





# The Bulgin Ethos

Bulgin is widely recognised as a leading manufacturer of environmentally sealed connectors and components. With over 95 years of experience in the industry, Bulgin continues to innovate and develop products and services to cater for its global customer base across a variety of markets.

Working in close collaboration with you, we identify opportunities, mitigate risks and plan how to exploit new and emerging technologies, creating category-driving innovations that deliver on highly demanding projects.

## Pushing the boundaries of new product development.

At the Connectivity Lab, we offer our customers a high quality, 'one stop shop' engineering resource, using our technical expertise and extensive knowledge across a range of engineering disciplines to provide human-centered design, as well as turnkey project management capabilities. Liaising directly with our manufacturing plants, the Connectivity Lab ensures that no stone is unturned in getting your ideas off the page and progressing your prototype to full-scale manufacturing to meet the demands of your customers. This simplifies the supply chain and the manufacturing process, reduces production costs and accelerates time to market.

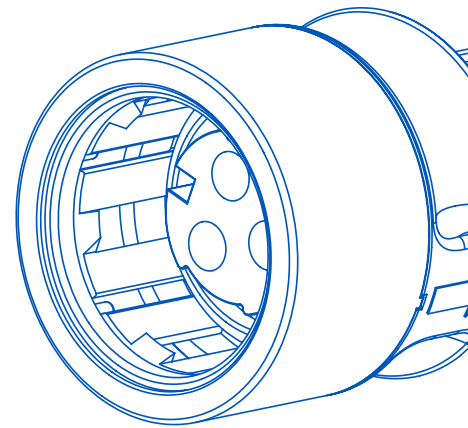
## Excellence and experience

Having access to the right expertise, at the right time – whether it is for an individual phase of the development project or the entire production process – is a vital part of the transition from concept to finished product. At Bulgin, we foster an entrepreneurial approach, equipping our engineers with state-of-the-art facilities and cutting-edge design tools, including: analytical modelling computer-aided design rapid prototyping printed circuit board manufacture testing and quality assurance

## Celebrating individuality!

All of our customers are individuals and so are their projects. With diverse R&D skills covering every aspect of engineering and a quest to bring high-level innovation to the table, our bespoke services are uniquely tailored to customers' individual needs, giving you the very best results when we take an original concept from design through to manufacture.

We pay close attention to every element of the product development and manufacturing process and have designed the StageGate® Process, our own method to control and document every step. Our service offers ISO 9001 accreditation for document control so that you can reap the benefits of our carefully controlled protocols, whether for just one aspect of a project or the entire development process.



Identify - Design - Build - Validate - Sustain

# Our Skills

Whatever your engineering requirement is, we have the knowledge and capability in-house to bring your projects to reality.

## Mechanical

- in-house 3D modelling
- finite element analysis
- rapid prototyping
- 3D rendered models

## Electronics

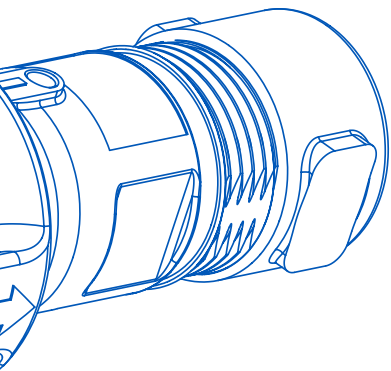
- in-house modelling
- simulation
- rapid prototyping
- optimized printed circuit board layouts
- human-centered design

## Assembly

- cable to connector complete assemblies
- overmoulding tools for all our connectors
- enclosures and complete panel assembly
- turnkey solutions for nished article or sub-assembly parts

## Software

- agile software development
- continuous integration
- source code management
- straightforward graphical user interfaces
- improved usability



# Approvals

Good design, high quality and maximum value have formed an integral part of the Bulgin philosophy.

We maintain a documented quality plan specifying process and product goals and are approved by BSI to ISO9001.

Investment in new plant and equipment makes an important contribution to continuous quality improvements. The risk of errors in the transition from design to manufacture is greatly reduced by the digital data flows from our CAD system, and our sophisticated automatic manufacturing equipment which can form and assemble components to consistently high quality standards.

All new products are extensively pre-production tested, in our dedicated electrical and mechanical test facility, which also conducts regular checks during manufacture.

The numerous international safety approvals gained are testimony in themselves to Bulgin's ongoing commitment to quality and the world wide market place.



These European Directives introduced environmental responsibilities for electrical and electronics equipment manufacturers. The RoHS (Restriction of use of certain Hazardous Substances) regulation (Directive 2002/95/EC) came into force July 2006. The WEEE (Waste Electrical and Electronic Equipment) regulation (Directive 2002/96/EC), came into force January 2007.

The RoHS directive effectively bans the use of certain chemicals, these are defined as:

- Lead
- Cadmium
- Mercury
- Hexavalent Chromium
- Polybrominated Biphenyl (PBB) - flame retardant
- Polybrominated Diphenyl Ether (PBDE) - flame retardant (including Deca BDE)

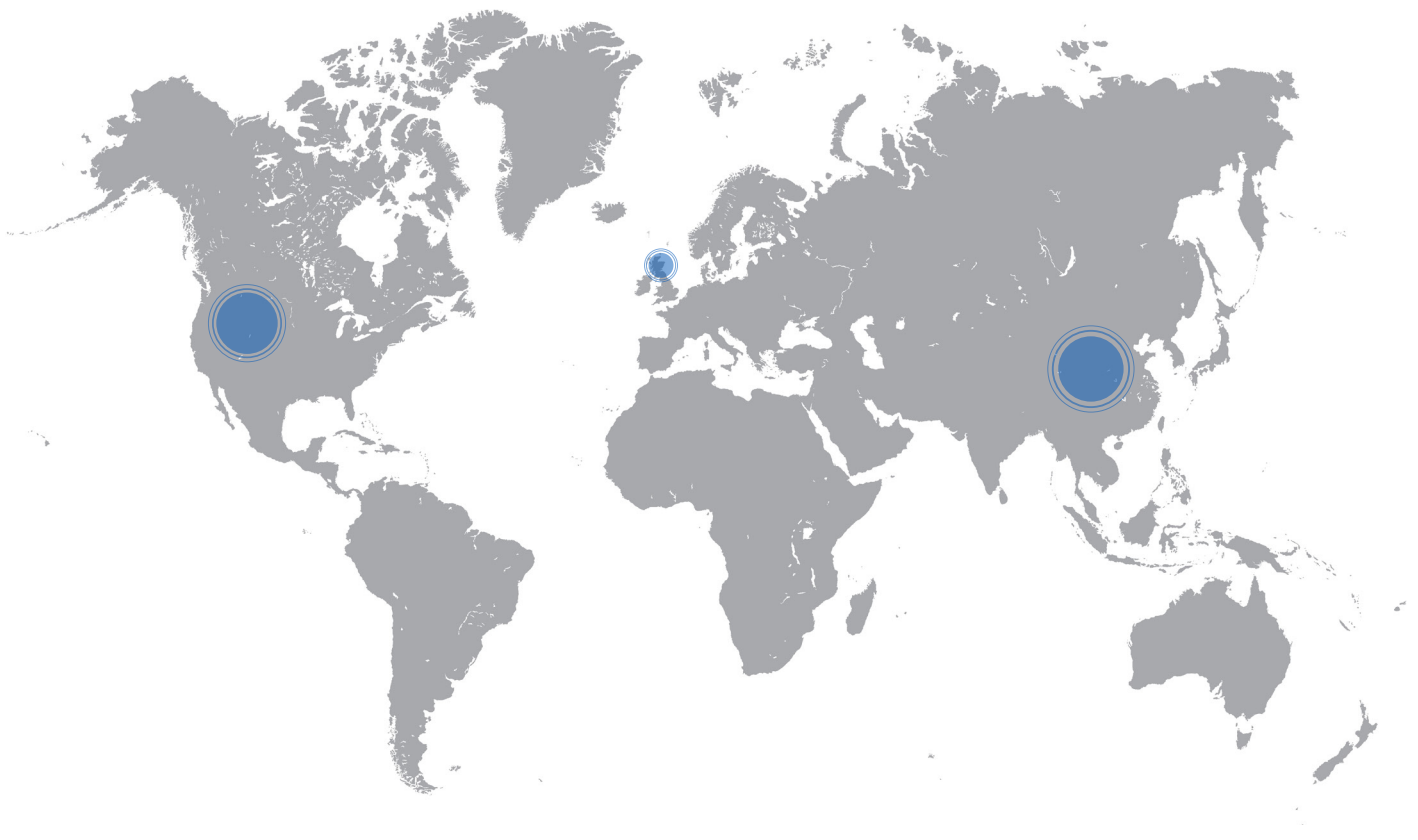
Action has been taken to ensure all standard products meet the requirements of this directive. All packing carries RoHS compliance information as conformation.

\*Our IP ratings are internally tested to EN 60529. IP68 rated products have undergone immersion testing in water at a depth of 10M for a period of 2 weeks unless otherwise stated.

# Our Offices



Bulgin has a [global presence](#), with regional offices located in the [UK](#), [US](#) and [China](#). Our reach is also through an [extensive distribution network](#) which covers over [200 countries worldwide](#).



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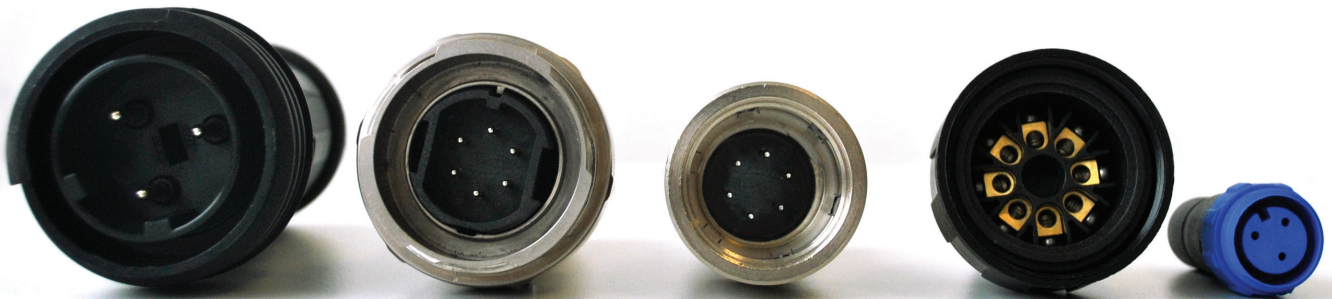


# A full range of IP66, IP68 and IP69K rated environmentally sealed circular connectors designed to provide secure and safe connections in harsh or hostile conditions.

The Power Buccaneer range consist of the miniature 400, Mini, Standard, 900, 7000 and 6000 Series. Screw terminations ensure simple 'field' connection, while crimp terminations fulfil the requirement for fast effective volume connections.

Each range has flex cable connector, in-line flex cable connector and panel mounting connector options. Over molded versions of the 400 series and Standard Buccaneer provide safe, secure and tamperproof cable termination.

With a wide choice of alternatives from 2 to 32 poles, BNC connections and screw, solder or crimp terminations, the Buccaneer range provides the answer to many design problems.



EXPlora	9
900 Series Buccaneer	15
Standard Buccaneer	21
Mini Buccaneer	31
400 Series Buccaneer	35
4000 Series Buccaneer	41
6000 Series Buccaneer	47
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The EXPlora range is most suited to manufacturers of ancillary electrical equipment such as motors, pumps, lighting equipment, process and control gear for use in factories and plant where hazardous or explosive atmospheres can be caused by flammable gases, mists or vapours or by combustible dusts.



Independently tested for compliance to ATEX standards for use in Zone 2 and Zone 22 environments, the new EXP series is manufactured from a tough, high grade UL94V-0 rated Polyester material and provides environmental sealing to IP68. The ATEX coding is: Ex II 3 GD and the certificated no: Baseefa09ATEX0232X.

EXPlora is rated up to 18A, 600V AC/DC for 2, 3, 4 and 5 poles, 16A, 430V AC/DC for 7 pole and 10A, 250V AC/DC for 10 poles. The 3, 4, 5 and 7 pole versions have leading earth contacts making them suitable for single or three phase applications.



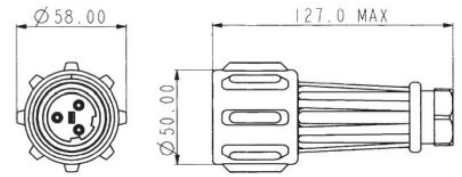
- ⊞ ATEX approval for Zone 2 and Zone 22 applications
- ⊞ Independently tested
- ⊞ ATEX Coding:  Ex II 3 GD
- ⊞ ATEX Classification: Ex nA IIC T6 Gc  
Ex tc IIIC T85°C Dc
- ⊞ ATEX Certificate No: Baseefa09ATEX0232X
- ⊞ IP68 rating tested at 1.054kg/sq cm (15lb/sq in)
- ⊞ 10m depth for 2 weeks
- ⊞ Up to 18A, 600V AC/DC rating
- ⊞ 2, 3, 4, 5, 7 and 10 pole
- ⊞ Leading earth contact for 3, 4, 5 & 7 pole versions
- ⊞ Trailing Neutral on 5 pole
- ⊞ Plug or socket connection in each body style
- ⊞ Water and dustproof to IP68 when mated
- ⊞ 'Scoop proof' contacts
- ⊞ Field termination - screw terminations
- ⊞ Positive locating keyways - cannot be mis-connected
- ⊞ Sealing caps available to maintain IP68 rating of unmated connectors
- ⊞ Compact design
- ⊞ Easy assembly - no special tools required
- ⊞ Single or 3 phase applications
- ⊞ Cost effective solution
- ⊞ Cable acceptance from 7 to 22mm O/D
- ⊞ Two cable connector versions for 15mm and 22mm (maximum) cable diameters
- ⊞ Separate strain relief on large cable version

Flex Cable Connector



EXP-0911

- Mates with in-line flex or panel mounting versions
- Positive, fast acting locking ring - can be turned with a gloved hand
- Plug or socket versions
- EXP-0 Series 13-15mm cable dia. acceptance as standard, 7-13mm with additional Gland Pack PX0980

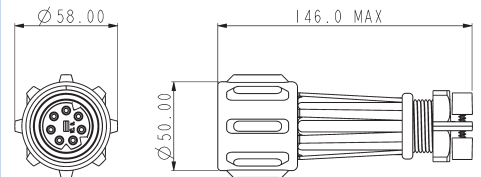


Flex Cable Connector



EXP-A911

- EXP-A Series 20-22mm cable dia. Acceptance as standard, 14-20mm with additional Gland Pack PXA980
- Strain Relief Clamp



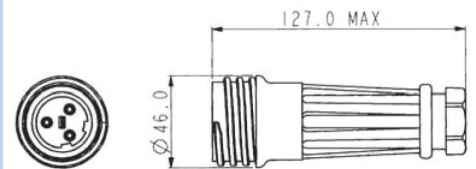
Standard Cable	Large Cable	Description	Standard Cable	Large Cable	Description
EXP-0911/02/P	EXP-A911/02/P	2 pole Plug	EXP-0911/02/S	EXP-A911/02/S	2 pole Socket
EXP-0911/03/P	EXP-A911/03/P	3 pole Plug	EXP-0911/03/S	EXP-A911/03/S	3 pole Socket
EXP-0911/04/P	EXP-A911/04/P	4 pole Plug	EXP-0911/04/S	EXP-A911/04/S	4 pole Socket
EXP-0911/05/P	EXP-A911/05/P	5 pole Plug	EXP-0911/05/S	EXP-A911/05/S	5 pole Socket
EXP-0911/07/P	EXP-A911/07/P	7 pole Plug	EXP-0911/07/S	EXP-A911/07/S	7 pole Socket
EXP-0911/10/P	EXP-A911/10/P	10 pole Plug	EXP-0911/10/S	EXP-A911/10/S	10 pole Socket

In-Line Flex Cable Connector



EXP-0921

- Mates with either EXP-0911 or EXP-A911 connectors
- Plug or socket versions
- EXP-0 Series 13-15mm cable dia. acceptance as standard, 7-13mm with additional Gland Pack PX0980

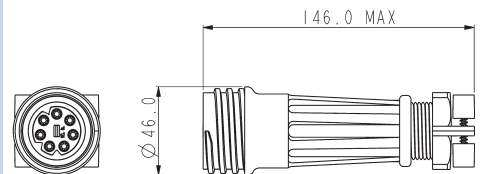


In-Line Flex Cable Connector



EXP-A921

- EXP-A Series 20-22mm cable dia. acceptance as standard, 14-20mm with additional Gland Pack PXA980
- Strain Relief Clamp



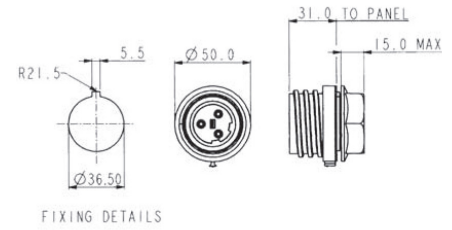
Standard Cable	Large Cable	Description	Standard Cable	Large Cable	Description
EXP-0921/02/P	EXP-A921/02/P	2 pole Plug	EXP-0921/02/S	EXP-A921/02/S	2 pole Socket
EXP-0921/03/P	EXP-A921/03/P	3 pole Plug	EXP-0921/03/S	EXP-A921/03/S	3 pole Socket
EXP-0921/04/P	EXP-A921/04/P	4 pole Plug	EXP-0921/04/S	EXP-A921/04/S	4 pole Socket
EXP-0921/05/P	EXP-A921/05/P	5 pole Plug	EXP-0921/05/S	EXP-A921/05/S	5 pole Socket
EXP-0921/07/P	EXP-A921/07/P	7 pole Plug	EXP-0921/07/S	EXP-A921/07/S	7 pole Socket
EXP-0921/10/P	EXP-A921/10/P	10 pole Plug	EXP-0921/10/S	EXP-A921/10/S	10 pole Socket

Panel Mounting Connector



EXP-0931

- Mates with EXP-0911 and EXP-A911 connectors
- Single hole fixing
- Anti-rotation key
- High grade sealing gasket
- 3-7mm panel thickness



**Panel Mounting**

EXP-0931/02/P	2 pole Plug
EXP-0931/03/P	3 pole Plug
EXP-0931/04/P	4 pole Plug
EXP-0931/05/P	5 pole Plug
EXP-0931/07/P	7 pole Plug
EXP-0931/10/P	10 pole Plug

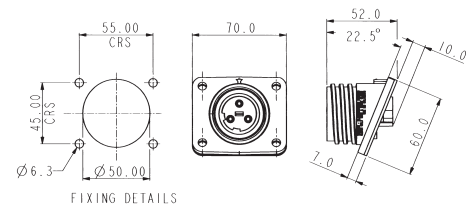
EXP-0931/02/S	2 pole Socket
EXP-0931/03/S	3 pole Socket
EXP-0931/04/S	4 pole Socket
EXP-0931/05/S	5 pole Socket
EXP-0931/07/S	7 pole Socket
EXP-0931/10/S	10 pole Socket

