXEF®
- PVDF
- RADEL®
- Ryton®
- Teflon®
- Torlon®
- ULTEM®
- UHMW®

TYPICAL APPLICATIONS:

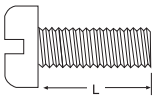
- Microwave Transmission
- Integrated Circuits
- Aerospace
- Semi-Conductor Manufacturing
- Chemical Processing
- Petroleum Industry
- Computers
- Communications



Pan Head Slotted Unified Machine Screws - Nylon

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

All dimensions are in inches



Dim	Screw Size				
	No.4	No.6	No.8	No.10	¼"
H	0.065	0.075	0.080	0.130	0.160
D	0.210	0.265	0.320	0.365	0.475
T	0.035	0.045	0.050	0.060	0.085
W	0.035	0.045	0.050	0.055	0.070

PART NUMBER	Thread Size	L	Unit Qty
0212123	4-40	⅛	1,000
0212125	4-40	3⁄16	1,000
0212126	4-40	¼	1,000
0212128	4-40	5⁄16	1,000
0212129	4-40	⅜	1,000
0212130	4-40	7⁄16	1,000
0212131	4-40	½	1,000
0212133	4-40	⅝	1,000
0212135	4-40	¾	1,000
0212137	4-40	1	1,000

PART NUMBER	Thread Size	L	Unit Qty
0212148	6-32	⅛	1,000
0212150	6-32	3⁄16	1,000
0212151	6-32	¼	1,000
0212152	6-32	5⁄16	1,000
0212153	6-32	⅜	1,000
0212154	6-32	7⁄16	1,000
0212155	6-32	½	1,000
0212157	6-32	⅝	1,000
0212159	6-32	¾	1,000
0212162	6-32	1	1,000
0212164	6-32	1¼	1,000
0212165	6-32	1½	1,000

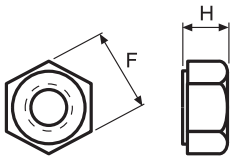
PART NUMBER	Thread Size	L	Unit Qty
0212185	8-32	⅛	1,000
0212186	8-32	3⁄16	1,000
0212187	8-32	¼	1,000
0212189	8-32	5⁄16	1,000
0212190	8-32	⅜	1,000
0212191	8-32	7⁄16	1,000
0212192	8-32	½	1,000
0212193	8-32	⅝	1,000
0212194	8-32	¾	1,000
0212196	8-32	1	1,000
0212198	8-32	1¼	1,000
0212200	8-32	1½	1,000

PART NUMBER	Thread Size	L	Unit Qty
0212210	10-24	⅜	1,000
0212212	10-24	½	1,000
0212213	10-24	⅝	1,000
0212215	10-24	1	1,000
0212219	10-32	⅛	1,000
0212220	10-32	3⁄16	1,000
0212221	10-32	¼	1,000
0212222	10-32	5⁄16	1,000
0212223	10-32	⅜	1,000
0212225	10-32	½	1,000
0212226	10-32	⅝	1,000
0212227	10-32	¾	1,000
0212229	10-32	1	1,000
0212231	10-32	1¼	1,000
0212232	10-32	1½	1,000

PART NUMBER	Thread Size	L	Unit Qty
0212236	¼-20	¼	1,000
0212237	¼-20	5⁄16	1,000
0212238	¼-20	⅜	1,000
0212239	¼-20	½	1,000
0212241	¼-20	¾	1,000
0212242	¼-20	⅞	1,000
0212243	¼-20	1	1,000
0212245	¼-20	1¼	1,000
0212246	¼-20	1½	1,000



Hexagon Unified Nuts - Nylon



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

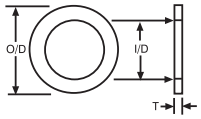
Tolerances: F & H = ±0.005"
All dimensions are in inches

PART NUMBER	Thread Size	F	H	Unit Qty
0323368	4-40	.250	.100	1,000
0323369	6-32	.305	.120	1,000
0323371	8-32	.335	.130	1,000
0323372	10-24	.425	.200	1,000
0323373	10-32	.365	.135	1,000
0323374	12-24	.425	.200	1,000
0323375	¼-20	.425	.200	1,000
0323376	¼-28	.425	.200	1,000

PART NUMBER	Thread Size	F	H	Unit Qty
0323377	5⁄16-18	.500	.270	1,000
0323378	⅜-16	.560	.330	1,000
0323379	⅜-24	.560	.330	1,000
0323380	7⁄16-14	.685	.380	1,000
0323381	7⁄16-20	.685	.380	1,000
0323382	½-13	.750	.430	1,000
0323383	½-20	.750	.430	1,000
0323385	⅝-18	.925	.550	1,000



Unified Washers - Nylon



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

Tolerances: O/D, I/D = ± 0.38 T = ± 0.25

PART NUMBER	T	Unified Screw Size	O/D	I/D	Unit Qty
0403600	0.79	No.2	6.35	2.29	1,000
0403601	1.58	No.2	6.35	2.29	1,000
0403602	2.36	No.2	6.35	2.29	1,000
0403603	3.18	No.2	6.35	2.29	1,000
0403606	0.79	No.4	6.35	2.92	1,000
0403607	1.58	No.4	6.35	2.92	1,000
0403608	2.36	No.4	6.35	2.92	1,000
0403609	3.18	No.4	6.35	2.92	1,000
0403612	0.79	No.6	7.94	3.56	1,000
0403613	1.58	No.6	7.94	3.56	1,000
0403614	2.36	No.6	7.94	3.56	1,000
0403615	3.18	No.6	7.94	3.56	1,000

PART NUMBER	T	Unified Screw Size	O/D	I/D	Unit Qty
0403618	0.79	No.8	9.53	4.34	1,000
0403619	1.58	No.8	9.53	4.34	1,000
0403620	2.36	No.8	9.53	4.34	1,000
0403621	3.18	No.8	9.53	4.34	1,000
0403623	0.79	No.10	9.53	4.93	1,000
0403624	1.58	No.10	9.53	4.93	1,000
0403625	2.36	No.10	9.53	4.93	1,000
0403626	3.18	No.10	9.53	4.93	1,000
0403629	0.79	¼	12.70	6.53	1,000
0403630	1.58	¼	12.70	6.53	1,000
0403631	2.36	¼	12.70	6.53	1,000
0403632	3.18	¼	12.70	6.53	1,000
0403635	0.79	5⁄16	12.70	8.05	1,000
0403636	1.58	5⁄16	12.70	8.05	1,000
0403637	2.36	5⁄16	12.70	8.05	1,000
0403638	3.18	5⁄16	12.70	8.05	1,000

PART NUMBER	T	Unified Screw Size	O/D	I/D	Unit Qty
0403641	0.79	⅜	15.88	9.65	1,000
0403642	1.58	⅜	15.88	9.65	1,000
0403643	2.36	⅜	15.88	9.65	1,000
0403644	3.18	⅜	15.88	9.65	1,000
0403645	4.72	⅜	15.88	9.65	1,000
0403647	0.79	7⁄16	19.05	11.25	1,000
0403648	1.58	7⁄16	19.05	11.25	1,000
0403649	2.36	7⁄16	19.05	11.25	1,000
0403650	3.18	7⁄16	19.05	11.25	1,000
0403654	0.79	½	19.05	12.83	1,000
0403655	1.58	½	19.05	12.83	1,000
0403656	2.36	½	19.05	12.83	1,000
0403657	3.18	½	19.05	12.83	1,000

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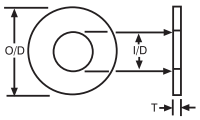
PTFE Flat Washers



Specifications: RoHS ✓
Material: PTFE
Colour: White
Temperature Index: 300°C
Flammability: UL94V-0
Tolerances: ± 0.13 all dimensions

- Ideal for use at elevated temperatures
- Ideal for use as a bearing surface
- Excellent chemical resistance

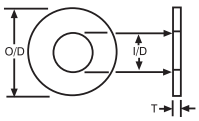


PART NUMBER	O/D	I/D	T	Unit Qty
0380500	4.75	2.36	0.79	1,000
0380505	6.35	2.67	0.79	1,000
0380510	7.14	3.18	0.79	1,000
0380515	7.92	3.18	0.79	1,000
0380520	9.53	3.79	0.79	1,000
0380525	7.92	3.96	0.79	1,000

PART NUMBER	O/D	I/D	T	Unit Qty
0380530	9.53	4.42	0.79	1,000
0380535	11.13	5.16	0.79	1,000
0380540	12.70	6.60	0.79	1,000
0380545	14.28	8.33	0.79	1,000
0380550	15.88	9.78	0.79	1,000
0380555	19.05	9.91	0.79	1,000

PART NUMBER	O/D	I/D	T	Unit Qty
0380600	6.35	2.67	1.60	1,000
0380605	7.92	3.18	1.60	1,000
0380610	9.53	3.79	1.60	1,000
0380615	9.53	4.42	1.60	1,000
0380620	11.13	5.16	1.60	1,000
0380625	12.70	6.60	1.60	1,000
0380630	14.28	8.33	1.60	1,000
0380635	15.88	9.78	1.60	1,000

Fibre Flat Washers



Specifications: RoHS ✓
Material: Forbon Vulcanised Fibre - Commercial 585
Colour: Black
Temperature Index: 110°C
Flammability: UL94HB, Material meets MIL-F-1/48CH
Tolerances: ± 0.13 all dimensions

- Excellent compressive strength
- Tough and rigid

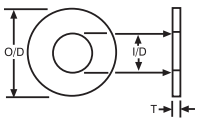


PART NUMBER	O/D	I/D	T	Unit Qty
0380100	6.35	2.36	0.79	1,000
0380101	6.35	2.67	0.79	1,000
0380103	6.35	3.05	0.79	1,000
0380110	7.92	3.18	0.79	1,000
0380115	9.53	3.71	0.79	1,000
0380117	9.53	4.39	0.79	1,000
0380118	9.53	4.75	0.79	1,000
0380120	9.53	5.16	0.79	1,000
0380125	11.13	5.26	0.79	1,000
0380130	12.70	6.73	0.79	1,000
0380132	12.70	7.14	0.79	1,000
0380140	14.28	8.46	0.79	1,000
0380150	15.88	9.91	0.79	1,000
0380170	19.05	11.63	0.79	1,000
0380180	22.48	13.06	0.79	1,000

PART NUMBER	O/D	I/D	T	Unit Qty
0380200	6.35	2.67	1.58	1,000
0380205	6.35	3.05	1.58	1,000
0380215	7.92	3.18	1.58	1,000
0380220	6.35	3.71	1.58	1,000
0380222	9.53	3.71	1.58	1,000
0380225	7.92	3.96	1.58	1,000
0380228	9.53	4.42	1.58	1,000
0380235	9.53	5.11	1.58	1,000
0380240	11.13	5.16	1.58	1,000
0380245	12.70	6.55	1.58	1,000
0380250	12.70	8.13	1.58	1,000
0380253	14.28	8.46	1.58	1,000
0380260	15.88	9.78	1.58	1,000
0380265	19.05	9.78	1.58	1,000
0380270	19.05	11.63	1.58	1,000
0380275	22.48	13.06	1.58	1,000

PART NUMBER	O/D	I/D	T	Unit Qty
0380280	11.10	5.16	2.36	1,000
0380285	12.70	6.55	2.36	1,000
0380290	14.28	8.46	2.36	1,000
0380295	15.88	10.03	2.36	1,000
0380300	19.05	11.63	2.36	1,000
0380305	22.48	13.06	2.36	1,000

Neoprene Washers



Specifications: RoHS ✓
Material: Neoprene
Hardness: 45° to 65° Shore A
Colour: Black
Temperature Index: 76°C
Tolerances: O/D & I/D = ± 0.38, T = ± 0.41

- Ideal for use as a sealing washer
- Good resistance to oils and petrol
- Resists rotting and cracking
- Good low temperature flexibility



PART NUMBER	O/D	I/D	T	Unit Qty
0380800	6.35	2.36	0.79	1,000
0380805	9.53	3.18	0.79	1,000
0380810	11.10	3.96	1.58	1,000
0380815	12.70	4.75	1.58	1,000

PART NUMBER	O/D	I/D	T	Unit Qty
0380820	14.28	5.16	2.36	1,000
0380825	19.05	7.14	2.36	1,000

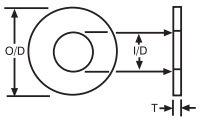


Special Flat Washers

- Provides electrical insulation
- Ideal for use as a bearing surface
- Will not corrode
- Good chemical resistance

Specifications: RoHS ✓

Material: Nylon 66
Colour: Natural
Tolerances:
O/D & I/D = ±0.38
T = ±0.25



PART NUMBER	O/D	I/D	T	Unit Qty
0413680	11.43	6.10	0.38	1,000
0414120	11.81	6.35	0.38	1,000
0413683	2.54	0.89	0.51	1,000
0413684	4.78	2.39	0.51	1,000
0413685	25.40	4.34	0.51	1,000
0414124	12.50	5.31	0.51	1,000
0413686	15.88	6.53	0.51	1,000
0414125	17.45	6.60	0.51	1,000
0414126	14.27	8.13	0.51	1,000
0413689	6.35	3.20	0.64	1,000
0414128	19.05	9.78	0.64	1,000
0413693	7.14	3.05	0.76	1,000
0413694	9.53	4.32	0.76	1,000
0413695	25.40	4.34	0.76	1,000
0414134	19.05	6.53	0.76	1,000
0413698	14.22	6.73	0.76	1,000
0413699	9.14	6.78	0.76	1,000
0413700	12.70	7.14	0.76	1,000
0414138	19.18	14.17	0.76	1,000
0413701	25.40	14.27	0.76	1,000
0413706	2.29	0.79	0.79	1,000
0414140	5.59	2.64	0.79	1,000
0413724	8.00	3.18	0.79	1,000
0413709	9.53	3.58	0.79	1,000
0413711	7.87	3.96	0.79	1,000
0414142	8.99	4.29	0.79	1,000
0413714	19.05	4.34	0.79	1,000
0413715	11.10	4.95	0.79	1,000
0413716	9.91	5.08	0.79	1,000
0413717	15.88	5.54	0.79	1,000
0413718	14.27	6.35	0.79	1,000
0413719	22.23	6.53	0.79	1,000
0413720	12.70	6.68	0.79	1,000
0413722	17.60	7.11	0.79	1,000
0413723	13.49	7.95	0.79	1,000
0413725	15.88	8.00	0.79	1,000
0414148	11.81	8.38	0.79	1,000
0414149	17.45	8.71	0.79	1,000
0413726	19.05	8.94	0.79	1,000
0414150	14.22	9.47	0.79	1,000
0414151	23.67	9.68	0.79	1,000
0413727	17.48	9.91	0.79	1,000
0413728	17.45	10.69	0.79	1,000
0413730	13.87	12.29	0.79	1,000
0413729	17.04	12.60	0.79	1,000
0414152	31.75	14.27	0.79	1,000
0414153	18.92	14.48	0.79	1,000
0413731	19.84	16.26	0.79	1,000
0414154	31.62	25.40	0.79	1,000
0414155	4.75	3.05	0.81	1,000
0413738	7.92	3.18	0.81	1,000
0413740	11.18	3.96	0.81	1,000
0413741	7.24	4.06	0.81	1,000
0413742	8.51	4.70	0.81	1,000
0413743	12.70	4.78	0.81	1,000
0413744	7.87	4.83	0.81	1,000
0414160	13.34	4.93	0.81	1,000
0413745	9.53	5.54	0.81	1,000
0413746	13.97	6.43	0.81	1,000
0413747	17.40	6.60	0.81	1,000
0413748	19.05	7.52	0.81	1,000
0414165	25.40	7.92	0.81	1,000
0413749	12.70	8.00	0.81	1,000
0413750	19.05	8.33	0.81	1,000
0414167	12.70	9.53	0.81	1,000
0414166	15.88	9.53	0.81	1,000
0414168	19.05	10.31	0.81	1,000
0414169	15.24	10.74	0.81	1,000
0414171	19.05	12.83	0.81	1,000
0414173	43.79	38.10	0.81	1,000
0413755	3.51	1.02	0.84	1,000
0414174	8.03	2.54	0.84	1,000
0413754	11.30	7.37	0.84	1,000
0414175	15.88	10.41	0.84	1,000
0414176	28.45	12.78	0.84	1,000
0413758	6.10	2.87	0.89	1,000
0413760	5.54	3.05	0.94	1,000
0414182	14.61	7.59	0.99	1,000
0414184	13.41	10.21	0.99	1,000
0414185	27.99	18.49	0.99	1,000
0414186	40.01	20.19	0.99	1,000
0414188	12.75	2.57	1.02	1,000
0413767	7.11	3.05	1.02	1,000
0414189	5.97	3.18	1.02	1,000
0413768	9.53	3.18	1.02	1,000
0414191	9.53	4.32	1.02	1,000
0414192	25.55	4.80	1.02	1,000
0413770	19.05	4.90	1.02	1,000
0414193	11.10	4.95	1.02	1,000
0414194	8.89	6.10	1.02	1,000
0413771	17.45	6.60	1.02	1,000
0414195	15.88	7.42	1.02	1,000
0414196	19.05	8.05	1.02	1,000
0414197	16.00	9.02	1.02	1,000
0413772	31.75	9.91	1.02	1,000
0414198	20.96	16.26	1.02	1,000
0413773	26.19	21.44	1.02	1,000
0414200	33.27	23.83	1.02	1,000
0413774	30.94	26.19	1.02	1,000
0413778	17.45	12.88	1.07	1,000
0414203	4.52	2.49	1.14	1,000
0414206	6.50	4.75	1.14	1,000
0414207	19.05	9.78	1.14	1,000
0414208	32.18	9.91	1.14	1,000
0413782	7.14	2.92	1.19	1,000
0413784	7.92	3.05	1.19	1,000
0413785	7.92	3.56	1.19	1,000
0413786	6.35	3.68	1.19	1,000
0413787	19.05	3.81	1.19	1,000
0414210	9.40	4.67	1.19	1,000
0413788	14.10	6.48	1.19	1,000
0413789	11.10	6.60	1.19	1,000
0413792	11.43	5.08	1.22	1,000
0414215	4.75	3.68	1.27	1,000
0413794	7.92	3.81	1.27	1,000
0414216	12.95	4.90	1.27	1,000
0414217	6.86	5.26	1.27	1,000
0414218	17.02	5.51	1.27	1,000
0413796	12.57	9.53	1.27	1,000
0414221	15.88	9.65	1.27	1,000
0413797	19.05	9.80	1.27	1,000
0413798	37.29	13.08	1.27	1,000
0414222	33.32	15.88	1.27	1,000
0413799	43.64	15.88	1.27	1,000
0413800	45.72	24.38	1.27	1,000
0413801	30.56	24.99	1.27	1,000
0414223	55.37	36.07	1.27	1,000
0414224	56.01	43.69	1.27	1,000
0413804	5.23	2.84	1.35	1,000
0414226	38.23	19.05	1.35	1,000
0414227	14.83	3.45	1.37	1,000
0414229	11.00	7.01	1.37	1,000
0414230	13.00	10.29	1.37	1,000
0413806	6.35	2.29	1.40	1,000
0414231	12.45	3.45	1.40	1,000
0414233	10.74	5.72	1.40	1,000
0414234	22.86	9.53	1.40	1,000
0414235	19.13	15.37	1.40	1,000
0414238	28.12	21.72	1.47	1,000
0414241	17.65	9.86	1.50	1,000
0414242	19.00	10.24	1.50	1,000
0414243	20.55	12.57	1.50	1,000
0414244	3.18	0.81	1.52	1,000
0414246	31.75	2.54	1.52	1,000
0413815	4.75	3.05	1.52	1,000
0413816	7.24	3.30	1.52	1,000
0413818	16.00	4.34	1.52	1,000
0413819	9.53	4.37	1.52	1,000
0413820	15.80	6.40	1.52	1,000
0413821	9.19	6.60	1.52	1,000
0413822	17.45	6.60	1.52	1,000
0413823	20.62	6.73	1.52	1,000
0414252	22.35	8.31	1.52	1,000
0413825	22.23	10.36	1.52	1,000
0414255	14.10	10.54	1.52	1,000
0414256	25.27	10.57	1.52	1,000
0414257	20.57	11.05	1.52	1,000
0414259	13.28	11.76	1.52	1,000
0414260	50.80	12.95	1.52	1,000
0413826	25.40	13.49	1.52	1,000
0414262	50.80	16.13	1.52	1,000
0414263	26.01	16.31	1.52	1,000
0414264	21.44	16.66	1.52	1,000
0414265	31.50	17.02	1.52	1,000
0414266	31.75	20.45	1.52	1,000
0414267	28.58	22.58	1.52	1,000
0414268	41.28	23.88	1.52	1,000
0414269	50.80	38.74	1.52	1,000
0413832	3.89	0.97	1.57	1,000
0414272	3.96	1.93	1.57	1,000
0413833	6.58	2.06	1.57	1,000
0414273	3.76	2.16	1.57	1,000
0413834	7.92	2.41	1.57	1,000
0413835	7.98	2.79	1.57	1,000
0413836	7.11	2.92	1.57	1,000
0413837	6.35	3.18	1.57	1,000
0413838	7.14	3.18	1.57	1,000
0413839	15.88	3.18	1.57	1,000
0413840	8.18	3.25	1.57	1,000
0413842	8.89	3.30	1.57	1,000
0414277	7.92	3.56	1.57	1,000
0414278	10.16	3.56	1.57	1,000
0413844	6.35	3.58	1.57	1,000
0413845	14.75	3.58	1.57	1,000
0414280	11.13	3.96	1.57	1,000
0414281	25.40	3.96	1.57	1,000
0413846	7.92	4.11	1.57	1,000
0413847	12.70	4.27	1.57	1,000
0414283	17.32	4.32	1.57	1,000
0413848	6.35	4.34	1.57	1,000
0413849	16.00	4.34	1.57	1,000
0413850	10.36	4.50	1.57	1,000
0413851	14.33	4.52	1.57	1,000
0414284	12.70	4.75	1.57	1,000
0413852	15.88	4.75	1.57	1,000
0413853	8.38	4.83	1.57	1,000
0413856	11.10	5.08	1.57	1,000
0414288	14.35	5.16	1.57	1,000
0413857	15.88	5.54	1.57	1,000
0413858	19.05	5.54	1.57	1,000
0413859	9.50	5.59	1.57	1,000
0413860	10.31	5.94	1.57	1,000
0413861	9.53	6.15	1.57	1,000
0413863	15.88	6.35	1.57	1,000
0413864	18.26	6.35	1.57	1,000
0414289	31.75	6.35	1.57	1,000
0414290	12.70	6.53	1.57	1,000
0414291	19.05	6.53	1.57	1,000
0414292	22.23	6.53	1.57	1,000
0413865	22.25	6.53	1.57	1,000
0413866	8.89	6.60	1.57	1,000
0413867	14.27	6.60	1.57	1,000
0414293	13.49	6.73	1.57	1,000
0413868	18.26	7.14	1.57	1,000
0414294	15.88	7.21	1.57	1,000
0414296	17.40	7.49	1.57	1,000
0414297	38.10	7.92	1.57	1,000
0414298	14.22	8.00	1.57	1,000
0413869	22.15	8.00	1.57	1,000
0414299	12.70	8.05	1.57	1,000
0413870	19.05	8.05	1.57	1,000
0414300	28.58	8.13	1.57	1,000
0414301	18.80	8.64	1.57	1,000
0414302	11.10	8.71	1.57	1,000
0413876	22.23	8.71	1.57	1,000
0413878	25.40	8.71	1.57	1,000
0414304	14.10	9.22	1.57	1,000
0414305	11.51	9.53	1.57	1,000
0413880	19.05	9.53	1.57	1,000
0414309	23.80	9.65	1.57	1,000
0413883	25.40	9.65	1.57	1,000
0413884	19.05	9.91	1.57	1,000
0414311	22.35	9.91	1.57	1,000
0413886	32.00	9.91	1.57	1,000
0413887	38.10	9.91	1.57	1,000
0414312	50.80	9.91	1.57	1,000
0414313	14.68	10.03	1.57	1,000
0413888	20.62	10.31	1.57	1,000
0413889	25.40	10.31	1.57	1,000
0413891	17.45	10.69	1.57	1,000
0414314	19.05	11.25	1.57	1,000
0413892	15.88	12.70	1.57	1,000
0413893	17.45	12.70	1.57	1,000
0413894	25.40	12.70	1.57	1,000
0413895	28.58	12.70	1.57	1,000
0413896	34.93	12.70	1.57	1,000
0414315	19.05	12.83	1.57	1,000
0413897	31.75	13.11	1.57	1,000
0413898	18.24	13.36	1.57	1,000
0414317	26.97	13.49	1.57	1,000
0413899	17.78	14.27	1.57	1,000
0413900	31.75	14.27	1.57	1,000
0414319	22.30	14.33	1.57	1,000
0414320	17.45	14.43	1.57	1,000
0414321	23.80	14.81	1.57	1,000
0413902	25.40	15.88	1.57	1,000
0414322	28.70	16.00	1.57	1,000
0414323	39.67	16.00	1.57	1,000
0413905	41.28	16.13	1.57	1,000
0413906	25.40	18.29	1.57	1,000
0414325	50.80	20.45	1.57	1,000
0414326	75.39	20.45	1.57	1,000
0413907	35.56	20.57	1.57	1,000

Continued...

OPTIMAS
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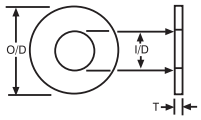


Specifications: RoHS ✓

Material: Nylon 66
Colour: Natural
Tolerances:
O/D & I/D = ±0.38
T = ±0.25

- Provides electrical insulation
- Ideal for use as a bearing surface
- Will not corrode
- Good chemical resistance



PART NUMBER	O/D	I/D	T	Unit Qty
0413908	38.10	20.57	1.57	1,000
0414328	32.51	22.35	1.57	1,000
0413910	33.32	27.63	1.57	1,000
0414331	9.91	3.18	1.60	1,000
0414332	9.53	3.89	1.60	1,000
0414333	31.75	7.14	1.60	1,000
0414334	25.40	7.54	1.60	1,000
0414335	17.35	8.56	1.60	1,000
0414336	14.00	9.60	1.60	1,000
0414337	34.93	19.84	1.60	1,000
0414338	63.50	20.32	1.60	1,000
0413917	36.50	25.40	1.60	1,000
0413919	4.57	3.53	1.63	1,000
0414339	25.55	4.80	1.63	1,000
0414340	34.93	6.35	1.63	1,000
0414341	15.88	8.38	1.63	1,000
0414342	17.45	8.74	1.63	1,000
0414343	23.88	12.85	1.63	1,000
0414344	7.16	4.83	1.65	1,000
0413920	9.53	4.83	1.65	1,000
0413922	31.95	5.74	1.65	1,000
0414345	24.89	8.71	1.65	1,000
0414346	20.50	10.21	1.65	1,000
0414347	18.11	11.76	1.65	1,000
0414349	25.50	16.03	1.65	1,000
0413921	36.83	25.40	1.65	1,000
0414350	43.05	31.88	1.65	1,000
0414351	18.92	6.60	1.68	1,000
0414352	19.05	9.70	1.68	1,000
0414353	19.13	15.37	1.70	1,000
0414354	38.10	4.78	1.73	1,000
0414355	38.10	5.16	1.73	1,000
0414356	12.34	6.40	1.75	1,000
0414357	4.01	2.79	1.78	1,000
0414358	7.92	6.60	1.78	1,000
0414359	25.40	6.71	1.78	1,000
0413927	13.34	12.07	1.78	1,000
0414361	9.53	3.18	1.83	1,000
0414362	18.49	13.03	1.83	1,000
0414363	41.35	38.30	1.83	1,000
0414365	7.52	4.29	1.88	1,000
0413929	12.70	4.19	1.91	1,000
0413930	12.70	6.48	1.91	1,000
0414366	11.00	6.99	1.91	1,000
0414367	11.48	8.86	1.91	1,000
0414368	19.15	9.88	1.91	1,000
0414369	38.10	11.40	1.91	1,000
0413931	22.86	12.70	1.91	1,000
0414371	22.86	14.71	1.91	1,000
0414372	25.40	19.84	1.91	1,000
0414373	57.15	25.40	1.91	1,000
0414091	17.65	2.08	1.96	1,000
0414375	6.38	3.94	1.96	1,000
0414376	16.21	7.19	1.96	1,000
0413933	4.55	1.65	1.98	1,000
0414377	9.45	2.29	1.98	1,000
0414378	5.99	3.20	2.01	1,000
0414379	22.91	6.20	2.01	1,000
0414380	9.91	8.33	2.01	1,000
0414381	18.01	8.53	2.01	1,000
0414382	30.07	12.12	2.01	1,000
0414383	3.05	1.40	2.03	1,000
0414384	4.75	2.31	2.03	1,000
0414385	12.83	3.51	2.03	1,000
0413938	6.35	3.56	2.03	1,000
0414386	9.53	3.56	2.03	1,000
0414387	8.38	4.80	2.03	1,000
0414388	9.40	4.88	2.03	1,000
0413940	12.70	6.53	2.03	1,000
0414389	10.31	6.76	2.03	1,000
0414390	31.75	6.86	2.03	1,000
0413942	19.94	10.01	2.03	1,000
0414391	13.72	10.29	2.03	1,000
0414392	25.50	10.31	2.03	1,000
0413943	25.40	13.16	2.03	1,000
0413944	31.75	19.43	2.03	1,000
0414393	31.75	20.62	2.03	1,000
0414394	38.10	25.76	2.03	1,000
0413949	9.53	6.43	2.13	1,000
0414401	15.01	6.50	2.21	1,000
0413951	12.70	9.53	2.21	1,000
0414403	19.00	10.16	2.26	1,000
0414405	7.92	1.60	2.29	1,000
0413954	11.10	5.08	2.29	1,000
0414408	10.69	7.39	2.29	1,000
0414409	34.93	11.43	2.29	1,000
0414410	14.61	11.86	2.29	1,000
0414411	16.33	12.95	2.29	1,000
0414412	34.93	16.26	2.29	1,000
0414413	30.23	16.51	2.29	1,000
0414414	7.92	4.88	2.34	1,000
0413959	38.10	16.76	2.34	1,000
0413963	6.35	3.30	2.36	1,000
0413964	9.53	3.33	2.36	1,000
0414418	7.92	3.56	2.36	1,000
0414420	11.18	4.75	2.36	1,000
0414422	7.11	5.08	2.36	1,000
0414424	12.70	5.56	2.36	1,000
0414426	12.70	6.53	2.36	1,000
0414427	15.88	6.73	2.36	1,000
0414428	22.23	6.73	2.36	1,000
0414429	12.70	8.05	2.36	1,000
0414430	9.40	8.13	2.36	1,000
0414431	13.46	9.53	2.36	1,000
0414432	15.88	9.65	2.36	1,000
0413968	22.25	9.65	2.36	1,000
0413970	22.25	9.91	2.36	1,000
0414434	19.05	11.18	2.36	1,000
0414436	19.05	12.83	2.36	1,000
0414438	25.40	13.08	2.36	1,000
0414437	34.93	13.08	2.36	1,000
0414439	18.87	13.11	2.36	1,000
0414440	17.78	13.49	2.36	1,000
0413975	17.91	14.27	2.36	1,000
0413976	23.80	15.88	2.36	1,000
0413977	20.67	17.65	2.36	1,000
0413978	26.97	18.80	2.36	1,000
0413979	32.13	24.21	2.36	1,000
0414441	74.55	28.58	2.36	1,000
0414442	76.20	32.26	2.36	1,000
0414443	41.30	35.69	2.36	1,000
0414444	48.41	38.10	2.36	1,000
0414445	76.33	41.28	2.36	1,000
0414446	6.35	3.56	2.39	1,000
0413987	11.05	6.35	2.39	1,000
0413988	14.35	6.45	2.39	1,000
0414448	25.40	16.15	2.39	1,000
0414449	5.94	3.58	2.41	1,000
0414450	18.80	5.46	2.41	1,000
0414451	9.58	5.61	2.41	1,000
0414452	19.05	6.63	2.41	1,000
0414453	12.57	7.87	2.41	1,000
0414454	14.35	8.05	2.41	1,000
0414458	12.70	7.92	2.44	1,000
0414459	13.72	9.70	2.44	1,000
0414460	3.99	2.59	2.49	1,000
0414462	23.98	8.41	2.49	1,000
0414463	22.00	10.49	2.49	1,000
0414464	30.00	10.49	2.49	1,000
0414465	16.15	13.36	2.49	1,000
0414466	27.99	15.04	2.49	1,000
0414467	5.56	2.39	2.54	1,000
0414468	4.83	3.05	2.54	1,000
0413995	12.70	3.15	2.54	1,000
0413996	5.72	3.18	2.54	1,000
0413998	6.35	4.34	2.54	1,000
0413999	15.62	6.60	2.54	1,000
0414471	19.18	8.08	2.54	1,000
0414001	21.46	9.53	2.54	1,000
0414002	20.96	12.19	2.54	1,000
0414474	25.40	12.70	2.54	1,000
0414475	18.16	14.48	2.54	1,000
0414003	20.62	16.00	2.54	1,000
0414004	31.12	16.33	2.54	1,000
0414008	36.90	17.70	2.54	1,000
0414476	26.92	18.80	2.54	1,000
0414005	36.20	19.51	2.54	1,000
0414478	37.08	29.97	2.54	1,000
0414479	21.46	15.77	2.57	1,000
0414480	24.43	19.18	2.57	1,000
0414481	10.54	5.82	2.59	1,000
0414482	31.75	22.50	2.67	1,000
0414483	7.11	3.81	2.74	1,000
0414484	11.99	5.31	2.74	1,000
0414485	4.75	2.92	2.77	1,000
0414486	19.05	6.53	2.77	1,000
0414487	7.92	6.60	2.77	1,000
0414007	12.70	8.71	2.77	1,000
0414488	6.35	3.61	2.79	1,000
0414489	7.92	4.88	2.79	1,000
0414010	15.88	7.14	2.79	1,000
0414490	11.99	8.89	2.79	1,000
0414011	31.37	9.27	2.79	1,000
0414493	15.60	11.79	2.79	1,000
0414494	18.42	12.70	2.79	1,000
0414495	19.20	14.68	2.79	1,000
0414012	41.28	34.93	2.79	1,000
0414017	13.72	10.29	2.84	1,000
0414497	37.29	25.65	2.84	1,000
0414498	14.27	6.60	2.87	1,000
0414019	22.23	15.93	2.90	1,000
0414500	11.10	5.08	2.92	1,000
0414021	15.88	7.14	2.92	1,000
0414501	5.99	3.76	3.00	1,000
0414502	16.00	4.19	3.00	1,000
0414503	9.04	4.55	3.00	1,000
0414505	35.43	6.35	3.00	1,000
0414508	39.88	13.00	3.00	1,000
0414510	40.01	5.99	3.02	1,000
0414513	18.80	5.59	3.05	1,000
0414514	10.57	6.91	3.05	1,000
0414515	31.75	7.87	3.05	1,000
0414516	24.97	9.14	3.05	1,000
0414517	15.88	10.31	3.05	1,000
0414518	17.02	11.38	3.05	1,000
0414519	15.24	12.70	3.05	1,000
0414520	19.69	12.70	3.05	1,000
0414521	37.85	13.23	3.05	1,000
0414024	33.27	16.38	3.05	1,000
0414523	38.10	17.68	3.05	1,000
0414524	36.83	25.15	3.05	1,000
0414025	46.99	26.11	3.05	1,000
0414525	57.79	32.39	3.05	1,000
0414026	50.25	32.40	3.05	1,000
0414027	58.03	32.72	3.05	1,000
0414528	41.35	38.30	3.10	1,000
0414529	76.61	71.12	3.10	1,000
0414533	3.18	1.50	3.18	1,000
0414030	7.92	1.57	3.18	1,000
0414534	6.35	2.29	3.18	1,000
0414535	25.40	2.36	3.18	1,000
0414031	7.92	2.79	3.18	1,000
0414536	4.62	3.05	3.18	1,000
0414537	12.70	3.18	3.18	1,000
0414539	4.75	3.58	3.18	1,000
0414540	12.70	3.66	3.18	1,000
0414541	6.35	3.73	3.18	1,000
0414032	17.45	3.96	3.18	1,000
0414542	9.53	4.34	3.18	1,000
0414543	11.02	4.83	3.18	1,000
0414033	15.88	4.93	3.18	1,000
0414545	6.22	4.95	3.18	1,000
0414546	12.70	5.21	3.18	1,000
0414034	7.11	5.33	3.18	1,000
0414035	15.88	5.54	3.18	1,000
0414549	31.75	5.74	3.18	1,000
0414036	23.57	5.84	3.18	1,000
0414550	24.64	5.84	3.18	1,000
0414551	9.88	6.38	3.18	1,000
0414552	11.25	6.43	3.18	1,000
0414553	22.86	6.48	3.18	1,000
0414554	12.70	6.53	3.18	1,000
0414555	14.22	6.60	3.18	1,000
0414557	18.92	6.60	3.18	1,000
0414560	19.05	7.62	3.18	1,000
0414561	14.68	7.80	3.18	1,000
0414037	29.85	7.87	3.18	1,000
0414562	9.53	7.92	3.18	1,000
0414038	12.70	7.92	3.18	1,000
0414039	20.62	7.92	3.18	1,000
0414041	21.72	7.92	3.18	1,000
0414040	22.23	7.92	3.18	1,000
0414042	19.05	8.20	3.18	1,000
0414565	25.40	8.28	3.18	1,000
0414043	15.88	8.33	3.18	1,000
0414566	34.93	8.38	3.18	1,000
0414567	38.10	8.51	3.18	1,000
0414046	15.62	8.64	3.18	1,000
0414568	19.05	9.53	3.18	1,000
0414570	15.88	9.65	3.18	1,000
0414571	31.75	9.65	3.18	1,000
0414572	34.80	9.65	3.18	1,000
0414573	22.35	9.78	3.18	1,000
0414047	17.45	9.91	3.18	1,000
0414048	28.45	9.91	3.18	1,000
0414051	19.23	10.01	3.18	1,000
0414052	24.99	10.31	3.18	1,000
0414575	17.48	11.02	3.18	1,000
0414576	15.98	11.10	3.18	1,000
0414577	31.75	11.10	3.18	1,000
0414579	19.05	11.25	3.18	1,000
0414053	25.40	11.43	3.18	1,000
0414054	22.23	12.70	3.18	1,000
0414055	38.10	12.70	3.18	1,000

Continued...

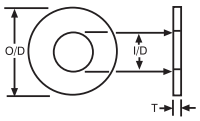


Special Flat Washers

- Provides electrical insulation
- Ideal for use as a bearing surface
- Will not corrode
- Good chemical resistance

Specifications: RoHS ✓

Material: Nylon 66
Colour: Natural
Tolerances:
O/D & I/D = ±0.38
T = ±0.25



PART NUMBER	O/D	I/D	T	Unit Qty
0414581	50.01	12.80	3.18	1,000
0414582	19.05	12.83	3.18	1,000
0414583	25.40	12.83	3.18	1,000
0414584	18.80	13.11	3.18	1,000
0414058	34.93	13.34	3.18	1,000
0414059	28.58	13.72	3.18	1,000
0414060	25.40	14.27	3.18	1,000
0414587	20.45	15.77	3.18	1,000
0414588	50.80	16.00	3.18	1,000
0414589	19.86	16.08	3.18	1,000
0414061	34.93	16.66	3.18	1,000
0414591	21.34	18.54	3.18	1,000
0414592	22.23	19.18	3.18	1,000
0414593	28.58	19.38	3.18	1,000
0414064	26.85	20.62	3.18	1,000
0414594	44.45	20.62	3.18	1,000
0414595	79.55	20.62	3.18	1,000
0414596	25.40	21.44	3.18	1,000
0414067	31.75	22.23	3.18	1,000
0414069	33.32	25.40	3.18	1,000
0414598	63.50	27.31	3.18	1,000
0414599	38.10	31.75	3.18	1,000
0414600	75.44	37.85	3.18	1,000
0414601	50.42	38.74	3.18	1,000
0414070	63.50	44.45	3.18	1,000
0414602	68.33	49.02	3.18	1,000
0414603	11.00	6.65	3.20	1,000
0414604	23.60	11.99	3.20	1,000
0414606	28.58	23.37	3.20	1,000
0414071	7.49	3.43	3.23	1,000
0414072	7.49	5.59	3.23	1,000
0414608	28.30	21.34	3.23	1,000

PART NUMBER	O/D	I/D	T	Unit Qty
0414610	3.05	1.14	3.30	1,000
0414611	4.75	2.18	3.30	1,000
0414612	6.35	4.75	3.30	1,000
0414614	38.10	11.10	3.30	1,000
0414616	38.10	19.18	3.30	1,000
0414617	28.75	23.93	3.30	1,000
0414618	57.51	35.81	3.30	1,000
0414075	54.36	44.70	3.30	1,000
0414619	4.70	1.30	3.35	1,000
0414620	15.88	12.70	3.35	1,000
0414621	51.03	32.51	3.43	1,000
0414623	7.92	2.92	3.56	1,000
0414625	15.88	6.60	3.56	1,000
0414077	19.05	9.91	3.56	1,000
0414078	28.45	16.26	3.56	1,000
0414627	41.91	35.43	3.56	1,000
0414629	8.43	5.72	3.61	1,000
0414630	7.11	3.05	3.68	1,000
0414632	22.23	15.06	3.68	1,000
0414633	14.99	8.33	3.73	1,000
0414634	6.35	3.18	3.81	1,000
0414635	4.75	3.30	3.81	1,000
0414637	9.53	6.35	3.81	1,000
0414079	12.70	6.35	3.81	1,000
0414639	30.99	12.75	3.81	1,000
0414640	18.92	12.93	3.81	1,000
0414641	74.42	16.05	3.81	1,000
0414642	5.00	1.70	3.91	1,000
0414643	25.40	8.61	3.91	1,000
0414644	9.65	4.75	3.94	1,000
0414645	18.75	5.59	3.94	1,000
0414647	23.83	11.51	3.94	1,000
0414648	14.30	11.89	3.94	1,000
0414081	21.97	17.48	3.94	1,000

PART NUMBER	O/D	I/D	T	Unit Qty
0414650	4.75	3.05	3.96	1,000
0414651	9.40	3.63	3.96	1,000
0414082	19.05	4.75	3.96	1,000
0414653	11.13	5.54	3.96	1,000
0414655	11.07	7.52	3.96	1,000
0414083	12.70	7.92	3.96	1,000
0414657	5.99	3.20	3.99	1,000
0414658	8.97	5.00	3.99	1,000
0414659	24.00	8.99	3.99	1,000
0414660	35.00	11.00	3.99	1,000
0414661	30.00	21.01	3.99	1,000
0414662	17.70	13.49	4.01	1,000
0414663	7.11	3.94	4.06	1,000
0414664	25.40	4.93	4.06	1,000
0414084	9.53	5.33	4.06	1,000
0414085	18.67	9.14	4.06	1,000
0414086	19.05	9.70	4.06	1,000
0414087	12.70	9.78	4.06	1,000
0414665	22.23	19.05	4.06	1,000
0414666	50.80	27.43	4.06	1,000
0414667	6.35	2.31	4.19	1,000
0414668	4.75	2.92	4.19	1,000
0414669	21.84	10.08	4.19	1,000
0414670	32.26	13.92	4.22	1,000
0414671	11.23	7.87	4.32	1,000
0414672	19.05	7.87	4.32	1,000
0414673	12.70	8.13	4.32	1,000
0414674	19.05	15.88	4.32	1,000

PART NUMBER	O/D	I/D	T	Unit Qty
0414678	25.40	9.91	4.45	1,000
0414679	15.19	10.06	4.45	1,000
0414680	25.40	19.18	4.45	1,000
0414092	25.40	16.05	4.70	1,000
0414686	11.05	5.13	4.75	1,000
0414094	15.75	5.31	4.75	1,000
0414687	19.05	5.54	4.75	1,000
0414688	14.27	6.73	4.75	1,000
0414095	22.23	7.92	4.75	1,000
0414689	25.40	7.92	4.75	1,000
0414691	14.22	8.13	4.75	1,000
0414096	21.97	8.74	4.75	1,000
0414693	20.62	9.80	4.75	1,000
0414694	25.40	12.70	4.75	1,000
0414097	19.05	13.49	4.75	1,000
0414696	22.10	13.49	4.75	1,000
0414697	41.28	25.40	4.75	1,000
0414098	15.75	8.89	4.78	1,000
0414099	17.48	8.08	4.83	1,000
0414699	17.40	12.01	4.83	1,000
0414100	33.32	25.40	4.85	1,000
0414702	39.12	29.57	4.88	1,000
0414703	9.70	6.48	4.95	1,000
0414704	8.51	7.11	4.95	1,000
0414705	28.37	22.23	4.95	1,000

Custom Size Washers, Insulators and other Stamped Products









Although we currently offer an extensive range of nylon flat washers in our catalogue, we understand that there are still many applications where you will need a stamped product in a custom size, shape or material.

We are able to offer custom made washers, insulator, gaskets, diaphragms etc in a wide variety of materials including Nylon, PTFE, Nylatron®, Polyethylene, Polyproylene, Fibre, Phenolics, Rubbers, PVC, Nomex®, Mylar®, Chipboard, Kapton®, Fishpaper, Epoxy Glass, Acetel and more.

USES INCLUDE:

- Resistance to chemicals
- Low friction and wear properties
- Sealing applications
- Good dielectric strength
- Lightweight
- Super electrical properties in heat and cold
- Low moisture absorption characteristics
- Noise reduction
- Corrosion resistance

TYPICAL APPLICATIONS:

- Automotive
- Aerospace
- Medical & Scientific
- Industrial
- Electronics
- Construction
- Food & Beverage
- Defence
- Plumbing

... and many more

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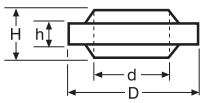
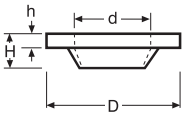
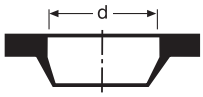
Locking And Sealing Washers

FORM A



FORM B





Form B washers have internal form as shown

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

- Seals metal screw and bolt connections
- Reduces clearance in screw clearance holes
- Reduces friction
- Protects against electrolytic corrosion
- Supresses noise and vibration



PART NUMBER	Screw Size		d	D	h	H	Form	Unit Quantity
	Metric	Inch						
0161007	M3	⅛	3.10	7.00	0.70	1.40	A	1,000
0161008	M4	5/32	4.15	9.00	1.25	2.80	A	1,000
0161009	M5	3/16	5.15	10.40	1.40	3.50	A	1,000
0161010	M6	-	6.10	12.00	1.60	4.00	A	1,000
0161011	M6	-	6.40	10.70	1.00	3.75	A	1,000
0161012	M8	5/16	8.10	15.80	2.10	4.60	A	1,000
0161013	M10	⅜	10.00	19.60	2.10	5.30	A	1,000
0161014	M12	7/16	12.00	22.00	2.30	5.80	A	1,000
0161015	M14	9/16	14.00	25.20	2.50	5.50	A	1,000
0161016	M16	⅝	16.20	29.40	2.60	6.20	A	1,000
0161017	M18	-	18.15	31.50	2.70	6.90	A	1,000
0161018	M20	-	20.20	35.50	2.80	6.90	A	1,000
0161019	M20	-	20.10	31.50	2.70	7.00	A	1,000
0161020	M22	⅞	22.50	36.00	2.50	6.00	A	500
0161021	M24	-	24.30	37.80	3.00	7.60	A	500
0161022	M27	-	27.30	40.00	3.10	7.80	A	500
0161023	M30	-	30.20	49.20	3.20	9.30	A	500
0161024	M33	1 ¼	33.20	50.10	3.40	9.50	A	500
0161025	M36	1 ⅜	36.40	64.00	3.80	11.80	A	500
0161026	M39	1 ½	39.20	69.00	3.80	10.30	A	500
0161027	-	¼	6.50	12.70	1.60	3.50	A	1,000
0161028	-	½	12.80	23.00	2.20	5.50	A	1,000
0161029	-	¾	19.20	32.00	2.50	6.80	A	1,000
0161030	-	1	25.60	45.00	3.00	8.00	A	1,000
0161031	-	1 ⅛	30.30	50.00	3.10	9.00	A	1,000
0161032	-	R¾	26.50	34.00	2.00	6.00	A	1,000
0161033	M3.5	-	3.50	9.00	1.20	2.70	B	1,000
0161034	M4.2	-	4.20	9.00	1.20	3.00	B	1,000
0161035	M4.8	-	4.80	10.00	1.50	3.20	B	1,000
0161036	M6	-	6.30	12.50	1.50	2.80	B	1,000
0161037	M8	-	8.20	16.00	1.60	3.10	B	1,000
0161038	-	R⅛	10.30	15.00	2.00	4.00	B	1,000
0161039	-	R¼	13.20	19.00	2.50	4.50	B	1,000
0161040	-	R⅜	17.50	23.00	2.00	4.50	B	1,000
0161041	-	R½	21.50	27.50	2.00	4.50	B	1,000

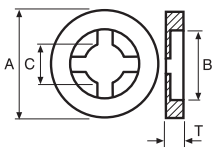
Retaining Washers

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Tolerances: ± 0.13 all dimensions

* This part has a flat form

- Secures screws into cover panels
- Prevents screw loss when covers removed





PART NUMBER	A	B	C	T	Suitable for use with			Unit Quantity
					Machine Screws		Self Tapping Screws	
					Metric	Unified		
0391000	9.90	4.67	2.79	0.81	M3	-	-	1,000
0391006	8.33	5.02	3.25	0.81	M3.5	No. 6	No. 6	1,000
0391008	8.76	4.29	3.38	0.81	M4	-	-	1,000
0391010	9.92	5.92	3.86	1.58	M4.5	No. 8	No. 8	1,000
0391012	11.50	7.04	4.50	0.81	M5	No. 10	No. 10	1,000
0391018	12.70	7.04	4.50	1.57	M5	No. 10	No. 10	1,000
0391024	15.09	9.53	5.94	0.91	-	¼	No. 14	1,000
*0391030	22.23	11.05	6.35	1.01	M7	-	-	1,000
0391040	26.19	14.48	10.41	1.58	M12	½	-	1,000

CIRCULAR CONNECTORS



SIGNAL AND POWER CIRCULAR CONNECTORS

Available in a wide range of thread sizes, contacts and housings to suit all applications, Hummel's Circular Connectors have earned a worldwide reputation for their high quality robust construction, performance and durability.

KEY FEATURES:

- **THREAD SIZES** – Signal Connectors in M16, M23 & M27; Power Connectors in M23 & M40
- **CONTACTS** – constructed from Brass Alloy, Nickel and Gold plated
- **HOUSINGS** – from die cast Copper/Zinc Alloy with Nickel plating; straight, right angle and panel fittings; male & female variants available
- **INSERTS** – moulded in Nylon, PBT (UL94V-0)

KEY BENEFITS:

- A wide range of Contact Configurations, from 2 to 18 contacts dependant on the housing type
- User-friendly modular assembly
- Integrated liquid tight strain relief fitting

ALSO AVAILABLE:

- Alternative housing finishes on request
- Stainless Steel (INOX) connector range
- Moulded Connector Cordset range

FOR FURTHER INFORMATION ON CIRCULAR CONNECTORS PLEASE CALL US ON: +44 (0) 1202 865222

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OPTIMAS

Retaining Sealing Washers

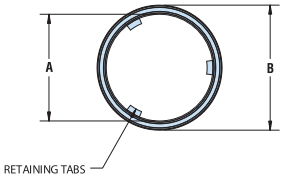


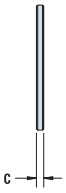
Specifications: RoHS ✓

Material: SBR (Styrene Butadiene)
Colour: Black
Flammability: UL94-HB

Temperature Rating: -20°C to 100°C

- Retaining tabs hold washer on threads for easier assembly.
- Liquid tight, dust tight and oil tight at enclosure.
- Suitable for wet locations requiring a separate gasket between the box and fitting.
- Special double sealing ridges compensate for minor unevenness at enclosure.





PART NUMBER	Thread Type/Size	Description	Part Dimensions			Unit Quantity
			A Inside Diameter	B Outside Diameter	C Thickness	
G6000	NPT 1/4"	RSW 1/4 NPT	13.7	18.8	1.9	1,000
G6001	NPT 3/8"	RSW 3/8 NPT	17.3	22.0	1.9	1,000
G6002	NPT 1/2"	RSW 1/2 NPT	22.2	26.7	1.9	500
G6003	NPT 3/4"	RSW 3/4 NPT	28.2	33.0	1.9	300
G6004	NPT 1"	RSW 1 NPT	34.9	43.8	1.9	200
G6010	Pg 7	RSW PG 7	12.6	18.8	1.9	1,000
G6011	Pg 9	RSW PG 9	15.2	22.0	1.9	1,000
G6013	Pg 13.5	RSW PG 13.5	20.6	26.7	1.9	500
G6014	Pg 16	RSW PG 16	22.6	30.1	1.9	300
G6015	Pg 21	RSW PG 21	28.4	33.0	1.9	300
G6016	Pg 29	RSW PG29	37.5	43.8	1.9	200
G6020	M12	RSW M12	12.1	18.8	1.9	1,000
G6021	M16	RSW M16	16.1	22.0	1.9	1,000
G6022	M20	RSW M20	20.1	26.7	1.9	500
G6023	M25	RSW M25	25.1	33.0	1.9	300
G6024	M32	RSW M32	32.3	43.8	1.9	200

Shoulder Washers



- Provides positive location, insulation and spacing
- Helps prevent electrolytic corrosion

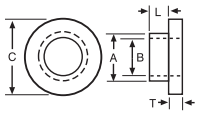
Specifications: RoHS ✓

Material: Nylon 66

Colour: Natural

Tolerances:

A, B & C = ± 0.13 T & L = ± 0.38



PART NUMBER	A	B	C	T	L	Unit Qty
0434202	3.02	2.26	4.75	0.79	0.38	1,000
0434205	3.15	2.82	6.35	1.17	0.38	1,000
0434206	4.75	2.92	7.92	1.57	0.38	1,000
0434207	3.81	2.95	6.35	0.79	0.38	1,000
0434208	4.65	3.53	7.87	1.57	0.38	1,000
0434210	6.35	4.19	12.70	1.98	0.38	1,000
0434224	3.10	2.36	5.79	0.79	0.79	1,000
0434226	2.90	2.54	6.35	1.17	0.79	1,000
0434227	3.51	2.54	5.79	1.17	0.79	1,000
0434228	3.43	2.92	5.54	1.17	0.79	1,000
0434231	3.43	2.95	5.08	1.98	0.79	1,000
0434233	5.16	3.05	7.93	1.17	0.79	1,000
0434241	4.70	3.56	7.93	0.79	0.79	1,000
0434242	4.70	3.56	9.53	1.57	0.79	1,000
0434244	5.18	3.56	8.23	1.57	0.79	1,000
0434245	4.75	3.58	7.93	1.57	0.79	1,000
0434246	6.10	3.68	9.78	1.57	0.79	1,000
0434247	6.22	3.96	11.10	1.57	0.79	1,000
0434253	6.35	4.29	9.53	0.79	0.79	1,000
0434254	7.93	4.29	14.28	3.18	0.79	1,000
0434255	6.35	4.34	9.53	1.57	0.79	1,000
0434256	8.08	4.90	12.70	0.79	0.79	1,000
0434257	6.35	4.98	7.93	1.57	0.79	1,000
0434258	7.82	4.98	9.53	1.57	0.79	1,000
0434259	7.93	6.40	12.70	0.79	0.79	1,000
0434260	7.93	6.40	12.70	1.57	0.79	1,000
0434261	7.87	6.43	11.10	0.79	0.79	1,000
0434262	7.93	6.60	12.70	0.79	0.79	1,000
0434263	9.53	7.49	15.88	1.57	0.79	1,000
0434269	15.65	13.08	25.40	2.36	0.79	1,000
0434280	2.13	1.55	2.67	1.17	1.17	1,000
0434281	7.75	2.03	12.70	0.79	1.17	1,000
0434282	3.51	2.77	5.08	0.79	1.17	1,000
0434285	3.73	2.92	5.94	1.17	1.17	1,000
0434286	4.70	2.95	6.35	0.79	1.17	1,000
0434290	3.68	3.05	5.33	0.38	1.17	1,000
0434292	3.61	3.10	5.84	0.38	1.17	1,000
0434293	4.32	3.56	7.37	1.17	1.17	1,000
0434294	4.70	3.56	9.53	1.57	1.17	1,000
0434296	4.83	3.56	6.60	1.57	1.17	1,000
0434297	5.54	3.56	9.53	1.57	1.17	1,000
0434298	6.30	3.56	11.89	1.57	1.17	1,000
0434299	6.35	3.56	8.64	1.98	1.17	1,000
0434301	8.08	3.58	12.70	0.79	1.17	1,000
0434302	6.99	3.68	12.70	2.36	1.17	1,000
0434303	5.54	3.71	8.33	1.17	1.17	1,000
0434304	6.20	3.81	9.65	1.98	1.17	1,000
0434305	6.17	3.96	10.16	1.17	1.17	1,000
0434306	6.30	4.34	15.88	0.79	1.17	1,000
0434307	7.87	4.37	15.88	1.57	1.17	1,000
0434308	9.53	4.83	15.88	1.57	1.17	1,000
0434309	6.22	4.88	9.53	1.17	1.17	1,000
0434311	6.30	4.93	9.53	1.57	1.17	1,000
0434312	7.14	5.11	11.10	1.17	1.17	1,000
0434313	7.92	5.21	15.75	1.17	1.17	1,000
0434314	8.00	5.28	15.62	1.17	1.17	1,000
0434315	9.53	6.35	15.88	2.38	1.17	1,000
0434316	7.87	6.43	16.00	0.79	1.17	1,000
0434317	8.66	6.43	19.05	0.79	1.17	1,000
0434318	7.62	6.60	14.10	1.98	1.17	1,000
0434319	7.62	6.60	14.28	1.17	1.17	1,000
0434320	9.42	6.68	19.05	0.79	1.17	1,000
0434321	9.53	8.20	19.05	1.17	1.17	1,000
0434322	12.70	10.92	19.05	4.75	1.17	1,000
0434323	12.45	11.05	18.67	4.75	1.17	1,000