Flange Mounting Connector



EXP-0941

- Mates with EXP-0911 and EXP-A911 connectors
- Supplied with high grade sealing gasket
- Supplied with sealing grommets for panel fixing screws (M6 thread recommended)



**Panel Mounting**

EXP-0941/02/P	2 pole Plug
EXP-0941/03/P	3 pole Plug
EXP-0941/04/P	4 pole Plug
EXP-0941/05/P	5 pole Plug
EXP-0941/07/P	7 pole Plug
EXP-0941/10/P	10 pole Plug

EXP-0941/02/S	2 pole Socket
EXP-0941/03/S	3 pole Socket
EXP-0941/04/S	4 pole Socket
EXP-0941/05/S	5 pole Socket
EXP-0941/07/S	7 pole Socket
EXP-0941/10/S	10 pole Socket

Sealing Caps



EXP-0990, EXP-0991, EXP-0992

- Heavy duty sealing caps to maintain IP68 rating of unmated connectors, with stainless steel straps

**Sealing Caps**

EXP-0990	Heavy duty sealing cap for use with EXP-0911/xx/x and EXP-A911/xx/x
EXP-0991	Heavy duty sealing cap for use with EXP-0921/xx/x and EXP-A921/xx/x
EXP-0992	Heavy duty sealing cap for use with EXP-0931 and EXP-0941

Cable Glands

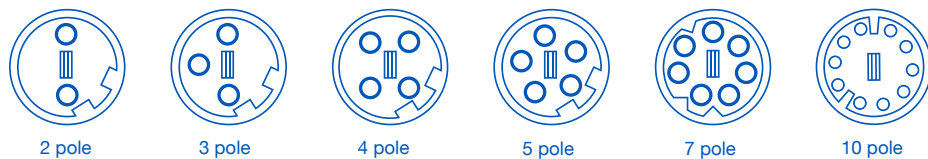


PX0980, PXA980

- Packs of 3 additional pairs Cable Glands for 900 Series Flex Cable Connectors

**Gland Packs**

EXP-0980	Pack of 3 additional cable glands for EXP-0911 and EXP-0921 to suit cable sizes: 7-9mm (Dark Grey), 9-11mm (White) and 11-13mm (Black) diameter
EXP-A980	Pack of 3 additional cable glands for EXP-A911 and EXP-A921 to suit cable sizes: 14-16mm (Dark Grey), 16-18mm (White) and 18-20mm (Black) diameter

EXP X9	X	X	/	XX	/	X	/	X
<b>Series Designation</b> 09 = Standard Cable Accommodation (ø7-15mm)  A9 = Large Cable Accommodation (ø14-22mm)	<b>Body Styles</b> 1 = Flex, 2 = Flex In-line, 3 = Panel, 4 = Flange Panel	<b>Contact Termination</b> 1 = Screw Terminal		<b>Number of Poles</b> 02 03 04 05 07 10		<b>Contact Type</b> P = Plug, S = Socket		<b>Cable Acceptance</b> <b>EXP-0 version:</b> Blank = 13-15mm Yellow cable gland (std)  3 = 11-13mm Black cable gland  2 = 9-11mm White cable gland  1 = 7-9mm Dark Grey cable gland  <b>EXP-A version:</b> Blank = 20-22mm Yellow cable gland (std)  9 = 18-20mm Black cable gland  8 = 16-18mm White cable gland  7 = 14-16mm Dark Grey cable gland
<b>Example:</b> EXP-0911/07/P/3 = Flex cable connector body, seven pin contacts, with gland to suit 11-13mm cable.								
<b>Contact Layout</b>								
								
<b>Overall dimensions of connectors when mated together:</b>								
EXP-0911 + EXP-0921	230 mm max.	EXP-A911 + EXP-A931	175 mm max. (to panel)					
EXP-A911 + EXP-A921	270 mm max.	EXP-0911 + EXP-0941	145 mm max. (to panel, mid point on flange)					
EXP-0911 + EXP-0931	135 mm max. (to panel)	EXP-A911 + EXP-A941	174 mm max. (to panel, mid point on flange)					

**Electrical:**

No Poles:	2, 3, 4, 5	7	10
Current Rating:	18A	16A	10A
Voltage Rating:	600V AC/DC 430V AC/DC 250V AC/DC		
Contact Resistance:	<10mΩ (initial)		
Insulation Resistance:	>10 <sup>6</sup> MΩ (@ 500V DC)		
Dielectric strength:	2.2kV DC min		
AC Breakdown voltage:	6kV		
Ambient Temperature Range:	-20°C to +55°C		
Standards:	ATEX Zone 2 and Zone 22 IEC60079-0:2007 IEC60079-15:2005		
ATEX Coding:	Ⓔ II 3 GD		
ATEX Certificate No:	Baseefa09ATEX0232X		
ATEX Classification:	Ex nA IIC T6 Gc Ex tc IIIC T85°C Dc		

**Materials:**

Body Mouldings:	Polyester
Cap Mouldings:	Polycarbonate
Flammability Rating:	UL94V-0
UV Resistance:	To EN50021:1999
Contacts:	Machined Solid Brass, Nickel plated
O Rings:	Nitrile Panel
Sealing Gasket:	Silicone Rubber
<b>RoHS</b>	Compliant

**Mechanical:**

Sealing:	IP68, EN60529:2001 tested @ 1.054kg/sq.cm. (15lb/sq.in.) 10m depth for 2 weeks
Cable Acceptance:	EXP-0911 - EXP-0921 13 - 15mm O/D standard, 7-13mm with Gland Pack PX0980 EXP-A911 - EXP-A921 20 - 22mm O/D standard, 14 - 20mm with Gland Pack PXA980
Contact Accommodation:	2-7 pole - 2.5 to 4mm <sup>2</sup> (13 to 10AWG) conductor, single or multi stranded 10 pole - 0.75 to 2mm <sup>2</sup> (14 to 18AWG) conductor, single or multi stranded
Termination:	Axial screw terminals 22mm dia, 150N 15mm dia, 150N 7mm dia, 80N
Cable Retention force:	
Gland Nut Torques:	
EXP-0 range	3.16Nm (28lbf/in)
13-15mm (Yellow - std.)	3.16Nm (28lbf/in)
11-13mm (black)	3.16Nm (28lbf/in)
9-11mm (white)	3.16Nm (28lbf/in)
7-9mm (dark grey)	
EXP-A range	
20-22mm (Yellow - std.)	3.16Nm (28lbf/in)
18-20mm (black)	3.16Nm (28lbf/in)
16-18mm (white)	3.16Nm (28lbf/in)
14-16mm (dark grey)	3.16Nm (28lbf/in)
Tightening Torques:	
Panel mount nut	2.25Nm
Flange & Bulkhead fixing screws	0.9Nm
Rear thread EXP-0931 series	M36 x 2-6g



- ⊗ IP68 rating tested at 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks
- ⊗ IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
- ⊗ 32A, 600V AC/DC rating
- ⊗ 2, 3, 4, 5, 7 and 10 pole
- ⊗ Plug or socket connection in each body style
- ⊗ Water and dustproof to IP68 when mated
- ⊗ 'Scoop proof' contacts
- ⊗ Field termination - screw terminations
- ⊗ Positive locating keyways - cannot be mis-connected
- ⊗ Sealing caps available to maintain IP68 rating of unmated connectors
- ⊗ Leading earth contact for 3, 4, 5 and 7 pole versions
- ⊗ EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
- ⊗ Trailing Neutral on 5 pole
- ⊗ Compact design
- ⊗ Easy assembly - no special tools required
- ⊗ Single or 3 phase applications
- ⊗ Bulkhead moulding available for use with flange mounting body for 45° or 90° mounting (order each separately)
- ⊗ Cost effective solution
- ⊗ Cable accommodation 7-22mm O/D
- ⊗ Two cable connector versions for 15mm and 22mm (maximum) cable diameters
- ⊗ Separate strain relief on large cable version
- ⊗ UL, CSA and VDE approvals



Flex Cable Connector



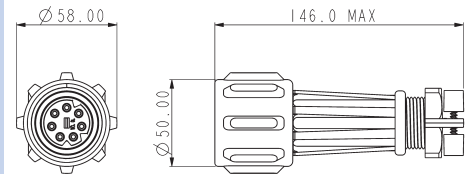
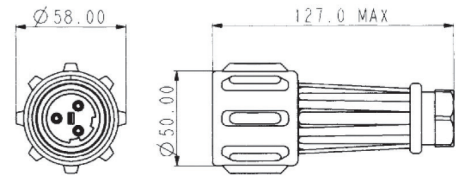
PX0911

Flex Cable Connector



PXA911

- Mates with in-line flex or panel mounting versions
- Positive, fast acting locking ring - can be turned with a gloved hand
- Plug or socket versions
- PX0 Series 13-15mm cable dia. as standard, 7-13mm with additional Gland Pack PX0980
- PXA Series 20-22mm cable dia. as standard, 14-20mm with additional Gland Pack PXA980
- Strain Relief Clamp



Standard Cable	Large Cable	Description	Standard Cable	Large Cable	Description
PX0911/02/P	PXA911/02/P	2 pole Plug	PX0911/02/S	PXA911/02/S	2 pole Socket
PX0911/03/P	PXA911/03/P	3 pole Plug	PX0911/03/S	PXA911/03/S	3 pole Socket
PX0911/04/P	PXA911/04/P	4 pole Plug	PX0911/04/S	PXA911/04/S	4 pole Socket
PX0911/05/P	PXA911/05/P	5 pole Plug	PX0911/05/S	PXA911/05/S	5 pole Socket
PX0911/07/P	PXA911/07/P	7 pole Plug	PX0911/07/S	PXA911/07/S	7 pole Socket
PX0911/10/P	PXA911/10/P	10 pole Plug	PX0911/10/S	PXA911/10/S	10 pole Socket

In-Line Flex Cable Connector



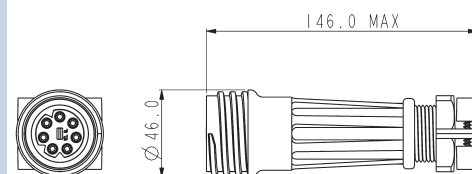
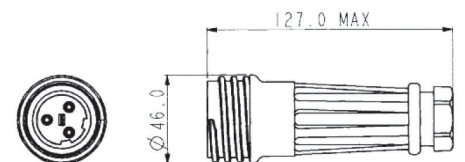
PX0921

In-Line Flex Cable Connector



PXA921

- Mates with either PX0911 or PXA911 connectors
- Plug or socket versions
- PX0 Series 13-15mm cable dia. as standard, 7-13mm with additional Gland Pack PX0980
- PXA Series 20-22mm cable dia. as standard, 14-20mm with additional Gland Pack PXA980
- Strain Relief Clamp



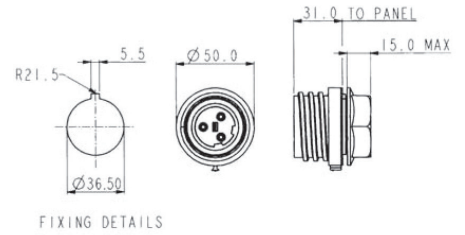
Standard Cable	Large Cable	Description	Standard Cable	Large Cable	Description
PX0921/02/P	PXA921/02/P	2 pole Plug	PX0921/02/S	PXA921/02/S	2 pole Socket
PX0921/03/P	PXA921/03/P	3 pole Plug	PX0921/03/S	PXA921/03/S	3 pole Socket
PX0921/04/P	PXA921/04/P	4 pole Plug	PX0921/04/S	PXA921/04/S	4 pole Socket
PX0921/05/P	PXA921/05/P	5 pole Plug	PX0921/05/S	PXA921/05/S	5 pole Socket
PX0921/07/P	PXA921/07/P	7 pole Plug	PX0921/07/S	PXA921/07/S	7 pole Socket
PX0921/10/P	PXA921/10/P	10 pole Plug	PX0921/10/S	PXA921/10/S	10 pole Socket

Panel Mounted Connector



PX0931

- Mates with PX0911 and PXA911 connectors
- Single hole fixing
- Anti-rotation key
- High grade sealing gasket
- 3-7mm panel thickness



**Panel Mounting**

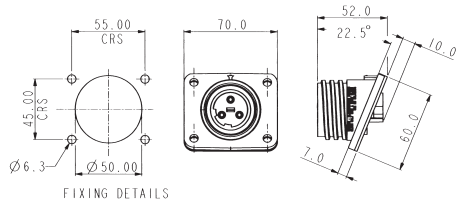
PX0931/02/P	2 pole Plug	PX0931/02/S	2 pole Socket
PX0931/03/P	3 pole Plug	PX0931/03/S	3 pole Socket
PX0931/04/P	4 pole Plug	PX0931/04/S	4 pole Socket
PX0931/05/P	5 pole Plug	PX0931/05/S	5 pole Socket
PX0931/07/P	7 pole Plug	PX0931/07/S	7 pole Socket
PX0931/10/P	10 pole Plug	PX0931/10/S	10 pole Socket

Flange Mounted Connector



PX0941

- Mates with PX0911 and PXA911 connectors
- Supplied with high grade sealing gasket
- Supplied with sealing grommets for panel fixing screws (M6 thread recommended)



**Flange Mounting**

PX0941/02/P	2 pole Plug	PX0941/02/S	2 pole Socket
PX0941/03/P	3 pole Plug	PX0941/03/S	3 pole Socket
PX0941/04/P	4 pole Plug	PX0941/04/S	4 pole Socket
PX0941/05/P	5 pole Plug	PX0941/05/S	5 pole Socket
PX0941/07/P	7 pole Plug	PX0941/07/S	7 pole Socket
PX0941/10/P	10 pole Plug	PX0941/10/S	10 pole Socket

Additional Bulkhead Adaptor Moulding



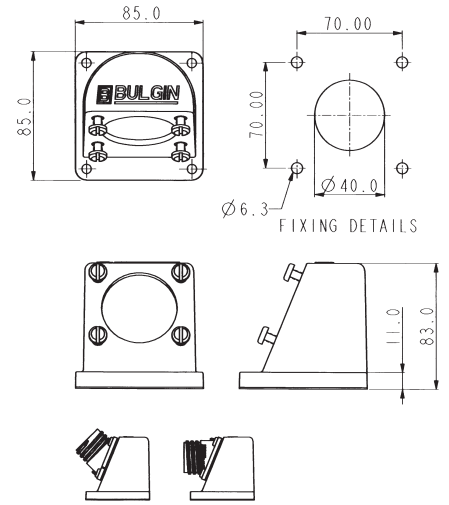
PX0950

Additional Bulkhead Adaptor Moulding



PX0950 & PX0941

- For use with flange mounting connector PX0941, to give 45° or 90° angle
- Supplied with high grade sealing gasket
- Supplied with sealing grommets for panel fixing screws (M6 thread recommended)



Sealing Caps



PX0960, PX0970, PX0990, PX0991, PX0992

- Sealing caps to maintain IP68 rating of unmated connectors, with plastic straps
- Heavy duty sealing caps to maintain IP68 rating of unmated connectors, with stainless steel straps

**Sealing Caps**

- PX0960 Sealing cap for use with PX0911/xx/x and PXA911/xx/x
- PX0970 Sealing cap for use with all other styles
- PX0990 Heavy duty sealing cap for use with PX0911/xx/x and PXA911/xx/x
- PX0991 Heavy duty sealing cap for use with PX0921/xx/x and PXA921/xx/x
- PX0992 Heavy duty sealing cap for use with PX0931W and PX0941

Cable Glands






PX0980, PXA980

- Packs of 3 additional pairs Cable Glands

**Gland Packs**

- PX0980 Pack of 3 additional cable glands for PX0911 and PX0921 to suit cable sizes: 7-9mm (dark grey), 9-11mm (white) and 11-13mm (Black) diameter
- PXA980 Pack of 3 additional cable glands for PXA911 and PXA921 to suit cable sizes: 14-16mm (dark grey), 16-18mm (white) and 18-20mm (black) diameter

**Electrical**

No Poles:	2, 3	4, 5	7	10†
Current Rating:	32A 30A, CSA	32A 25A, CSA	32A 25A, CSA*	10A UL
Voltage Rating:	600V AC/DC	600V AC/DC	430V AC/DC	250V AC/DC
Contact Resistance:	<10m Ω (initial)			
Insulation Resistance:	>10 <sup>9</sup> MΩ (@ 500V DC)			
Dielectric strength:	2.2kV AC min			
AC Breakdown voltage:	6kV			
Operating Temperature Range:	-40°C to +85°C			
Approvals:	<ul style="list-style-type: none"> <li> UL (Underwater Laboratories) E214972</li> <li> CSA (Canadian Standards Association) 1211899</li> <li> VDE (Verband der Elektrotechnik) 40003148</li> </ul>			
	*with 75°C min. rated cable			

**Mechanical:**

Sealing:	IP69K, Tested in accordance with DIN 40050/Part 9 IP6K9K. IP68, EN60529:1992+A2:2013 tested @ 1.054kg/sq.cm. (15lb/sq.in.) 10m depth for 2 weeks
Salt Mist:	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
Cable Acceptance:	PX0911-PX0921 13 - 15mm O/D standard, 7-13mm with gland pack PX0980 PXA911-PXA921 20 - 22mm O/D standard, 14 - 20mm with gland pack PXA980
Contact Accommodation:	2-7 pole - 2.5 to 4mm <sup>2</sup> (13 to 10AWG) conductor, single or multi stranded 10 pole - 0.75 to 2mm <sup>2</sup> (14 to 18AWG) conductor, single or multi stranded
Termination:	Axial screw terminals
Cable Retention force:	22mm dia, 150N 15mm dia, 150N 7mm dia, 80N

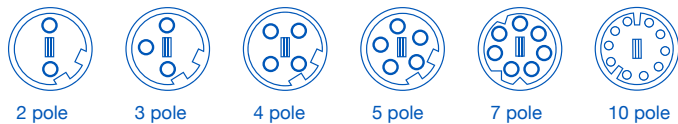
**Material**

Body Mouldings:	Polyamide
Flammability Rating:	UL94V-0
UV Resistance:	To EN50021: 1999
Contacts:	Machined Solid Brass, Nickel plated
O Rings:	Nitrile
Panel Sealing Gasket:	Silicone Rubber
RoHS	Compliant

Gland Nut Torques:

PX0 range	
13-15mm (Yellow - std.)	3.16Nm (28 lbf.in.)
11-13mm (black)	3.16Nm (28 lbf.in.)
7-9mm (dark grey)	3.16Nm (28 lbf.in.)
PXA range	
20-22mm (Yellow - std.)	3.16Nm (28 lbf.in.)
18-20mm (black)	3.16Nm (28 lbf.in.)
16-18mm (white)	3.16Nm (28 lbf.in.)
14-16mm (dark grey)	3.16Nm (28 lbf.in.)

**Contact Layout**



Tightening Torques:

Panel mount nut	2.25Nm (20 lbf.in.)
Flange & Bulkhead fixing screws	0.9Nm (8 lbf.in.)
Inserts into Bodies	1.13Nm (10 lbf.in.) to 1.36Nm (12 lbf.in.)
Term screws - 2 to 5 poles	1.0Nm (9 lbf.in.) max
Term screws - 7 pole	0.4Nm (3.5 lbf.in.) max
Term screws - 10 pole	0.25Nm (2.2 lbf.in.) max

**Dimensions**

Overall dimensions of connectors when mated together

PX0911 + PX0921 230 mm max.  
PXA911 + PXA921 270 mm max.

PX0911 + PX0931 135 mm max. (to panel)  
PXA911 + PX0931 175 mm max. (to panel)

PX0911 + PX0941 145 mm max. (to panel, mid point on flange)

PXA911 + PX0941 174 mm max. (to panel, mid point on flange)

Rear thread PX0931 series M36 x 2-6g



PX X9                      X                      X                      /                      XX                      /                      X                      /                      XX

**Series Designation**

09 = Standard Cable Accommodation (ø7-15mm)

A9 = Large Cable Accommodation (ø14-22mm)

**Body Styles**

- 1 = Flex
- 2 = Flex In-line
- 3 = Panel
- 4 = Flange Panel

**Contact Termination**

- 1 = Screw Terminal

**Number of Poles**

- 02
- 03
- 04
- 05
- 07
- 10

**Contact Type**

P = Plug, S = Socket

**Cable Acceptance**

**EXP-0 version:**  
 Blank = 13-15mm  
 Yellow cable gland (std)

3 = 11-13mm  
 Black cable gland

2 = 9-11mm  
 White cable gland

1 = 7-9mm  
 Dark Grey cable gland

**EXP-A version:**  
 Blank = 20-22mm  
 Yellow cable gland (std)

9 = 18-20mm  
 Black cable gland

8 = 16-18mm  
 White cable gland

7 = 14-16mm  
 Dark Grey cable gland

**Example:**

PX0911/07/P/03 = Flex cable connector with standard cable accommodation body, seven pin contacts, with gland to suit 11-13mm cable.



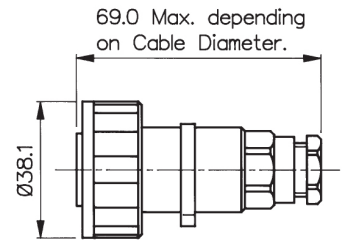
- ⊕ IP68 rating tested at 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks and 9.84kg/sq cm (140lb/sq in) 100m depth for 12 hours
- ⊕ IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9K
- ⊕ Water and dustproof to IP68 when mated
- ⊕ 2, 3, 4, 6, 7, 9, 12 and 25 pole
- ⊕ 12A, 277V AC/DC 2 pole screw terminal, 3 pole screw terminal and crimp contacts
- ⊕ 10A, 277V AC/DC 4 pole screw terminal
- ⊕ 5A, 277V AC/DC 6 and 7 pole screw terminal
- ⊕ 5A, 150V AC/DC 9 pole crimp contacts
- ⊕ 5A, 50V AC/DC 12 pole crimp and solder contacts
- ⊕ 1A, 50V AC/DC 25 pole crimp and solder contacts
- ⊕ Plug or socket connection in each body style
- ⊕ Compact design
- ⊕ Diameter over coupling ring 38mm
- ⊕ Sealing caps available to maintain IP68 rating of unmated connectors
- ⊕ 7 body styles - flex cable, in-line flex cable, panel mount (front), panel mount (rear), PCB mount, bulkhead and flange mount
- ⊕ Leading earth contact for 3 pole socket version
- ⊕ Positive locating keyways - cannot be mis-connected
- ⊕ Easy assembly - no special tools required on screw terminal versions
- ⊕ Cable range from 3.5mm - 9mm
- ⊕ Colour coded identification variants
- ⊕ Pre-wired, overmoulded cable assemblies
- ⊕ UL, CSA and VDE approvals
- ⊕ EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

Flex Cable Connector



PX0731

- Mates with In-Line Flex or Panel Mounting Versions
- Screw Locking Ring
- Pin or Socket Versions
- Leading Earth on 3 pole connectors
- Poles 2, 3, 4, 6, 7, 9, 12, 25
- Standard Cable Acceptance (2 to 9 pole) 6-8mm, 3.5-9mm with alternative glands - See page 25



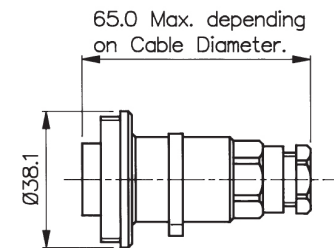
Poles	Termination	Pin Contacts	Socket Contact	Contacts
2	Screw	PX0736/P	PX0736/S	Supplied Fitted
3	Screw	PX0731/P	PX0731/S	Supplied Fitted
3	Crimp	PX0776/P	PX0776/S	Supplied Loose
4	Screw	PX0748/P	PX0748/S	Supplied Fitted
6	Screw	PX0739/P	PX0739/S	Supplied Fitted
7	Screw	PX0745/P	PX0745/S	Supplied Fitted
9	Crimp	PX0728/P	PX0728/S	Supplied Loose
12	Crimp/Solder	PX0794/P	PX0794/S	Order Separately (SA3348/SA3347)
25	Crimp/Solder	PX0820/P	PX0820/S	Order Separately (SA3180/SA3179)

Inline Flex Cable Connector



PX0732

- Mates with Flex or Panel Mounting Versions
- Screw Locking Ring
- Pin or Socket Versions
- Leading Earth on 3 pole connectors
- Poles 2, 3, 4, 6, 7, 9, 12, 25
- Standard Cable Acceptance (2 to 9 pole) 6-8mm, 3.5-9mm with alternative glands - See page 25



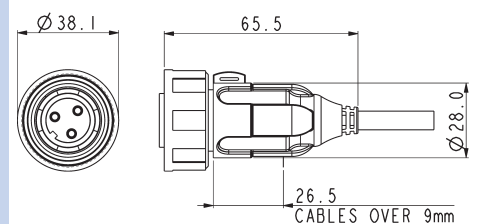
Poles	Termination	Pin Contacts	Socket Contact	Contacts
2	Screw	PX0737/P	PX0737/S	Supplied Fitted
3	Screw	PX0732/P	PX0732/S	Supplied Fitted
3	Crimp	PX0778/P	PX0778/S	Supplied Loose
4	Screw	PX0749/P	PX0749/S	Supplied Fitted
6	Screw	PX0740/P	PX0740/S	Supplied Fitted
7	Screw	PX0746/P	PX0746/S	Supplied Fitted
9	Crimp	PX0729/P	PX0729/S	Supplied Loose
12	Crimp/Solder	PX0795/P	PX0795/S	Order Separately (SA3348/SA3347)
25	Crimp/Solder	PX0821/P	PX0821/S	Order Separately (SA3180/SA3179)

Pre Wired Flex Cable Connector



PX0700

- Overmoulded cable assemblies
- Up to 14mm dia cable with PVC or PU jackets
- Mates with in-line flex connector and all panel connectors

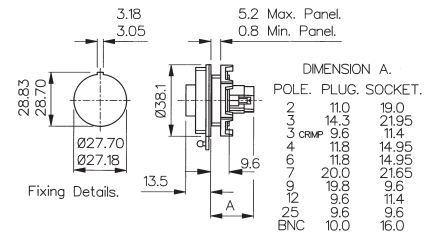


Front Panel Mounting Connector



PX0730/P

- Mates with Flex Cable Connector
- Single Hole Fixing
- Pin or Socket Versions
- Poles 2, 3, 4, 6, 7, 9, 12, 25



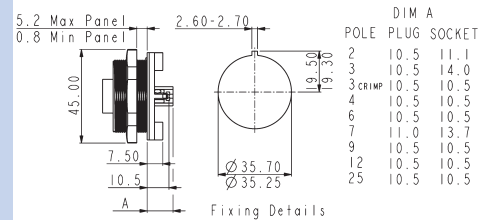
Poles	Termination	Pin Contacts	Socket Contact	Contacts
2	Screw	PX0735/P	PX0735/S	Supplied Fitted
3	Screw	PX0730/P	PX0730/S	Supplied Fitted
3	Crimp	PX0779/P	PX0779/S	Supplied Loose
4	Screw	PX0747/P	PX0747/S	Supplied Fitted
6	Screw	PX0738/P	PX0738/S	Supplied Fitted
7	Screw	PX0744/P	PX0744/S	Supplied Fitted
9	Crimp	PX0727/P	PX0727/S	Supplied Loose
12	Crimp/Solder	PX0796/P	PX0796/S	Order Separately
25	Crimp/Solder	PX0822/P	PX0822/S	Order Separately

Rear Panel Mounting Connector



PX0709/x/xx

- Mates with Flex Cable Connector
- Single Hole Fixing
- Pin or Socket Versions
- Poles 2, 3, 4, 6, 7, 9, 12 or 25



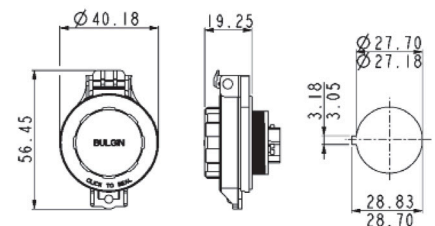
Poles	Termination	Pin Contacts	Socket Contact	Contacts
2	Screw	PX0709/P/02	PX0709/S/02	Supplied Fitted
3	Screw	PX0709/P/03	PX0709/S/03	Supplied Fitted
3	Crimp	PX0708/P/03	PX0708/S/03	Supplied Loose
4	Screw	PX0709/P/04	PX0709/S/04	Supplied Fitted
6	Screw	PX0709/P/06	PX0709/S/06	Supplied Fitted
7	Screw	PX0709/P/07	PX0709/S/07	Supplied Fitted
9	Crimp	PX0708/P/09	PX0708/S/09	Supplied Loose
12	Crimp/Solder	PX0708/P/12	PX0708/S/12	Order Separately (SA3348/SA3347)
25	Crimp/Solder	PX0708/P/25	PX0708/S/25	Order Separately (SA3180/SA3179)

Spring Loaded Sealing Cap



PX0713

- IP54 rated
- Spring loaded
- Clip shut to seal
- For use with front of panel mounting connector types



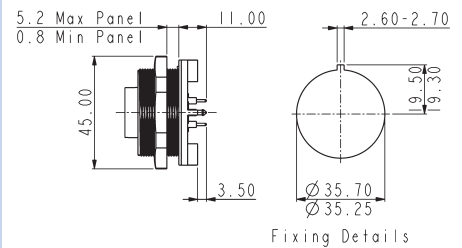


PCB Mounting Connector



PX0707/P/12

- Mates with Flex Cable connector
- No. poles: 3, 4, 6, 9, 12 or 25
- Pin or socket versions
- Pre-loaded Gold Plated contacts



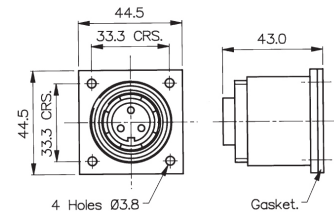
Poles	Termination	Pin Contacts	Socket Contact	Contacts
3	PCB	PX0707/P/03	PX0707/S/03	Supplied Fitted
4	PCB	PX0707/P/04	PX0707/S/04	Supplied Fitted
6	PCB	PX0707/P/06	PX0707/S/06	Supplied Fitted
9	PCB	PX0707/P/09	PX0707/S/09	Supplied Fitted
12	PCB	PX0707/P/12	PX0707/S/12	Supplied Fitted
25	PCB	PX0707/P/25	PX0707/S/25	Supplied Fitted

Bulkhead Flange Mounting Connector



PX0756/S

- Mates with Flex Cable Connector
- Pin or Socket Versions
- Poles 2, 3, 4, 6, 7, 9, 12, 25
- Supplied with sealing gasket and screw sealing grommets



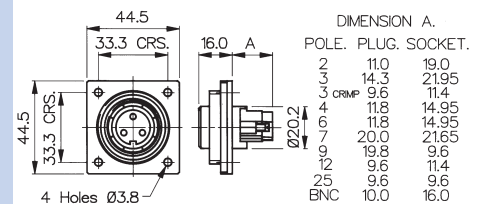
Poles	Termination	Pin Contacts	Socket Contact	Contacts
2	Screw	PX0757/P	PX0757/S	Supplied Fitted
3	Screw	PX0756/P	PX0756/S	Supplied Fitted
3	Crimp	PX0787/P	PX0787/S	Supplied Loose
4	Screw	PX0761/P	PX0761/S	Supplied Fitted
6	Screw	PX0758/P	PX0758/S	Supplied Fitted
7	Screw	PX0760/P	PX0760/S	Supplied Fitted
9	Crimp	PX0762/P	PX0762/S	Supplied Loose
12	Crimp/Solder	PX0798/P	PX0798/S	Order Separately (SA3348/SA3347)
25	Crimp/Solder	PX0823/P	PX0823/S	Order Separately (SA3180/SA3179)

Low Profile Flange Mounting Connector



PX0765/S

- Screw Flange Fixing
- Pin or Socket Versions
- Poles 2, 3, 4, 6, 7, 9, 12, 25
- Mates with Flex Cable Connector
- Supplied with sealing gasket and screw sealing grommets



Poles	Termination	Pin Contacts	Socket Contact	Contacts
2	Screw	PX0764/P	PX0764/S	Supplied Fitted
3	Screw	PX0765/P	PX0765/S	Supplied Fitted
3	Crimp	PX0781/P	PX0781/S	Supplied Loose
4	Screw	PX0766/P	PX0766/S	Supplied Fitted
6	Screw	PX0767/P	PX0767/S	Supplied Fitted
7	Screw	PX0768/P	PX0768/S	Supplied Fitted
9	Crimp	PX0769/P	PX0769/S	Supplied Loose
12	Crimp/Solder	PX0797/P	PX0797/S	Order Separately (SA3348/SA3347)
25	Crimp/Solder	PX0824/P	PX0824/S	Order Separately (SA3180/SA3179)

Coloured Contact Inserts



Coloured Inserts

- With or without matching gland nut
- Positive visual identification
- Available in; Black, Blue, Green, Grey, Light Grey, Red, White and Yellow

Contact Inserts Colour Options

Part No	Suffix Colour
Blank	Black
BL	Blue
GN	Green
GY	Grey
LG	Light Grey
RD	Red
WH	White
YL	Yellow

Insert/Gland Nut Combinations

1	Insert and Gland Nut Coloured
2	Insert Only Coloured

E.g. PX0731/P/YL1 = Yellow insert and gland nut

Contacts for 12 and 25 Pole Inserts



12 and 25 way contacts

- Crimp or Solder Pins and Sockets
- Gold Plated
- Current ratings:  
12 way: 5A, 50V  
25 way: 1A, 50V

Contacts - Solder & Crimp for 12 and 25 pole

Contacts (for 12 pole) (Supplied in packs of 10)	Solder	Crimp
Pins	SA3348/1	SA3348
Sockets	SA3347/1	SA3347
Contacts (for 25 pole) (Supplied in packs of 10)	Solder	Crimp
Pins	SA3180/1	SA3180
Sockets	SA 3179/1	SA3179

Assembly Tools



PNo 14025 and 13027

- Crimp Tools for 3, 9, 12 and 25 pole crimp contacts
- Insertion/Extraction Tool for 25 pole contacts

Tools

Crimp Tool (25 pole)	PNo. 14025/1AMP
Crimp Tool (12 pole)	PNo. 14025
Positioner (12 pole)	PNo. 14025/5AMP
Crimp Tool (9 pole)	PNo. 13826
Crimp Tool (3 pole)	PNo. 14232
3 pole positioner	PNo. 14232/1
Insertion/Extraction Tool (25 pole)	PNo. 13027
Insertion/Extraction Tool (12 pole)	PNo. 13027/1
Insertion/Extraction Tool (3 pole)	PNo. 13027/3

Cable Glands



12023/1, 12023/2 & SA3253

- Pack of alternative cable glands to suit cables from 3.5 to 9mm dia.

Cable Acceptance - Alternatives

Gland Diameter	Gland Part No.	Gland Colour	Additional Suffix
6-8mm	12023	Black	Standard for 2-12 pole
3.5-5mm	SA3426	Grey	Suffix /04†
5-7mm	12023/1	White	Suffix /05
7-9mm	12023/2	Yellow	Suffix /07*
Gland Pack	SA3253	Pack of 3 glands to suit cables 3.5-5mm, 5-7mm & 7-9mm dia†	

\*Note: 7-9mm gland standard for 25 way, no suffix required.  
†Includes additional black gland cage for 3.5-5mm dia. cable range.

To order connector with alternative cable gland add suffix to part no. e.g. PX0731/P/07 = PX0731 3 pin connector with cable gland to suit 7-9mm dia. cable.