PART NUMBER	A	B	C	T	L	Unit Qty
0434324	13.79	12.70	17.48	0.39	1.17	1,000
0434328	4.70	3.20	7.92	1.17	1.19	1,000
0434347	3.05	2.36	4.95	0.79	1.57	1,000
0434350	5.46	2.36	7.34	1.57	1.57	1,000
0434351	4.29	2.59	6.35	0.79	1.57	1,000
0434352	3.63	2.92	6.35	0.79	1.57	1,000
0434353	3.78	2.92	7.92	1.57	1.57	1,000
0434355	3.91	3.05	5.69	0.79	1.57	1,000
0434356	4.32	3.05	7.92	1.57	1.57	1,000
0434358	6.35	3.51	9.53	2.36	1.57	1,000
0434359	4.32	3.56	7.92	1.17	1.57	1,000
0434362	6.30	3.56	8.86	1.17	1.57	1,000
0434363	6.35	3.56	9.53	2.36	1.57	1,000
0434365	6.17	3.58	10.16	2.77	1.57	1,000
0434366	5.94	3.66	7.93	1.17	1.57	1,000
0434367	6.35	3.68	9.53	1.57	1.57	1,000
0434368	8.38	3.81	12.70	1.57	1.57	1,000
0434369	9.12	3.86	19.05	2.38	1.57	1,000
0434370	4.93	4.06	7.62	1.17	1.57	1,000
0434371	4.95	4.34	9.53	0.79	1.57	1,000
0434372	7.95	4.78	11.10	1.57	1.57	1,000
0434373	9.65	4.95	16.26	1.57	1.57	1,000
0434374	7.57	5.16	25.40	1.57	1.57	1,000
0434375	9.27	5.46	14.28	2.77	1.57	1,000
0434376	7.87	6.35	10.80	1.57	1.57	1,000
0434377	12.70	6.35	18.67	3.18	1.57	1,000
0434380	9.53	6.60	14.27	2.38	1.57	1,000
0434381	9.35	8.13	19.30	0.79	1.57	1,000
0434382	12.70	9.53	19.05	3.18	1.57	1,000
0434390	3.18	2.36	5.21	0.79	1.98	1,000
0434391	5.05	3.56	9.53	5.54	1.98	1,000
0434392	8.08	4.90	12.70	0.79	1.98	1,000
0434393	7.95	5.16	9.91	1.98	1.98	1,000
0434394	7.92	6.48	11.79	0.39	1.98	1,000
0434395	8.08	6.73	12.70	0.79	1.98	1,000
0434400	2.90	2.54	6.35	1.17	1.98	1,000
0434401	3.56	2.92	5.97	1.17	2.38	1,000
0434403	3.79	2.92	7.93	1.57	2.38	1,000
0434404	4.01	2.95	8.03	1.17	2.38	1,000
0434405	4.70	3.18	6.10	0.79	2.38	1,000
0434406	4.75	3.25	7.93	1.17	2.38	1,000
0434407	6.30	3.45	9.53	1.57	2.38	1,000
0434409	4.70	3.56	9.53	0.79	2.38	1,000
0434410	5.59	4.45	8.64	1.57	2.38	1,000
0434411	7.14	5.08	12.70	1.57	2.38	1,000
0434412	6.78	5.16	11.13	0.79	2.38	1,000
0434413	6.78	5.16	11.13	1.57	2.38	1,000
0434414	6.60	5.59	9.53	0.79	2.38	1,000
0434415	8.71	6.53	12.70	1.57	2.38	1,000
0434416	18.80	13.08	28.58	1.57	2.38	1,000
0434419	3.18	2.36	5.21	0.79	2.38	1,000
0434420	3.56	2.92	5.97	1.17	2.38	1,000
0434421	3.68	2.92	6.35	1.17	2.77	1,000
0434422	4.95	3.45	9.53	1.17	2.77	1,000
0434423	6.10	3.51	9.53	1.57	2.77	1,000
0434424	9.02	6.50	11.10	1.52	2.77	1,000
0434425	12.70	9.53	19.05	2.38	2.77	1,000
0434426	14.66	9.91	19.05	2.38	2.77	1,000
0434427	19.56	12.90	25.40	1.98	2.77	1,000
0434433	3.56	2.92	5.97	1.17	3.18	1,000
0434435	3.53	3.00	6.35	1.17	3.18	1,000
0434436	4.95	3.30	6.35	0.79	3.18	1,000
0434438	5.94	3.66	7.93	1.17	3.18	1,000
0434439	6.35	4.90	7.37	0.38	3.18	1,000
0434441	9.40	6.35	15.24	3.17	3.18	1,000
0434443	7.93	6.48	12.02	1.17	3.18	1,000
0434444	8.31	6.60	16.00	1.57	3.18	1,000

PART NUMBER	A	B	C	T	L	Unit Qty
0434445	9.12	6.76	17.45	1.57	3.18	1,000
0434447	9.65	6.76	19.05	2.36	3.18	1,000
0434448	11.10	8.33	17.45	3.18	3.18	1,000
0434449	11.10	8.40	17.60	1.57	3.18	1,000
0434451	12.70	9.53	19.05	1.57	3.18	1,000
0434460	10.29	8.13	15.88	1.68	3.53	1,000
0434461	3.68	2.92	6.35	1.17	3.56	1,000
0434462	6.35	3.43	11.13	0.79	3.56	1,000
0434463	7.92	4.37	12.70	1.98	3.56	1,000
0434464	6.22	4.75	9.53	0.79	3.56	1,000
0434465	7.70	4.98	11.18	0.79	3.56	1,000
0434466	7.92	6.60	13.08	1.57	3.56	1,000
0434468	3.43	2.79	5.97	1.17	3.96	1,000
0434469	4.90	2.95	9.53	1.98	3.96	1,000
0434470	5.21	3.61	6.73	0.79	3.96	1,000
0434471	6.35	4.83	12.70	1.57	3.96	1,000
0434472	6.35	4.83	12.70	3.18	3.96	1,000
0434473	12.32	6.86	18.29	1.57	3.96	1,000
0434479	3.68	2.92	6.35	1.17	4.34	1,000
0434480	4.72	3.20	6.35	1.17	4.34	1,000
0434481	9.58	6.60	10.80	1.57	4.34	1,000
0434485	3.02	1.60	4.75	0.79	4.75	1,000
0434486	6.35	3.96	7.93	1.57	4.75	1,000
0434487	5.94	4.67	7.93	0.79	4.75	1,000
0434488	7.87	4.95	12.70	6.35	4.75	1,000
0434489	7.29	4.98	9.91	1.98	4.75	1,000
0434491	6.10	5.59	10.36	1.57	4.75	1,000
0434492	7.16	5.94	18.92	0.79	4.75	1,000
0434494	9.53	6.45	16.00	1.57	4.75	1,000
0434495	8.18	6.48	15.88	1.57	4.75	1,000
0434496	11.25	9.53	18.87	1.57	4.75	1,000
0434497	12.70	9.53	19.05	1.57	4.75	1,000
0434499	20.12	17.65	25.27	3.18	4.75	1,000
0434500	5.54	3.51	7.44	1.17	4.75	1,000
0434508	5.59	3.76	9.65	1.57	5.16	1,000
0434509	19.05	15.62	22.35	1.17	5.16	1,000
0434511	5.94	3.56	7.49	0.79	5.54	1,000
0434513	9.65	6.76	19.05	2.36	5.54	1,000
0434518	4.32	3.56	7.37	1.17	6.35	1,000
0434519	6.35	3.81	19.05	1.57	6.35	1,000
0434520	12.70	9.60	19.05	1.98	6.35	1,000
0434521	14.12	9.65	24.89	3.18	6.35	1,000
0434524	19.10	13.08	28.07	3.18	7.14	1,000
0434525	3.91	3.30	7.93	0.79	7.92	1,000
0434526	7.92	5.08	12.70	1.57	7.92	1,000
0434527	12.70	9.65	15.88	1.57	7.92	1,000
0434529	9.53	6.76	19.05	2.38	8.71	1,000
0434531	5.21	4.39	8.76	1.57	9.53	1,000
0434532	6.60	5.59	10.13	1.57	9.53	1,000
0434537	7.93	6.48	13.03	1.57	9.53	1,000
0434538	11.94	9.78	14.48	1.57	9.53	1,000
0434539	16.00	11.18	22.23	3.18	9.53	1,000
0434540	4.95	4.32	8.74	1.57	9.53	1,000
0434541	6.60	5.08	10.13	1.57	9.53	1,000
0434548	6.35	4.34	12.70	1.57	10.31	1,000
0434549	11.30	7.77	20.96	2.36	10.31	1,000
0434550	9.53	6.48	13.97	1.57	10.69	1,000
0434551	11.02	7.93	19.05	4.37	10.69	1,000
0434552	15.88	13.97	20.07	1.17	10.69	1,000
0434554	3.91	3.05	5.69	0.79	11.10	1,000
0434555	6.35	4.24	12.70	3.18	11.10	1,000
0434556	9.53	6.35	12.70	1.57	11.10	1,000
0434557	9.53	6.48	14.27	1.57	11.10	1,000
0434558	17.78	12.70	28.58	2.36	11.10	1,000

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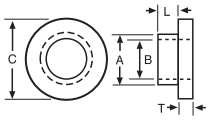
Shoulder Washers



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

Tolerances:
A, B & C = ± 0.13 T & L = ± 0.38

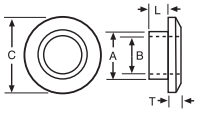
- Provides positive location, insulation and spacing
- Helps prevent electrolytic corrosion



* Part has chamfer end of body

PART NUMBER	A	B	C	T	L	Unit Qty
0434560	9.53	6.35	19.05	3.96	11.89	1,000
0434561	9.40	8.03	15.75	1.57	12.70	1,000
0434563	15.75	13.21	20.96	1.57	12.70	1,000
0434564	12.70	9.70	25.40	1.57	14.27	1,000
0434565	19.99	17.65	25.27	3.18	15.88	1,000
0434566	4.75	2.41	6.35	1.17	17.04	1,000
***0434567**	9.78	6.60	19.05	3.56	17.45	1,000
0434568	10.16	6.60	15.88	3.18	19.05	1,000
0434569	12.70	9.53	22.23	1.57	25.40	1,000

Chamfer Head Shoulder Washers



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

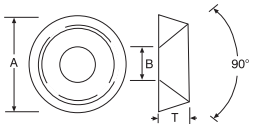
Tolerances:
A,B,C,T & L = ±0.13

- Chamfer head provides a neat appearance
- Bore sizes provide clearance to accept unified machine screws



PART NUMBER	Unified Screw Size	A	B	C	T	L	Unit Qty
0444680	No. 2	3.96	2.36	6.35	1.02	1.02	1,000
0444681	No. 4	4.75	3.10	7.14	1.02	1.02	1,000
0444682	No. 6	5.54	3.71	8.33	1.02	1.02	1,000
0444683	No. 8	6.35	4.42	9.53	1.27	1.27	1,000
0444684	No. 10	7.14	5.11	11.10	1.27	1.27	1,000
0444685	¼	9.53	6.60	14.27	1.52	1.52	1,000
0444686	⅜	12.70	9.78	19.05	1.52	1.52	1,000

Metric Finishing Washers



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

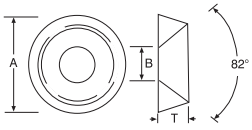
Tolerances:
A,B,C & T = ± 0.20

- Provides a neat finish for metric countersunk screws
- Helps prevent damage to mating surfaces



PART NUMBER	Screw Size	A	B	T	Unit Qty
0451000	M3	9.30	3.10	2.00	1,000
0451003	M4	11.80	4.30	3.00	1,000
0451006	M5	15.00	5.30	3.50	1,000
0451009	M6	17.30	6.20	4.00	1,000
0451012	M8	22.50	8.20	6.00	1,000

Unified Finishing Washers



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

Tolerances:
A, B & T = ± 0.13

- Provides a neat finish for unified countersunk screws
- Helps prevent damage to mating surfaces



PART NUMBER		Unified Screw Size	A	B	T	Unit Qty
Natural	Black					
0454691	**045 5691**	No. 6	11.10	3.63	2.54	1,000
0454692	**045 5692**	No. 8	13.08	4.34	2.92	1,000
0454693	**045 5693**	No. 10	14.73	4.85	3.86	1,000
0454694	-	No. 12	15.47	5.72	4.06	1,000
0454695	-	¼	17.35	6.38	4.65	1,000

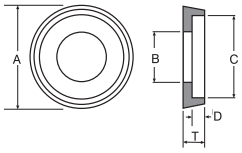


Metric Cup Washers

- Provides a neat finish for metric pan and cheese head screws

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

Tolerances:
A,B,C,D & T = ± 0.13



PART NUMBER			Screw Size	A	B	C	D	T	Suits Screw Head Type	Unit Qty
Natural	Black	White								
0452000	0452001	0452002	M4	9.60	4.25	8.20	1.90	2.75	Cheese Head	1,000
0452006	0452007	0452008	M6	12.00	6.35	10.30	1.90	2.80	Cheese Head	1,000
-	0452015	0452016	M6	12.75	6.30	10.30	3.85	5.00	Cheese Head	1,000
0452030	0452031	0452032	M6	14.20	6.30	12.50	2.60	3.60	Pan Head	1,000
-	0453020	0453021	M8	20.00	8.40	16.00	3.50	5.00	Cheese/Pan Head	1,000

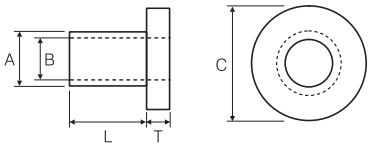


Metric Machine Screw Insulators

- Provides electrical insulation for metal machine screws
- Can also be used as lightly loaded bearings
- Helps prevent electrolytic corrosion

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural

Tolerances: A,B,C,L & T = ± 0.26



PART NUMBER	L Length	Screw Size	A	B	C	T	Unit Qty
0150931	3	M2	3.00	2.10	4.20	1.00	1,000
0150932	4	M2	3.00	2.10	4.20	1.00	1,000
0150933	5	M2	3.00	2.10	4.20	1.00	1,000
0150934	6	M2	3.00	2.10	4.20	1.00	1,000
0150939	2	M3	4.00	3.10	6.20	1.00	1,000
0150940	3	M3	4.00	3.10	6.20	1.00	1,000
0150941	4	M3	4.00	3.10	6.20	1.00	1,000
0150942	5	M3	4.00	3.10	6.20	1.00	1,000
0150943	6	M3	4.00	3.10	6.20	1.00	1,000
0150944	7	M3	4.00	3.10	6.20	1.00	1,000
0150945	8	M3	4.00	3.10	6.20	1.00	1,000
0150946	9	M3	4.00	3.10	6.20	1.00	1,000
0150947	10	M3	4.00	3.10	6.20	1.00	1,000
0150958	3	M4	6.00	4.10	8.20	1.50	1,000
0150959	4	M4	6.00	4.10	8.20	1.50	1,000
0150960	5	M4	6.00	4.10	8.20	1.50	1,000
0150961	7	M4	6.00	4.10	8.20	1.50	1,000
0150962	9	M4	6.00	4.10	8.20	1.50	1,000
0150966	3	M5	7.00	5.10	10.20	2.00	1,000
0150967	4	M5	7.00	5.10	10.20	2.00	1,000
0150968	5	M5	7.00	5.10	10.20	2.00	1,000
0150969	7	M5	7.00	5.10	10.20	2.00	1,000
0150970	9	M5	7.00	5.10	10.20	2.00	1,000
0150974	4	M6	8.00	6.10	12.20	2.00	1,000
0150975	6	M6	8.00	6.10	12.20	2.00	1,000
0150976	8	M6	8.00	6.10	12.20	2.00	1,000
0150977	10	M6	8.00	6.10	12.20	2.00	1,000
0150978	12	M6	8.00	6.10	12.20	2.00	1,000
0150982	4	M8	10.00	8.10	14.20	2.50	1,000
0150983	6	M8	10.00	8.10	14.20	2.50	1,000
0150984	8	M8	10.00	8.10	14.20	2.50	1,000
0150985	10	M8	10.00	8.10	14.20	2.50	1,000
0150986	12	M8	10.00	8.10	14.20	2.50	1,000

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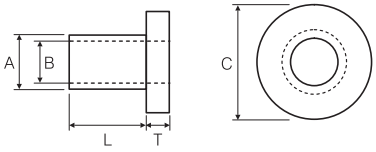
Unified Machine Screw Insulators



Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Tolerances:
A, B & C = ± 0.13
L & T = ± 0.38

- Provides electrical insulation for metal machine screws
- Can also be used as lightly loaded bearings
- Helps prevent electrolytic corrosion



PART NUMBER	L Length	Unified Screw Size	A	B	C	T	Unit Qty
0424125	3.18	No. 2	3.05	2.29	4.60	1.19	1,000
0424126	4.75	No. 2	3.05	2.29	4.60	1.19	1,000
0424127	6.35	No. 2	3.05	2.29	4.60	1.19	1,000
0424128	9.53	No. 2	3.05	2.29	4.60	1.19	1,000
0424131	0.79	No. 4	3.68	2.92	5.97	1.19	1,000
0424132	1.19	No. 4	3.68	2.92	5.97	1.19	1,000
0424133	1.58	No. 4	3.68	2.92	5.97	1.19	1,000
0424134	2.38	No. 4	3.68	2.92	5.97	1.19	1,000
0424135	3.18	No. 4	3.68	2.92	5.97	1.19	1,000
0424136	3.97	No. 4	3.68	2.92	5.97	1.19	1,000
0424137	4.75	No. 4	3.68	2.92	5.97	1.19	1,000
0424138	6.35	No. 4	3.68	2.92	5.97	1.19	1,000
0424139	9.53	No. 4	3.68	2.92	5.97	1.19	1,000
0424140	12.70	No. 4	3.68	2.92	5.97	1.19	1,000
0424144	1.19	No. 6	4.32	3.56	7.37	1.19	1,000
0424145	1.58	No. 6	4.32	3.56	7.37	1.19	1,000
0424146	2.38	No. 6	4.32	3.56	7.37	1.19	1,000
0424147	3.18	No. 6	4.32	3.56	7.37	1.19	1,000
0424148	3.97	No. 6	4.32	3.56	7.37	1.19	1,000
0424149	4.75	No. 6	4.32	3.56	7.37	1.19	1,000
0424150	6.35	No. 6	4.32	3.56	7.37	1.19	1,000
0424151	9.53	No. 6	4.32	3.56	7.37	1.19	1,000
0424152	12.70	No. 6	4.32	3.56	7.37	1.19	1,000

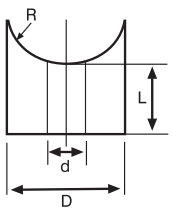
PART NUMBER	L Length	Unified Screw Size	A	B	C	T	Unit Qty
0424156	3.18	No. 8	5.21	4.39	8.74	1.57	1,000
0424157	3.56	No. 8	5.21	4.39	8.74	1.57	1,000
0424158	6.35	No. 8	5.21	4.39	8.74	1.57	1,000
0424159	9.53	No. 8	5.21	4.39	8.74	1.57	1,000
0424160	12.70	No. 8	5.21	4.39	8.74	1.57	1,000
0424161	15.88	No. 8	5.21	4.39	8.74	1.57	1,000
0424162	19.05	No. 8	5.21	4.39	8.74	1.57	1,000
0424166	3.56	No. 10	6.60	5.08	10.13	1.57	1,000
0424167	4.75	No. 10	6.60	5.08	10.13	1.57	1,000
0424168	6.35	No. 10	6.60	5.08	10.13	1.57	1,000
0424169	9.53	No. 10	6.60	5.08	10.13	1.57	1,000
0424170	12.70	No. 10	6.60	5.08	10.13	1.57	1,000
0424171	14.29	No. 10	6.60	5.08	10.13	1.57	1,000
0424172	15.88	No. 10	6.60	5.08	10.13	1.57	1,000
0424173	19.05	No. 10	6.60	5.08	10.13	1.57	1,000
0424178	3.56	¼	7.92	6.60	13.03	1.57	1,000
0424179	4.75	¼	7.92	6.60	13.03	1.57	1,000
0424180	6.35	¼	7.92	6.60	13.03	1.57	1,000
0424181	9.53	¼	7.92	6.60	13.03	1.57	1,000
0424182	12.70	¼	7.92	6.60	13.03	1.57	1,000
0424183	15.88	¼	7.92	6.60	13.03	1.57	1,000
0424184	19.05	¼	7.92	6.60	13.03	1.57	1,000
0424188	3.18	5/16	9.14	8.13	15.74	1.57	1,000
0424189	6.35	5/16	9.14	8.13	15.74	1.57	1,000
0424190	9.53	5/16	9.14	8.13	15.74	1.57	1,000
0424191	12.70	5/16	9.14	8.13	15.74	1.57	1,000
0424192	15.88	5/16	9.14	8.13	15.74	1.57	1,000

Saddle Washers

Specifications: RoHS ✓
Material: Nylon 66
Colour: Natural
Tolerances:
d = ±0.2, D = ±0.5, L = ±0.2

- Gives a neat and tight finish
- Absorbs vibration and prevents corrosion



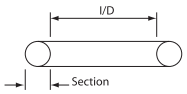


PART NUMBER	Dimensions				Unit Qty
	D	d	R	L	
0395000	15.0	6.4	7.5	5.0	1,000
0395010	15.0	6.4	7.5	10.0	1,000
0395020	15.0	6.4	7.5	15.0	1,000
0395030	20.0	8.4	10.0	5.0	1,000
0395040	20.0	8.4	10.0	10.0	1,000
0395050	20.0	8.4	10.0	15.0	1,000
0395060	25.0	8.4	14.0	5.0	1,000
0395070	25.0	8.4	14.0	10.0	1,000
0395080	25.0	8.4	14.0	15.0	1,000



O-Rings For Cable Glands

Specifications: RoHS ✓
Material: Nitrile, Colour: Black
Hardness: 70° Shore A
Designed for use with Liquid Tight Fitting ranges: 330 (page 3-6), 331 (page 3-7), 342 (page 3-9) & 343 (page 3-10)



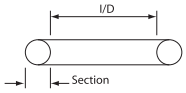
PART NUMBER	To Fit Liquid Tight Fitting Mounting Thread Size	Inside Diameter	Outside Diameter	Section Diameter	Unit Qty
3360090	M12 x 1.5	9.0	13.0	2.0	100
3360100	Pg7	10.0	13.0	1.5	100
3360120	Pg9	12.0	15.0	1.5	100
3360130	M16 x 1.5 & 3/8" NPT	13.0	17.0	2.0	100
3360160	Pg11	16.0	19.0	1.5	100
3360170	M20 x 1.5	17.0	21.0	2.0	100
3360017	Pg13.5	17.46	20.64	1.6	100
3360180	Pg16	18.0	21.0	1.5	100
3360018	1/2" NPT	19.05	22.23	1.6	100
3360220	M25 x 1.5 & 3/4" NPT	22.0	26.0	2.0	100
3360260	Pg21	26.0	30.0	2.0	100
3360290	M32 x 1.5 & 1" NPT	29.0	33.0	2.0	100
3360330	Pg29	33.0	37.0	2.0	100
3360350	M40 x 1.5	35.0	39.0	2.0	100
3360380	1.1/4" NPT	38.0	43.0	2.5	100
3360430	Pg36 & M50 x 1.5	43.0	47.0	2.0	100
3360450	1.1/2" NPT	45.0	50.0	2.5	100
3360500	Pg42	50.0	54.0	2.0	100
3360550	Pg48 & M63 x 1.5	55.0	59.0	2.0	100



'O' Rings - BS1806 Imperial Range

- Ideal for sealing the majority of industrial applications including water, oil, petrol and most chemicals from -30°C to 100°C up to 1500psi providing the mating surfaces and housings are adequate

Specifications: RoHS ✓
All dimensions shown are in inches
Material: Nitrile
Colour: Black
Hardness: 70° Shore A



PART NUMBER	Size Ref.	Nominal Size (inches)			Actual Size (inches)				Unit Qty
		I/D	O/D	Section	I/D	±	Section	±	
3370006	BS006	1/8	1/4	1/16	0.114	0.005	0.070	0.003	100
3370007	BS007	5/32	9/32	1/16	0.145	0.005	0.070	0.003	100
3370008	BS008	3/16	5/16	1/16	0.176	0.005	0.070	0.003	100
3370009	BS009	7/32	11/32	1/16	0.208	0.005	0.070	0.003	100
3370010	BS010	1/4	3/8	1/16	0.239	0.005	0.070	0.003	100
3370011	BS011	5/16	7/16	1/16	0.301	0.005	0.070	0.003	100
3370012	BS012	3/8	1/2	1/16	0.364	0.005	0.070	0.003	100
3370110	BS110	3/8	9/16	3/32	0.362	0.005	0.103	0.003	100
3370111	BS111	7/16	5/8	3/32	0.424	0.005	0.103	0.003	100
3370112	BS112	1/2	11/16	3/32	0.487	0.005	0.103	0.003	100
3370113	BS113	9/16	3/4	3/32	0.549	0.007	0.103	0.003	100
3370114	BS114	5/8	13/16	3/32	0.612	0.009	0.103	0.003	100
3370115	BS115	11/16	7/8	3/32	0.674	0.009	0.103	0.003	100
3370116	BS116	3/4	15/16	3/32	0.737	0.009	0.103	0.003	100
3370210	BS210	3/4	1	1/8	0.734	0.010	0.139	0.004	100

PART NUMBER	Size Ref.	Nominal Size (inches)			Actual Size (inches)				Unit Qty
		I/D	O/D	Section	I/D	±	Section	±	
3370211	BS211	13/16	1 1/16	1/8	0.796	0.010	0.139	0.004	100
3370212	BS212	7/8	1 1/8	1/8	0.859	0.010	0.139	0.004	100
3370213	BS213	15/16	1 3/16	1/8	0.921	0.010	0.139	0.004	100
3370214	BS214	1	1 1/4	1/8	0.984	0.010	0.139	0.004	100
3370215	BS215	1 1/16	1 5/16	1/8	1.046	0.010	0.139	0.004	100
3370216	BS216	1 1/8	1 3/8	1/8	1.109	0.012	0.139	0.004	100
3370217	BS217	1 3/16	1 7/16	1/8	1.171	0.012	0.139	0.004	100
3370218	BS218	1 1/4	1 1/2	1/8	1.234	0.012	0.139	0.004	100
3370219	BS219	1 5/16	1 9/16	1/8	1.296	0.012	0.139	0.004	100
3370220	BS220	1 3/8	1 5/8	1/8	1.359	0.012	0.139	0.004	100
3370221	BS221	1 7/16	1 11/16	1/8	1.421	0.012	0.139	0.004	100
3370222	BS222	1 1/2	1 3/4	1/8	1.484	0.012	0.139	0.004	100
3370325	BS325	1 1/2	1 7/8	3/16	1.475	0.015	0.210	0.005	100
3370326	BS326	1 5/8	2	3/16	1.600	0.015	0.210	0.005	100
3370327	BS327	1 3/4	2 1/8	3/16	1.725	0.015	0.210	0.005	100

Also available in 90 Shore A Nitrile and 75 Shore A Viton!

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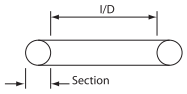
‘O’ Rings - Metric Range





Specifications:	RoHS ✓
Material: Nitrile	
Colour: Black	
Hardness: 70° Shore A	

- Ideal for sealing the majority of industrial applications including water, oil, petrol and most chemicals from -30°C to 100°C up to 1500psi providing the mating surfaces and housings are adequate

PART NUMBER	Size Ref.	Dimensions I/D	±	Section	±	Unit Qty
3360041	0041-16	4.1	0.15	1.6	0.08	100
3360061	0061-16	6.1	0.15	1.6	0.08	100
3360081	0081-16	8.1	0.15	1.6	0.08	100
3360101	0101-16	10.1	0.20	1.6	0.08	100
3360121	0121-16	12.1	0.20	1.6	0.08	100
3360141	0141-16	14.1	0.20	1.6	0.08	100
3360030	0030-20	3.0	0.15	2.0	0.08	100
3360040	0040-20	4.0	0.15	2.0	0.08	100
3360050	0050-20	5.0	0.15	2.0	0.08	100
3360060	0060-20	6.0	0.15	2.0	0.08	100
3360070	0070-20	7.0	0.15	2.0	0.08	100
3360080	0080-20	8.0	0.15	2.0	0.08	100
3360100	0100-20	10.0	0.15	2.0	0.08	100
3360056	0056-24	5.6	0.15	2.4	0.08	100
3360066	0066-24	6.6	0.15	2.4	0.08	100
3360076	0076-24	7.6	0.15	2.4	0.08	100
3360096	0096-24	9.6	0.15	2.4	0.08	100
3360116	0116-24	11.6	0.20	2.4	0.08	100
3360146	0146-24	14.6	0.20	2.4	0.08	100
3360102	0100-25	10.0	0.15	2.5	0.08	100
3360110	0110-25	11.0	0.20	2.5	0.08	100
3360120	0120-25	12.0	0.20	2.5	0.08	100
3360140	0140-25	14.0	0.20	2.5	0.08	100
3360160	0160-25	16.0	0.20	2.5	0.08	100

PART NUMBER	Size Ref.	Dimensions I/D	±	Section	±	Unit Qty
3360170	0170-25	17.0	0.20	2.5	0.08	100
3360190	0190-25	19.0	0.25	2.5	0.08	100
3360191	0190-30	19.0	0.25	3.0	0.10	100
3360196	0195-30	19.5	0.25	3.0	0.10	100
3360200	0200-30	20.0	0.25	3.0	0.10	100
3360220	0220-30	22.0	0.25	3.0	0.10	100
3360240	0240-30	24.0	0.25	3.0	0.10	100
3360245	0245-30	24.4	0.25	3.0	0.10	100
3360250	0250-30	25.0	0.25	3.0	0.10	100
3360265	0265-30	26.5	0.25	3.0	0.10	100
3360270	0270-30	27.0	0.28	3.0	0.10	100
3360280	0280-30	28.0	0.28	3.0	0.10	100
3360300	0300-30	30.0	0.28	3.0	0.10	100
3360315	0315-30	31.5	0.30	3.0	0.10	100
3360320	0320-30	32.0	0.33	3.0	0.10	100
3360325	0325-30	32.5	0.30	3.0	0.10	100
3360330	0330-30	33.0	0.33	3.0	0.10	100
3360350	0350-30	35.0	0.33	3.0	0.10	100
3360360	0360-30	36.0	0.38	3.0	0.10	100
3360380	0380-30	38.0	0.38	3.0	0.10	100
3360395	0395-30	39.5	0.30	3.0	0.10	100
3360381	0380-40	38.0	0.38	4.0	0.10	100
3360420	0420-40	42.0	0.42	4.0	0.10	100
3360450	0450-40	45.0	0.42	4.0	0.10	100

Also available in 90 Shore A Nitrile and 75 Shore A Viton!

See our on-line catalogue for sizes, prices and stock information

‘O’ Ring Kits



Specifications:	RoHS ✓
Material: Nitrile	
Colour: Black	
Hardness: 70° Shore A	

- Ideal for sealing the majority of industrial applications including water, oil, petrol and most chemicals from -30°C to 100°C up to 1500psi providing the mating surfaces and housings are adequate

PART NUMBER	Description	Unit Qty
3363000	Metric ‘O’ Ring Assortment Kit containg 30 sizes	1
3373000	Imperial ‘O’ Ring Assortment Kit containg 30 sizes	1

Metric Kit Contents:

18 x 3.0 x 2.0	18 x 4.0 x 2.0	18 x 5.0 x 2.0	18 x 6.0 x 2.0	18 x 7.0 x 2.0	18 x 8.0 x 2.0
14 x 14 x 2.5	14 x 12 x 2.5	14 x 11 x 2.5	14 x 10 x 2.5	17 x 10 x 2.5	
14 x 16 x 2.5	14 x 17 x 2.5	14 x 19 x 2.5	14 x 19 x 3.0		
12 x 38 x 3.0	9 x 38 x 4.0	9 x 42 x 4.0	9 x 45 x 4.0		
12 x 36 x 3.0	12 x 35 x 3.0	12 x 33 x 3.0	12 x 32 x 3.0	12 x 30 x 3.0	
12 x 20 x 3.0	12 x 22 x 3.0	12 x 24 x 3.0	12 x 25 x 3.0	12 x 27 x 3.0	12 x 28 x 3.0

Imperial Kit Contents:

20 x BS006	20 x BS007	20 x BS008	20 x BS009	20 x BS010	20 x BS011
13 x BS113	13 x BS112	13 x BS111	13 x BS110	20 x BS012	
13 x BS114	13 x BS115	13 x BS116	10 x BS210		
10 x BS222	7 x BS325	7 x BS326	7 x BS327		
10 x BS221	10 x BS220	10 x BS219	10 x BS218	10 x BS217	
10 x BS211	10 x BS212	10 x BS213	10 x BS214	10 x BS215	10 x BS216

‘O’ Ring Splicing Kit



Kit Contents:
O Ring Cords supplied in 2 metre lengths:-
1.78mm, 2.0mm, 2.4mm, 2.62mm, 3.0mm, 3.5mm, 4.0mm, 4.5mm, 5.0mm, 5.33mm, 5.7mm, 6.0mm, 7.0mm, 8.0mm
1 x 3gr bottle of cyanoacrylate adhesive
1 x Splicing Jig
1 x Safety Knife
1 x Tape Measure
Instruction Leaflet

Specifications:	RoHS ✓
Material: Nitrile	
Colour: Black	
Hardness: 70° Shore A	

- Nitrile NBR70 splicing kit for fast on the spot production of O rings, reducing down time

PART NUMBER	Description	Unit Qty
0821015	‘O’ Ring Splicing Kit	1



Bearing Bushings - Plain Bearings

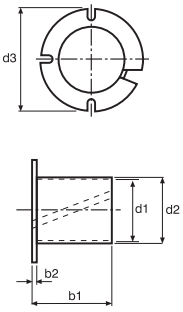
- Low bearing clearance, very precise
- Easy installation owing to angled slit
- Maintenance-free and predictable service life
- Low noise, smooth operation

Specifications: RoHS ✓

Material: iglidur® M250
Colour: Grey
Tolerances: d1 = +0.025/+0.075
(d1 is checked with a plug gauge after fitting into a reference housing d2 +0.005 mm.)

d2 = Recommended housing bore tolerance: H9
d3 = ±0.40
b1 = +0/-0.40
b2 = +0/-0.13

PART NUMBER	d1	d2 (diameter of housing bore)	d3	b1	b2	Unit Qty
7182100	4.00	5.20	7.00	4.00	0.60	1,000
7182108	5.00	6.20	8.00	5.00	0.60	1,000
7182116	6.00	7.20	9.50	6.00	0.60	1,000
7182124	8.00	9.60	12.00	8.00	0.80	1,000
7182132	10.00	11.60	15.00	10.00	0.80	1,000
7182140	12.00	13.60	18.00	12.00	0.80	1,000
7182148	14.00	15.60	21.00	14.00	0.80	1,000
7182156	16.00	17.60	24.00	16.00	0.80	1,000
7182164	20.00	21.60	30.00	20.00	0.80	1,000
7182172	25.00	27.40	37.50	25.00	1.20	1,000





Bearing Bushings - Clip Bearings

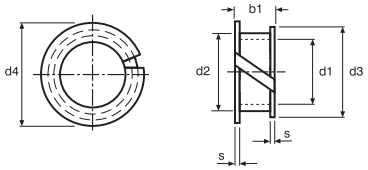
- Secured with double flange design
- Used for both rotational and linear movements
- Maintenance-free and self lubricating
- Low noise, smooth operation
- Expansion possible due to slot design

Specifications: RoHS ✓

Material: iglidur® M250
Colour: Grey
* d1 measurement is measured with a plug gauge after fitting into a reference housing d2 +0.005 mm.

Tolerances:
*d1 = D13 (ISO 286 tolerances)
s = +0/-0.1
b1 = +0.2/-0

PART NUMBER	d1*	d2	d3	d4	s	b1	Unit Qty
7182000	3.00	4.20	4.80	6.00	0.60	3.20	1,000
7182008	4.00	5.20	5.90	7.00	0.60	3.20	1,000
7182016	5.00	6.20	6.80	8.00	0.60	3.20	1,000
7182024	6.00	7.20	7.80	11.00	0.60	3.20	1,000
7182032	8.00	9.60	10.40	13.00	0.80	3.60	1,000
7182040	10.00	11.60	12.40	15.00	0.80	3.60	1,000
7182048	12.00	13.60	14.40	17.00	0.80	3.60	1,000
7182056	16.00	17.60	18.40	21.00	0.80	3.60	1,000



iglidur® M250 Properties

GENERAL PROPERTIES	Unit	Value	Test Method
Density	g/cm³	1.14	
Max. moisture absorption at 23°C/50% R.h.	%-by-weight	1.4	DIN 53495
Max water absorption	%-by-weight	7.6	
Coefficient of friction, dynamic, with steel	μ	0.1 - 0.3	
p x v value, max. (dry)	MPa x m/s	0.12	

PHYSICAL & THERMAL PROPERTIES	Unit	Value	Test Method
Max. long term application temperature	°C	88	
Max. short term application temperature	°C	170	
Minimum application temperature	°C	-40	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Thermal expansion coefficient	$K^{-1} \times 10^{-5}$	10	DIN 53752

MECHANICAL PROPERTIES	Unit	Value	Test Method
Flexural Modulus	MPa	2,700	DIN 53457
Flexural strength at 20°C	MPa	112	DIN 53452
Compressive resistance	MPa	52	
Permitted static pressure per unit area (20°C)	MPa	20	
Shore - D hardness		79	DIN 53505

ELECTRICAL PROPERTIES	Unit	Value	Test Method
Volume resistivity	Ω cm	$>10^{13}$	DIN IEC 93
Surface resistance	Ω	$>10^{11}$	DIN 53482

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FEET

CABLE MANAGEMENT & HOLE BLANKING

HEYCO®

STRAIN RELIEF BUSHINGS

A range of components to anchor your cable into the product chasis.

CABLE PROTECTION

Protection and insulation of cables from raw edged panel holes.

CABLE GLANDS AND LIQUID TIGHT FITTINGS

Ingress protection solutions at point of cable entry.

CONDUIT AND FITTINGS

Flexible conduits and fittings for mechanical and ingress protection of cables and harnesses.

CAPS AND PLUGS

A solution for all of your hole blanking needs.

CHAPTER 4



CHAPTER 8



CHAPTER 3



CHAPTER 7



CHAPTER 10



CABLE MANAGEMENT AND HOLE BLANKING SOLUTIONS

Heyco is the brand synonymous with nylon cable strain relief bushings, cable protection, cable glands, conduit and fittings, caps and plugs.

We carry in stock a huge range of Heyco products and have access to their entire portfolio.

HEYCO PRODUCTS CAN BE FOUND THROUGHOUT THIS CATALOGUE AND AT:

optimascomponents.com

OPTIMAS



Bumper Feet
P14-2



Screw-Fixing Feet
Recessed Round
P14-3



Push-In Feet
P14-4



Snap-In Bumper
P14-5



Adjustable Levelling Feet
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Adjusters - Rigid
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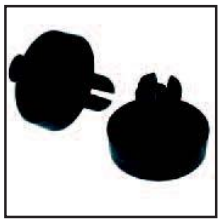
Inserts for Levelling Feet
P14-7



Supporting Feet
Two Piece Type
P14-7



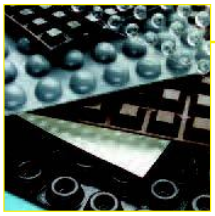
Supporting Feet
Drive Screw Type
P14-8



Supporting Feet
Rivet Type
P14-8



Thousands of 3D CAD files available to download at:
www.optimascomponents.com



Bumper Feet

- NOTE: Bumper may not be centered on skirt area of die cut.
- NOTE: Dimensions listed are nominal.

Specifications: RoHS ✓

Material: Polyurethane

All dimensions ± 0.50 measured without adhesive liner.

Shape	Height	Dia or Sq	Description	PART NUMBER, COLOUR & UNIT QUANTITY					
				Black	Clear	Black & Clear Unit Quantity	White	Grey	White & Grey Unit Quantity
HB1	1.52	12.70	Cylindrical	**0859000**	**0859001**	1,000	**0859002**	**0859003**	5,000
HB2	3.05	20.57	Cylindrical	**0859010**	**0859011**	720	**0859012**	**0859013**	2,520
HB3	3.56	12.70	Cylindrical/Concave	**0859020**	**0859021**	1,000	**0859022**	**0859023**	1,000
HB4	3.56	12.70	Cylindrical	**0859030**	**0859031**	1,000	**0859032**	**0859033**	5,000
HB5	4.06	19.05	Cylindrical	**0859040**	**0859041**	980	**0859042**	**0859043**	2,450
HB6	4.83	9.40	Cylindrical	**0859050**	**0859051**	1,000	**0859052**	**0859053**	5,000
HB7	5.08	19.81	Cylindrical	**0859060**	**0859061**	840	-	**0859063**	3,360
HB8	6.35	12.70	Cylindrical	**0859070**	**0859071**	1,000	**0859072**	**0859073**	5,000
HB9	10.16	15.75	Cylindrical	**0859080**	**0859081**	1,280	**0859082**	**0859083**	2,560
HB25	1.57	6.35	Hemisphere	**0859200**	**0859201**	1,156	**0859202**	-	7,514
HB26	1.91	19.05	Hemisphere	**0859210**	**0859211**	840	**0859212**	-	5,040
HB27	2.16	7.92	Hemisphere	**0859220**	**0859221**	900	**0859222**	-	5,400
HB28	2.16	8.51	Hemisphere	**0859230**	**0859231**	900	**0859232**	-	5,400
HB28	3.00	10.00	Hemisphere	**0859520**	**0859521**	1,440	-	-	-
HB29	3.81	9.53	Hemisphere	**0859240**	**0859241**	1,000	**0859242**	**0859243**	5,000
HB30	5.08	11.18	Hemisphere	**0859250**	**0859251**	968	**0859252**	**0859253**	968
HB31	7.87	15.75	Hemisphere	**0859260**	**0859261**	1,280	**0859262**	**0859263**	3,200
HB32	9.65	17.78	Hemisphere	**0859270**	**0859271**	980	**0859272**	**0859273**	2,254
HB33	5.36	9.53	Hemisphere	**0859280**	**0859281**	1,152	**0859282**	-	6,000
HB45	2.54	10.16	Square	**0859400**	**0859401**	968	**0859402**	**0859403**	5,082
HB46	3.05	12.70	Square	**0859410**	**0859411**	1,000	**0859412**	**0859413**	5,000
HB47	4.57	25.40	Square	**0859420**	**0859421**	1,045	**0859422**	**0859423**	2,310
HB48	5.84	12.70	Square	**0859430**	**0859431**	1,000	**0859432**	**0859433**	5,000
HB49	6.45	19.81	Square	**0859440**	**0859441**	490	-	-	-
HB50	7.62	20.57	Square	**0859450**	**0859451**	490	**0859452**	**0859453**	980
HB70	10.16	22.35	Other	**0859500**	**0859501**	288	**0859502**	**0859503**	1,440
HB71	15.24	45.97	Other	**0859510**	**0859511**	500	**0859512**	**0859513**	500
HB72	14.22	18.29	Other	-	**0859621**	1,500	-	-	-

Bumper Feet Shape Selection Guide

CYLINDRICAL


HB1


HB2


HB3


HB4


HB5


HB6


HB7


HB8


HB9

HEMISPHERE


HB25


HB26


HB27


HB28


HB29

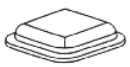

HB30


HB31


HB32


HB33

SQUARE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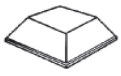
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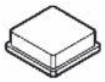
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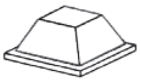
HB48


HB49


HB50

OTHER


HB70


HB71


HB72

SPECIALS

Please supply drawing for consideration, general guide 250,000 minimum order quantity.

OPTIMAS

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Bumper-feet Application Instructions:

1) To obtain maximum adhesion, surfaces must be uniform, clean and dry, as well as free of grease, wax, oil, dust and other foreign material that might affect adhesion.
2) Clean surfaces with low strength solvents such as Isopropyl Alcohol (rubbing alcohol) or Heptane.
3) Bend the pad slightly grasping the Bumper on sides without touching the adhesive.
4) When affixing the Bumper make sure to apply enough pressure to ensure a complete bond.
5) Allow a dwell time of 24 hours before exposing to heavy force or weight.

Users should evaluate the suitability of our Bumpers for a specific application under actual conditions.

Shelf Life:
One year if stored as recommended. Packaging is labelled showing use-by-date for batch supplied. Lighter colour and clear Bumperfeet may show some darkening or yellowing after storage.

Environmental Exposure:
Exposure to ultraviolet light, high temperature, high humidity and outdoor conditions may cause some yellowing and discolouration of Bumper material. Bumperfeet are intended for interior applications but may be used for outdoor applications if they are in a protected area.

Urethane Self-Adhesive Bumpers offer:
Excellent skid-resistance and high coefficient of friction
Non-marring and non-staining material
Rubber-based adhesive for high initial adhesion
Bumper material hardness 55-70 shore A
UL recognised materials

Adhesive Properties:
Rubber - Based

Colour:	Clear
Thickness:	0.05mm
Application/Installation Temperature Range:	18°C to 65°C
Service Temperature Range:	-18°C to 82°C
Cure Time (set-up):	30 minutes
Time for full cure:	24 hours

Peel Adhesion:
Test method: PSTC-3
Substrate: Polyester
Typical Value: 160 oz/in

Shear Adhesion:
Test method: PSTC-7
Substrate: Polyester
Typical Value: > 300 hours

The adhesive has very high tack strength properties. Provides excellent adhesion to a variety of high surface energy substrates such as metal, glass, acrylic and polycarbonate. It also has good adhesion to low surface energy substrates such as polypropylene, polyethylene and powder coated paints.

Rubber based adhesive is resistant to water, detergent and alcohol. Not recommended for use in contact with aliphatic or aromatic hydrocarbons.

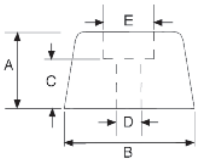
Screw-Fixing Feet - Recessed Round



Specifications: RoHS ✓
Colour: Black

Tolerances: A, B, C, D & E = ± 0.50

- Moulded in Polyethylene or in a "Rubber-Like" Polylastomer® material
- Non-staining
- Excellent chemical resistance
- Good UV resistance



Use Polylastomer® for skid and abrasion resistance
Use Polyethylene for high skid and rigidity

Nominal screw sizes based on pan head self tapping type AB (Self tapping screws not supplied)

For a fully insulated fixing, nylon machine screws or nylon rivets can be used

PART NUMBER	A Height	B Outside Diameter	C Depth	D Inside Diameter	E Counterbore Diameter	Screw Size	Material	Unit Quantity
0861000	5.59	9.91	3.56	3.30	7.62	4	Polylastomer	15,000
0861022	6.35	12.70	3.05	3.05	6.86	5	Polylastomer	10,000
0861029	6.35	12.70	2.54	3.81	7.11	6	Polylastomer	1,000
0861043	7.11	19.05	4.06	4.32	9.65	8	Polylastomer	1,000
0861064	9.65	19.55	6.35	4.06	9.65	6	Polyethylene	1,000
0861071	10.41	18.80	4.32	4.06	7.87	6	Polylastomer	1,000
0861148	19.05	16.00	13.20	4.06	7.87	6	Polylastomer	6,000
0861155	19.05	28.70	7.87	5.08	13.46	10	Polyethylene	5,000
0861166	25.40	25.40	14.00	4.30	14.00	7	Polylastomer	6,000
0861168	25.40	28.70	13.72	6.35	11.94	12	Polyethylene	1,000



Push-In Feet

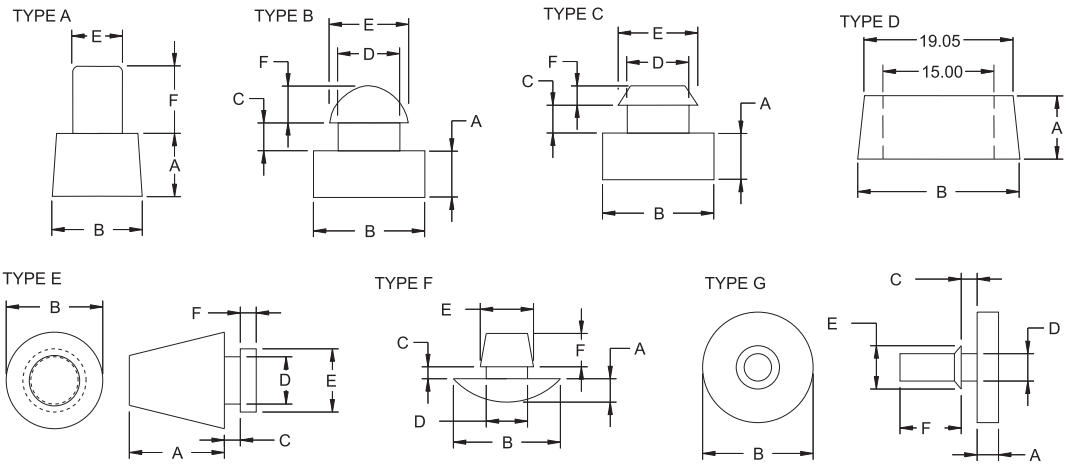
- Use SBR or Polylastomer® for skid and abrasion resistance
- Use Polyethylene for high skid and rigidity

Specifications: RoHS ✓

Material: Moulded in SBR, Polyethylene or in a "Rubber-Like" Polylastomer® material

Colour: Black

PART NUMBER	A Height	B Outside Diameter	C Depth	D Shank Diameter	E Stem Diameter	F Stem Length	Material	Type	Unit Quantity
0861978	4.83	11.18	-	-	8.38	5.58	Polyethylene	A	10,000
0861950	1.50	7.90	2.00	4.00	4.66	1.50	Polylastomer	B	1,000
0862007	1.50	12.70	2.80	4.60	6.40	2.00	SBR	B	3,000
0862029	1.60	12.70	1.20	7.10	9.50	4.00	SBR	C	1,000
0862004	2.40	9.50	0.80	4.00	5.50	2.80	SBR	B	2,400
0862013	2.40	12.70	1.60	4.70	6.40	4.70	SBR	C	10,000
0862034	2.40	28.60	1.20	7.90	11.10	2.00	SBR	C	5,000
0862100	2.54	12.70	1.78	7.62	9.65	2.29	Polylastomer	B	1,000
0862010	3.20	7.90	1.20	4.70	6.40	2.40	SBR	B	5,000
0862012	3.20	9.50	1.60	4.70	6.40	3.20	SBR	C	5,000
0862022	3.20	9.50	1.60	6.40	7.90	1.60	SBR	C	2,000
0862023	3.20	9.50	1.60	6.40	7.90	1.60	SBR	B	2,000
0862030	3.20	12.70	1.20	7.10	9.50	4.00	SBR	C	8,000
0862027	3.20	14.30	3.20	6.40	8.70	3.20	SBR	B	1,600
0862031	3.20	14.30	2.00	7.10	9.50	4.00	SBR	B	2,000
0862036	3.20	22.20	2.00	7.90	12.70	1.60	SBR	C	2,000
0862024	4.00	12.70	1.60	6.40	7.90	3.20	SBR	B	5,000
0862014	4.40	8.60	2.00	4.70	6.40	7.50	SBR	B	20,000
0862019	4.70	11.10	1.20	6.40	7.90	3.20	SBR	B	2,000
0862107	4.83	11.18	3.05	6.35	7.62	3.30	Polylastomer	B	1,000
0862026	5.50	10.30	3.20	6.40	8.70	1.60	SBR	C	2,000
0862114	5.59	19.05	3.30	8.89	11.18	3.30	Polylastomer	B	1,000
0862011	6.40	9.50	1.30	4.70	6.40	2.40	SBR	B	20,000
0862025	6.40	12.70	1.60	6.40	7.90	3.20	SBR	B	6,000
0862037	6.40	15.90	2.40	7.90	9.50	3.20	SBR	B	1,000
0862121	7.11	14.22	2.03	7.62	9.65	4.32	Polylastomer	B	15,000
0862044	7.90	25.40	4.80	12.70	17.40	4.70	SBR	B	1,000
0862032	8.70	15.90	3.20	7.10	11.10	4.30	SBR	B	1,000
0862021	9.50	14.30	1.30	6.40	8.60	6.70	SBR	C	5,000
0862041	19.10	19.40	3.20	9.50	12.70	3.20	SBR	E	3,500
0862035	4.00	9.50	1.60	7.90	9.50	4.00	SBR	F	2,000
0862020	4.30	12.70	1.20	6.40	7.90	4.70	SBR	F	5,000
0862039	4.70	21.50	2.40	8.30	10.70	6.70	SBR	F	5,000
0862043	4.70	25.40	3.20	12.70	15.90	3.20	SBR	F	5,000
0862000	3.00	6.00	2.50	3.00	5.00	12.00	SBR	G	5,000
0862017	4.30	22.20	3.20	5.50	8.70	12.30	SBR	G	4,000
0862002	4.90	8.50	1.80	3.20	7.50	10.90	SBR	G	5,000
0862006	7.50	8.50	1.50	4.50	6.00	18.50	SBR	G	10,000



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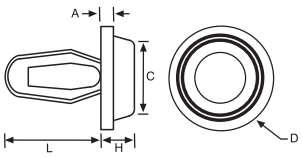
Snap-In Bumper





Specifications: RoHS ✓

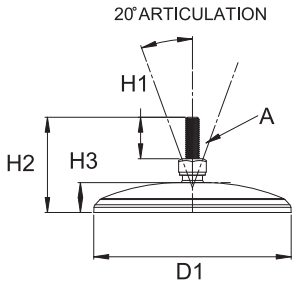
Materials:
Bumper - Urethane
Clip - Nylon 66
Colour: Black
Tolerances: All dimensions = ± 0.38

- Quick and easy to install
- High shear force and holding strength
- Ideal for applications exposed to moisture, uneven surfaces or surfaces which cannot be cleaned properly and surfaces with low surface energy (ie.Polypropylene/Polyethylene)

PART NUMBER	Hole Diameter	Panel Thickness	Part Dimensions					Unit Quantity
			A	C	D	H	L	
0864100	4.68 to 4.80	0.76 to 2.28	1.78	9.40	12.45	4.19	9.53	1,000

Adjustable Levelling Feet





Specifications: RoHS ✓

Material:
Stud - Mild Steel, Zinc Plated
Base - 20% Glass Filled Nylon 6
Colour: Stud: Self
Base: Black
Dimensions are approximate

- Capable of supporting loads up to 500kg
- Suitable for applications in most industrial environments

Dimensions are approximate

PART NUMBER	A Thread Size	H1 Thread Length	H2 Overall Height	H3 Base Height	C1 Hole Centres	D1 Base Diameter	D2 Hole Diameter	Maximum Recommended Load (kg)	Unit Quantity
0860701	M8	40	72	18	-	30	-	300	4
0860702	M8	40	72	18	-	40	-	400	4
0860703	M8	80	112	18	-	40	-	400	4
0860704	M10	70	102	18	-	40	-	400	4
0860705	M8	40	72	18	-	50	-	450	4
0860706	M8	80	112	18	-	50	-	450	4
0860707	M10	70	102	18	-	50	-	450	4
0860708	M10	125	157	18	-	50	-	450	4
0860709	M8	80	112	18	-	60	-	450	4
0860710	M10	90	122	18	-	60	-	450	4
0860712	M12	100	132	18	-	60	-	450	4
0860713	M12	150	182	18	-	60	-	450	4
0860714	M16	100	132	18	-	60	-	450	4
0860715	M8	80	112	18	-	80	-	500	4
0860716	M10	90	122	18	-	80	-	500	4
0860717	M12	100	132	18	-	80	-	500	4
0860718	M12	150	182	18	-	80	-	500	4
0860720	M16	150	182	18	-	80	-	500	4

Stainless steel threaded rods are also available.
Please contact our Sales Department for further information.