Cable Acceptance - Standard as supplied

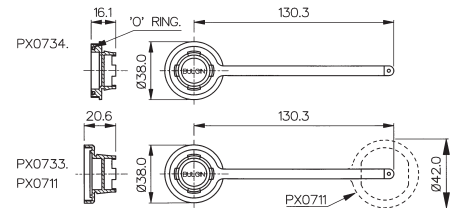
No. Contacts	Cable Diameter or Type
2-12 Pole	6-8mm
25 Pole	7-9mm

Sealing Cap and Assembling Tool



PX0734 & PX0733

- Maintains IP68 Rating of Unmated Connectors
- Can be used to remove Inserts
- PX0734 for Flex Cable Connector
- PX0733 for In-line Flex, Front Panel, Bulkhead and Flange mount connectors
- PX0711 for PCB and Rear Panel Mount connectors

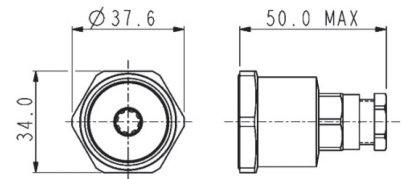


Rear of Panel Back Shell



PX0799

- Provides environmental seal to rear of panel
- Standard cable acceptance 6-8mm, 3.5 to 9mm with alternative glands
- For use on front panel mounting connectors
- Replaces mounting nut in panel connector

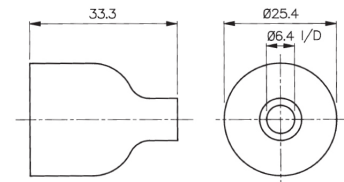


PVC Insulation Boot



PNo. 12855

- Shock protection for rear of connector
- Flammability Rating UL94V-0
- Fits Front Panel Mount Versions only

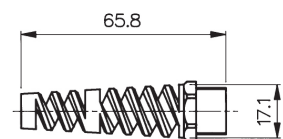


Cable Support Accessory



PNo. 12237

- Gives Extra Support to the Cable
- Suitable for 5-7mm and 7-9mm Cable Diameters



PX0xxx	X	XX	XX	X
<b>Body Styles</b>	<b>Contacts Type</b> P = Pin S = Socket	<b>Cable Acceptance or PCB/Rear Panel Mounting</b>  Flex Cable and In-line Flex Connectors cable acceptance use: Blank = 6-8mm (Black) standard for 2-12 pole  04 = 3.5-5mm (Grey) 05 = 5-7mm (White) 07 = 7-9mm (Yellow) (standard for 25 way, no suffix required)  PCB (PX0707) and Rear Panel Mount connectors (PX0708 and PX0709) use:  02 = 2 pole      03 = 3 pole 04 = 4 pole      06 = 6 pole 07 = 7 pole      09 = 9 pole 12 = 12 pole     25 = 25 pole  Front Panel, Bulkhead and Flange Mount - not required:	<b>Insert/Gland Nut Colour</b>  Blank = Black BL = Blue GN = Green GY = Grey  LG = Light Grey RD = Red WH = White YL = Yellow	<b>Insert/Gland Nut Colour Combination</b>  1 = Insert and Gland Nut Coloured 2 = Insert only Coloured

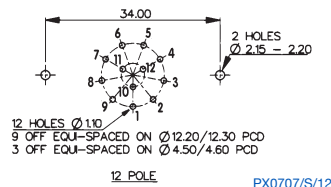
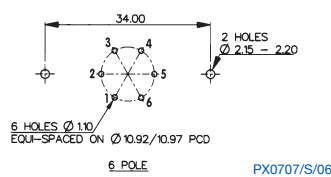
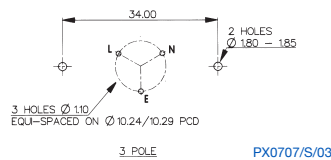
**Examples:**

PX0707/P/06= PCB Panel pin connector, pin contacts, 6 pole  
 PX0731/S = Flex Cable connector, socket contacts, 3 pole  
 PX0732/P/07/BL2 = In-Line Flex Cable connector, pin contacts, 3 pole, 7-9mm cable acceptance, blue insert

**PCB Layouts**

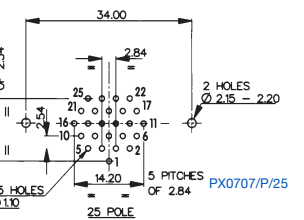
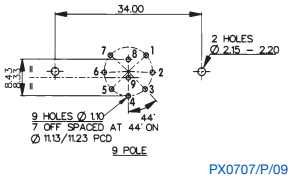
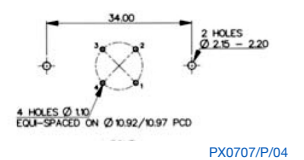
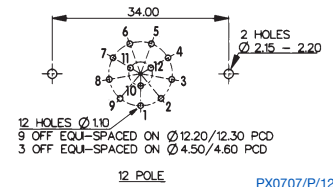
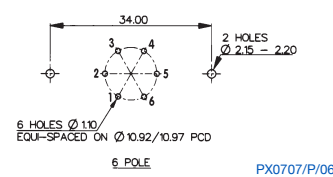
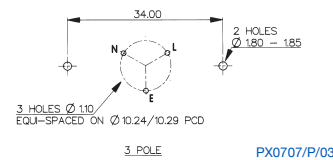
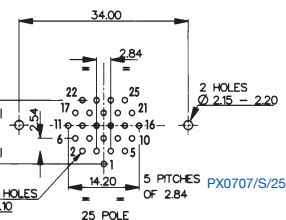
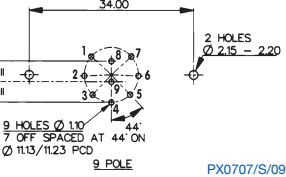
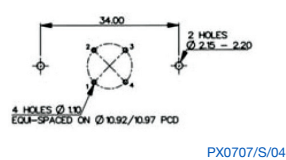
**Sockets**

Contact Nos viewed from rear of panel






**Pins**

Contact Nos viewed from rear panel rear of panel



**Electrical:**

No. Poles:	2, 3	4	6, 7	9	12	25
Current Rating:						
VDE	12A	10A	5A	5A	5A	1A
UL, CSA	12A	10A	5A	5A	5A	1A
Voltage Rating (AC/DC):	277V	277V	277V	150V	50V	50V
Contact Resistance:	<10mΩ (2-9 Pole)					
	<5mΩ (12 Pole)					
	<5mΩ (25 Pole)					
Insulation Resistance:	>10 <sup>4</sup> MΩ @ 500V DC (2-9 Pole)					
AC Breakdown voltage:	4kV Pole - Pole (2-9 Pole)					
	6kV Poles - Panel (Low Profile Flange and Panel Types – 2-9 Pole)					
	7.5kV Poles - Panel (Other Types – 2-9 Pole)					
Operating Temp. Range:	-20°C to +70°C					
Approvals:						
 UL (Underwater Laboratories)						E93288 and E337507
 CSA (Canadian Standards Associations)						LR80968-30
 VDE (Verband der Elektrotechnik)						40023148
	Overmoulded cable assemblies approvals to customer requirements.					

**Material:**

Body Mouldings:	Glass Filled Polyamide UL94HB
Inserts (2-25 pole):	Polyamide UL94V-0
PX0707	Polyamide UL94V-0
PX0708	Polyamide UL94V-0
PX0709	Polyamide UL94V-0
Overmoulded types:	
Body Mouldings:	Polyurethane
Flammability Rating:	UL94V-HB
Contacts:	
Screw Terminal:	Brass, Nickel Plated
Crimp (9 pole):	Copper Alloy, Tin Plated
Crimp/Solder (12+25 Pole):	Copper Alloy, Gold Plated (0.1µm on Nickel)
BNC inserts:	Brass, Nickel Plated
BNC contacts:	Brass, Silver Plated
RoHS	Compliant

**Mechanical:**

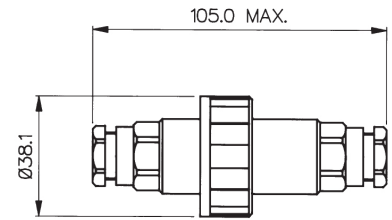
Sealing:	IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
	IP68, EN 60529:1992+A2:2013 Tested @ 1.054kg/sq.cm. (15lb/sq.in.) 10m depth for 2 weeks.
	EN 60529:1992 +A2:2013 Tested @ 9.84kg/sq.cm. (140lb/sq.in.) 100m depth for 12 hours.
Salt Mist:	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
Cable Acceptance:	
2-12 Pole - standard gland:	6-8mm dia
2-12 Pole - alternative glands:	3.5-9mm dia
25 Pole - standard gland:	7-9mm dim
25 Pole - alternative glands:	3.5-7mm dim
Contact Accommodation:	
2 and 3 pole screw terminals:	4mm <sup>2</sup> (12AWG) max
3 pole crimp:	1.0-1.5mm <sup>2</sup> (14-18AWG) max
4, 6 and 7 pole:	1.5mm <sup>2</sup> (16AWG) max
9 pole:	0.12-0.21mm <sup>2</sup> (24-26AWG)
12 pole:	0.32mm <sup>2</sup> (22-26AWG) max
25 pole:	0.12-0.21mm <sup>2</sup> (24-26AWG)
Terminations:	
2-7 Pole:	Screw Terminals
3 Pole:	Screw Terminals & Crimp
9 Pole:	Crimp Contacts
12 Pole:	Crimp & Solder Contacts
25 Pole:	Crimp & Solder Contacts
Tightening Torques:	
Flex Mounting/In-Line:	Gland Nut: 1.13Nm (10lbf.in.)
Panel Mounting:	Rear Fixing Nut: 1.7Nm (15lbf.in.)
	Front Fixing Nut: 1.4Nm (12.4lbf.in.)
Surface/Bulkhead and Low Profile Flange Mounting:	4 Fixing Screws (using washers supplied) 0.34Nm (3lbf.in.)
Sealings Caps/Locking Ring:	1.13Nm (10lbf.in.)
Rear thread, Front Panel Connector:	M27 x 1.0-6H
Thread, Front Panel Connector:	M35 x 1.0-6H

Cable Joiner



PX0777

- IP68 & IP69k Rating
- For Sealed In-Line Connections
- Standard Cable Acceptance 6-8mm
- Cable Range 3.5-9mm (using alternative glands)
- Supplied with 4, 6 or 8 way Terminal Block
- Available Moulded in Black or Orange

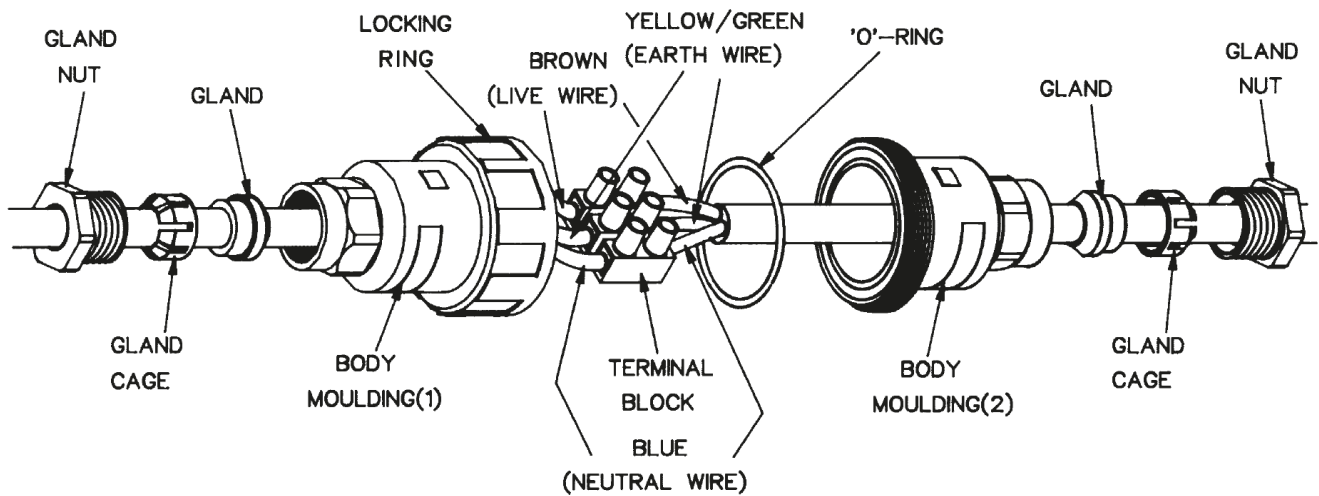


Specifications	PX0777	PX0777/4POLE, 6POLE, 8POLE	POLE Configurations
Rating:	16A, 250V AC	10A, 250V AC	
Wire Termination:	3 way Terminal Block	4, 6, 8 way Terminal Block	
Conductor Accommodation:	2.5mm <sup>2</sup> max (14AWG)	1.5mm <sup>2</sup> max (16AWG)	
Cable Acceptance:	6-8mm dia alternative glands available on request	6-8mm dia alternative glands available on request	
Material:	Glass Filled Polyamide UL94-HB	Glass Filled Polyamide UL94-V0	
Sealing:	IP68 to BSEN 60529 : 1992 1.054kg/sq.cm. (15lbs/sq.in.) 10m depth for 2 weeks	IP68 to BSEN 60529 : 1992 1.054kg/sq.cm. (15lbs/sq.in.) 10m depth for 2 weeks	
Salt Mist	IP69k to DIN 40050-9 EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1	IP69k to DIN 40050-9 EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1	
Operating Temp. Range:	-20°C to +70°C	-20°C to +70°C	
Colour:	Black Orange (Add /OR to PNo.)	Black Orange (Add /OR to PNo.)	
<b>RoHS</b>	Compliant	Compliant	

**Examples**

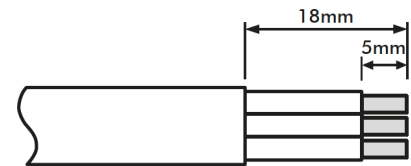
- PX0777 – 3 Pole 6-8mm Black.
- PX0777/04 – 3 Pole 3.5-5.0mm Black.
- PX0777/04/OR – 3 Pole 3.5-5.0mm Orange.
- PX0777/4POLE – 4 Pole 6-8mm Black.
- PX0777/6POLE/04 – 6 Pole 3.5-5.0mm Black.
- PX0777/8POLE/04/OR – 8 Pole 3.5-5.0mm Orange.

<b>PX0777</b>	<b>XPOLE</b>	<b>XX</b>	<b>XX</b>
Part No	Blank = 3 Pole 4POLE = 4 Pole 6POLE = 6 Pole 8POLE = 8 Pole	Blank = 6-8mm 04 = 3.5-5mm 05 = 5-7mm 07 = 7-9mm	Blank = Black OR = Orange



1. Strip wires to dimensions shown.
2. Assemble components parts onto cable as shown, then connect wires to terminal block.

ENSURING WIRES CONNECTED INTO ONE SIDE OF TERMINAL BLOCK MATCH WIRES CONNECTED INTO THE OTHER SIDE.



Wire stripping details

i.e. Brown to Brown (Live)  
Blue to Blue (Neutral)  
Green/Yellow to Green/Yellow (Earth)

3. Bring the two body mouldings together ensuring the 'O' ring is correctly located in groove then lock together with locking ring, ensure ring is fully tightened.

Put gland cage over gland and push fully home into its appropriate body then fully tighten gland nuts.

4. To ensure a good seal, all surfaces must be completely free of dust, grease or any other contamination.

THIS CABLE CONNECTOR IS SUITABLE FOR USE WITH LOADS NOT EXCEEDING 16 AMPS USING 1.5mm<sup>2</sup> CABLE

ALWAYS USE WITH SUPPLY PROTECTED BY AN RCD (RESIDUAL CURRENT DEVICE), IF IN DOUBT CONSULT A QUALIFIED ELECTRICIAN.

**DANGER**  
DISCONNECT MAINS SUPPLY BEFORE DISMANTLING CONNECTOR



- ⊕ Water and dustproof to IP68 when mated
- ⊕ IP68 rating tested at 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks
- ⊕ 2, 3, 4 or 6 pole screw terminal inserts
- ⊕ 3 or 8 pole solder or crimp inserts
- ⊕ 5 body styles, Flex, Flex In-Line, Panel (2 styles), Panel Side Entry
- ⊕ 50Ω or 75Ω BNC (Bayonet Neill–Concelman) inserts
- ⊕ 5A, 380V AC 3 & 8 way solder/crimp terminals
- ⊕ 10A, 250V AC 2 & 3 way screw terminals
- ⊕ 6A, 250V AC 4 way screw terminal
- ⊕ 3A, 250V AC 6 way screw terminals
- ⊕ EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
- ⊕ Plug or socket connection in each body style
- ⊕ Cable range from 3.5mm - 9mm
- ⊕ Diameter over coupling ring 26mm
- ⊕ Positive locating keyways - cannot be mis-mated
- ⊕ Sealing caps available to maintain IP68 rating of unmated connectors
- ⊕ Flammability rating UL94V-0 material
- ⊕ Leading earth pin is on 3, 4 & 6 pole screw terminal versions only
- ⊕ Compact design
- ⊕ Easy assembly - no special tools required on screw terminal versions
- ⊕ UL approval



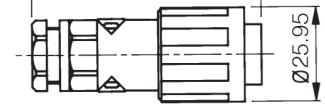
Flex Cable Connector



PX0800 - shown with insert

- PX0800 Connector body
- Mates with Flex In-line or Panel Mounting versions
- Screw locking ring
- Suitable for Pin or Socket inserts
- Cable Acceptance 3.5-9mm (Standard 5-7mm)
- Contact inserts supplied separately

61.5 Max. Depending on Cable Dia. / Pin or Socket Carrier.



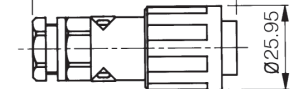
Inline Flex Cable Connector



PX0801 - shown with insert

- PX0801 Connector body
- Mates with PX0800 - Flex Cable connector
- Suitable for Pin or Socket inserts
- Cable Acceptance 3.5-9mm (Standard 5-7mm)
- Contact inserts supplied separately

61.5 Max. Depending on Cable Dia. / Pin or Socket Carrier.



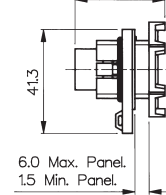
Panel Mounting



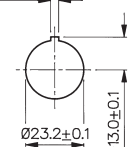
PX0802 - shown with insert

- PX0802 Connector body
- Mates with PX0800 - Flex Cable connector
- Single hole fixing
- Suitable for Pin or Socket inserts
- Contact inserts supplied separately

37.0 Max. Depending on Pin or Socket Carrier.



3.2<sup>±0.1</sup>



Fixing Details.

Panel Mounting

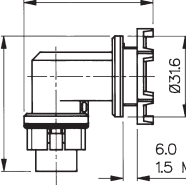


PX0803 - shown with insert

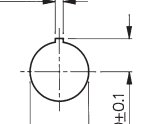
- PX0803 Connector body
- Mates with PX0800 - Flex Cable connector
- Right angle cable entry
- Single hole fixing
- Suitable for Pin or Socket inserts
- Contact inserts supplied separately

53.4 Max. Depending on Panel Thickness.

53.4 Max. Depending on Socket or Pin Carrier.



3.2<sup>±0.1</sup>



Fixing Details.

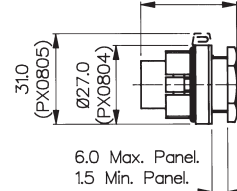
Panel Mounting



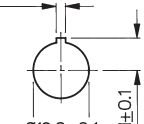
PX0805 - shown with insert

- PX0804 and PX0805 Connector bodies
- Mates with PX0800 - Flex Cable connector
- PX0804 without sealing cap retaining clip, PX0805 with sealing cap retaining clip
- Single hole fixing
- Suitable for Pin or Socket inserts
- Contact inserts supplied separately

32.8 Max. Depending on Pin or Socket Carrier.



3.2<sup>±0.1</sup>



Fixing Details.

Screw Terminal Inserts



- 2, 3, 4 and 6 Poles
- Fits all Body Styles
- Leading Earth Pin on 3, 4 and 6 pole inserts
- Nickel Plated contacts

Screw Terminal Inserts - fits all body styles

No. poles	Sockets	Pins
2	SA3319	SA3320
3	SA3229	SA3230
4	SA3242	SA3241
6	SA3244	SA3243

Contact Carrier Inserts



Inserts shown with contacts fitted

- For Solder or Crimp Contacts
- 3 or 8 Pin
- Fits all Body Styles
- Contacts Supplied Separately

Solder & Crimp Contact Carrier Inserts - fit all body styles.

No. poles	Solder	Colour	Crimp	Colour
3 Pin	12734/3/1	Black	12734/3	Grey
3 Socket	12735/3/1	Black	12735/3	Grey
8 Pin	12734/1	Black	12734	Grey
8 Socket	12735/1	Black	12735	Grey

Contacts, Polarising/Blanking Pins



- Gold Plated contacts
- Solder or Crimp
- Polarising/Blanking pins

Contacts - Solder & Crimp - for contact carrier inserts

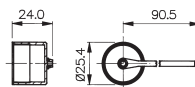
Contacts (Supplied in packs of 10)	Solder	Crimp
Pins	SA3148/1	SA3148
Sockets	SA3149/1	SA3149
Polarising/Blanking Pins	SA3147	
Contact Insertion Tool: Must be used to load contacts into inserts.	SA3150	
Crimping Tool	SA2800	

Sealing Caps



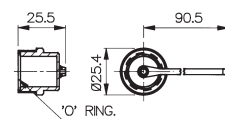
To maintain IP rating

PX0810



PX0810  
Fits PX0801, PX0802, PX0803, PX0804 & PX0805. Ensure "O" Ring is in place on main body.

PX0811



PX0811  
Fits PX0800. Ensure "O" Ring is in place in cap.



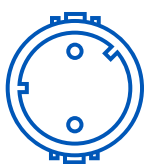
Electrical	Solder/Crimp Terminals	Screw Terminals	BNC
No Poles:	3, 8	2, 3	6
Current Rating:	5A	10A	3A
Voltage Rating:	380V AC	250V AC	250V AC
Contact Resistance:	<5mΩ	4	6
Insulation Resistance:	>10 <sup>9</sup> MΩ @ 500V DC	6A	3A
Voltage Proof:	2kV @ 50Hz		
Operating Temp. Range:	-20°C to +70°C		

Approvals:  
 E214972

Materials	Solder/Crimp Terminals	Screw Terminals	BNC
Body Mouldings:	Polyamide UL94V-0	Polyamide UL94V-0	
Inserts:	Polyamide UL94V-0	Polyamide UL94V-0	
Contacts:	Copper Alloy, Gold Plated (0.1µm) on Nickel	Brass, Nickel Plated	Brass, Silver Plated.
O Rings:	Nitrile		
<b>RoHS</b>	Compliant	Compliant	Compliant

Mechanical	Solder/Crimp Terminals	Screw Terminals	BNC
Sealing:	Protection Classification IP68, EN 60529:1992+A2:2013 Tested @ 1.054kg/sq.cm. (15lb/sq.in.) 10m depth for 2 weeks.		
Salt Mist:	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1		
Cable Acceptance	5-7.00mm dia - standard gland 3.5-9.00mm dia - alternative glands		
Contact Accommodation:	0.2 - 0.5mm <sup>2</sup> (20 - 24 AWG)	1mm <sup>2</sup> max (18 AWG)	50Ω: RG58/CU, URM43, URM76 75Ω: URM70
Insertion Force (typical):	3 way: 5N (1.1lbf) 8 way: 14N (3.1lbf)	3 way: 45N (10lbf) 4 way: 50N (11lbf) 6 way: 140N (31lbf)	
Withdrawal Force (typical):	3 way: 3N (0.66lbf) 8 way: 12N (2.6lbf)	3 way: 32N (7lbf) 4 way: 40N (9lbf) 6 way: 150N (34lbf)	
Tightening Torques			
Gland Nut, PX0800, 801:	1.13Nm (10lbf in)		
Rear Nut, PX0802, 803, 804, 805:	0.7Nm min, 1.7Nm max (6.2lbf in min, 15lbf in max)		
Sealing Cap, PX0810, 811:	0.23Nm min, 1.13Nm max (2lbf in min, 10lbf in max)		

How to order	Cable Glands																								
<input type="checkbox"/> Choose body type, check cable diameter and sealing gland size.	Cable gland for 5-7mm fitted as standard. BNC Insert Kit includes gland & washer to fit coax cable.																								
<input type="checkbox"/> Determine contact carrier inserts. Choose number of poles, and type of contacts (solder, crimp, screw terminal or BNC).																									
<input type="checkbox"/> Choose pins or sockets. Solder and crimp contacts are supplied separately in packs of ten.																									
<input type="checkbox"/> Choose polarising/blanking pins. If required for solder/crimp contact inserts. Supplied in packs of ten.																									
<input type="checkbox"/> Is an insertion tool required (for solder or crimp contacts)?																									
<input type="checkbox"/> Is a crimp tool required?																									
<input type="checkbox"/> Is a sealing cap required?																									
	<table border="1"> <thead> <tr> <th>Cable Diameter</th> <th>Gland Part No.</th> <th>Gland Colour</th> <th>Additional Suffix</th> </tr> </thead> <tbody> <tr> <td>5-7mm</td> <td>12023/1</td> <td>White</td> <td>Fitted as standard</td> </tr> <tr> <td>3.5-5mm</td> <td>SA3426</td> <td>Grey</td> <td>Suffix /04†</td> </tr> <tr> <td>6-8mm</td> <td>12023</td> <td>Black</td> <td>Suffix /06</td> </tr> <tr> <td>7-9mm</td> <td>12023/2</td> <td>Yellow</td> <td>Suffix /07</td> </tr> <tr> <td>Gland Pack</td> <td>PX0812</td> <td>Pack of 3 glands to suit cables 3.5-5mm, 6-8mm, 7-9mm dia†</td> <td></td> </tr> </tbody> </table>	Cable Diameter	Gland Part No.	Gland Colour	Additional Suffix	5-7mm	12023/1	White	Fitted as standard	3.5-5mm	SA3426	Grey	Suffix /04†	6-8mm	12023	Black	Suffix /06	7-9mm	12023/2	Yellow	Suffix /07	Gland Pack	PX0812	Pack of 3 glands to suit cables 3.5-5mm, 6-8mm, 7-9mm dia†	
Cable Diameter	Gland Part No.	Gland Colour	Additional Suffix																						
5-7mm	12023/1	White	Fitted as standard																						
3.5-5mm	SA3426	Grey	Suffix /04†																						
6-8mm	12023	Black	Suffix /06																						
7-9mm	12023/2	Yellow	Suffix /07																						
Gland Pack	PX0812	Pack of 3 glands to suit cables 3.5-5mm, 6-8mm, 7-9mm dia†																							
	To order body with alternative cable gland add suffix to part no. e.g. PX0800/06 = PX0800 body with cable gland to suit 6-8mm dia. cable. †Includes additional black gland cage for 3.5-5mm dia. cable range.																								



2 pole  
(10 Amp)



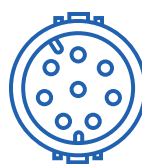
3 pole  
(10 Amp)



4 pole  
(6 Amp)



6 pole  
(3 Amp)



8 pole  
(5 Amp)



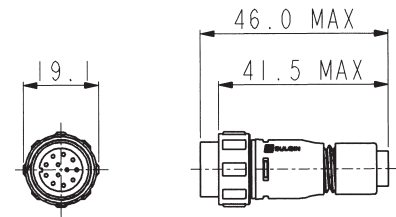
- IP68 rating tested at 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks
- IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
- 2 and 3 pole - 8A, 250V rating
- 4, 6 and 8 pole - 5A, 125V rating
- 10 and 12 pole - 1A, 50V rating
- 2.5mm contact engagement for electrical integrity 'Scoop proof' contacts
- Contact inserts are part of body moulding
- Cable range from 3 to 7mm
- Overall length (flex + flex in-line) 80mm
- Gold plated contacts
- Diameter over coupling ring 19.1mm
- Pre-wired, overmoulded cable assemblies
- Flex, Flex In-Line, Front Panel, Rear Panel and PCB mounting body styles
- Plug and Socket versions in all body styles
- Flame Retardant moulding material - Polyamide UL94-V0
- Contacts supplied separately (except PCB versions)
- Sealing caps available to maintain IP68 rating
- Secure sealing system
- Crimp and solder contacts
- PCB mounting connector supplied with contacts pre-loaded
- Front and rear panel mounting panel connectors
- UL, CSA and VDE approvals
- EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
- Smart options available with EEPROM memory chip

Flex Cable Connector



PX0410

- Mates with Flex In-line or Panel mounting versions PX0401, PX0411, PX0412 & PX0413
- Pin or socket
- 2, 3, 4, 6, 8, 10 or 12 pole
- Screw locking ring
- Contacts supplied separately

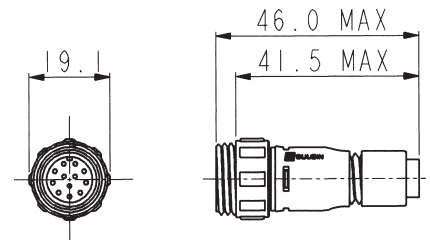


Inline Flex Cable Connector



PX0411

- Mates with Flex Cable connectors PX0400, PX0402 & PX0410
- Pin or socket
- 2, 3, 4, 6, 8, 10 or 12 pole
- For in-line cable connection
- Contacts supplied separately

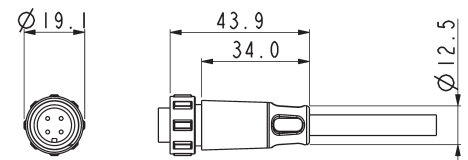


Pre Wired Flex Cable Connector



PX0400

- Overmoulded Flex connector for pre-wired cable assemblies
- Pin or socket
- Cable range 2.5 -9.0mm O/D
- 2, 3, 4, 6, 8, 10 or 12 pole
- Mates with PX0401 & PX0411 Flex In-Line connectors and PX0412 & PX0413 panel mounting connectors

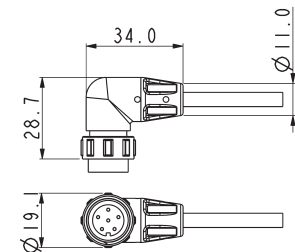


Pre Wired Flex Cable Connector



PX0402

- Right-angled overmoulded Flex connector for pre-wired cable assemblies
- Pin or socket
- Cable range 2.5 -9.0mm O/D
- 2, 3, 4, 6, 8, 10 or 12 pole
- Mates with PX0401 & PX0411 Flex In-Line connectors and PX0412 & PX0413 panel mounting connectors

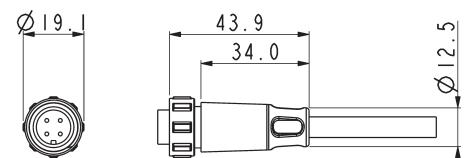


Smart Connector



PXS410

- Overmoulded pre-wired sealed connector
- 4, 6, 8, 10, 12 pole
- Embedded memory chip through 1 wire EEPROM
- Mates with PX0401 & PX0411 Flex In-Line connectors and PX0412 & PX0413 panel mounting connectors

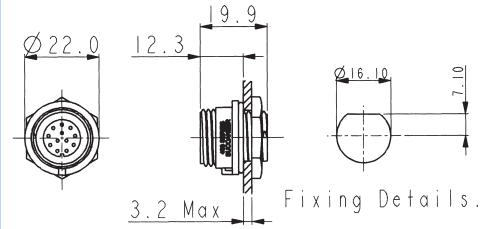


Front Panel Mounting Connector



PX0412

- Mates with Flex Cable connectors PX0410, PX0400 & PX0402
- Single hole fixing
- Contacts supplied separately
- 2, 3, 4, 6, 8, 10 or 12 pole

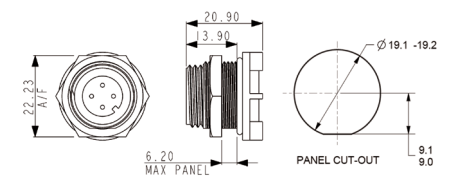


Rear Panel Mounting Connector



PX0413

- Mates with Flex Cable connector PX0410, PX0400 & PX0402
- Single hole fixing
- Contacts supplied separately
- 2, 3, 4, 6, 8, 10 or 12 pole

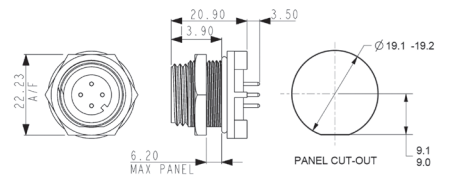


PCB Mounting Connector



PX0413

- Mates with Flex Cable connector PX0410, PX0400 & PX0402
- PCB Rear Panel mounting
- Straight PC spills
- Supplied with pre-loaded gold plated contacts
- 2, 3, 4, 6, 8, 10 or 12 pole



Sealing Caps



PX0480 PX0480/1 PX0481 PX0484

- Maintains IP68 Rating of Unmated Connectors
- PX0480: Fits PX0412 (panel mounting)
- PX0480/1: Fits PX0401 & PX0411 (flex in-line)
- PX0481: Fits PX0400, PX0402 & PX0410 (flex connector)
- PX0484: Fits PX0413 (PCB and rear panel mount)

Gland Packs

Part No	Description
PX0482	Pack of 4 pairs cable glands and collets to suit cables from 3.0 to 5.0mm diameter.
PX0483	Pack of 4 pairs cable glands and collets to suit cables from 5.0 to 7.0mm diameter.

Crimp Contacts

Pole	Current Rating	Pin Part No.	Socket Part No.	Pack Qty	Cable Acceptance (dia)
2, 3	8A	SA3350	SA3349	10	20 - 24 AWG
4, 6, 8	5A	SA3348	SA3347	10	22 - 26 AWG
10, 12	1A	SA3180	SA3179	10	24 - 28 AWG

Solder Contacts

Pole	Current Rating	Pin Part No.	Socket Part No.	Pack Qty	Cable Acceptance (dia)
2, 3	8A	SA3350/1	SA3349/1	10	20 - 24 AWG
4, 6, 8	5A	SA3348/1	SA3347/1	10	22 - 26 AWG
10, 12	1A	SA3180/1	SA3179/1	10	24 - 28 AWG

Insertion / Extraction

	Poles	Contact Rating	Colour	Part No
Insertion/Extraction Tool	2,3	8A	Blue	13027/2
Insertion/Extraction Tool	4,6,8	5A	Red	13027/1
Insertion/Extraction Tool	10,12	1A	Green	13027

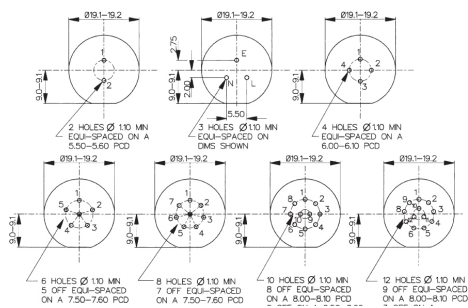
Crimp tools

	Poles	Contact Rating	Colour	Part No
Positioner	2,3	8A	Blue	14025/8AMP
Positioner	4,6,8	5A	Red	14025/5AMP
Positioner	10,12	1A	Green	14025/1AMP
8 Indent Crimp Tool for use with positioners				14025

PX0413 PCB Contact Layout

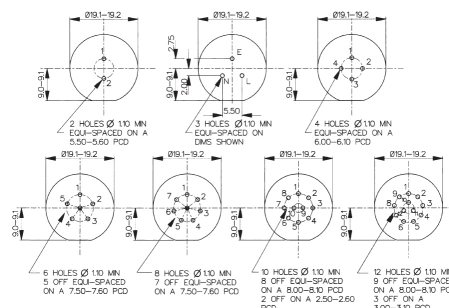
Sockets

Contact numbers viewed from rear of panel



Plugs

Contact numbers viewed from rear of panel



2 pole  
(8 Amp)



3 pole  
(8 Amp)



4 pole  
(5 Amp)



6 pole  
(5 Amp)



8 pole  
(5 Amp)



10 pole  
(1 Amp)



12 pole  
(1 Amp)

**Electrical:**

No. Poles:	2, 3	4, 6, 8	10, 12
Current Rating:	8A	5A	1A
Voltage Rating:	250V AC/DC	125V AC/DC	50V AC/DC
Contact Resistance:	<5mΩ		
Insulation Resistance:	>10 <sup>6</sup> MΩ (@ 500V DC)		
AC Breakdown voltage:	2.5kV		
Cycles:	>1000		

Operating Temperature:	
Flex and panel types	-40°C to +80°C
Overmoulded	-20°C to +60°C

Approvals:

	UL (Underwater Laboratories)	E214972
	CSA (Canadian Standards Associations)	1273303
	VDE (Verband der Elektrotechnik)	40002226

Overmoulded cable assemblies approvals to customer requirements.

**Material:**

Flex and panel types:	
Body Mouldings:	Polyamide
Flammability Rating:	UL94V-0
UV Resistance:	To EN 50021:1999

Overmoulded types:	
Body Mouldings:	Polyurethane
Flammability Rating:	UL94V-HB

Contacts:	Copper alloy, Gold plated
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O Rings:	Nitrile
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Panel Sealing O Ring:	Nitrile
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<b>RoHS</b>	Compliant
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**Smart Connector EEPROM:**

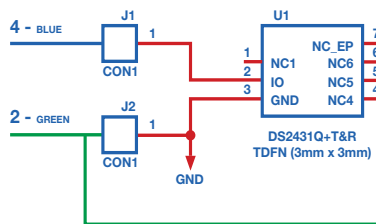
1024 - Bit Memory

1 - Wire

Can be Write Protected

Manufacturer - Maxim Intergrated

Part Number - 0S2431



**Mechanical:**

Sealing:	IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
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	IP68, EN60529:1992+A2:2013 tested @ 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks
--	--

Salt Mist:	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
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Cable Acceptance:	3.0 - 7.0mm
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Contact Accommodation:	2, 3 pole, 20 - 24 AWG 4, 6, 8 pole, 22 - 26 AWG 10, 12 pole, 24 - 28 AWG
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Termination:	Crimp, solder and PCB
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Insertion/Withdrawal Force:	
No. poles:	2 3 4 6 8 10 12
Insertion Force (typ):	19N 25N 27N 27N 28N 55N 62N
Withdrawal Force (typ):	12N 17N 17N 21N 22N 25N 29N

Tightening Torques:	
Panel mount (PX0412)	
Rear fixing nut:	1.0-1.1Nm (9lbf.in.)
Panel mount (PX0413)	
Front fixing nut:	1.0-1.1Nm (9lbf.in.)