Adjusters - Rigid

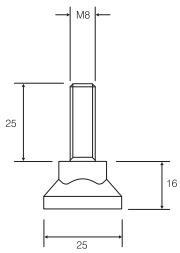
- Use SBR or Polylastomer® for skid and abrasion resistance
- Use Polyethylene for high skid and rigidity

Specifications: RoHS ✓

Material:
Stud - Mild steel bright zinc plated with screwdriver cross recess in base
Base - Polypropylene/ * - Polyamide
Colour: Stud: Self, Base: Black

PART NUMBER	Thread Size	Length	Base Diameter	Maximum Recommended Load (kg)	Unit Quantity
0881001	M8	25.0	25	100	250
0881002	M8	37.5	25	100	250
0881003	M8	50.0	25	100	200
0881004	M8	25.0	38	100	100
0881005	M8	37.5	38	100	200
0881006	M8	50.0	38	100	250

0881001



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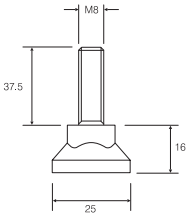

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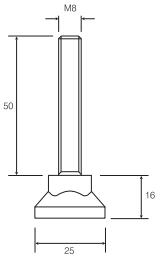

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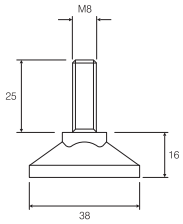

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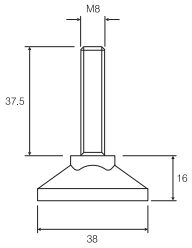

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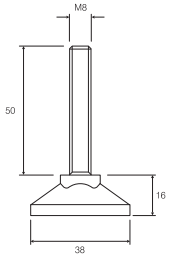
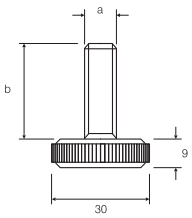
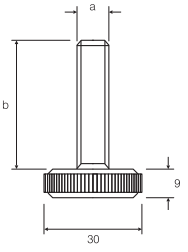


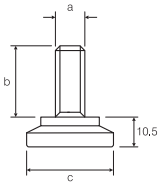
PART NUMBER	a Thread Size	b Length	c Base Diameter	Maximum Recommended Load (kg)	Unit Quantity
0882001	M10	30	30	500	500
0882002	M10	40	30	500	200
*0882003	M8	25	30	250	250
*0882004	M10	25	30	250	250
*0882005	M8	40	30	250	250
*0882006	M10	40	30	250	250
*0882007	M8	25	40	250	200
*0882008	M10	25	40	250	250
*0882009	M8	40	40	250	200
*0882010	M10	40	40	250	250
*0882011	M8	25	50	250	250
*0882012	M10	25	50	250	200
*0882013	M8	40	50	250	200
*0882014	M10	40	50	250	350



0882001



0882002



0882003 to 0882006

0882007 to 0882010

0882011 to 0882014

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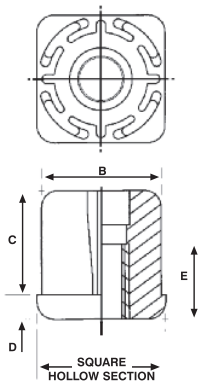
Threaded Inserts for Levelling Feet



Specifications: RoHS ✓

Material:
Bush - * Brass Nickel Plated
Moulding - Glass Filled Nylon
Colour: Black

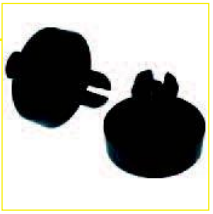
- Easy to install
- Available in a wide range of sizes
- Suitable for hollow box section from 30mm to 50mm



PART NUMBER	Suitable For Square Hollow Section Size	Thread Size	B Internal Dimensions	C Engagement Length	D Shoulder Length	E Threaded Bush Length	Maximum Recommended Load (kg)	Unit Quantity
0869000	30 x 30 x 1.5	M8	27	35	8	24	500	8
0869010	30 x 30 x 1.5	M10	27	35	8	24	500	8
0869020	30 x 30 x 1.5	M12	27	35	8	24	500	8
0869030	30 x 30 x 1.5	M16	27	35	8	24	500	8
0869100	40 x 40 x 1.5	M8	37	35	8	24	1000	8
0869110	40 x 40 x 1.5	M10	37	35	8	24	1000	8
0869120	40 x 40 x 1.5	M12	37	35	8	24	1000	8
0869130	40 x 40 x 1.5	M16	37	35	8	24	1000	8
0869140	40 x 40 x 1.5	M20	37	35	8	24	1000	4
0869200	40 x 40 x 2.0	M8	36	35	8	24	1000	4
0869230	40 x 40 x 2.0	M10	36	35	8	24	1000	4
0869210	40 x 40 x 2.0	M16	36	35	8	24	1000	4
0869220	40 x 40 x 2.0	M20	36	35	8	24	1000	4
0869310	50 x 50 x 1.5	M16	47	45	10	24	1200	4
0869320	50 x 50 x 1.5	M20	47	45	10	24	1200	4
0869410	50 x 50 x 2.0	M16	46	45	10	24	1200	4
0869420	50 x 50 x 2.0	M20	46	45	10	24	1200	4
0869430	50 x 50 x 2.0	M24	46	45	10	24	1200	4

* Also available in Stainless Steel type 303. Please contact our Sales Deptartment for further information

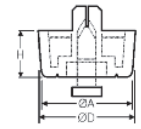
Supporting Feet Two Piece Type

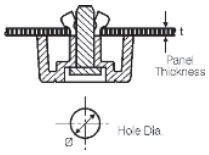


Specifications: RoHS ✓

Material: See Table
Colour: Black

- Two piece construction finished pre-assembled
- Insert centre shaft into mounting hole and press pin to secure





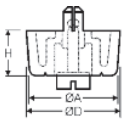
PART NUMBER	ØA	ØD	H	Hole Ø	t-Panel Thickness	Hardness	Extraction Force	Foot Material	Pin	Unit Quantity
0842001	18.0	20.0	10.0	8.1	0.8~1.2	Hard	147N	PP100%	PP	200
0842002	18.0	20.0	10.0	8.1	0.8~1.5	Semi Hard	147N	Elastomer 40% PP60%	PP	200
0842003	18.0	20.0	10.0	8.1	0.8~1.55	Soft	78N	Elastomer 100%	PP	200
0842004	20.0	21.0	6.0	8.1	5.0~8.0	Soft	78N	Elastomer 100%	PP	200
0842005	23.0	25.0	5.0	8.1	0.8~1.5	Soft	78N	Elastomer 100%	PP	200
0842006	18.0	20.0	12.0	8.1	0.8~1.2	Hard	147N	PP100%	PP	200
0842007	18.0	20.0	12.0	8.1	0.8~1.5	Semi Hard	147N	Elastomer 40% PP60%	PP	200
0842008	18.0	20.0	12.0	8.1	0.8~1.5	Semi Hard	147N	Elastomer 100%	PP	200
0842009	18.0	20.0	15.0	8.1	0.8~1.2	Hard	147N	PP100%	PP	200
0842010	18.0	20.0	15.0	8.1	0.8~1.5	Semi Hard	147N	Elastomer 40% PP60%	PP	200
0842011	18.0	20.0	18.0	8.1	0.8~1.2	Hard	147N	PP100%	PP	200
0842012	18.0	20.0	18.0	8.1	0.8~1.5	Semi Hard	147N	Elastomer 40% PP60%	PP	200
0842013	18.0	20.0	15.0	8.1	0.8~1.5	Soft	78N	Elastomer 100%	PP	200
0842014	16.0	17.0	4.0	5.1	0.8~2.0	Semi Hard	98N	Elastomer 100%	PP	200
0842015	18.0	19.0	4.0	5.1	0.8~2.0	Semi Hard	98N	Elastomer 100%	PP	200
0842017	20.0	21.5	6.0	6.1	0.8~2.0	Semi Hard	118N	Elastomer 100%	PP	1,000
0842019	18.0	19.5	8.0	6.1	0.8~2.0	Semi Hard	118N	Elastomer 100%	PP	1,000
0842020	22.0	23.5	8.0	6.1	0.8~2.0	Semi Hard	118N	Elastomer 100%	PP	1,000



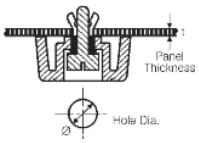
Supporting Feet Drive Screw Type

- Simply press screw pin to install and release with a screwdriver
- Parts supplied preassembled with drive rivet

Specifications: RoHS ✓
Rivet Material: Nylon 6 - UL94V-2
Foot Material: Elastomer - UL94HB
Screw Pin material: Polyacetal - UL94HB
Colour: Black



PART NUMBER	ØA	ØD	H	Hole Ø	t-Panel Thickness	Extraction Force	Unit Quantity
0841000	20	24	14	5 (+0.1/-0)	1.0~2.3	294N	1,000
0841001	18	20	10	5 (+0.1/-0)	1.0~2.3	294N	1,000



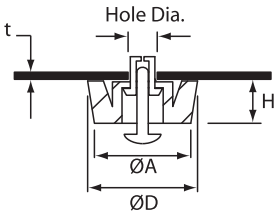


Supporting Feet Rivet Type

- Simply press in centre pin to install, release by pushing pin from the other side
- Parts supplied preassembled with drive rivet

Specifications: RoHS ✓
Rivet Material: Nylon 6 - UL94V-2
Foot Material: TPE - UL94HB
Pin Material: Polyacetal - UL94HB
Colour: Black

PART NUMBER	ØA	ØD	H	Hole Ø	t-Panel Thickness	Unit Quantity
0841009	10.0	10.8	4.0	3.6 - 3.7	0.5 - 1.2	1,000
0841019	10.0	10.8	4.0	3.6 - 3.7	1.2 - 2.0	1,000
0841003	13.5	14.2	5.5	3.1 - 3.2	0.8 - 1.8	1,000
0841005	14.0	15.0	6.0	4.1 - 4.2	0.6 - 1.0	1,000
0841015	14.0	15.0	6.0	4.1 - 4.2	1.0 - 2.0	1,000
0841025	14.0	15.0	6.0	5.1 - 5.2	0.8 - 1.2	1,000
0841008	14.0	15.0	9.0	4.1 - 4.2	1.0 - 2.0	1,000
0841028	14.0	15.0	9.0	5.1 - 5.2	0.8 -1.2	1,000
0841004	20.0	21.0	4.2	4.1 - 4.2	0.8 - 1.8	1,000
0841006	20.0	21.0	6.0	4.1 - 4.2	0.8 - 1.8	1,000
0841007	20.0	21.0	8.0	4.1 - 4.2	1.0 - 2.0	1,000



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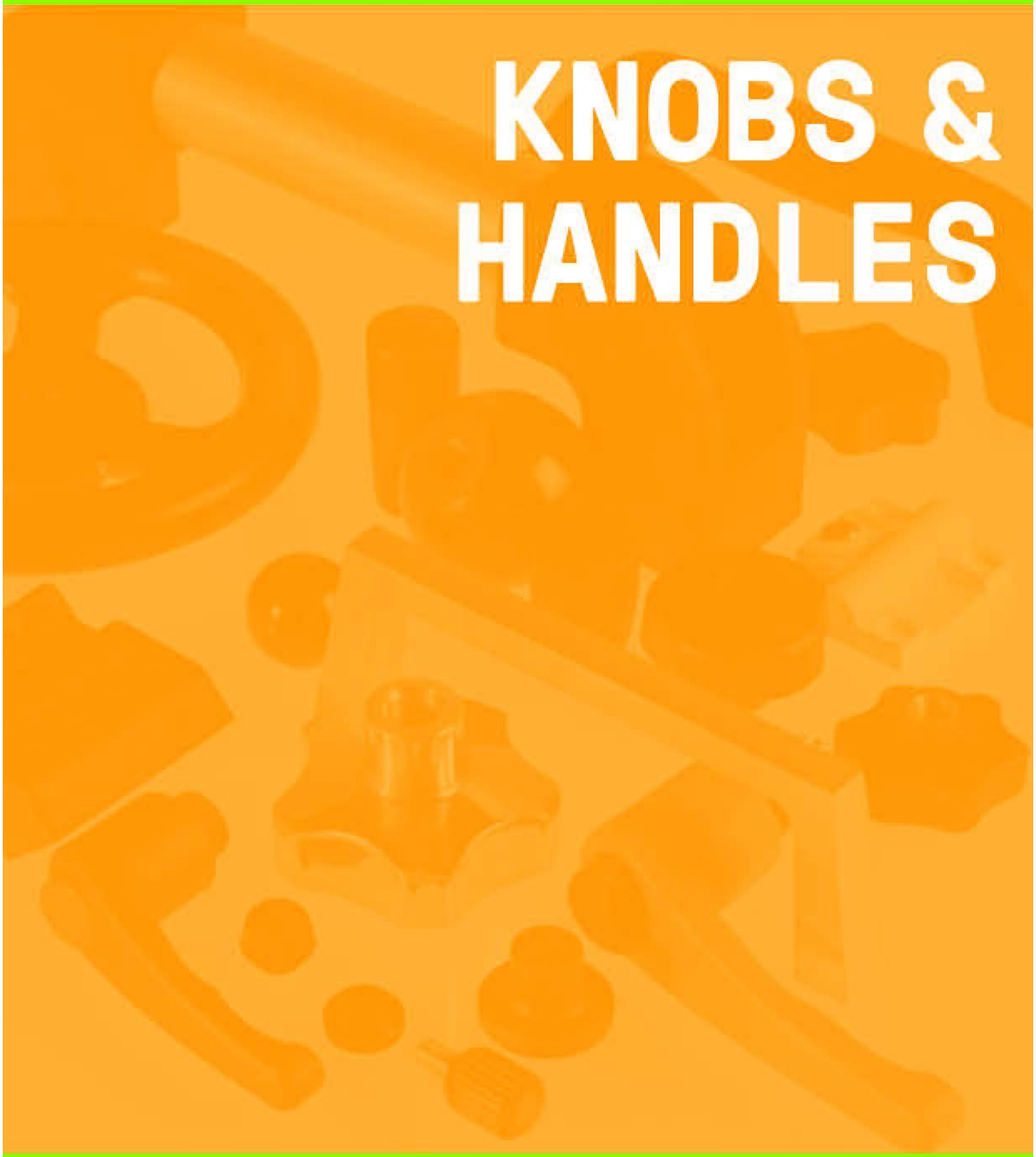
CHAPTER 15

KNOBS & HANDLES



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PARTS AND ASSEMBLY COMBINED

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By supplying the individual components and assembling them into one single part, with one part number, customers are realising that their multi-part ordering, monitoring, assembly and secondary production processes can be significantly reduced.

Why not realise the benefits of customisation for your company?

THE BENEFITS OF THIS SERVICE:

- Reduce your bill of materials, only purchase one complete part
- Remove secondary processes, receive the part pre-customised
- Save on time and labour to get the solution you require
- Assistance in preparing drawings, layouts and specifying parts
- Dedicated sub-assembly area and team

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Die Cast Zinc Hinges
P15-2



Removable Lift-off Hinges
P15-2, 3, 4

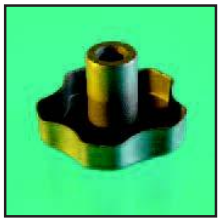

Hinges
P15-6


Hand Wheels
P15-6


Offset Wing Knobs
P15-6


Wing Knobs
P15-7

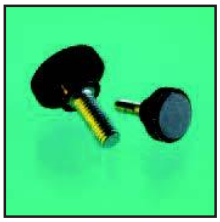

Lobe Knobs
P15-7


Stainless Steel Lobe Knobs
P15-7


Aluminium Lobe Knobs
P15-8


Scallop Knobs
P15-8

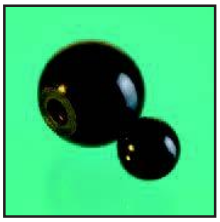

Tapered Knurled Knobs
P15-9


Straight Knurled Knobs
P15-9


Star Knobs
P15-9


Straight Knurled Knobs
P15-10


Button Knobs
P15-10


Ball Knobs
P15-10


Tapered Knobs
P15-11


Tapered Handles
P15-11

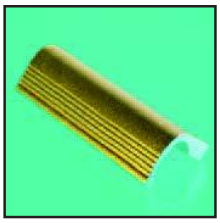

Tapered Handles
P15-11

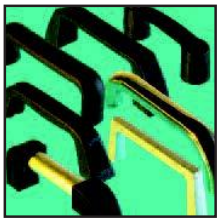

Self Assembly Knurled Knobs
P15-12


Self Assembly Tee Knobs
P15-12


Offset Tee Handles
P15-12


Tee Handles
P15-13

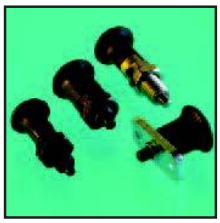

Ledge Handles
P15-13


Bridge Handles
P15-13, 14, 15


Clamping Handles - Indexing
P15-16


Die Cast Clamping Handles
P15-17


Cam Plungers
P15-18


Pull Knob Index Plungers
P15-18


Pull Knob Index Plungers
Heavy Duty
P15-18


Pull Ring Plungers
P15-19


Ball & Spring Plungers
P15-19

Die Cast Zinc Hinge



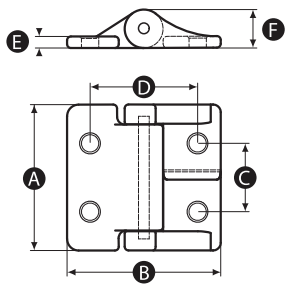
- Suitable for a wide range of applications
-



Specifications: RoHS ✓

Materials:
Hinge Body: Die Cast Zinc
Hinge Pin: Steel

Finish: Matt Black



PART NUMBER	Mounting Hole	Dimensions						Unit Quantity
		A	B	C	D	E	F	
2010006	4.5	38.0	40.0	18.0	28.0	3.0	10.0	10

Die Cast Zinc Hinge



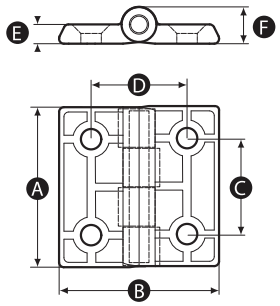
- Suitable for a wide range of applications
-



Specifications: RoHS ✓

Materials:
Hinge Body: Die Cast Zinc
Hinge Pin: Steel

Finish: Matt Black



PART NUMBER	Mounting Hole	Dimensions						Unit Quantity
		A	B	C	D	E	F	
2010007	5.2	40.0	40.0	25.0	25.0	5.0	9.5	10
2010008	6.4	50.0	50.0	30.0	30.0	6.0	11.5	10

In-line Removable Lift-off Hinge - Nylon

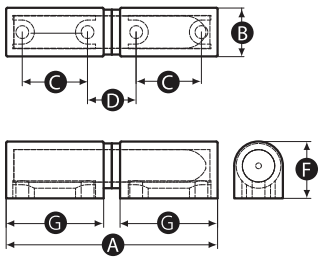


- Suitable for a wide range of applications
- Can be mounted for either permanent or removable fixing of doors
- Allows doors to be removed without the use of tools
- Produced in high impact resistant thermoplastic

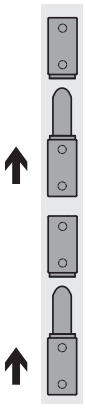
Specifications: RoHS ✓

Material: Nylon

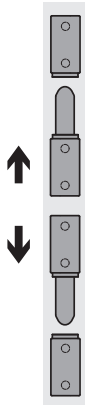
Finish: Matt Black



PART NUMBER	Thread Size	Dimensions						Unit Quantity
		A	B	C	D	F	G	
2010009	M6	83.0	19.0	25.5	19.0	22.0	38.0	10



Install hinges with matching vertical orientation to enable quick, easy and safe removal of doors without the use of tools



Install hinges with opposing vertical orientation to enable doors to be permanently mounted



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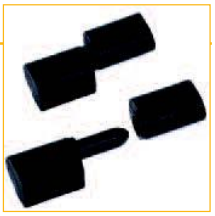
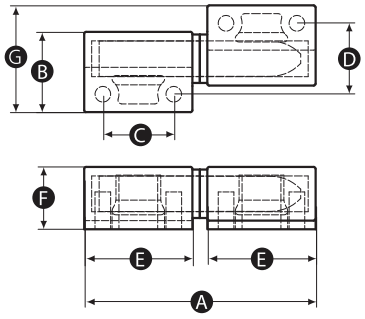
Offset Removable Lift-off Hinge - Nylon





Specifications: RoHS ✓

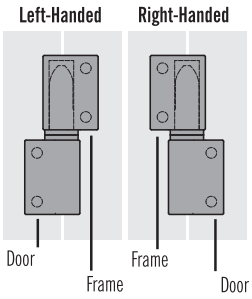
Material: Nylon

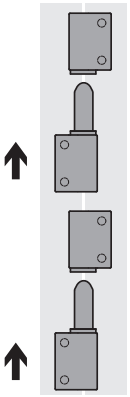
Finish: Matt Black



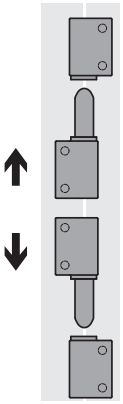
- Suitable for a wide range of applications
- Can be mounted for either permanent or removable fixing of doors
- Allows doors to be removed without the use of tools
- Produced in high impact resistant thermoplastic

PART NUMBER	Thread Size	Chirality	Dimensions							Unit Quantity
			A	B	C	D	E	F	G	
2010010	M5	Left Handed	62.0	22.0	19.0	19.0	29.0	17.0	29.0	10
2010011	M5	Right Handed	62.0	22.0	19.0	19.0	29.0	17.0	29.0	10
2010012	M6	Left Handed	83.0	28.0	25.5	25.5	38.0	22.0	38.0	10
2010013	M6	Right Handed	83.0	28.0	25.5	25.5	38.0	22.0	38.0	10



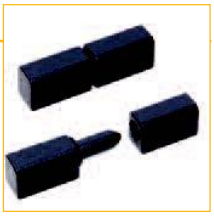


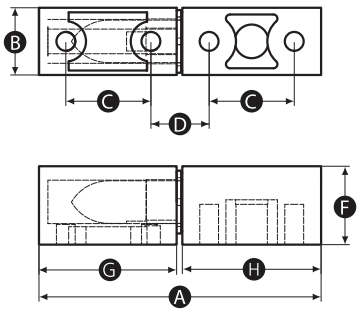
Install hinges with matching vertical orientation to enable quick, easy and safe removal of doors without the use of tools



Install hinges with opposing vertical orientation to enable doors to be permanently mounted

In-line Removable Lift-off Hinge - Die Cast Zinc





Specifications: RoHS ✓

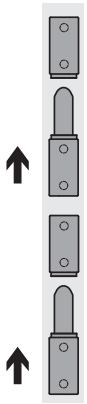
Material: Die Cast Zinc

Finish: Matt Black

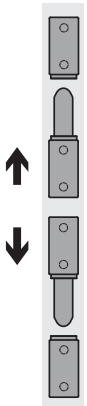


- Suitable for a wide range of applications
- Can be mounted for either permanent or removable fixing of doors
- Allows doors to be removed without the use of tools

PART NUMBER	Thread Size	Dimensions							Unit Quantity
		A	B	C	D	F	G	H	
2010014	M5	63.0	15.0	19.0	13.0	17.5	30.75	31.0	10



Install hinges with matching vertical orientation to enable quick, easy and safe removal of doors without the use of tools



Install hinges with opposing vertical orientation to enable doors to be permanently mounted



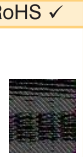
In-line Removable Lift-off Hinge - Die Cast Zinc

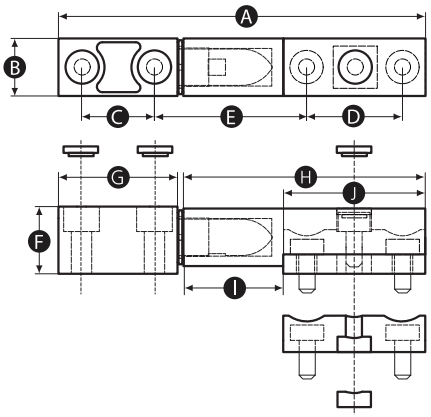
- Suitable for a wide range of applications
- Can be mounted for either permanent or removable fixing of doors
- Allows doors to be removed without the use of tools

Specifications: RoHS ✓

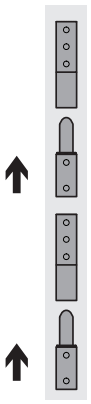
Material: Nylon

Finish: Matt Black

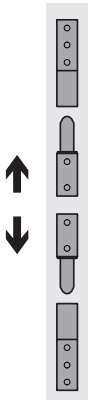




PART NUMBER	Thread Size	Dimensions										Unit Quantity
		A	B	C	D	E	F	G	H	I	J	
2010015	M5	96.0	15.0	19.0	25.0	40.0	17.5	31.0	63.0	37.0	37.0	10



Install hinges with matching vertical orientation to enable quick, easy and safe removal of doors without the use of tools



Install hinges with opposing vertical orientation to enable doors to be permanently mounted



Offset Removable Lift-off Hinge - Die Cast Zinc

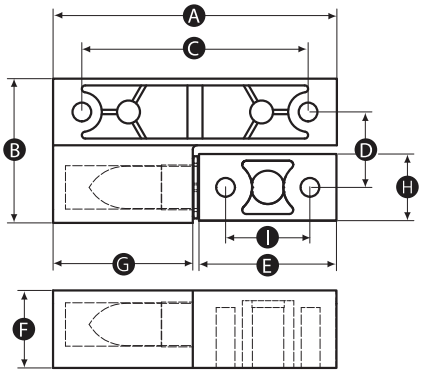
- Suitable for a wide range of applications
- Can be mounted for either permanent or removable fixing of doors
- Allows doors to be removed without the use of tools

Specifications: RoHS ✓

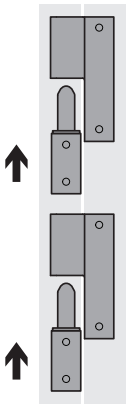
Material: Nylon

Finish: Matt Black

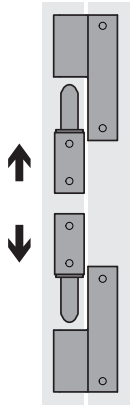




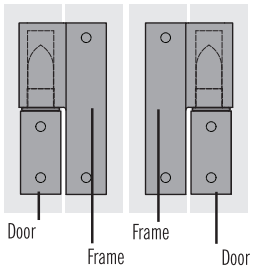
PART NUMBER	Thread Size	Chirality	Dimensions									Unit Quantity
			A	B	C	D	E	F	G	H	I	
2010016	M5	Left Handed	64.0	32.5	51.0	17.0	31.0	17.5	31.5	15.0	19.0	10
2010017	M5	Left Handed	64.0	32.5	51.0	17.0	31.0	17.5	31.5	15.0	19.0	10



Install hinges with matching vertical orientation to enable quick, easy and safe removal of doors without the use of tools



Install hinges with opposing vertical orientation to enable doors to be permanently mounted



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CIRCULAR CONNECTORS



SIGNAL AND POWER CIRCULAR CONNECTORS

Available in a wide range of thread sizes, contacts and housings to suit all applications, Hummel's Circular Connectors have earned a worldwide reputation for their high quality robust construction, performance and durability.