Cable Retention force:	
3.0mm dia	60N
4.0 to 7.0mm dia	80N

Rear panel thread PX0412:	M16x1.5
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Panel thread PX0413:	18.97x26TPI Whitworth form to BS84 med fit
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**Dimensions:**

Overall dimensions of connectors when mated together

Flex + Flex In-Line	80mm
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Dia. over coupling ring	19.1mm
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Dia. over coupling ring

Pin	Wire Colour
1	Red
2	Green
3	Yellow
4	Blue
5	White
6	Black
7	Brown
8	Violet
9	Orange
10	Pink
11	Turquoise
12	Grey



Standard:

PX04XX	/	XX	/	X	/	XXXX
<b>Body Styles</b>  PX0410 = Flex body PX0411 = Flex in-line body PX0412 = Front panel mounting body PX0413 = Rear panel/PCB mounting body		<b>Number of Poles</b>  02 03 04 06 08 10 12		<b>Contact Type</b>  P = Pin, S = Socket		<b>For PX0410 and PX0411 cable connectors - Cable Entry Size:</b>  3035 = 3.0 - 3.5mm (Light Grey) 3540 = 3.5 - 4.0mm (Grey) 4045 = 4.0 - 4.5mm (Green) 4550 = 4.5 - 5.0mm (Red)  5055 = 5.0 - 5.5mm (Yellow) 5560 = 5.5 - 6.0mm (Blue) 6065 = 6.0 - 6.5mm (White) 6570 = 6.5 - 7.0mm (Black)
<b>Examples:</b>  PX0410/10S/4045 = Flex cable connector, 10 socket contacts with gland and collet for cables between 4.0 and 4.5mm diameter (supplied less contacts). PX0412/08P = Front panel mounting connector, 8 pin contacts (supplied less contacts). PX0413/06P = Rear panel mounting connector, for 6 pin contacts (supplied less contacts). PX0413/04P/PC = Rear panel/PCB connector, 4 pin contacts, PCB mounting (supplied with contacts loaded).						
Cable gland and collet supplied in colour coded pairs.  For PX0413 PCB/Rear Panel Mount: PC = Pre-loaded PC pins Blank = no pins supplied  For PX0412 Front Panel Mount: Suffix not required - leave blank						

Pre Wired Variation:

PX04XX	/	XXX	/	XX	/	X
<b>Body Styles</b>  PX0400 = Pre Wired Flex Cable Connector PX0402 = Pre Wired Flex Cable Connector - Right angle		<b>Length</b>  01 = 1m 02 = 2m 03 = 3m ... 15 = 15m		<b>Number of Contacts</b>  02 03 04 06 08 12		<b>Contact Type</b>  P = Pin S = Socket

Smart:

PXS410	/	XX	/	XX	/	X
<b>Body Styles</b>  PXS410 = Flex body		<b>Cable length</b>  02 = 2m 03 = 3m 05 = 5m 10 = 10m		<b>Number of Poles</b>  04 06 08 10 12		<b>Contact Type</b>  P = Pin S = Socket

Examples:

PXS410/02/04/P = Smart flex cable connector, 2m cable to free end, 4 pin contact



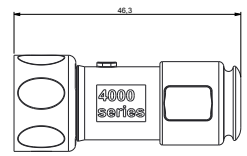
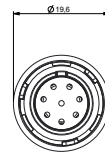
- Sealed to IP66 IP68 and IP69K when mated
- IP68 rating tested at 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks
- 2, 3, 4, 6, 8, 10 & 12 pole configuration
- Power ratings up to 13A, 600V
- Cable range from 3 to 7mm
- Diameter over coupling ring 19.7mm
- Flex, Flex In-Line, Rear Panel and PCB mounting body styles
- Colour coded O-rings & washers for easy identification purposes
- Plug and Socket versions in all body styles
- Flame Retardant moulding material - Polyamide UL94-V0
- Contacts supplied separately (except PCB versions)
- Sealing caps available to maintain IP68 rating
- Crimp and solder contacts
- UL, CSA and VDE approvals
- EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
- EN60068-2-64 Vibration Resistance

Flex Cable Connector



PXP4010

- Mates with Flex In-line or Panel mounting versions PXP4011, PXP4013
- Pin or socket
- 2, 3, 4, 6, 8, 10 & 12 pole
- ¼ turn locking ring
- Contacts supplied separately

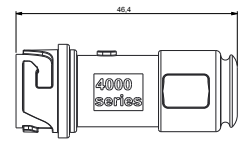


Inline Flex Cable Connector



PXP4011

- Mates with Flex Cable connector PXP4010
- Pin or socket
- 2, 3, 4, 6, 8, 10 & 12 pole
- For in-line cable connection
- Contacts supplied separately

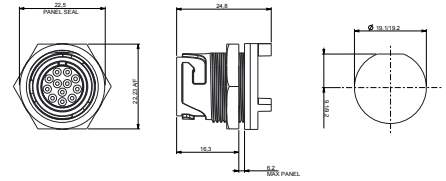


Rear Panel Mounting Connector  
(locking nut included)



PXP4013

- Mates with Flex Cable connector PXP4010, PXP4011
- Pin or socket
- Single hole fixing
- Contacts supplied separately
- 2, 3, 4, 6, 8, 10 & 12 pole

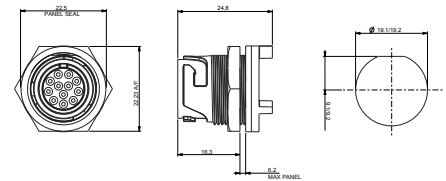


PCB Mounting Connector  
(locking nut included)



PXP4013/XXX/PC

- Mates with Flex Cable connector PXP4010, PXP4011
- Pin or socket
- PCB Rear Panel mounting
- Straight PC spills
- Supplied with pre-loaded gold plated contacts
- 2, 3, 4, 6, 8, 10 & 12 pole



Sealing Caps



PXP4081 PXP4082 PXP4083

- Maintains IP-sealed rating of unmated connectors

**Part no.**

**Description**

PXP4081	Sealing cap for use with PXP4010 & PXP4040
PXP4082	Sealing cap for use with PXP4011
PXP4083	Sealing cap for use with PXP4013 & PXP4043

Gland Packs



**Part no.**      **Description**

PXP4088/0305	Pack of 4 pairs cable glands and collets to suit cables from 3.0 to 5.0mm diameter.
PXP4088/0507	Pack of 4 pairs cable glands and collets to suit cables from 5.0 to 7.0mm diameter.

O-ring & washer pack



**Part no.**      **Description**

PXP4089/YL	Yellow coloured O-ring and washer pack
PXP4089/BL	Blue coloured O-ring and washer pack
PXP4089/RD	Red coloured O-ring and washer pack
PXP4089/WH	White coloured O-ring and washer pack
PXP4089/GN	Green coloured O-ring and washer pack

Crimp Contacts

Pole	Current Rating	Pin Part No.	Socket Part No.	Pack Qty	Cable Acceptance (dia)
2, 3	13A /*10A	SA3350	SA3349	10	16 - 18 AWG
4, 6, 8	8A /*5A	SA3348	SA3347	10	18 - 20 AWG
10, 12	3A /*3A	SA3180	SA3179	10	22 - 24 AWG

Solder Contacts

Pole	Current Rating	Pin Part No.	Socket Part No.	Pack Qty	Cable Acceptance (dia)
2,3	13A /*10A	SA3350/1	SA3349/1	10	16 - 18 AWG
4, 6, 8	8A /*5A	SA3348/1	SA3347/1	10	18 - 20 AWG
10, 12	3A /*3A	SA3180/1	SA3179/1	10	22 - 24 AWG

Insertion / Extraction

	Poles	Contact Rating	Colour	Part No
Insertion/Extraction Tool	2, 3	13A /*10A	Blue	13027/2
Insertion/Extraction Tool	4, 6, 8	8A /*5A	Red	13027/1
Insertion/Extraction Tool	10, 12	3A /*3A	Green	13027

Crimp tools

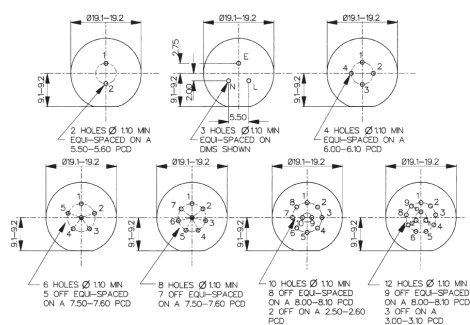
	Poles	Contact Rating	Colour	Part No
Positioner	2, 3	13A/*10A	Orange	14025/1618
Positioner	4, 6, 8	8A /*5A	Grey	14025/1820
Positioner	10, 12	3A /*3A	Yellow	14025/2224
8 Indent Crimp Tool for use with positioners				14025

\*Current rating for CSA standards

PXP4013 PCB Contact Layout

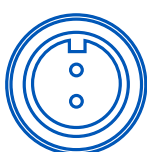
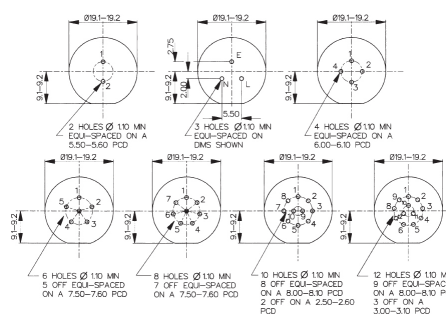
Sockets

Contact numbers viewed from rear of panel



Plugs

Contact numbers viewed from rear of panel



2 pole  
(13 Amp)



3 pole  
(13 Amp)



4 pole  
(8 Amp)



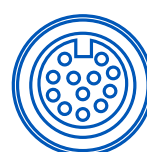
6 pole  
(8 Amp)



8 pole  
(8 Amp)



10 pole  
(3 Amp)






12 pole  
(3 Amp)

**Electrical:**

No. Poles:	2 & 3	4, 6 & 8	10 & 12
Current Rating UL / VDE:	13A	8A	3A
Current Rating CSA:	10A	5A	3A
Voltage Rating:	600V AC/DC	600V AC/DC	600V AC/DC
Contact Resistance:	<5mΩ		
Insulation Resistance:	>10 <sup>6</sup> MΩ (@ 500V DC)		
AC Breakdown voltage:	2.5kV		
Cycles:	>1000		

Operating Temperature:  
 Flex and panel types -40°C to +120°C

Approvals:

-  UL (Underwater Laboratories)
-  CSA (Canadian Standards Associations)
-  VDE (Verband der Elektrotechnik)

**Material:**

Flex and panel types:  
 Body Mouldings: Polyamide  
 Flammability Rating: UL94V-0  
 UV Resistance: To EN 50021:1999

Contacts: Copper alloy, Gold plated

O Rings: Silicone

Panel Sealing O Ring: Silicone

**RoHS** Compliant

**Mechanical:**

Sealing: IP66 to En60529:1992+A2:2013  
 IP68 to En60529:1992+A2:2013 (10m depth for 2 weeks)  
 IP69k to DIN 40050-9

IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k

Salt Mist: EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

Vibration: BS EN 60068-2-64:2008 Test Fh  
 BS EN 60068-2-27:2009 Test Ea

Cable Acceptance: 3.0 - 7.0mm

Contact Accommodation: 2 & 3 pole, 16 - 18 AWG  
 4, 6 & 8 pole, 18\* - 20 AWG  
 10 & 12 pole, 22 - 24 AWG

\*Solid Core Wire Only

Termination: Crimp, solder and PCB

Insertion/Withdrawal Force:  
 No. poles: 2 & 3 4, 6, 8 10 & 12  
 Insertion Force (typ): 25N 28N 62N  
 Withdrawal Force (typ): 17N 22N 29N

Panel mount (PXP4013)  
 Front fixing nut: 1.0-1.1Nm (9lbf.in.)

Cable Retention force: 60N  
 3.0mm dia 80N  
 4.0 to 7.0mm dia

Panel thread PXP4013: 18.97x26TPI Whitworth form to BS84 med fit

**Dimensions:**

Overall dimensions of connectors when mated together

Flex + Flex In-Line 80mm

Dia. over coupling ring 19.7mm

<b>PXP40XX</b>	<b>XX</b>	<b>X</b>	<b>XXXX</b>
<p><b>Body Styles</b></p> <p><b>PXP4010</b> = Flex body  <b>PXP4011</b> = Flex in-line body  <b>PXP4013</b> = Rear panel/PCB mounting body</p>	<p><b>Number of Poles</b></p> <p>02 03 04 06 08 10 12</p>	<p><b>Contact Type</b></p> <p><b>P</b> = Pin,  <b>S</b> = Socket</p>	<p><b>For PXP4010 and PXP4011 cable connectors</b>  <b>- Cable Entry Size:</b></p> <p>3035 = 3.0 - 3.5mm (Light Grey)                      3540 = 3.5 - 4.0mm (Grey)                      4045 = 4.0 - 4.5mm (Green)                      4550 = 4.5 - 5.0mm (Red)</p> <p>5055 = 5.0 - 5.5mm (Yellow)                      5560 = 5.5 - 6.0mm (Blue)                      6065 = 6.0 - 6.5mm (White)                      6570 = 6.5 - 7.0mm (Black)</p> <p>Cable gland and collet supplied in colour coded pairs.</p> <p>For PXP4013 PCB/Rear Panel Mount:                      PC = Pre-loaded PC pins                      Blank = no pins supplied</p>
<p><b>Examples:</b></p> <p><b>PXP4010/03S/4045</b> = Flex cable connector, 3 socket contacts with gland and collet for cables between 4.0 and 4.5mm diameter (supplied less contacts).  <b>PXP4013/08P</b> = Rear panel mounting connector, for 8 pin contacts (supplied less contacts).  <b>PXP4013/03P/PC</b> = Rear panel/PCB connector, 3 pin contacts, PCB mounting (supplied with contacts loaded).</p>			

6000 Series Buccaneer – circular connectors that combine the ease of use of a push/pull coupling mechanism with proven environmental sealing. Available with metal or plastic bodies, the range supports both data (USB and Ethernet), signal and mains power. Designed and independently tested to IP66, IP68 & IP69K standards, they are ideal for applications where ingress of dust and water must be avoided and where ease of connection, space and appearance are important considerations.

- Secure, quick connector mating and release
- 30° twist locking  
Tamperproof lock prevents accidental un-mating
- IP66, IP68 and IP69K when mated  
Suitable for a wide range of dust and water borne environments
- All plastic body version; UL94-V0 rated, UV stable, halogen free  
Light-weight, self-extinguishing material suitable for long-term outdoor use
- Flex, flex in-line & panel mount body styles, with sealing caps  
Complete family of products maintain sealing integrity in all styles
- Polarisation and visual alignment features  
Aids the correct mating of connectors
- 2 to 22 poles – up to 16A, 277V rated  
Suitable for mains power to signal applications
- ‘Scoop proof’ contacts  
Prevents damage through mis-mating – ideal for ‘blind mating’ applications
- cULus, UL, VDE  
Internationally recognised certification
- Screw, Crimp and Solder terminations available





BUCCANEER FOR POWER  
6000 Series Buccaneer

Thermo Plastic

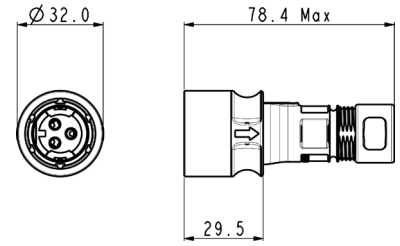


Flex Cable Connector



PXP6010

- Mates with In-Line Flex or Panel Mounting versions PXP6011 & PXP6012
- Push/pull locking ring with 30° twist locking
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 8, 16 & 22 pole
- Screw, solder and crimp termination



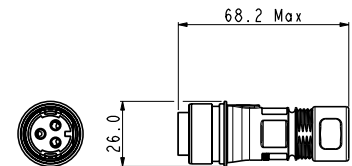
Poles	Termination	Pin Contacts	Socket Contacts	Contacts
2	Screw	PXP6010/02P/ST	PXP6010/02S/ST	Supplied Fitted
2	Crimp / Solder	PXP6010/02P/CR	PXP6010/02S/CR	Contacts Required
3	Screw	PXP6010/03P/ST	PXP6010/03S/ST	Supplied Fitted
3	Crimp / Solder	PXP6010/03P/CR	PXP6010/03S/CR	Contacts Required
8	Crimp / Solder	PXP6010/08P/CR	PXP6010/08S/CR	Contacts Required
16	Crimp / Solder	PXP6010/16P/CR	PXP6010/16S/CR	Contacts Required
22	Crimp / Solder	PXP6010/22P/CR	PXP6010/22S/CR	Contacts Required

In-line Flex Cable Connector



PXP6011

- Mates with Flex Cable connector PXP6010
- For in-line cable connection
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 8, 16 and 22 pole
- Screw, solder and crimp termination



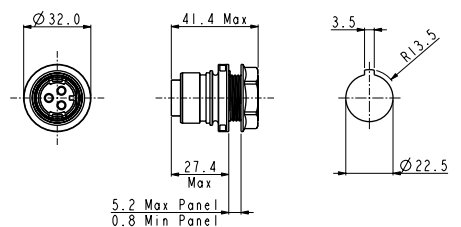
Poles	Termination	Pin Contacts	Socket Contacts	Contacts
2	Screw	PXP6011/02P/ST	PXP6011/02S/ST	Supplied Fitted
2	Crimp / Solder	PXP6011/02P/CR	PXP6011/02S/CR	Contacts Required
3	Screw	PXP6011/03P/ST	PXP6011/03S/ST	Supplied Fitted
3	Crimp / Solder	PXP6011/03P/CR	PXP6011/03S/CR	Contacts Required
8	Crimp / Solder	PXP6011/08P/CR	PXP6011/08S/CR	Contacts Required
16	Crimp / Solder	PXP6011/16P/CR	PXP6011/16S/CR	Contacts Required
22	Crimp / Solder	PXP6011/22P/CR	PXP6011/22S/CR	Contacts Required

Front Panel Mounting Connector



PXP6012

- Mates with Flex Cable connectors PXP6010
- Front panel mounting
- Single hole fixing
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 8, 16 and 22 pole
- Screw, solder and crimp termination



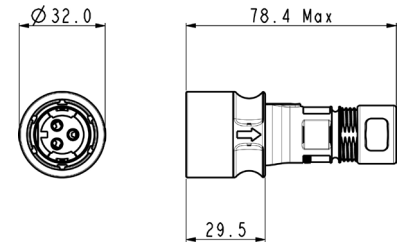
Poles	Termination	Pin Contacts	Socket Contacts	Contacts
2	Screw	PXP6012/02P/ST	PXP6012/02S/ST	Supplied Fitted
2	Crimp / Solder	PXP6012/02P/CR	PXP6012/02S/CR	Contacts Required
3	Screw	PXP6012/03P/ST	PXP6012/03S/ST	Supplied Fitted
3	Crimp / Solder	PXP6012/03P/CR	PXP6012/03S/CR	Contacts Required
8	Crimp / Solder	PXP6012/08P/CR	PXP6012/08S/CR	Contacts Required
16	Crimp / Solder	PXP6012/16P/CR	PXP6012/16S/CR	Contacts Required
22	Crimp / Solder	PXP6012/22P/CR	PXP6012/22S/CR	Contacts Required

Flex Cable Connector



PXM6010

- Mates with In-Line Flex or Panel Mounting versions PXM6011 and PXM6012
- Push/pull locking ring with 30° twist locking
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 8, 16 and 22 pole
- Screw, solder and crimp termination
- Cable braid termination accessory option, add /SNSuffix



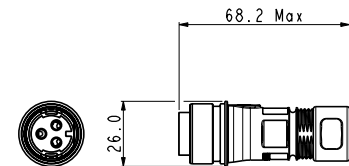
Poles	Termination	Pin Contacts	Socket Contacts	Contacts
2	Screw	PXM6010/02P/ST	PXM6010/02S/ST	Supplied Fitted
2	Crimp / Solder	PXM6010/02P/CR	PXM6010/02S/CR	Contacts Required
3	Screw	PXM6010/03P/ST	PXM6010/03S/ST	Supplied Fitted
3	Crimp / Solder	PXM6010/03P/CR	PXM6010/03S/CR	Contacts Required
8	Crimp / Solder	PXM6010/08P/CR	PXM6010/08S/CR	Contacts Required
16	Crimp / Solder	PXM6010/16P/CR	PXM6010/16S/CR	Contacts Required
22	Crimp / Solder	PXM6010/22P/CR	PXM6010/22S/CR	Contacts Required

In-line Flex Cable Connector



PXM6011

- Mates with Flex Cable connector PXM6010
- For in-line cable connection
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 8, 16 and 22 pole
- Screw, solder and crimp termination
- Cable braid termination accessory option, add /SNSuffix



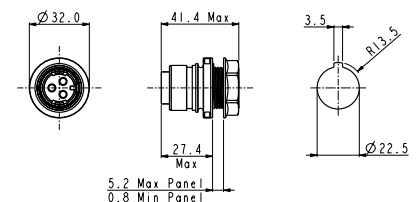
Poles	Termination	Pin Contacts	Socket Contacts	Contacts
2	Screw	PXM6011/02P/ST	PXM6011/02S/ST	Supplied Fitted
2	Crimp / Solder	PXM6011/02P/CR	PXM6011/02S/CR	Contacts Required
3	Screw	PXM6011/03P/ST	PXM6011/03S/ST	Supplied Fitted
3	Crimp / Solder	PXM6011/03P/CR	PXM6011/03S/CR	Contacts Required
8	Crimp / Solder	PXM6011/08P/CR	PXM6011/08S/CR	Contacts Required
16	Crimp / Solder	PXM6011/16P/CR	PXM6011/16S/CR	Contacts Required
22	Crimp / Solder	PXM6011/22P/CR	PXM6011/22S/CR	Contacts Required

Front Panel Mounting Connector





PXM6012

- Mates with Flex Cable connectors PXM6010
- Single hole fixing
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 8, 16 and 22 pole
- Screw, solder and crimp termination

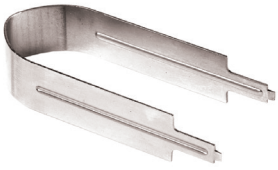


Poles	Termination	Pin Contacts	Socket Contacts	Contacts
2	Screw	PXM6012/02P/ST	PXM6012/02S/ST	Supplied Fitted
2	Crimp / Solder	PXM6012/02P/CR	PXM6012/02S/CR	Contacts Required
3	Screw	PXM6012/03P/ST	PXM6012/03S/ST	Supplied Fitted
3	Crimp / Solder	PXM6012/03P/CR	PXM6012/03S/CR	Contacts Required
8	Crimp / Solder	PXM6012/08P/CR	PXM6012/08S/CR	Contacts Required
16	Crimp / Solder	PXM6012/16P/CR	PXM6012/16S/CR	Contacts Required
22	Crimp / Solder	PXM6012/22P/CR	PXM6012/22S/CR	Contacts Required

Crimp / Solder Contacts			Contacts (for 2 & 3 pole) (Supplied in packs of 10)	Crimp	Solder
 <p>2, 3, 8, 16 &amp; 22 pole contacts</p>	<ul style="list-style-type: none"> <li>○ Gold Plated</li> <li>○ Current ratings: 2 &amp; 3 pole : 16A 8 pole : 10A 16 pole : 3A 22 pole : 2A</li> </ul>		Pins	SA3545/P	SA3624/P
			Sockets	SA3545/S	SA3624/S
			Contacts (for 8 pole) (Supplied in packs of 10)	Crimp	Solder
			Pins	SA3544/P	SA3623/P
			Sockets	SA3544/S	SA3623/S
			Contacts (for 16 & 22 pole) (Supplied in packs of 10)	Crimp	Solder
			Pins	SA3542/P	SA3622/P
			Sockets	SA3542/S	SA3622/S

Crimp Tooling			Crimp Tooling	
 <p>PNo 14232</p>	<ul style="list-style-type: none"> <li>○ Crimp Tools for 2, 3, 8, 16 and 22 pole crimp contacts</li> </ul>		Crimp Tool (2 & 3 pole)	PNo.14232
			Positioner (2 & 3 pole)	PNo.14232/2/SP
			Crimp Tool (8, 16 & 22 pole)	PNo.14025
			Positioner (8 pole)	PNo.15021/SP
			Positioner (16 & 22 pole)	PNo.15019/SP

Extraction Tool			Extraction Tools	
	<ul style="list-style-type: none"> <li>○ Extraction Tool for 2, 3, 8, 16 and 22 pole contacts</li> </ul>		Extraction Tool (2 & 3 pole)	PNo.14946/SP
			Extraction Tool (8 pole)	PNo.14945/SP
			Extraction Tool (16 & 22 pole)	PNo.14944/SP

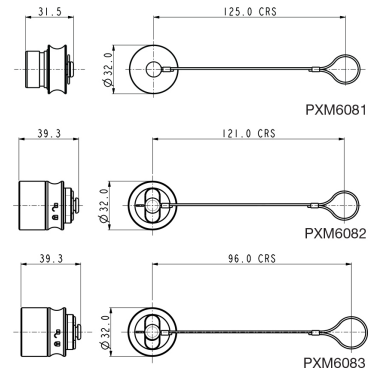
Contact Carrier Removal Tool			Tools	
 <p>PNo 14917</p>	<ul style="list-style-type: none"> <li>○ For removal of all contact carriers</li> </ul>		Contact carrier removal tool (all poles)	PNo. 14917/SP

Sealing Caps



PXM6083 PXM6082 PXM6081

- Maintains IP Rating of Unmated Connectors
- PXM6081: Fits PXM6010 (Flex Connector)
- PXM6082: Fits PXM6011 (Flex In-Line Connector)
- PXM6083: Fits PXM6012 (Panel Connector)

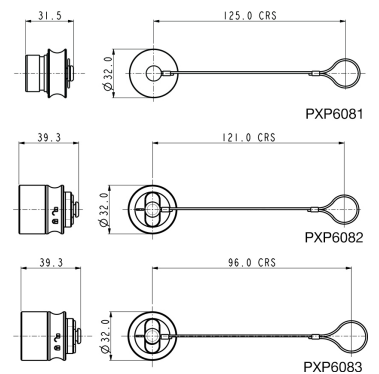


Plastic Sealing Caps



PXP6083 PXP6082 PXP6081

- Maintains IP Rating of Unmated Connectors
- PXP6081: Fits PXP6010 (Flex Connector)
- PXP6082: Fits PXP6011 (Flex In-Line Connector)
- PXP6083: Fits PXP6012 (Panel Connector)



Cable Gland Pack



PXP6088

- Pack of all cable glands to suit cable ranges from 4.0 to 10.0mm diameter
- Light Grey: 9-10mm
- Yellow: 7-9mm
- White: 5-7mm
- Dark Grey: 4-5mm

Cable Braid Termination Option



PXM6090

- For cable braid termination
- Supplied with ty-rap

BUCCANEER FOR POWER  
**6000 Series Buccaneer**

Part No System






<b>PXX</b>	<b>601X</b>	<b>/</b>	<b>XX</b>	<b>/</b>	<b>X</b>	<b>/</b>	<b>XX</b>	<b>/</b>	<b>XXXX</b>	<b>/</b>	<b>XX</b>
<b>Series Designation</b>	<b>Series / Body Style</b>		<b>No. of Poles</b>		<b>Contacts Type</b>		<b>Terminations</b>		<b>Cable Entry Size</b>		<b>Cable Brand Termination Accessory</b>
PXM= Metal Series PXP= Plastic Series	6010 = Flex 6011 = Flex In-Line 6012 = Panel		02 03 08 16 22		P = Pin S = Socket		CR = Contacts Required ST = Screw (2 and 3 pole only)		(for Flex and Flex In-Line connectors only) 0405 = 4-5mm (Dark Grey) 0507 = 5-7mm (White) 0709 = 7-9mm (Yellow) 0910 = 9-10mm (Light Grey)		(for Flex and Flex In-Line connectors only) SN if required Blank if not required

**Examples**

PXM6010/03P/CR/0507= Flex cable connector, 3 pole, pin contacts with 5 to 7mm cable glands  
 PXM6012/03/S/ST= Front panel mounting connector, 3 pole, socket with screw termination

**Electrical:**

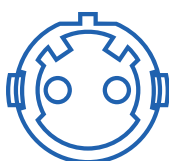
No. Poles:	2	3	8	16	22
Current Rating: See de-rating curves for further information					
VDE	16A	16A	10A	3A	2A
UL	16A	16A	7A	3A	3A
cUL	11A	11A	4A	1.5A	1.5A
Voltage	277V	277V	277V	60V	60V
Rated cable	14 AWG	14 AWG	16-20 AWG	22 AWG	26 AWG
Contact Resistance:	<10mΩ				
Insulation Resistance:	>10 <sup>6</sup> MΩ @500V DC				
AC Breakdown voltage:					
2 pole	>10kV				
3 pole	>8kV				
8 to 22 pole	>5kV				
Operating Temp. Range:	-40°C to +120°C				
Approvals:					
 UL (E214972)	UL1977				
 cULus (E214972)	C22.2 No.182.3-M1987 (R2009)				
 VDE (40039281)	IEC 61984:2009				

**Mechanical:**

Locking mechanism	Push/pull with 30° locking Patent applied for
Sealing:	IP66 to En60529:1992+A2:2013 IP68 to En60529:1992+A2:2013 (10m depth for 2 weeks) IP69k to DIN 40050-9
Salt Mist (plastic) :	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
Salt Mist (metal) :	EN60068-2-11 Test Ka Salt Mist
Contact Accommodation:	
2 & 3 pole crimp / solder	14 to 18AWG
2 & 3 pole screw terminals	1.5mm <sup>2</sup> max
8 pole crimp / solder	18 to 20AWG
16 pole crimp / solder	22 to 26AWG
22 pole crimp / solder	22 to 26AWG
Cable Acceptance:	4-10mm dia.
Cable retention force (to BS EN61984):	
4 - 9mm dia cable	80N
9 - 10mm dia cable	100N
Terminations:	
2 Pole:	Screw Terminals
3 Pole:	Screw, crimp or solder terminals
8 Pole:	Crimp / Solder Contacts
16 Pole:	Crimp / Solder Contacts
22 Pole:	Crimp / Solder Contacts
Tightening Torques:	
Gland Nut:	1.13Nm (10lb.in)
Panel Nut:	1.7Nm (15lb.in.)
Panel Nut Thread:	M22 x 1.5-6g
Dimensions:	
Diameter: (over coupling ring)	32mm
Diameter: (panel hole cut-out)	22.5mm

**Materials:**

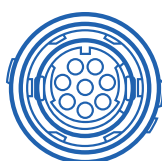
	Plastic	Metal
Body:	PC/ PBT	Brass
Colour:	Grey	Matt silver
Contacts:	Brass, Nickel Plate (Screw and Crimp) Brass, (3A – Gold plated)	Brass, Nickel Plate (Screw and Crimp) Brass, (3A – Gold plated)
O Rings & Gaskets:	Silicone	Silicone
Flammability Rating:	UL94 V-0	-
Halogen free	Yes	-
UV Resistance:	ISO 4892 part 3 cycle 1 (QUV)	-
<b>RoHS</b>	Compliant	Compliant



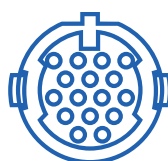
2 pole  
(16 Amp)



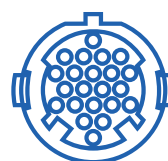
3 pole  
(16 Amp)



8 pole  
(10 Amp)



16 pole  
(3 Amp)



22 pole  
(2 Amp)



The thermal properties of the materials used in the construction of a connector limit the current carrying capacity. There are a number of factors that determine the amount of current that can be handled: contact spacing, size of cable, ambient temperature and the heat that is generated by the current passing through the connector.

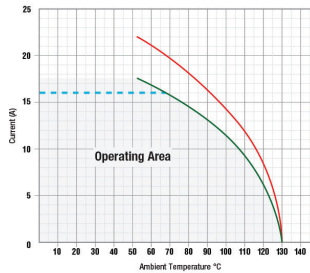
The maximum current varies with different contact layouts, and because of these factors it is necessary to produce de-rating curves for each pole variant. This de-rating curve is specified in the standard IEC 60512 part 3. De-rating curves are plotted for each contact carrier combination with the current being carried simultaneously by all contacts. These graphs show the heat rise generated as the current is increased.

The red line indicates the direct correlation between current applied and the measured temperature rise within the connector. The dotted blue line shows rated current and the green line is derived by applying a factor of 0.8 to the original plot data to give a de-rating curve. The shaded area shows the permitted operating area, and allows safe current vs ambient temperature characteristics to be determined.

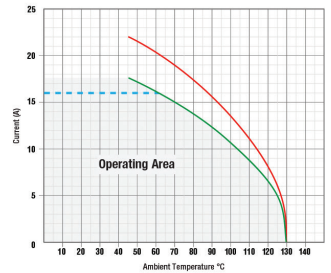
The shaded area under the 0.8 curve shows the permitted operating area, and allows safe current vs ambient temperature characteristics to be determined.

- = tested operating limits
- = de-rated operating limits
- - - = rated current

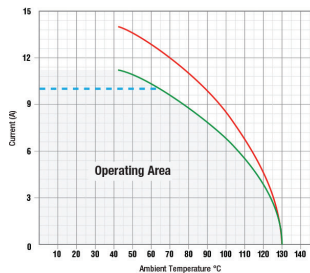
**2 Pole, Metal Body, Crimp Terminal, 18 AWG wire**  
current applied through all pins simultaneously



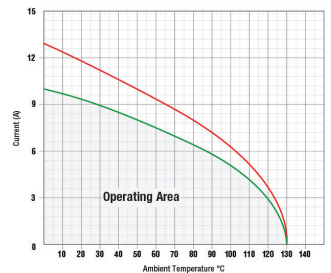
**3 Pole, Metal Body, Screw Terminal, 18 AWG wire**  
current applied through all pins simultaneously



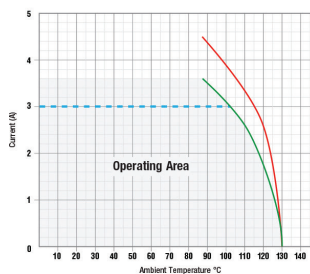
**8 Pole, Metal Body, Crimp Terminal, 18 AWG wire**  
current applied through all pins simultaneously



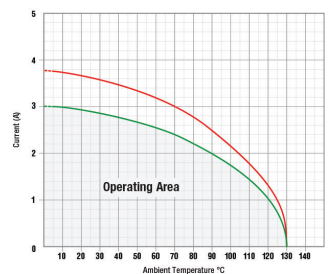
**8 Pole, Metal Body, Crimp Terminal, 20 AWG wire**  
current applied through all pins simultaneously



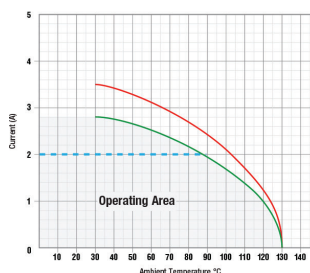
**16 Pole, Metal Body, Crimp Terminal, 22 AWG wire**  
current applied through all pins simultaneously



**16 Pole, Metal Body, Crimp Terminal, 26 AWG wire**  
current applied through all pins simultaneously



**22 Pole, Metal Body, Crimp Terminal, 26 AWG wire**  
current applied through all pins simultaneously



The all plastic and metal construction of the 7000 Series Buccaneer - **circular connectors** that combine the ease of use of a **quick** coupling mechanism with **proven** environmental sealing for signal and mains **power**.

Designed and independently tested to IP66, IP68 & IP69K standards, they are ideal for applications where ingress of dust and water must be avoided and where ease of connection, space and appearance are important considerations.

- **Less than 1/4 Turn locking mechanism**  
Secure, quick connector mating and release
- **Positive feedback on locking mechanism**  
Confidence that connector is correctly mated and sealed
- **IP66, IP68 and IP69K when mated**  
Suitable for a wide range of dust and water borne environments
- **All plastic body version; UL94-V0 rated, UV stable, halogen free**  
Light-weight, self-extinguishing material suitable for long-term outdoor use
- **Flex, flex in-line & panel mount body styles, with sealing caps**  
Complete family of products maintain sealing integrity in all styles
- **Polarisation and visual alignment features**  
Aids the correct mating of connectors
- **2 to 32 poles – up to 25A, 600V rated**  
Suitable for mains power to signal applications
- **'Scoop proof' contacts**  
Prevents damage through mis-mating – ideal for 'blind mating' applications
- **cULs, UL,**  
approvals Internationally recognised certification (pending)
- **Screw, Crimp and Solder terminations available**
- **EN60068-2-52 Test Kb Salt Mist (Cyclic)**  
Marine Severity Level 1





BUCCANEER FOR POWER  
7000 Series Buccaneer

Thermo Plastic

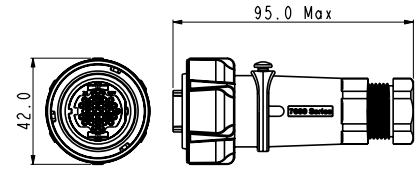


Flex Cable Connector



PXP7010

- Mates with In-Line Flex or Panel Mounting versions PXP7011 & PXP7012
- Quick turn locking ring
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 6, 10 & 32 pole
- Screw solder and crimp termination



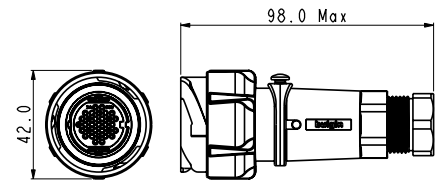
Poles	Termination	Pin Contacts	Socket Contacts	Contacts
2	Screw	PXP7010/02P/ST	PXP7010/02S/ST	Supplied Fitted
3	Screw	PXP7010/03P/ST	PXP7010/03S/ST	Supplied Fitted
6	Screw	PXP7010/06P/ST	PXP7010/06S/ST	Supplied Fitted
10	Crimp / Solder	PXP7010/10P/CR	PXP7010/10S/CR	Contact Required
32	Crimp / Solder	PXP7010/32P/CR	PXP7010/32S/CR	Contact Required

In-line Flex Cable Connector



PXP7011

- Mates with Flex Cable connector PXP7010
- For in-line cable connection
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 6, 10 and 32 pole
- Screw solder and crimp termination



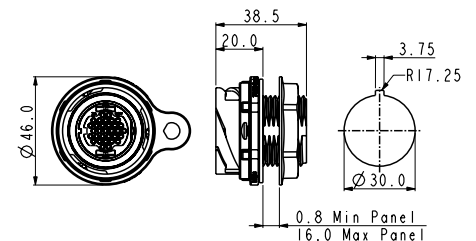
Poles	Termination	Pin Contacts	Socket Contacts	Contacts
2	Screw	PXP7011/02P/ST	PXP7011/02S/ST	Supplied Fitted
3	Screw	PXP7011/03P/ST	PXP7011/03S/ST	Supplied Fitted
6	Screw	PXP7011/06P/ST	PXP7011/06S/ST	Supplied Fitted
10	Crimp / Solder	PXP7011/10P/CR	PXP7011/10S/CR	Contact Required
32	Crimp / Solder	PXP7011/32P/CR	PXP7011/32S/CR	Contact Required

Front Panel Mounting Connector



PXP7012

- Mates with Flex Cable connectors PXP7010
- Single hole fixing
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 6, 10 and 32 pole
- Screw solder and crimp termination