KEY FEATURES:

- **THREAD SIZES** – Signal Connectors in M16, M23 & M27; Power Connectors in M23 & M40
- **CONTACTS** – constructed from Brass Alloy, Nickel and Gold plated
- **HOUSINGS** – from die cast Copper/Zinc Alloy with Nickel plating; straight, right angle and panel fittings; male & female variants available
- **INSERTS** – moulded in Nylon, PBT (UL94V-0)

KEY BENEFITS:

- A wide range of Contact Configurations, from 2 to 18 contacts dependant on the housing type
- User-friendly modular assembly
- Integrated liquid tight strain relief fitting

ALSO AVAILABLE:

- Alternative housing finishes on request
- Stainless Steel (INOX) connector range
- Moulded Connector Cordset range

FOR FURTHER INFORMATION ON CIRCULAR CONNECTORS PLEASE CALL US ON: +44 (0) 1202 865222

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OPTIMAS



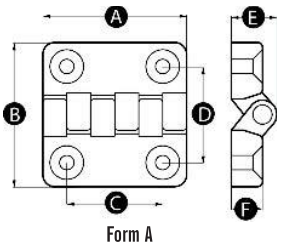
Hinges

- Suitable for a wide range of applications
- The friction of the Form C hinge can be adjusted by tightening or loosening the screw

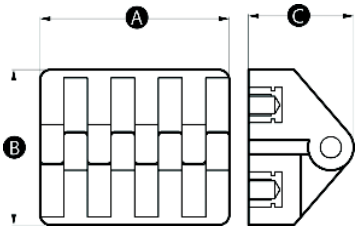
Specifications: RoHS ✓

Materials:
Forms A & B: Hinge Body: Nylon 6
Hinge Pin: Zinc Plated Steel
Form C: Hinge Body: Acetal with zinc plated countersunk screw. Hinge Pin: Polycarbonate

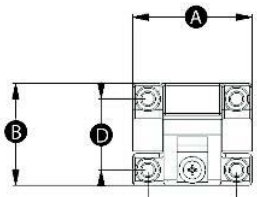
PART NUMBER	Body Colour	Mounting Hole/ Thread Size	Dimensions						Form	Unit Quantity
			A	B	C	D	E	F		
2010000	Black	7.0	48.0	48.0	30.0	30.0	10.5	15.5	A	2
2010001	Black	7.0	64.0	64.0	40.0	40.0	13.0	19.0	A	2
2010002	Black	M5	30.0	35.0	25.0	-	-	-	B	2
2010003	Black	M6	54.0	44.0	30.0	-	-	-	B	2
2010004	Black	5.2	43.0	36.5	32.0	25.0	-	-	C	2
2010005	White	5.2	43.0	36.5	32.0	25.0	-	-	C	2



Form A



Form B



Form C



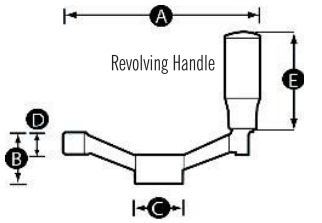
Hand Wheels

- Form A wheels have an integral die cast aluminium central hub with machined bore and keyway
- Form A has a revolving handle
- Form B wheels have a steel central hub with machined bore and keyway

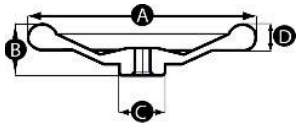
Specifications: RoHS ✓

Materials: See Table
Finishes:
Form A: Machine polished outer rim and matt finish inner spokes and hub. Handle in gloss finish.
Form B: Matt

PART NUMBER	Dimensions						Material	Form	Unit Quantity
	Pilot Bore	A	B	C	D	E			
2010050	12.0	125.0	33.0	31.0	15.0	65.0	Die Cast Aluminium & Duroplast	A	1
2010051	14.0	140.0	36.0	36.0	16.5	65.0	Die Cast Aluminium & Duroplast	A	1
2010052	14.0	160.0	39.0	36.0	18.0	94.0	Die Cast Aluminium & Duroplast	A	1
2010053	18.0	200.0	45.0	42.0	20.5	94.0	Die Cast Aluminium & Duroplast	A	1
2010054	11.0	125.0	29.0	30.0	18.0	-	Pressed Steel Painted Black	B	1
2010055	12.0	160.0	37.0	30.0	22.0	-	Pressed Steel Painted Black	B	1
2010056	14.0	200.0	46.0	40.0	22.0	-	Pressed Steel Painted Black	B	1
2010057	17.0	250.0	52.0	45.0	30.0	-	Pressed Steel Painted Black	B	1



Form A



Form B



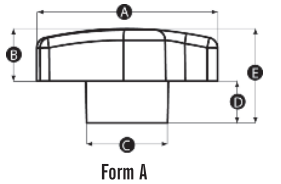
Offset Wing Knobs

- Offset wing design provides a positive and comfortable finger grip

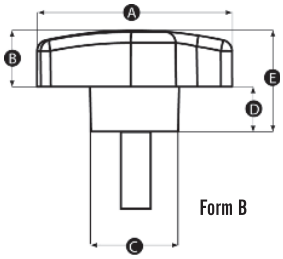
Specifications: RoHS ✓

Material: Body: Nylon 6
Thread Insert: Brass (Form A)
Zinc Plated Steel (Form B)
Finish: Matt

PART NUMBER	Thread Size	Thread Length	Dimensions					Form	Unit Quantity
			A	B	C	D	E		
5002000	M5	-	35.0	10.0	16.0	8.0	18.0	A	10
5002001	M6	-	35.0	10.0	16.0	8.0	18.0	A	10
5002002	M8	-	45.0	13.0	20.0	11.0	24.0	A	10
5002003	M10	-	45.0	13.0	20.0	11.0	24.0	A	10
5002004	M5	15.0	35.0	10.0	16.0	8.0	18.0	B	10
5002005	M5	20.0	35.0	10.0	16.0	8.0	18.0	B	10
5002006	M6	15.0	35.0	10.0	16.0	8.0	18.0	B	10
5002007	M6	20.0	35.0	10.0	16.0	8.0	18.0	B	10
5002008	M6	30.0	35.0	10.0	16.0	8.0	18.0	B	10
5002009	M8	15.0	35.0	10.0	16.0	8.0	18.0	B	10
5002010	M8	20.0	45.0	13.0	20.0	11.0	24.0	B	10
5002011	M8	30.0	45.0	13.0	20.0	11.0	24.0	B	10



Form A



Form B

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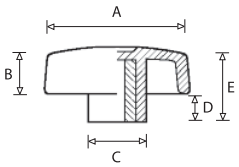
Wing Knobs

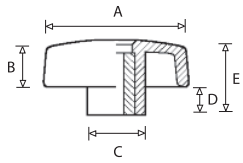


Specifications: RoHS ✓
Material: Nylon 6
Thread: (Male) Zinc Plated Steel
(Female) Brass
Colour: Black

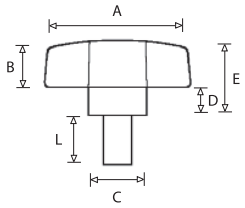
- Wide wing design provides a positive and comfortable finger grip



Form A
Female Blind thread - Brass Insert



Form B
Female Thru Thread - Brass Insert



Form C
Male Thread - Steel Insert

PART NUMBER	Thread Size	Dimensions						Form	Unit Quantity
		L - Length	A	B	C	D	E		
5001000	M5 x 0.8	-	28	10	11	3	13	A	50
5001020	M6 x 1.0	-	28	10	11	3	13	A	50
5001050	M8 x 1.25	-	50	15	15	9	24	A	50
5001070	M10 x 1.5	-	60	18	19	12	30	A	50
5001120	M6 x 1.0	-	40	12	15	8	20	B	50
5001150	M8 x 1.25	-	50	15	15	9	24	B	50
5001170	M10 x 1.5	-	60	18	19	12	30	B	50
5001210	M5 x 0.8	15	28	10	11	3	13	C	50
5001220	M5 x 0.8	20	28	10	11	3	13	C	50
5001230	M6 x 1.0	10	28	10	11	3	13	C	50
5001240	M6 x 1.0	15	28	10	11	3	13	C	50
5001250	M6 x 1.0	20	28	10	11	3	13	C	50
5001380	M8 x 1.25	20	50	15	15	9	24	C	50
5001320	M8 x 1.25	25	40	12	15	8	20	C	50

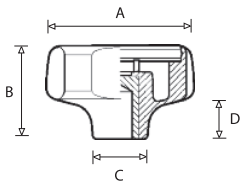
Thread Depths: Thread depths are usually a minimum of 1.5x the diameter of the thread where possible.

Lobe Knobs

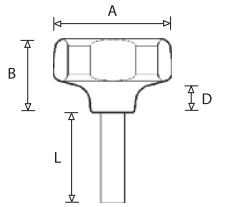


Specifications: RoHS ✓
Material: Nylon 6
Thread: (Male) Zinc Plated Steel
(Female) Brass
Colour: Black

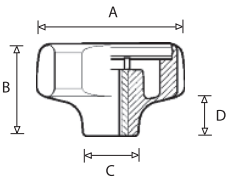
- Closed head design makes part comfortable to grip and easy to clean
- Ideal for medical apparatus



Form A
Female Blind thread - Brass Insert



Form B
Male Thread - Steel Insert

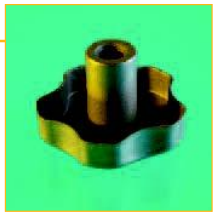


Form C
Female Thru Thread - Brass Insert

PART NUMBER	Thread Size and Pitch	Dimensions					Form	Unit Quantity
		L	A	B	C	D		
5141000	M5 x 0.8	-	30	21	12	10	A	50
5141010	M6 x 1.0	-	30	21	12	10	A	50
5141060	M6 x 1.0	-	40	27	15	12	A	50
5141070	M8 x 1.25	-	40	27	15	12	A	50
5141090	M8 x 1.25	25	40	27	15	12	B	50
5141100	M6 x 1.0	-	40	27	15	12	C	50
5141110	M8 x 1.25	-	40	27	15	12	C	50
5141130	M8 x 1.25	-	50	33	18	13	A	50
5141140	M10 x 1.5	-	50	33	18	13	A	50
5141200	M10 x 1.5	-	60	40	22	16	A	50
5141210	M12 x 1.75	-	60	40	22	16	A	50
5141220	M10 x 1.5	30	60	40	22	16	B	50
5141230	M12 x 1.75	40	60	40	22	16	B	50
5141270	M12 x 1.75	-	75	52	26	20	A	50

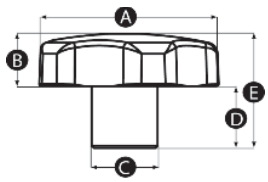
Thread Depths: Thread depths are usually a minimum of 1.5x the diameter of the thread where possible.

Stainless Steel Lobe Knobs



Specifications: RoHS ✓
Material: Pressed Stainless Steel body with spot welded Stainless Steel boss
Colour: Self
Finish: Matt

- Head design offers comfortable grip
- Produced in corrosion resistant stainless steel



PART NUMBER	Thread Size	Dimensions					Unit Quantity
		A	B	C	D	E	
5142000	M8	40.0	12.2	14.0	12.0	24.2	1
5142001	M10	50.0	13.7	18.0	17.5	31.2	1
5142002	M12	60.0	18.0	20.0	21.0	39.0	1



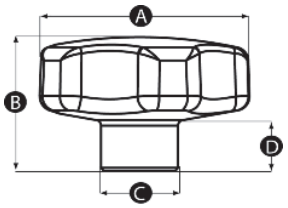
Aluminium Lobe Knobs

- Highly polished surface offers top quality appearance

Specifications: RoHS ✓

Material: Aluminium
Colour: Self
Finish: Highly Polished

PART NUMBER	Thread Size	Hole Type	Dimensions				Unit Quantity
			A	B	C	D	
5142003	M6	Blind Hole	40.0	24.2	14.0	8.2	1
5142004	M8	Blind Hole	40.0	24.2	14.0	8.2	1
5142005	M6	Through Hole	40.0	24.2	14.0	8.2	1
5142006	M8	Through Hole	40.0	24.2	14.0	8.0	1
5142007	M10	Blind Hole	50.0	31.2	18.0	9.75	1
5142008	M8	Blind Hole	50.0	31.2	18.0	9.75	1
5142009	M10	Through Hole	50.0	30.9	18.0	9.75	1
5142010	M8	Through Hole	50.0	30.9	18.0	9.75	1
5142011	M10	Blind Hole	60.0	38.6	20.0	14.3	1
5142012	M12	Blind Hole	60.0	38.6	20.0	14.3	1
5142013	M10	Through Hole	60.0	38.6	20.0	14.3	1
5142014	M12	Through Hole	60.0	38.6	20.0	14.3	1





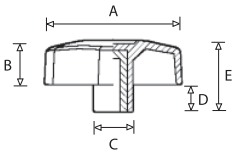
Scallop Knobs

- Contoured head design offers a positive and comfortable grip

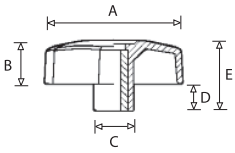
Specifications: RoHS ✓

Material: Nylon 6
Thread: (Male) Zinc Plated Steel
(Female) Brass
Colour: Black

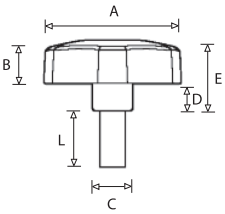
PART NUMBER	Thread Size	Dimensions						Form	Unit Quantity
		L	A	B	C	D	E		
5022000	M5 x 0.8	-	28	11	11	6	17	A	50
5022010	M6 x 1.0	-	28	11	11	6	17	A	50
5022020	M6 x 1.0	-	40	12	15	8	20	A	50
5022030	M8 x 1.25	-	40	12	15	8	20	A	50
5022040	M6 x 1.0	-	50	15	15	9	24	A	50
5022050	M8 x 1.25	-	50	15	15	9	24	A	50
5022060	M8 x 1.25	-	60	18	19	12	30	A	50
5022070	M10 x 1.5	-	60	18	19	12	30	A	50
5022100	M5 x 0.8	-	28	11	11	6	17	B	50
5022110	M6 x 1.0	-	28	11	11	6	17	B	50
5022120	M6 x 1.0	-	40	12	15	8	20	B	50
5022130	M8 x 1.25	-	40	12	15	8	20	B	50
5022140	M6 x 1.0	-	50	15	15	9	24	B	50
5022150	M8 x 1.25	-	50	15	15	9	24	B	50
5022160	M8 x 1.25	-	60	18	19	12	30	B	50
5022170	M10 x 1.5	-	60	18	19	12	30	B	50
5022210	M5 x 0.8	15	28	11	11	6	17	C	50
5022220	M5 x 0.8	20	28	11	11	6	17	C	50
5022230	M6 x 1.0	10	28	11	11	6	17	C	50
5022240	M6 x 1.0	15	28	11	11	6	17	C	50
5022250	M6 x 1.0	20	28	11	11	6	17	C	50
5022270	M6 x 1.0	20	40	12	15	8	20	C	50
5022300	M8 x 1.25	15	40	12	15	8	20	C	50
5022310	M8 x 1.25	20	40	12	15	8	20	C	50
5022320	M8 x 1.25	25	40	12	15	8	20	C	50
5022330	M8 x 1.25	35	40	12	15	8	20	C	50
5022400	M8 x 1.25	35	50	15	15	9	24	C	50
5022460	M10 x 1.5	30	60	18	19	12	30	C	50
5022470	M10 x 1.5	40	60	18	19	12	30	C	50



Form A
Female Blind thread - Brass Insert



Form B
Female Thru Thread - Brass Insert



Form C
Male Thread - Steel Insert

Thread Depths: Thread depths are usually a minimum of 1.5x the diameter of the thread where possible.

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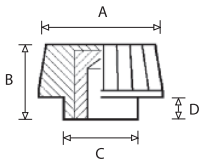
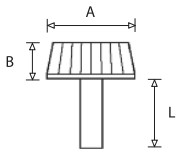
Tapered Knurled Knobs





Form A



Form B

Specifications:	RoHS ✓
Material: Nylon 6	
Thread: Brass	
Colour: Black	

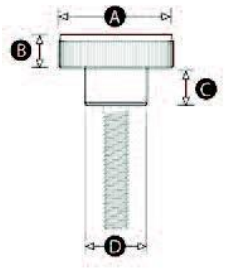
- Small head diameter makes this part ideal for use where space is tight

PART NUMBER	Thread Size	Dimensions					Form	Unit Quantity
		L	A	B	C	D		
5064000	M4 x 0.7	-	15	11	10	3	A	50
5064010	M5 x 0.8	-	15	11	10	3	A	50
5064020	M6 x 1.0	-	15	11	10	3	A	50
5064200	M4 x 0.7	10	15	8	-	-	B	50
5064210	M4 x 0.7	15	15	8	-	-	B	50
5064220	M5 x 0.8	10	15	8	-	-	B	50
5064230	M5 x 0.8	15	15	8	-	-	B	50
5064240	M6 x 1.0	10	15	8	-	-	B	50
5064250	M6 x 1.0	15	15	8	-	-	B	50
5064310	M8 x 1.25	20	25	13	-	-	B	50

Thread Depths: Thread depths are usually a minimum of 1.5x the diameter of the thread where possible.

Straight Knurled/Torque Knobs





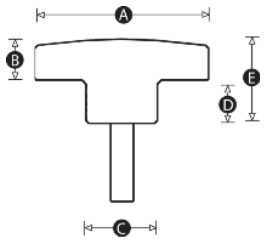
Specifications:	RoHS ✓
Material: Duroplast	
Thread: Zinc Plated Steel	
Colour: Black	

- Small head diameter makes this part ideal for use where space is tight

PART NUMBER	Thread Size	Dimensions					Unit Quantity
		Thread Length	A	B	C	D	
5065800	M4	20	18.0	5.8	6.3	6.3	10
5065801	M5	15	18.0	5.8	6.3	6.3	10
5065802	M5	20	18.0	5.8	6.3	6.3	10
5065803	M5	10	22.0	5.9	7.1	12.4	10
5065804	M5	20	22.0	5.9	7.1	12.4	10
5065805	M6	10	22.0	5.9	7.1	12.4	10
5065806	M6	10	26.0	6.5	7.2	15.1	10
5065807	M6	20	26.0	6.5	7.2	15.1	10
5065808	M8	20	26.0	6.5	7.2	15.1	10
5065809	M8	30	26.0	6.5	7.2	15.1	10

Star Knobs





Specifications:	RoHS ✓
Material: Duroplast	
Thread: Zinc Plated Steel	
Colour: Black	

- Wide star head design provides a positive and comfortable grip

PART NUMBER	Thread Size	Dimensions						Unit Quantity
		Thread Length	A	B	C	D	E	
5033100	M6	13	38.0	12.0	13.0	8.0	20.0	10
5033101	M6	25	38.0	12.0	13.0	8.0	20.0	10
5033102	M6	40	38.0	12.0	13.0	8.0	20.0	10
5033103	M8	20	50.0	13.0	15.0	12.0	25.0	10
5033104	M8	25	50.0	13.0	15.0	8.0	25.0	10
5033105	M8	40	50.0	13.0	15.0	12.0	25.0	10



Straight Knurled Knobs

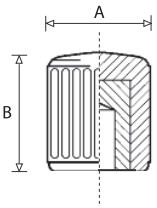
- Small head diameter makes this part ideal for use where space is tight

Specifications: RoHS ✓
Material: Nylon 6
Thread: (Male) Zinc Plated Steel
(Female) Brass
Colour: Black

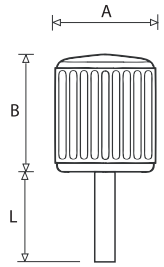
PART NUMBER	Thread Size and Pitch	Dimensions			Form	Unit Quantity
		L	A	B		
5064400	M4 x 0.7	-	15	16	A	50
5064420	M6 x 1.0	-	15	16	A	50
5064430	M5 x 0.8	-	20	22	A	50
5064440	M6 x 1.0	-	20	22	A	50
5064450	M6 x 1.0	-	25	34	A	50
5064500	M4 x 0.7	10	15	16	B	50
5064510	M5 x 0.8	10	15	16	B	50
5064530	M5 x 0.8	15	20	22	B	50
5064540	M6 x 1.0	15	20	22	B	50
5064550	M6 x 1.0	25	25	34	B	50
5064560	M8 x1.25	25	25	34	B	50

Thread Depths: Thread depths are usually a minimum of 1.5x the diameter of the thread where possible.

Form A



Form B





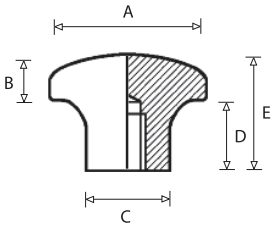
Button Knobs

- Designed to provide a positive finger grip

Specifications: RoHS ✓
Material: Nylon 6
Colour: Black

PART NUMBER	Thread Size / Hole Diameter	Dimensions					Unit Quantity
		A	B	C	D	E	
5065400	M5 x 0.8	22	7	12	12	19	50
5065401	M6 x 1.0	22	7	12	12	19	50
5065410	M6 x 1.0	27	7	14	13	20	50
5065420	M8 x 1.25	32	8	15	15	23	50
5065430	M8 x 1.25	37	8	18	17	25	50

Thread Depths: Thread depths are usually a minimum of 1.5x the diameter of the thread where possible.





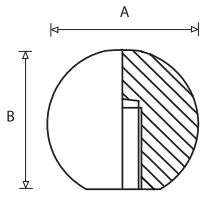
Ball Knobs

- High quality gloss surface finish

Specifications: RoHS ✓
Material: Duroplast
Colour: Black
Finish: High Gloss

PART NUMBER	Thread Size and Pitch	Dimensions		Unit Quantity
		A	B	
5074600	M4 x 0.7	16	15	50
5074660	M6 x 1.0	25	23	50
5074670	M8 x 1.25	25	23	50
5074680	M10 x 1.5	25	23	50
5074710	M10 x 1.5	32	30	50
5074740	M8 x 1.25	38	36	50
5074760	M10 x 1.5	44	43	50

Thread Depths: Thread depths are usually a minimum of 1.5x the diameter of the thread where possible.



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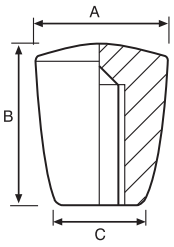
Tapered Knobs



Specifications: RoHS ✓
Material: Nylon 6
Colour: Black

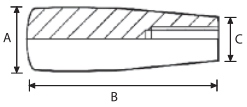
- Quick and simple to install
- Ideal for use with lever type adjusters



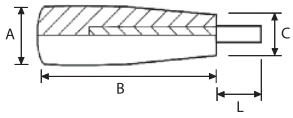
PART NUMBER	Thread Size	Dimensions			Unit Quantity
		A	B	C	
5065600	M5 x 0.8	15	20	10	50
5065610	M6 x 1.0	18	25	12	50
5065620	M8 x 1.25	24	33	16	50
5065630	M8 x 1.25	28	38	18	50
5065631	M10 x 1.5	28	38	18	50
5065640	M10 x 1.5	31	43	21	50
5065641	M12 x 1.75	31	43	21	50

Thread Depths: Thread depths are usually a minimum of 1.5x the diameter of the thread where possible.

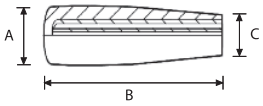
Tapered Handles



Form A
Female Thread



Form B
Male Thread



Form C
Self Fixing

Specifications: RoHS ✓
Material: Nylon 6
Thread: Steel (Form B only)
Colour: Black

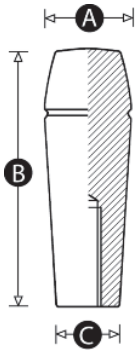
- Moulded in impact resistant Nylon 6



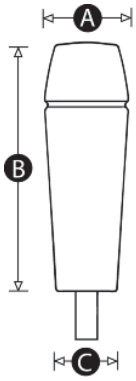
PART NUMBER	Thread Size / Hole Size (Mating Shaft Dia.)	Dimensions					Form	Unit Quantity
		L	Bore Depth (Form C)	A	B	C		
5093000	M6 x 1.0	-	-	18	40	15	A	50
5093010	M6 x 1.0	10	-	18	40	15	B	50
5093030	M8 x 1.25	-	-	21	50	17	A	50
5093050	10.0	-	45	21	50	17	C	50
5093060	M10 x 1.5	-	-	23	65	19	A	50
5093080	10.0	-	60	23	65	19	C	50
5093110	12.0	-	75	26	80	21	C	50
5093120	M12 x 1.75	-	-	28	90	22	A	50

Thread Depths: Thread depths are usually a minimum of 1.5x the diameter of the thread where possible.

Tapered Handles



Form A
Female Thread



Form B
Male Thread

Specifications: RoHS ✓
Material: Duroplast
Thread: Steel (Form B only)
Colour: Black

- High gloss finish



PART NUMBER	Thread Size / Hole Size (Mating Shaft Dia.)	Dimensions				Form	Unit Quantity
		Thread Length	A	B	C		
5093150	M6	-	20.0	60.0	14.0	A	6
5093151	M6	6	20.0	60.0	14.0	B	6
5093152	M8	-	24.0	80.0	18.0	A	6
5093153	M8	8	24.0	80.0	18.0	B	6
5093154	M8	-	28.0	95.0	20.0	A	6
5093155	M8	12	28.0	95.0	20.0	B	6

Thread Depths: Thread depths are usually a minimum of 1.5x the diameter of the thread where possible.

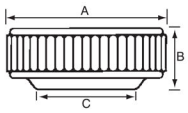


Self Assembly Knurled Knobs

- Simple push-fit onto standard socket head cap screws
- Ideal for making up custom thread combinations

Other colours are available upon request. Please contact our Sales Department for more information.

Specifications: RoHS ✓
Material: Acetal
Colour: Black



PART NUMBER	To Fit Socket Head Cap Screw (not supplied)	Dimensions			Unit Quantity
		A	B	C	
5085400	M3	10	4	8	50
5085410	M4	13	5	10	50
5085420	M5	16	6	12	50
5085430	M6	19	8	14	50
5085440	M6	26	8	14	50
5085450	M8	26	10	16	50

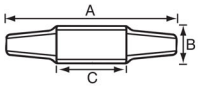


Self Assembly Tee Knobs

- Simple push-fit onto standard socket head cap screws
- Ideal for making up custom thread combinations

Other colours are available upon request. Please contact our Sales Department for more information.

Specifications: RoHS ✓
Material: Acetal
Colour: Black



PART NUMBER	To Fit Socket Head Cap Screw (not supplied)	Dimensions			Unit Quantity
		A	B	C	
5085600	M5	26	7	13	50
5085610	M6	30	8	14	50
5085620	M8	38	10	17	50

Self Assembly Method



1. Select the required socket head cap screw - from M3 - M10



2. Select the knob type and size to suit your application



3. Select a simple assembly method - no special tools or glue necessary



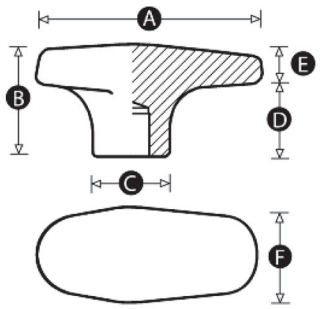
4. Your instant thumb screw is ready for use



Offset Tee Handles

- Designed to provide a positive grip

Specifications: RoHS ✓
Material: Duroplast
Colour: Black



PART NUMBER	Thread Size	Dimensions						Unit Quantity
		A	B	C	D	E	F	
5092158	M6	60.0	30.0	20.0	18.0	12.0	25.0	5
5092159	M8	80.0	30.0	22.0	18.0	12.0	30.0	5
5092160	M10	100.0	35.0	25.0	20.0	15.0	32.0	5

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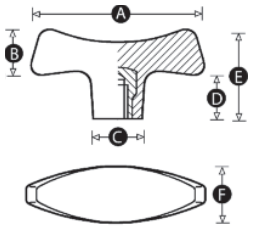
Tee Handles



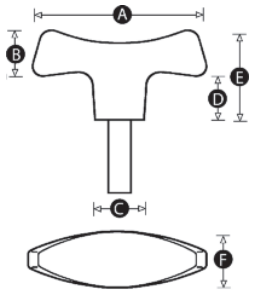


Form A
Female Thread

Specifications: RoHS ✓
Material: Duroplast
Thread: Form A: Brass
Form B: Zinc Plated Steel
Colour: Black

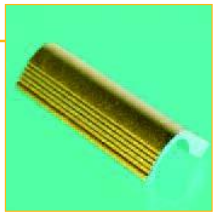
- Designed to provide a positive grip

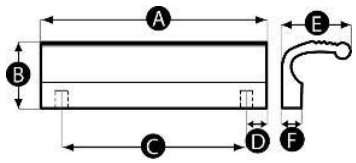
PART NUMBER	Thread Size	Dimensions							Form	Unit Quantity
		L	A	B	C	D	E	F		
5091150	M8	-	72	21	21	21	42	23	A	5
5091160	M8	25	72	21	21	21	42	23	B	5



Form B
Male Thread

Ledge Handles





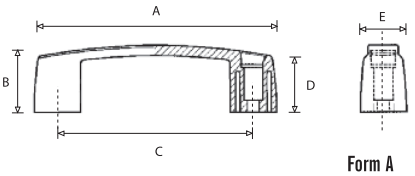
Specifications: RoHS ✓
Material: Anodised Aluminium
Colour: Silver, Finish: Matt
Fixing: Concealed - Machined female threads for fixing with screws from below

- Ideal for use on hinged protective doors

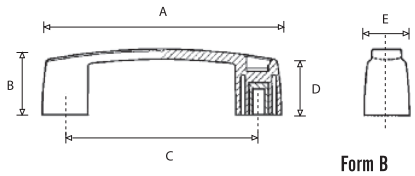
PART NUMBER	Mounting Hole Size	Dimensions						Unit Quantity
		A	B	C	D	E	F	
5092156	M6	110.0	32	90	10.0	33.0	9.5	1
5092157	M6	140.0	32	120	10.0	33.0	9.5	1

Bridge Handles





Form A
Plain Hole



Form B
Female Thread

Specifications: RoHS ✓
Material: Glass Filled Nylon 6
Thread: Brass
Colour: Black

- Ideal for equipment cases
- Handles are supplied with 2 push-fit hole covers that fit into the top of the handles to cover the mounting screws

PART NUMBER	Mounting Hole/Thread Size	Dimensions					Form	Unit Quantity
		A	B	C	D	E (Max)		
5092000	6.5	119.5	35.0	93.4	29.0	26.0	A	50
5092010	M6 x 1.0	119.5	35.0	93.4	29.0	26.0	B	50
5092020	8.5	145.0	40.0	117.0	34.0	29.0	A	50
5092030	M8 x 1.25	145.0	40.0	117.0	34.0	29.0	B	50
5092040	8.5	163.0	45.0	132.0	38.0	31.0	A	50
5092050	M8 x 1.25	163.0	45.0	132.0	38.0	31.0	B	50
5092060	8.5	213.0	50.0	179.0	42.0	35.0	A	50

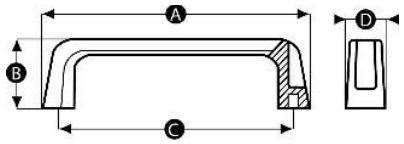
Thread Depths: Thread depths are usually a minimum of 1.5x the diameter of the thread where possible.



Bridge Handles

- Moulded in high strength reinforced Nylon

Specifications: RoHS ✓
Material: Glass Filled Nylon 6
Colour: Black, Finish: Matt
Threaded Inserts: Brass
Fixing: Concealed threaded inserts for fixing with screws from below



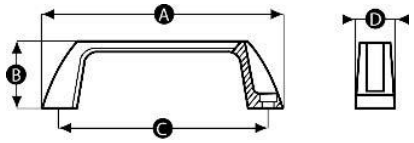
PART NUMBER	Mounting Thread Size	Dimensions				Unit Quantity
		A	B	C	D	
5092128	M6	180.0	46.0	160.0	27.0	2



Bridge Handles

- Moulded in impact resistant Nylon

Specifications: RoHS ✓
Material: Nylon 6
Colour: Black
Finish: Matt
Fixing: Plain holes for fixing with bolts from above



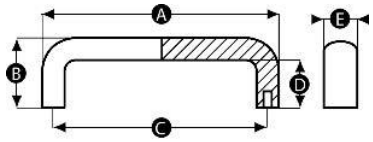
PART NUMBER	Mounting Hole Size	Dimensions				Unit Quantity
		A	B	C	D	
5092129	6.5	140.0	40.0	120.0	33.0	2
5092130	6.5	170.0	48.0	150.0	40.0	2



Bridge Handles

- Moulded in high strength reinforced Nylon

Specifications: RoHS ✓
Material: Glass Filled Nylon 6
Colour: Black, Finish: Matt
Threaded Inserts: Brass
Fixing: Concealed threaded inserts for fixing with screws from below



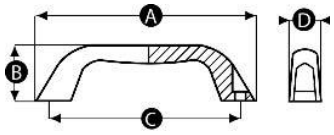
PART NUMBER	Mounting Thread Size	Dimensions					Unit Quantity
		A	B	C	D	E	
5092131	M5	107.0	40.5	94.0	29.0	20.0	2
5092132	M6	134.0	50.0	117.0	34.0	25.0	2
5092133	M6	137.0	50.0	120.0	34.0	25.0	2
5092134	M6	148.0	50.0	132.0	34.0	25.0	2
5092135	M8	168.0	58.0	150.0	40.0	29.0	2
5092136	M8	197.0	58.0	179.0	40.0	29.0	2



Bridge Handles

- Moulded in impact resistant Nylon

Specifications: RoHS ✓
Material: Nylon 6
Colour: Black, Finish: Matt
Fixing: Visible - Plain bores for fixing with bolts from above
Caps: Black caps to conceal fixing head



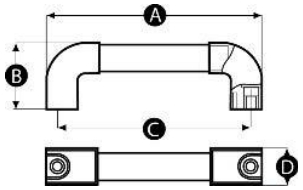
PART NUMBER	Mounting Hole Size	Dimensions				Unit Quantity
		A	B	C	D	
5092146	5.3	141.0	38.0	120.0	24.0	2
5092147	6.5	168.0	44.0	145.0	28.0	2
5092148	5.3	112.0	38.0	92.0	22.0	2



Tubular Bridge Handles

- Round tube offers comfortable grip

Specifications: RoHS ✓
Material: Aluminium Tube & Nylon 6 End Fixings
Colour: Anodised tube with black end fixings
Fixing: Visible - Plain bores for fixing with bolts from above
Caps: Black caps to conceal fixing head



PART NUMBER	Mounting Hole Size	Dimensions				Unit Quantity
		A	B	C	D	
5092154	10.5	224.0	40.0	200.0	43.0	1
5092155	10.5	274.0	40.0	250.0	43.0	1

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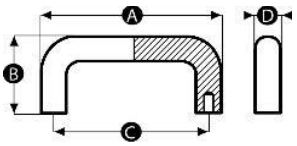
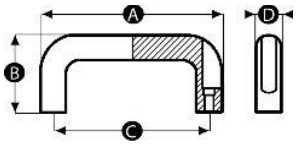
Bridge Handles - Die Cast Aluminium



Form A
Screw Mount



Form B
Bolt Down

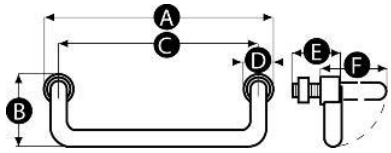
Specifications: RoHS ✓
Material: Powder Coated Die-Cast Aluminium
Colour: Black, Finish: Matt
Fixing: Form A: Concealed threaded inserts for fixing with screws from below
Form B: Plain bore for fixing with bolts from above

- Offers a high strength carrying point



PART NUMBER	Mounting Thread/Hole Size	Dimensions				Form	Unit Quantity
		A	B	C	D		
5092137	M6	113.0	47.0	100.0	34.0	A	2
5092138	M8	129.0	53.0	112.0	36.0	A	2
5092139	M6	141.0	51.0	128.0	38.0	A	2
5092140	M8	177.0	57.0	160.0	40.0	A	2
5092141	M8	209.0	57.0	192.0	40.0	A	2
5092142	6.4	130.0	53.0	116.0	35.0	B	2
5092143	6.4	146.0	55.0	132.0	38.0	B	2
5092144	6.4	178.0	57.0	164.0	40.0	B	2
5092145	6.4	210.0	57.0	196.0	40.0	B	2

Bridge Handles - Steel



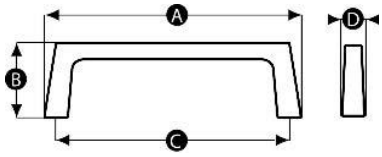
Specifications: RoHS ✓
Material: Chrome Plated Steel
Colour: Self
Finish: Polished
Fixing: Concealed male thread

- High quality polished surface finish
- This handle has a 90° folding action
- Used where minimal protrusion is required



PART NUMBER	Mounting Thread Size	Dimensions						Unit Quantity
		A	B	C	D	E	F	
5092125	M10	116.0	42.0	100.0	16.0	29.0	50.0	1
5092126	M10	138.0	42.0	120.0	18.0	29.0	52.0	1
5092127	M10	198.0	42.0	180.0	18.0	29.0	52.0	1

Bridge Handles - Anodised Aluminium



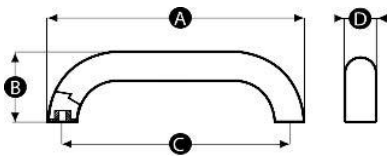
Specifications: RoHS ✓
Material: Silver Anodised Aluminium
Finish: Anodised
Fixing: Concealed - Machined female threads for fixing with screws from below

- Strong and durable carrying point



PART NUMBER	Mounting Thread Size	Dimensions				Unit Quantity
		A	B	C	D	
5092149	M6	110.5	32.0	100.0	25.0	2
5092150	M6	140.0	50.0	125.0	40.0	2
5092151	M6	148.0	40.0	130.0	30.0	2

Bridge Handles - Stainless Steel



Specifications: RoHS ✓
Material: Stainless Steel
Finish: Electro Polished
Fixing: Concealed - Machined female threads for fixing with screws from below

- Offers a high quality polished finish



PART NUMBER	Mounting Thread Size	Dimensions				Unit Quantity
		A	B	C	D	
5092152	M6	220.0	60.0	195.0	34.0	2
5092153	M6	325.0	75.0	300.0	46.0	2



Clamping Handles - Indexing

- Indexing handle allows adjustment to any position
- Ergonomic handle design provides a comfortable grip

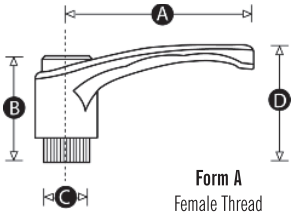
Other cap colours are available. Please contact our Sales Department for more information.

Specifications: RoHS ✓

Material:
Handle: Glass Filled Nylon 6
Thread: See Table

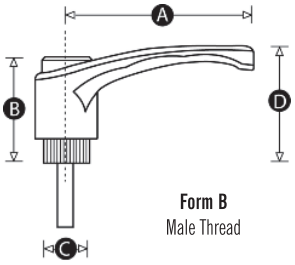
Colour: Handle: Black
Cap: See Table

PART NUMBER	Thread Size	Thread Material	Cap Colour	Dimensions					Form	Unit Quantity
				Thread Length	A	B	C	D		
5096350	M5	Steel	Orange	-	43.0	29.0	12.0	30.0	A	2
5096351	M5	Stainless St	Orange	-	43.0	29.0	12.0	30.0	A	2
5096352	M6	Steel	Orange	-	43.0	29.0	12.0	30.0	A	2
5096353	M6	Stainless St	Orange	-	43.0	29.0	12.0	30.0	A	2
5096354	M5	Steel	Orange	10	43.0	29.0	12.0	30.0	B	2
5096355	M5	Steel	Orange	20	43.0	29.0	12.0	30.0	B	2
5096356	M6	Steel	Orange	10	43.0	29.0	12.0	30.0	B	2
5096357	M6	Steel	Orange	20	43.0	29.0	12.0	30.0	B	2
5096358	M6	Steel	Orange	30	43.0	29.0	12.0	30.0	B	2
5096359	M5	Steel	Black	20	43.0	29.0	12.0	30.0	B	2
5096360	M6	Steel	Black	20	43.0	29.0	12.0	30.0	B	2
5096361	M6	Steel	Black	30	43.0	29.0	12.0	30.0	B	2
5096362	M6	Steel	Orange	-	65.0	38.0	15.0	44.0	A	2
5096363	M6	Stainless St	Orange	-	65.0	38.0	15.0	44.0	A	2
5096364	M8	Steel	Orange	-	65.0	38.0	15.0	44.0	A	2
5096365	M8	Stainless St	Orange	-	65.0	38.0	15.0	44.0	A	2
5096366	M8	Steel	Orange	20	65.0	38.0	15.0	44.0	B	2
5096367	M8	Steel	Orange	30	65.0	38.0	15.0	44.0	B	2
5096368	M8	Steel	Orange	40	65.0	38.0	15.0	44.0	B	2
5096369	M8	Steel	Black	20	65.0	38.0	15.0	44.0	B	2
5096370	M8	Steel	Black	20	65.0	38.0	15.0	44.0	B	2
5096371	M8	Steel	Black	40	65.0	38.0	15.0	44.0	B	2
5096372	M10	Steel	Orange	-	83.0	47.0	19.0	54.0	A	2
5096373	M10	Stainless St	Orange	-	83.0	47.0	19.0	54.0	A	2
5096374	M8	Steel	Orange	-	83.0	47.0	19.0	54.0	A	2
5096375	M8	Stainless St	Orange	-	83.0	47.0	19.0	54.0	A	2
5096376	M10	Steel	Orange	20	83.0	47.0	19.0	54.0	B	2
5096377	M10	Steel	Orange	30	83.0	47.0	19.0	54.0	B	2
5096378	M10	Steel	Orange	50	83.0	47.0	19.0	54.0	B	2
5096379	M10	Steel	Black	20	83.0	47.0	19.0	54.0	B	2
5096380	M12	Steel	Black	50	83.0	47.0	19.0	54.0	B	2
5096381	M10	Steel	Black	50	83.0	47.0	19.0	54.0	B	2



Form A
Female Thread

Thread Depths: Thread depths are usually a minimum of 1.5x the diameter of the thread where possible.



Form B
Male Thread



Other handle & cap colour combinations are available upon request.

Please call us on +44 (0) 1202 865222 to discuss your requirements.

T: +44 (0) 1202 865222
E: sales@optimascomponents.com

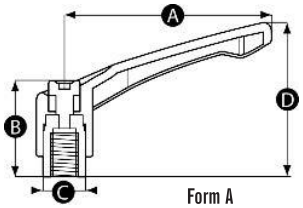
Specifications: RoHS ✓

Material:
Handle: Die cast zinc
Thread: Chemically blackened steel boss and ratchet with allen key fixing screw
Colour: Black

- Indexing handle allows adjustment to any position
- High strength die cast zinc handle

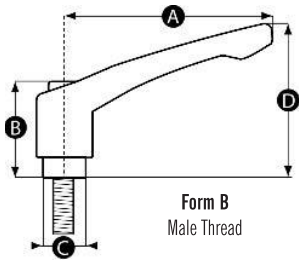
Other handle colours are available. Please contact our Sales Department for more information.





Form A
Female Thread

Thread Depths: Thread depths are usually a minimum of 1.5x the diameter of the thread where possible.



Form B
Male Thread

PART NUMBER	Thread Size	Dimensions					Form	Unit Quantity
		Thread Length	A	B	C	D		
5096382	M4	-	42.0	25.0	10.0	37.0	A	2
5096383	M5	-	42.0	38.0	10.0	25.0	A	2
5096384	M6	-	42.0	38.0	10.0	25.0	A	2
5096385	M5	16	42.0	38.0	10.0	25.0	B	2
5096386	M5	20	42.0	38.0	10.0	25.0	B	2
5096387	M6	16	42.0	38.0	10.0	25.0	B	2
5096388	M6	20	42.0	38.0	10.0	25.0	B	2
5096389	M6	32	42.0	38.0	10.0	25.0	B	2
5096390	M6	-	65.0	50.0	14.0	31.0	A	2
5096391	M8	-	65.0	50.0	14.0	31.0	A	2
5096392	M8	16	65.0	50.0	14.0	31.0	B	2
5096393	M8	20	65.0	50.0	14.0	31.0	B	2
5096394	M8	25	65.0	50.0	14.0	31.0	B	2
5096395	M8	32	65.0	50.0	14.0	31.0	B	2
5096396	M8	40	65.0	50.0	14.0	31.0	B	2
5096397	M8	50	65.0	50.0	14.0	31.0	B	2
5096398	M10	-	78.0	59.0	16.0	36.0	A	2
5096399	M8	-	78.0	59.0	16.0	36.0	A	2
5096400	M10	20	78.0	59.0	16.0	36.0	B	2
5096401	M10	32	78.0	59.0	16.0	36.0	B	2
5096402	M10	40	78.0	59.0	16.0	36.0	B	2
5096403	M10	50	78.0	59.0	16.0	36.0	B	2
5096404	M10	-	92.0	69.0	19.0	43.0	A	2
5096405	M12	-	92.0	69.0	19.0	43.0	A	2
5096406	M10	20	92.0	69.0	19.0	43.0	B	2
5096407	M10	32	92.0	69.0	19.0	43.0	B	2
5096408	M10	40	92.0	69.0	19.0	43.0	B	2
5096409	M10	50	92.0	69.0	19.0	43.0	B	2
5096410	M12	32	92.0	69.0	19.0	43.0	B	2
5096411	M12	40	92.0	69.0	19.0	43.0	B	2
5096412	M12	50	92.0	69.0	19.0	43.0	B	2
5096413	M12	63	92.0	69.0	19.0	43.0	B	2

Other handle colours are available upon request.

Please call us on +44 (0) 1202 865222 to discuss your requirements.





Cam Plungers

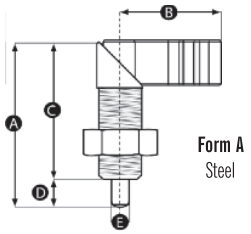
- Form B (Stainless Steel) plungers come completed with black plastic cap

Specifications: RoHS ✓

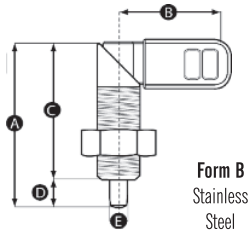
Material: Form A: Steel
Form B: Stainless Steel

Colour: Form A: Burnished Steel
Form B: Stainless Steel

PART NUMBER	Mounting Thread Size	Dimensions					Form	Unit Quantity
		A	B	C	D	Plunger Diameter		
5151000	M20x1.5	69.0	37.0	36.0	12.0	8.0	A	2
5151002	M20x1.5	69.0	37.0	36.0	12.0	10.0	A	2
5151004	M20x1.5	69.0	37.0	36.0	12.0	12.0	A	2
5151001	M20x1.5	69.0	52.0	36.0	12.0	8.0	B	2
5151003	M20x1.5	69.0	52.0	36.0	12.0	10.0	B	2
5151005	M20x1.5	69.0	52.0	36.0	12.0	12.0	B	2



Form A
Steel



Form B
Stainless Steel



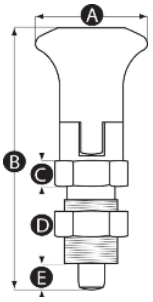
Pull Knob Index Plungers

- For quick and easy spring-loaded adjustment
- Plungers with locking rest position pull and twist to lock plunger in retracted position

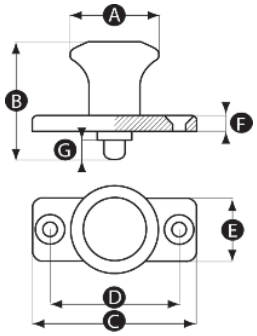
Specifications: RoHS ✓

Materials:
Pull Knob: Nylon - Colour: Black
Body & Insert: See Table
Colour: Stainless Steel: Self
Burnished Steel: Black

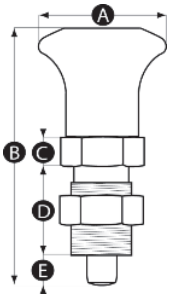
PART NUMBER	Mounting Thread Size	Dimensions								Locking Rest Position	Form	Material	Unit Quantity
		A	B	C	D	E	F	G	Plunger Diameter				
5151006	M10x1.0	21.0	51.0	5.0	17.0	5.0	-	-	5.0	90°	A	Stainless Steel	5
5151024	M10x1.0	21.0	51.0	5.0	17.0	5.0	-	-	5.0	90°	A	Burnished Steel	10
5151007	M12x1.5	25.0	61.0	6.0	20.0	6.0	-	-	6.0	90°	A	Stainless Steel	5
5151026	M12x1.5	25.0	61.0	6.0	20.0	6.0	-	-	6.0	90°	A	Burnished Steel	10
5151008	M16x1.5	31.0	75.5	8.0	26.0	7.0	-	-	8.0	90°	A	Stainless Steel	5
5151028	M16x1.5	31.0	75.5	8.0	26.0	7.0	-	-	8.0	90°	A	Burnished Steel	10
5151009	-	25.0	37.0	40.0	30.0	18.0	4.5	6.0	6.0	None	B	Plated Steel	5
5151010	-	25.0	37.0	40.0	30.0	18.0	4.5	6.0	6.0	90°	B	Plated Steel	5
5151011	-	31.0	44.0	46.0	34.0	20.0	5.5	8.0	8.0	None	B	Plated Steel	5
5151012	-	31.0	44.0	46.0	34.0	20.0	5.5	8.0	8.0	90°	B	Plated Steel	5
5151023	M10x1.0	21.0	51.0	5.0	17.0	5.0	-	-	5.0	None	C	Burnished Steel	10
5151013	M12x1.5	25.0	45.0	5.0	10.0	6.0	-	-	6.0	None	C	Burnished Steel	5
5151014	M12x1.5	25.0	45.0	5.0	10.0	6.0	-	-	6.0	90°	C	Burnished Steel	5
5151025	M12x1.5	25.0	61.0	6.0	20.0	6.0	-	-	6.0	None	C	Burnished Steel	10
5151015	M16x1.5	31.0	54.0	6.0	12.0	8.0	-	-	8.0	None	C	Burnished Steel	5
5151016	M16x1.5	31.0	54.0	6.0	12.0	8.0	-	-	8.0	90°	C	Burnished Steel	5
5151027	M16x1.5	31.0	75.5	8.0	26.0	7.0	-	-	8.0	None	C	Burnished Steel	10



Form A



Form B



Form C



Pull Knob Index Plungers - Heavy Duty

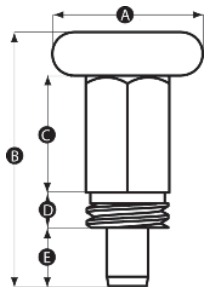
- All metal construction for heavy duty applications

Specifications: RoHS ✓

Materials: See Table

Note: M12 options do not have hexagonal body as per image. M12 options have 12mm A/F flats to accept 12mm spanner size.

PART NUMBER	Mounting Thread Size	Dimensions						Rest Position	Material	Unit Quantity
		A	B	C	D	E	Plunger Diameter			
5151017	M10x1.0	18.0	30.4	14.2	4.0	7.0	6.0	Upright	Zinc plated steel	5
5151018	M10x1.0	18.0	30.4	14.2	4.0	7.0	6.0	Upright	Stainless steel	5
5151019	M10x1.0	18.0	30.4	14.2	4.0	7.0	6.0	90°	Zinc plated steel	5
5151020	M10x1.0	18.0	30.4	14.2	4.0	7.0	6.0	90°	Stainless steel	5
5151021	M12x1.75	24.0	39.4	19.2	8.0	7.0	7.0	Upright	Zinc plated steel	5
5151022	M12x1.75	24.0	39.4	19.2	8.0	7.0	7.0	90°	Zinc plated steel	5



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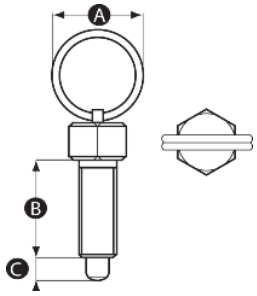
Ring Pull Plungers



Specifications: RoHS ✓

Material: Nickel plated housing with stainless steel pin
Colour: Self

- Pull ring enables quick and easy grasp with a single finger
- Comes as standard with lift ring and locking nut



PART NUMBER	Mounting Thread Size	Dimensions				Unit Quantity
		A	B	C	Plunger Diameter	
5151029	M6	14.0	12.0	4.0	4.0	10
5151030	M8	18.0	16.0	5.0	5.0	10
5151031	M10	24.0	20.0	6.0	6.0	10
5151032	M12	30.0	24.0	8.0	8.0	10

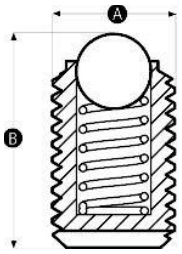
Ball & Spring Plungers

Specifications: RoHS ✓

Material: See Table
Colour: Stainless Steel: Self
Burnished Steel: Black

- Pull ring enables quick and easy grasp with a single finger





PART NUMBER	A Mounting Thread Size	B	Material	Unit Quantity
5152000	M3	7.5	Stainless steel	5
5152001	M4	9.8	Stainless steel	5
5152002	M5	12.9	Stainless steel	5
5152003	M6	15.0	Stainless steel	5
5152004	M8	17.5	Stainless steel	5
5152005	M10	21.0	Stainless steel	5
5152006	M12	24.5	Stainless steel	5
5152007	M16	27.5	Stainless steel	5
5152008	M20	34.5	Stainless steel	5
5152009	M3	7.5	Burnished steel	10
5152010	M4	9.8	Burnished steel	10
5152011	M5	12.9	Burnished steel	10
5152012	M6	15.0	Burnished steel	10
5152013	M8	17.5	Burnished steel	10
5152014	M10	21.0	Burnished steel	10
5152015	M12	24.5	Burnished steel	10
5152016	M16	27.5	Burnished steel	10
5152017	M20	34.5	Burnished steel	10

AUTOMOTIVE CLIPS AND FASTENERS

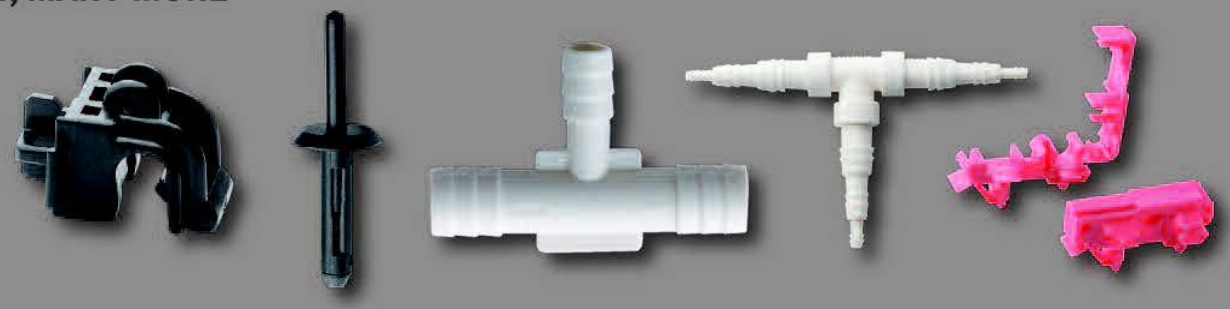
TRIM RETAINERS/PANEL CLIPS



CAPS, PLUGS AND GROMMETS



AND MANY, MANY MORE



AUTOMOTIVE GRADE FASTENERS TO OEM SPECIFICATION

We have a vast amount of experience in supplying fasteners and clips manufactured to a specific OEM specification, and carry tooling for many approved automotive parts. New parts can be moulded or produced to an individual customer drawing or specification. Quality documentation can be provided up to and including PPAP Level 3.

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OPTIMAS

IP Rating Information

Ingress Protection (IP) Classifications		Second Digit Protection Against Liquids								
First Digit Protection Against Solid Objects		**IPX0** No protection	**IPX1** Protection from vertically falling drops of water	**IPX2** Protection against drops of water up to 15° from vertical	**IPX3** Protection against water sprayed up to 60° from vertical - limited ingress Permitted	**IPX4** Protection against water sprayed from any direction - limited ingress permitted	**IPX5** Protection against low pressure jets of water from any direction - limited ingress permitted	**IPX6** Protection against strong jets of water from any direction - limited ingress permitted	**IPX7** Protected against temporary immersion between depths of 15cm and 1m	**IPX8** Protection against long periods of submersion under pressure
IP0X	No protection	IP 00	IP 01	IP 02	IP 03	IP 04	IP 05	IP 06	IP 07	IP 08
IP1X	Protection against solid objects larger in diameter than 50mm	IP 10	IP 11	IP 12	IP 13	IP 14	IP 15	IP 16	IP 17	IP 18
IP2X	Protection against solid objects larger in diameter than 12.5mm	IP 20	IP 21	IP 22	IP 23	IP 24	IP 25	IP 26	IP 27	IP 28
IP3X	Protection against solid objects larger in diameter than 2.5mm	IP 30	IP 31	IP 32	IP 33	IP 34	IP 35	IP 36	IP 37	IP 38
IP4X	Protection against solid objects larger in diameter than 1mm	IP 40	IP 41	IP 42	IP 43	IP 44	IP 45	IP 46	IP 47	IP 48
IP5X	Prevents penetration of dust sufficient to cause damage inside the equipment	IP 50	IP 51	IP 52	IP 53	IP 54	IP 55	IP 56	IP 57	IP 58
IP6X	Dust proof	IP 60	IP 61	IP 62	IP 63	IP 64	IP 65	IP 66	IP 67	IP 68

IP69K

This rating referes to the products ability to resist ingress of high temperature and high pressure steam or water. This is rating is used to detrermine suitablity of products what are used in high temperature and high pressure wash down or sanitisation equipment.

For a part to be rated to IP69K it must withstand high pressure and steam cleaning, tested using 80°C water at 80-100 bar pressure at a flow rate of 14-16L/min. The test nozel is supported 10-15cm from the tested part at angles of 0°, 30° and 90° for 30 seconds at each position.

Impact Protection (IK) Classfications

IK		Test
IK00	No protection	-
IK01-05	Impact < 1 Joule	-
IK06	Impact 1 Joule	Mass of 500g dropped from a height of 20cm
IK07	Impact 2 Joule	Mass of 500g dropped from a height of 40cm
IK08	Impact 5 Joule	Mass of 1.7kg dropped from a height of 29.5cm
IK09	Impact 10 Joule	Mass of 5kg dropped from a height of 20cm
IK10	Impact 20 Joule	Mass of 5kg dropped from a height of 40cm

GENERAL MATERIAL INFORMATION

	*Short Term Working Temperature °C		
Material:	**Min**	**Max**	****Chemical Resistance Summary**
Nylon 6,6 (PA 6,6)	-40	100	Good resistance to most solvents, aromatic hydrocarbons, dilute alkalis, detergents, oils, greases, and fats. Limited resistance to dilute acids
Nylon 4,6 (PA4,6)	-40	180	Good resistance to most solvents, aromatic hydrocarbons, dilute alkalis, detergents, oils, greases, and fats. Limited resistance to dilute acids
Nylon 6 (PA 6)	-40	100	Good resistance to most solvents, aromatic hydrocarbons, dilute alkalis, detergents, oils, greases, and fats. Limited resistance to dilute acids
Acrylonitrile butadiene styrene (ABS)	-40	95	Excellent resistance to dilute acid, dilute alkalis and oils and greases. Moderate resistance to aliphatic hydrocarbons. Limited resistance to aromatic hydrocarbons, halogenated hydrocarbons and alcohols
Acetal (POM)	-55	90	Good resistance to mineral acids, alkalines, solvents including alcohols, ketones, aromatic and chlorinated hydrocarbons, greases and oils
Glass Filled Nylon	-40	200	Good resistance to mineral acids, alkalines, solvents including alcohols, ketones, aromatic and chlorinated hydrocarbons, greases and oils
iglidur® M250	-40	70	Good resistance to weak alkalines, weak acids, alcohols, chlorinated hydrocarbons, fuels, greases and oils
Polybutylene Terephthalate (PBT)	-30	85	Excellent resistance to oils and greases, dilute acids and alcohols. Moderate resistance to dilute alkalis, Aromatic Hydrocarbons and Halogenated Hydrocarbons
Polycarbonate (PC)	-40	115	Resistant to dilute acids, mineral oils, diesel oils, alcohols, silicone fluids and petroleum fluids
Polystyrene (PS)	-20	60	Excellent resistance to dilute acids, aliphatic hydrocarbons. Moderate resistance to dilute acids, oils and greases. Limited resistance to Aromatic hydrocarbons, halogenated hydrocarbons and alcohols
Polysulfone (PSU)	-50	160	Excellent resistance to water. Good resistance to acids, bases, alcohols and hydrocarbons
Phenolic (Duroplast)	-30	140	Resistant to common organic solvents, automotive fluids such as brake fluid, antifreeze, glycol/petro-chemicals/hydrocarbons - including methanol and some acids and bases
Polypropylene (PP)	-30	90	Resistant to mineral acids (except strong oxidising agents), alkalis, alcohol, aromatic and chlorinated hydrocarbons, detergents, oils and fats
Polyphenylene oxide (PPO)	-40	120	Good resistance to dilute acids and alkalis. Fair resistance to strong acids, alcohols, grease, oils and ketones. Limited resistance to aromatic hydrocarbons and halogens.
High Density Polyethylene (HDPE)	-40	70	Resistant to mineral acids (except strong oxidising agents), alkalis, alcohol, ketones, detergents and oils
Low Density Polyethylene (LDPE)	-40	55	Resistant to mineral acids (except strong oxidising agents), alkalis, alcohol, ketones, detergents and oils
Rigid PVC	-30	55	Resistant to alcohols, fats, oils and aromatic free petrol, inorganic acids, alkalis and salts
Flexible PVC	-30	50	Resistant to weak acids and alkalis, mineral oils and petroleum spirits
Teflon (PTFE)	-70	260	Resistant to most chemicals except molten alkalis metals and certain halogenated chemicals and high temperatures
Fibre	-28	105	Resistant to oils, petrols, most solvents
Neoprene (CR)	-40	120	Moderate resistance to petroleum oils. Good resistance to ozone and sunlight
Nitrile (BUNA-N)	-40	120	Good resistance to petroleum oils, and fuels, silicone greases, hydraulic fluids and alcohols
EPDM	-50	145	Good resistance to ketones, steam, hot water, silicone oils and greases, dilute acids and alkalies, alcohols and automotive brake fluid
Natural Rubber (NR)	-50	100	Good resistance to organic acids, alcohols and automotive brake fluid. Moderate resistance to aldehydes and ketones
***Polyurethane (PU)	-18	80	Good resistance to fuels, oils and most non-polar solvents (aliphatic and aromatic)
Polylastomer	-45	100	Excellent resistance to strong acids and alkalis. Good resistance to hydrocarbons
Silicone	-50	316	Moderate solvent resistance. Generally attacked by most concentrated solvents, oils, concentrated acids and dilute sodium hydroxide.
Santoprene (TPE)	-60	135	Good resistance to many acids, bases and aqueous solutions
Styrene-Butadiene-Rubber (SBR)	-40	105	Good water resistance, moderate resistance to wet or dry organic acids. Limited resistance to strong acids, oils, greases, fats and hydrocarbons
Thermoplastic Elastomer (TPE)	-40	100	Good resistance to water, alcohol & acids. Excellent ozone and UV resistance

* For information on long term service temperatures, please contact our Technical Department

** All chemical resistance information is based on tests taken at room temperature

*** When assessing the performance of Polyurethane Bumperfeet, it is vital to consider adhesive performance.

TOLERANCE INFORMATION

The material performance data and general information are given for guidance only and should not be used to establish specifications or as the basis of a design. Since some plastics creep at elevated temperatures and characteristics change at lower temperatures, the operating temperature will depend upon the intended application. It is recommended therefore that samples be evaluated before items are specified.

Additional data on materials can be supplied upon request. Please contact our Technical Department.

Threaded Fasteners

Moulded threads approximate to Class 6g/6H for metric parts and 2A/2B for unified parts. Screws are moulded in tools which part along the length of the screw and it is not possible to guarantee production of perfectly round threads. In addition nylon will absorb moisture causing changes in screw thread dimensions. For these reasons it is not possible to guarantee threads on standard parts to tolerances usually applied to metal threads.

Due to the nature of the injection moulding process, slight imperfections may occur. These include small amounts of flash, knockout/ejector pin marks, gate and sink marks. Screws and bolts are often gated on the threaded end and may have projections up to 0.64mm. Customers are advised to evaluate samples before placing production orders.

Moisture Content & Storage

All products are normalised and placed in sealed bags prior to despatch.Customers are advised not to open sealed packets until required for use and to re-seal as soon as possible after opening. Due to the physical characteristics of Nylon 66, it is recommended that products be stored at ambient temperature avoiding any areas where they will be affected by heat and dry atmospheres.

Dyed Parts

Natural or white Nylon parts can be dyed to other colours but most dyes will eventually bleach out when exposed to prolonged ultra-violet light. With dyed items, variations in shading will occur and an exact colour match cannot be guaranteed. Colour must be stated at time of ordering as catalogue part number refers to listed colour only. Self-adhesive parts are not suitable for dying. The dying process may affect the product dimensions and dyed samples should be approved prior to the supply of bulk parts.

Specifications

Optimas reserves the right to amend specifications and designs without prior notice. Specifications listed in the catalogue are functional only.

Unless otherwise stated, all dimensions are in millimetres 'mm'.

Tolerance Information

Some tolerances are quoted against each product group or individual products. Where not stated the information below can be used as a guideline. The following information is for guidance only and should not be used to establish specifications, quality inspection requirements or as the basis of a design. For detailed tolerance information on a particular part, please contact our Technical Department.

Materials including: PP (Polypropylene), HDPE (High Density Polyethylene), LDPE (Low Density Polyethylene).

Over	0	10	30	70	120	200	400	630
To	10	30	70	120	200	400	630	1000
Value	± 0.30	± 0.38	± 0.57	± 0.97	± 1.50	± 2.20	± 3.40	± 5.30

Materials including: Flexible PVC, TPE (Thermoplastic Elastomer), EPDM, CR (Neoprene), Urethane, Silicone.

Over	0	6.3	10	16	25	40	63	100	160+
To	6.3	10	16	25	40	63	100	160	
Value	± 0.40	± 0.50	± 0.60	± 0.80	± 1.00	± 1.30	± 1.60	± 2.00	± 1.3%

Materials including: POM (Acetal), Phenolic.

Over	0	10	30	70	120	200	400	630
To	10	30	70	120	200	400	630	1000
Value	± 0.22	± 0.30	± 0.43	± 0.70	± 1.05	± 1.55	± 2.30	± 3.60

Materials including: PA (Nylon), PC (Polycarbonate), PS (Polystyrene), Rigid PVC.

Over	0	10	30	70	120	200	400	630
To	10	30	70	120	200	400	630	1000
Value	± 0.20	± 0.25	± 0.35	± 0.50	± 0.70	± 1.20	± 1.60	± 2.50

Materials including: Steel, Brass, Aluminium

Over	0	6	30	120	400
To	6	30	120	400	1000
Value	± 0.10	± 0.20	± 0.30	± 0.50	± 0.80

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TERMS & CONDITIONS

OPTIMAS OE SOLUTIONS LTD General Conditions of Sale

The Purchaser's attention is in particular drawn to the provisions of Condition 11

1. DEFINITIONS
"The Company" means Optimas OE Solutions Ltd or the Optimas entity otherwise identified on the face of this document.
"The Purchaser" means the person, firm or company to be supplied with the goods and services by the Company.
"Goods" means the goods, materials and/or other items to be supplied pursuant to the Contract.
"Services" means the services to be supplied pursuant to the Contract.
"The Contract" means the contract for sale and purchase of the Goods and supply of the Services made between the Company and the Purchaser to which these Conditions apply.
2. SCOPE
These Conditions apply to all sales of Goods and supplies of Services by the Company and shall prevail over any terms or conditions referred to in the Purchaser's order or in correspondence or elsewhere unless specifically agreed to in writing by the Company and expressed to form part of the Contract and any conditions or stipulations to the contrary are hereby excluded or extinguished.
3. QUOTATION
A quotation by the Company does not constitute an offer and the Company reserves the right to withdraw or amend the same at any time prior to the Company's acceptance of the Purchaser's order.
4. PRICES
4.1. Unless the prices quoted are stated to be fixed the prices payable for the Goods or Services shall be those charged by the Company at the time of despatch or supply of the Services so that the Company shall have the right at any time to revise quoted prices to take account of increases in cost including (without limitation) costs of raw materials or labour and any variation in exchange rates.
4.2. Quoted prices for the Goods are "ex-works" and exclusive of Value Added Tax and other duty levy or tax assessed against the Goods or Services by any Government or other authority.
5. TERMS OF PAYMENT
5.1. Subject to Condition 5.5 below payment of invoices shall, unless otherwise agreed in writing, be made in full without any deduction or set off within 30 days of the date of invoice.
5.2. Any extension of credit allowed to the Purchaser may be changed or withdrawn at any time.
5.3. The Company may claim interest at its discretion under the Late Payment of Commercial Debts (Interest) Act 1998.
5.4. If in the opinion of the Company the creditworthiness of the Purchaser shall have deteriorated prior to the delivery the Company may require full or partial payment of the price prior to delivery or the provision of security for payment by the Purchaser in a form acceptable to the Company. 5.5. In any case where the Purchaser is resident outside the United Kingdom and unless otherwise agreed the price of the goods shall be secured by an irrevocable letter of credit satisfactory to the Company established by the Purchaser in favour of the Company immediately upon receipt of the Company's acceptance and confirmed by a United Kingdom bank acceptable to the Company. The letter of credit shall be for the Contract price inclusive of any tax or duty payable by the Purchaser and shall be valid for the period specified by the Company. The Company shall be entitled to payment on presentation to such United Kingdom bank of the documents specified by the Company.

6. DELIVERY
6.1. Delivery or performance dates mentioned in any quotation or acceptance form or elsewhere are approximate only and not of any contractual effect, and time for delivery shall not be made of the essence by notice. The Company shall not be under any liability to the Purchaser in respect of any delay in delivery howsoever arising.
6.2. In the event of the Purchaser returning or failing to accept any delivery of the Goods in accordance with the Contract the Company shall be entitled at its option to invoice the Purchaser for such Goods and either to deliver and invoice the Purchaser for the balance of Goods then remaining undelivered or to suspend or cancel further deliveries under the Contract. The Company shall be entitled to store at the risk of the Purchaser any goods which the Purchaser refuses or fails to accept and the Purchaser shall in addition to the invoice price pay all costs of such storage and any additional costs or carriage incurred as a result of such refusal or failure. The Company shall be entitled after the expiration of 3 months from the date upon which the price became payable to dispose of the goods in such manner as the Company may determine.
6.3. Unless otherwise specified delivery shall be "ex-works" so that the goods shall be deemed to have been delivered and the risk therein to have passed to the Purchaser upon the Company notifying the Purchaser that the goods are available for collection.
6.4. In any case where Goods are sold CIF or FOB or on the basis of any other international trade term the meaning of such terms contained in the latest Incoterms shall apply as if expressly incorporated herein except insofar as any part of the same may be inconsistent with any of the provisions contained in these Conditions.
6.5. In the case of any sale of goods FOB the Company shall be under no obligation to give the Purchaser the notice specified in section 32(3) of the Sale of Goods Act 1979.
6.6. Unless otherwise expressly agreed the Company may effect delivery in one or more instalments. Where delivery is effected by installments each installment shall be treated as a separate contract.
6.7. If the Contract involves more than one delivery and any default is made in payment the Company shall have the right to suspend all or any further deliveries pending payment or to terminate the Contract in its entirety by notice in writing to the Purchaser.
7. EXPORT
The Purchaser represents and warrants that it will not violate U.S., E.U., or other applicable local country export-related laws with respect to the Goods.
8. TITLE
8.1. The Goods shall remain the sole and absolute property of the Company as legal and beneficial owner until such time as the Company has received in cleared funds all sums due to it in respect of: (a) the Goods, and (b) all other sums which are or which become due to the Company from the Purchaser on any account.
8.2. Until such payment the Purchaser shall be in possession of the goods solely as bailee for the Company and in fiduciary capacity and the Purchaser shall store the goods in such a way as to enable them to be identified as the property of the Company.
8.3. The Company reserves the immediate right of re-possession of any Goods to which it has retained title as aforesaid and thereafter to re-sell the same and for this purpose the Purchaser hereby grants an irrevocable right and licence to the Company's employees and agents to enter upon all or any of its premises with or without vehicles during normal business hours. The right shall continue to subsist notwithstanding the termination of the Contract for any reason and is without prejudice to any accrued right of the Company.
8.4. The Purchaser agrees immediately upon being so requested by the Company to assign to the Company all rights and claims which the Purchaser may have against its customers arising from sub-sales of Goods until payment is made in full.
8.5. Notwithstanding the foregoing provisions of this Condition 8 the Purchaser shall be entitled to use the Goods in the ordinary course of its business.
9. VARIATIONS
The Company shall be deemed to have fulfilled its contractual obligations in respect of any delivery though the quantity may be up to ten per cent more or less than the quantity specified in the Contract and in such event the Purchaser shall pay for the actual quantity delivered.
10. SPECIFICATIONS BY THE PURCHASER
The Purchaser shall indemnify and keep indemnified the Company against all claims, costs, damages and expenses incurred by the Company or for which the Company may become liable as a direct or indirect result of the carrying out of any work required to be done on or to the goods in accordance with the requirements of specifications of the Purchaser involving any infringement or claim or infringement of any intellectual property right vested in another person, firm or company.

11. LIABILITY
11.1. The Company shall not be liable for any visible defects or non-conformities and/or for any shortage in the quantity delivered unless a claim in writing shall have been received by the Company from the Purchaser within 7 days of delivery of the Goods. Where liability for any shortage is accepted by the Company, the Company's only obligation shall be to make good such shortage.
11.2. The Company warrants that (subject to the other provisions of these Conditions), for a period of 12 months (or, in the case of software, 30 days) from delivery, the Goods will be free from material defects in material and workmanship and materially in accordance with the specifications provided by the manufacturer of the Goods.
11.3. The Company will perform the Services with reasonable skill and care.
11.4. The Company makes no warranty that software will operate uninterrupted or error-free.
11.5. The warranties in Condition 11.2 do not cover wear and tear and shall not apply to Goods which have been subjected to misuse or abuse, neglect, accident, damage, improper storage, improper installation or maintenance.
11.6 Subject to Conditions 11.4 and 11.5, if the Goods do not comply with the warranties in Condition 11.2 the Company shall at its option replace or repair such Goods free of charge or refund the price of such Goods provided that, if the Company so requests, the Purchaser shall, at the Purchaser's expense, return the Goods or the part of such Goods which is defective to the Company. The Purchaser's exclusive remedy for the Company's breach of the warranties under Condition 11.2 will be the Company's obligation to repair, replace or refund (in all cases at the Company's option). The Purchaser shall proceed exclusively and directly against the manufacturer of the Goods at the Company's request. Any repaired or replacement Goods shall be guaranteed on these terms for the unexpired portion of the 12 month period.
11.7 Without prejudice to the repair or provision of replacement Goods, the Company's maximum aggregate liability (including any liability for the acts or omissions of its employees, agents and sub-contractors) to the Purchaser whether for tort (including negligence or breach of statutory duty), breach of contract (including deliberate, repudiatory breach by the Company), misrepresentation, restitution or otherwise shall in no circumstances exceed 50% of the cost of the relevant Goods or 50% of the cost of the relevant Services which give rise to such liability, as determined by the net price invoiced to the Purchaser.
11.8. The Company shall not be liable to the Purchaser for loss of profit, loss of business or depletion of goodwill in each case whether direct, indirect or consequential, or any claims for consequential compensation whatsoever (howsoever caused) which arise out of or in connection with the Contract, whether such loss or claim was foreseeable or in the contemplation of the parties and whether arising in or caused by breach of contract, tort (including negligence and breach of statutory duty), indemnity or otherwise.
11.9. Subject to the foregoing all conditions, warranties, representations and other terms expressed or implied by statute, common law or otherwise (save for the conditions implied by section 12 of the Sale of Goods Act 1979 and section 2 of the Supply of Goods and Services Act 1982) are, to the fullest extent permitted by law, hereby excluded.
11.10. Nothing in this Condition 11 or otherwise in the Contract, excludes or limits the liability of the Company (a) for death or personal injury caused by the Company's negligence; or (b) for any matter which it would be illegal for the Company to exclude or attempt to exclude its liability; or (c) for fraud or fraudulent misrepresentation.
12. LICENCES AND CONSENTS
12.1. The Contract is conditional upon the obtaining of all licences or consents necessary for its performance (other than for the importation of the Goods by the Purchaser) in which connection the Purchaser shall sign all such forms and documents and render such other assistance to the Company as may be necessary.
12.2. The Purchaser shall obtain at its own expense any licence or consent required for the importation of the Goods by the Purchaser and if necessary or so required, shall produce evidence of the same to the Company on demand.
13. PURCHASER-OWNED MATERIALS
Title and risk of loss to Purchaser-owned materials that are in the Company's possession shall remain with the Purchaser. The Company shall not be liable for any loss or damage to Purchaser-owned materials stored by the Company unless caused solely by the Company's negligence. Payment by the Company for such loss or damage shall be limited to the direct manufacturing cost of the Purchaser-owned materials (if it is manufactured by the Purchaser or its affiliates), or the replacement cost (if it was purchased from a third party), in either instance less the salvage value. The Purchaser shall be responsible for insuring its materials against all loss or damage not caused solely by the Company's negligence. The Company assumes no liability for loss or damage to Purchaser-owned materials caused by any force majeure circumstance (as defined in Condition 14.2 below).
14. FORCE MAJEURE
14.1. The Company shall not be liable to the Purchaser for any loss or damage which may be suffered by the Purchaser as a direct or indirect result of the supply of the Goods or Services by the Company being prevented, hindered or delayed by reason of any force majeure circumstances.
14.2. In this Condition "force majeure circumstances" shall mean any act of God, riot, strike, lock-out, trade dispute or labour disturbances, accident, breakdown of plant or machinery, fire, flood, difficulty in obtaining workmen, material or transport or other circumstances whatsoever outside the control of the Company affecting the provision of the Goods or of raw materials therefor by the Company's usual source of supply or the manufacture of the Goods by the Company's normal means or the delivery of the Goods by the Company's normal route or means of delivery.
15. TERMINATION
If the Purchaser enters into a deed of arrangement or commits an act of bankruptcy or compounds with his creditors or if a receiving order is made against him or (being a company) it passes a resolution or the Court makes an order that the Purchaser be wound up (otherwise than for the purpose of amalgamation or reconstruction) or if a receiver, administrator or administrative receiver is appointed of any of the assets or undertaking of the Purchaser or if circumstances arise which entitle the Court or a creditor to appoint a receiver, manager or administrator or which entitle the Court to make a winding-up order or if the Purchaser takes or suffers any similar action in consequence of debt or commits any breach of any part of this or any other contract between the Company and the Purchaser the Company may stop any Goods in transit and suspend further deliveries and by notice in writing to the Purchaser may immediately terminate the Contract without prejudice to the provisions of Condition 5.3 and to existing claim.
16. WAIVER
The failure on the part of either party to the Contract to exercise or enforce any rights conferred by the Contract shall not be deemed to be a waiver of any such right nor operate so as to bar the exercise or enforcement thereof at any time or times thereafter.
17. NOTICES
Any notice required to be given hereunder in writing shall be deemed to have been duly given if sent by pre-paid first-class post or facsimile addressed to the party concerned at its principal place of business or last known address.
18. HEADINGS
Headings to any of these Conditions are included to facilitate reference only and shall not affect the construction hereof.
19. SEVERANCE
If any Condition of the Contract (or part of any Condition) is found by any court or other authority of competent jurisdiction to be invalid, illegal or unenforceable, that Condition or part-Condition shall, to the extent required, be deemed not to form part of the Contract, and the validity and enforceability of the other Conditions shall not be affected.
20. GOVERNING LAW
The Contract shall be governed by and construed and interpreted in accordance with the laws of England and for the purposes of settlement of any disputes arising out of or in connection with the Contract the parties hereby submit themselves to the exclusive jurisdiction of the English Courts.
21. TYPE OF SALES TRANSACTION
These General Conditions of Sale do not apply to electronic nor internet transactions. The web-sites used by the Purchaser to enter such electronic orders contain their own specific general terms & conditions.

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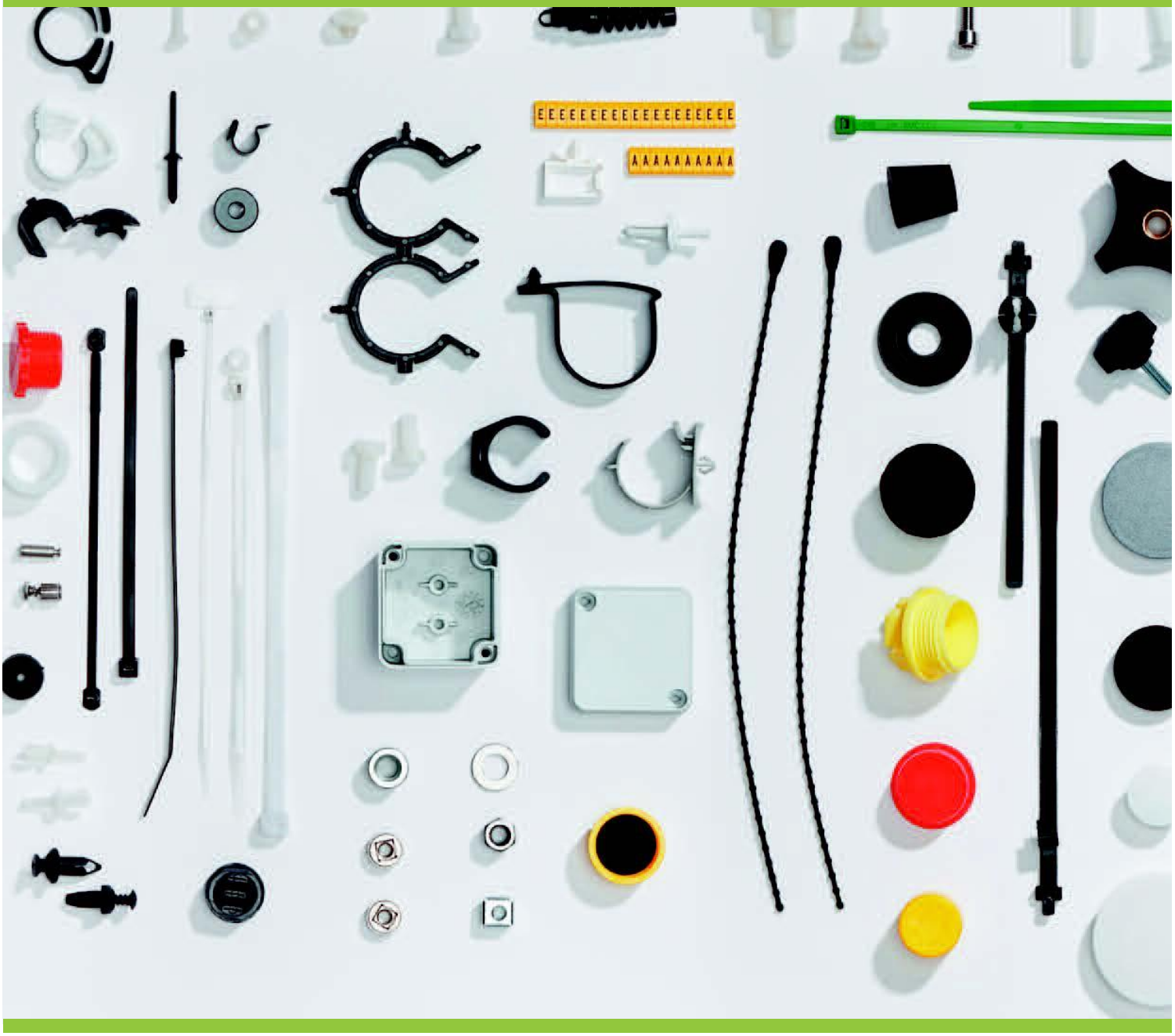

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