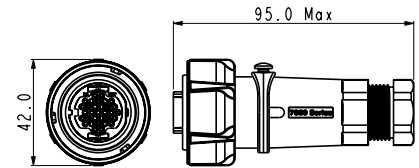
Poles	Termination	Pin Contacts	Socket Contacts	Contacts
2	Screw	PXP7012/02P/ST	PXP7012/02S/ST	Supplied Fitted
3	Screw	PXP7012/03P/ST	PXP7012/03S/ST	Supplied Fitted
6	Screw	PXP7012/06P/ST	PXP7012/06S/ST	Supplied Fitted
10	Crimp / Solder	PXP7012/10P/CR	PXP7012/10S/CR	Contact Required
32	Crimp / Solder	PXP7012/32P/CR	PXP7012/32S/CR	Contact Required

Flex Cable Connector



PXM7010

- Mates with In-Line Flex or Panel Mounting versions PXM7011 & PXM7012
- Quick turn locking ring
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 6, 10 & 32 pole
- Screw solder and crimp termination
- Cable braid termination accessory option, add /SNSuffix



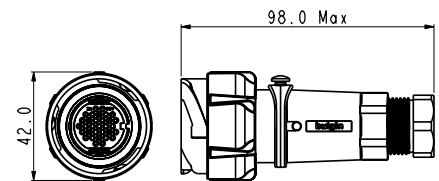
Poles	Termination	Pin Contacts	Socket Contacts	Contacts
2	Screw	PXM7010/02P/ST	PXM7010/02S/ST	Supplied Fitted
3	Screw	PXM7010/03P/ST	PXM7010/03S/ST	Supplied Fitted
6	Screw	PXM7010/06P/ST	PXM7010/06S/ST	Supplied Fitted
10	Crimp / Solder	PXM7010/10P/CR	PXM7010/10S/CR	Contact Required
32	Crimp / Solder	PXM7010/32P/CR	PXM7010/32S/CR	Contact Required

In-line Flex Cable Connector



PXM7011

- Mates with Flex Cable connector PXM7010
- For in-line cable connection
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 6, 10 and 32 pole
- Screw solder and crimp termination
- Cable braid termination accessory option, add /SNSuffix



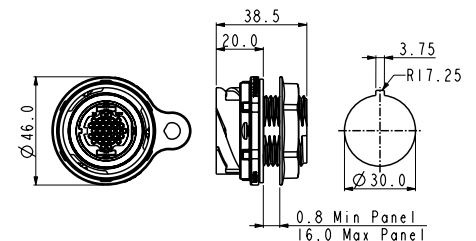
Poles	Termination	Pin Contacts	Socket Contacts	Contacts
2	Screw	PXM7011/02P/ST	PXM7011/02S/ST	Supplied Fitted
3	Screw	PXM7011/03P/ST	PXM7011/03S/ST	Supplied Fitted
6	Screw	PXM7011/06P/ST	PXM7011/06S/ST	Supplied Fitted
10	Crimp / Solder	PXM7011/10P/CR	PXM7011/10S/CR	Contact Required
32	Crimp / Solder	PXM7011/32P/CR	PXM7011/32S/CR	Contact Required

Front Panel Mounting Connector




PXM7012


- Mates with Flex Cable connectors PXM7010
- Single hole fixing
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 6, 10 and 32 pole
- Screw solder and crimp termination





Poles	Termination	Pin Contacts	Socket Contacts	Contacts
2	Screw	PXM7012/02P/ST	PXM7012/02S/ST	Supplied Fitted
3	Screw	PXM7012/03P/ST	PXM7012/03S/ST	Supplied Fitted
6	Screw	PXM7012/06P/ST	PXM7012/06S/ST	Supplied Fitted
10	Crimp / Solder	PXM7012/10P/CR	PXM7012/10S/CR	Contact Required
32	Crimp / Solder	PXM7012/32P/CR	PXM7012/32S/CR	Contact Required

<p>Crimp / Solder Contacts</p>  <p>10 &amp; 32 pole contacts</p>	<ul style="list-style-type: none"> <li>○ Gold Plated</li> <li>○ Current ratings: 10 pole: 10A 32 pole: 2A</li> </ul>	<table border="1"> <tr> <td><b>Contacts (for 10 pole) (Supplied in packs of 10)</b></td> <td><b>Crimp</b></td> <td><b>Solder</b></td> </tr> <tr> <td>Pins</td> <td>SA3544/P</td> <td>SA3623/P</td> </tr> <tr> <td>Sockets</td> <td>SA3544/S</td> <td>SA3623/S</td> </tr> <tr> <td><b>Contacts (for 32 pole) (Supplied in packs of 10)</b></td> <td><b>Crimp</b></td> <td><b>Solder</b></td> </tr> <tr> <td>Pins</td> <td>SA3542/P</td> <td>SA3622/P</td> </tr> <tr> <td>Sockets</td> <td>SA3542/S</td> <td>SA3622/S</td> </tr> </table>	<b>Contacts (for 10 pole) (Supplied in packs of 10)</b>	<b>Crimp</b>	<b>Solder</b>	Pins	SA3544/P	SA3623/P	Sockets	SA3544/S	SA3623/S	<b>Contacts (for 32 pole) (Supplied in packs of 10)</b>	<b>Crimp</b>	<b>Solder</b>	Pins	SA3542/P	SA3622/P	Sockets	SA3542/S	SA3622/S
<b>Contacts (for 10 pole) (Supplied in packs of 10)</b>	<b>Crimp</b>	<b>Solder</b>																		
Pins	SA3544/P	SA3623/P																		
Sockets	SA3544/S	SA3623/S																		
<b>Contacts (for 32 pole) (Supplied in packs of 10)</b>	<b>Crimp</b>	<b>Solder</b>																		
Pins	SA3542/P	SA3622/P																		
Sockets	SA3542/S	SA3622/S																		

<p>Crimp Tooling</p>  <p>PNo 14025</p>	<ul style="list-style-type: none"> <li>○ Crimp Tools for 10 and 32 pole crimp contacts</li> </ul>	<p><b>Crimp Tooling</b></p> <table border="1"> <tr> <td>Crimp Tool (10 &amp; 32 pole)</td> <td>PNo. 14025</td> </tr> <tr> <td>Positioner (10 pole)</td> <td>PNo. 15021/SP</td> </tr> <tr> <td>Positioner (32 pole)</td> <td>PNo. 15019/SP</td> </tr> </table>	Crimp Tool (10 & 32 pole)	PNo. 14025	Positioner (10 pole)	PNo. 15021/SP	Positioner (32 pole)	PNo. 15019/SP
Crimp Tool (10 & 32 pole)	PNo. 14025							
Positioner (10 pole)	PNo. 15021/SP							
Positioner (32 pole)	PNo. 15019/SP							

<p>Extraction Tools</p>  <p>PNo 14944/SP PNo 14945/SP</p>	<ul style="list-style-type: none"> <li>○ Extraction tool for 10 and 32 pole contacts</li> </ul>	<p><b>Extraction Tools</b></p> <table border="1"> <tr> <td>Extraction tool (10 pole)</td> <td>PNo. 14945/SP</td> </tr> <tr> <td>Extraction tool (32 pole)</td> <td>PNo. 14944/SP</td> </tr> </table>	Extraction tool (10 pole)	PNo. 14945/SP	Extraction tool (32 pole)	PNo. 14944/SP
Extraction tool (10 pole)	PNo. 14945/SP					
Extraction tool (32 pole)	PNo. 14944/SP					

<p>Contact Carrier Removal Tool</p>  <p>PNo 15065/SP</p>	<ul style="list-style-type: none"> <li>○ For removal of all contact carriers</li> </ul>	<p><b>Contact Carrier Removal Tool</b></p> <table border="1"> <tr> <td>Contact carrier removal tool (all poles)</td> <td>PNo. 15065/SP</td> </tr> </table>	Contact carrier removal tool (all poles)	PNo. 15065/SP
Contact carrier removal tool (all poles)	PNo. 15065/SP			

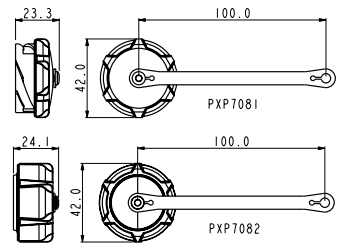
<p>Cable Braid Termination Option</p>  <p>PXM7090</p>	<ul style="list-style-type: none"> <li>○ For cable braid termination</li> <li>○ Supplied with ty-rap</li> </ul>
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Sealing Caps



PXP7082 PXP7081

- Maintains IP rating of unmat- ed connectors
- PXP7081: Fits PXP7010 (Flex Connector)
- PXP7082: Fits PXP7011 (FlexIn-Line Connector) and PXP7012: (Panel Connector)

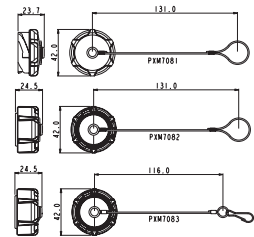


Sealing Caps



PXM7082 PXM7081 PXM7083

- Maintains IP rating of unmat- ed connectors
- PXM7081: Fits PXM7010 (FlexConnector)
- PXM7082: Fits PXM7011 (Flex In-Line Connector) and PXP7012: (Panel Connector)
- PXM7083: Fits PXM7012 (Panel Mounting Connector)



Cable Gland Packs



PXP7088/ \*

- Packs of cable glands, cages and gland nuts to suit cables ranges from 5.0 to 15.0mm diameter
- PXP7088/0507: for cable ranges between 5.0 and 7.0mm
- PXP7088/0713: for cable ranges between 7.0 and 13.0mm
- PXP7088/1315: for cable ranges between 13.0 and 15.0mm

BUCCANEER FOR POWER  
**7000 Series Buccaneer**

Part No System





<b>PXX</b>	<b>701X</b>	<b>/</b>	<b>XX</b>	<b>/</b>	<b>X</b>	<b>/</b>	<b>XX</b>	<b>/</b>	<b>XXXX</b>	<b>/</b>	<b>XX</b>
<b>Series Designation</b>	<b>Series / Body Style</b>	<b>No. of Poles</b>	<b>Contacts Type</b>	<b>Terminations</b>	<b>Cable Entry Size</b>	<b>Cable Brand Termination Accessory</b>					
PXM= Metal Series PXP= Plastic Series	7010 = Flex 7011 = Flex In-Line 7012 = Panel	02 03 06 10 32	P = Pin S = Socket	ST = Screw Terminal (2, 3, & 6 pole only) CR = Contacts Required (10 & 32 pole only)	(for Flex and Flex In-Line connectors only) 0507 = 5-7mm (grey)  0709 = 7-9mm (white)  0911 = 9-11mm (black)  1113 = 11 to 13 mm (yellow)  1315 = 13 to 15 mm (light grey)	(for Flex and Flex In-Line connectors only) <b>SN</b> - If requires <b>Blank</b> - If not required					

**Examples**

PXM7010/10/P/CR/0911/SN= Flex cable connector, 10 pole, pin contacts with 9 to 11mm cable glands and braid termination accessory

PXM7012/03/S/ST= Front panel mounting connector, 3 pole, socket with screw termination

**Electrical:**

No Poles:	2	3	6	10	32
Current Rating:					
UL	25A	25A	10A	10A	3A
cUL (pending)	25A	25A	8A	6A	2A
Voltage Rating (AC/DC):					
UL, cUL (pending)	600V	600V	600V	600V	600V
Contact Resistance:	<10mΩ				
Insulation Resistance:	>10 <sup>6</sup> MΩ @500V DC				
AC Breakdown voltage:					
2 pole	>10kV				
3 pole	>8kV				
6 to 32 pole	>5kV				
Operating Temp. Range:	-40°C to +120°C				
Approvals:					
 UL	UL1977				
 cULus	C22.2 No.182.3-M2016 (R2009)				

**Mechanical:**

Locking mechanism	Quarter turn, rapid locking
Sealing:	IP66 to EN60529:1992+A2:2013 IP68 to EN60529:1992+A2:2013 (10m depth for 2 weeks) IP69k to DIN 40050-9
Salt Mist (plastic):	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
Salt Mist (metal):	EN60068-2-11 Test Ka Salt Mist
Contact Accommodation:	
2 & 3 pole screw terminals	6.0mm <sup>2</sup> max
6 pole screw	1.00mm <sup>2</sup> max
10 pole crimp / solder	18 to 20AWG
32 pole crimp / solder	22 to 26AWG
Cable Acceptance:	5-15mm dia.
Cable retention force (to BS EN61984):	
5 - 9mm dia cable	80N
9 - 15mm dia cable	100N
Terminations	
2 Pole:	Screw Terminals
3 Pole:	Screw Terminals
6 Pole:	Screw Terminals
10 Pole:	Crimp / Solder Contacts
32 Pole:	Crimp / Solder Contacts
Tightening Torques:	
Gland Nut:	1.13Nm (10lb.in)
Panel Nut:	1.7Nm (15lb.in.)
Panel Nut Thread	M30 x 2-6g
Dimensions:	
Diameter: (over coupling ring)	42mm
Diameter: (panel hole cut-out)	30mm

**Materials:**

**Plastic**

**Metal**

Body:	PC/ PBT	Cast zinc alloy, nickel plated
Colour:	Grey	Matt silver
Contacts:	Brass, Nickel Plate (Screw and Crimp) Brass, (3A – Gold plated)	Brass, Nickel Plate (Screw and Crimp) Brass, (3A – Gold plated)
O Rings & Gaskets:	Silicone	Silicone
Flammability Rating:	UL94 V-0	-
Halogen free	Yes	-
UV Resistance:	ISO 4892 part 3 cycle 1 (QUV)	-
<b>RoHS</b>	Compliant	Compliant

The thermal properties of the materials used in the construction of a connector limit the current carrying capacity. There are a number of factors that determine the amount of current that can be handled: contact spacing, size of cable, ambient temperature and the heat that is generated by the current passing through the connector.

The maximum current varies with different contact layouts, and because of these factors it is necessary to produce de-rating curves for each pole variant. This de-rating curve is specified in the standard IEC 60512 part 3. De-rating curves are plotted for each contact carrier combination with the current being carried simultaneously by all contacts. These graphs show the heat rise generated as the current is increased.

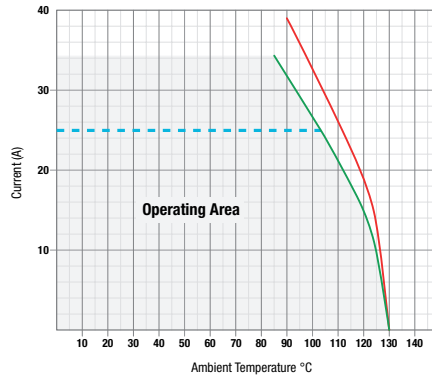
The red line indicates the direct correlation between current applied and the measured temperature rise within the connector. The dotted blue line shows rated current and the green line is derived by applying a factor of 0.8 to the original plot data to give a de-rating curve. The dashed blue line shows the rated current.

The shaded area under the 0.8 curve shows the permitted operating area, and allows safe current vs ambient temperature characteristics to be determined.

- = tested operating limits
- = de-rated operating limits
- - - = rated current

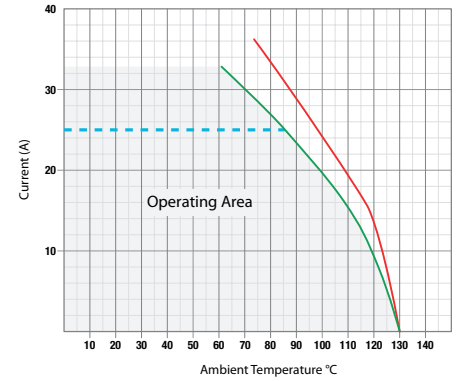
7000 Series Current vs. Temperature Characteristics

2 Pole, Plastic Body, Screw Terminal, 6.0mm<sup>2</sup> wire  
current applied through all pins simultaneously



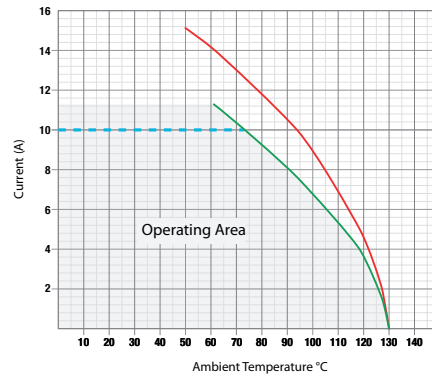
7000 Series Current vs. Temperature Characteristics

3 Pole, Plastic Body, Screw Terminal, 4.0mm<sup>2</sup> wire  
current applied through all pins simultaneously



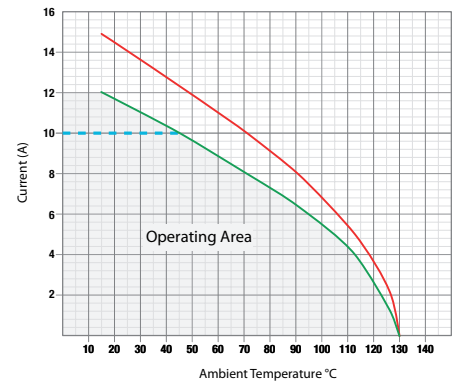
7000 Series Current vs. Temperature Characteristics

6 Pole, Plastic Body, Screw Terminal, 1.0mm<sup>2</sup> wire  
current applied through all pins simultaneously



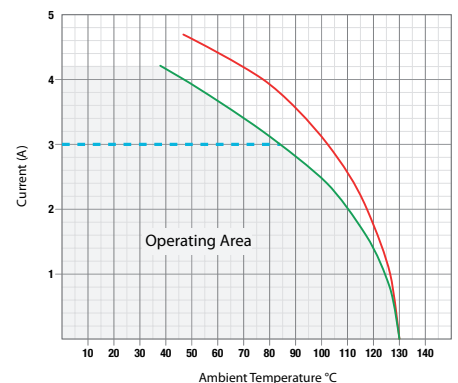
7000 Series Current vs. Temperature Characteristics

10 Pole, Plastic Body, Crimp Terminal, 18 AWG wire  
current applied through all pins simultaneously



7000 Series Current vs. Temperature Characteristics

32 Pole, Plastic Body, Crimp Terminal, 22 AWG wire  
current applied through all pins simultaneously



A range of high **amperage** flex body, flex body in-line and flange mount connectors rated to IP68. These **Delrin housing** multi pin circular connectors are ideal for applications where **dust** and **water ingress** must be **avoided** and ease of connection to high ratings must be achieved.

- **Bayonet 1/4 Turn locking Mechanism**  
Secure, quick connector mating and release
- **Screw Turn Locking**  
Secure, robust connection and easy to disconnect
- **Positive feedback on locking mechanism**  
Confidence that connector is correctly mated and sealed
- **IP68 when mated (for parts with backshell)**  
Suitable for a wide range of dust and water borne environments
- **Flex Body, Flex Body In-Line and Flange Mount Available**  
Complete family of products maintain sealing integrity in all styles
- **Visual alignment features**  
Aids the correct mating of connectors
- **2 to 11 poles - up to 225A, 1250V AC RMS**  
Suitable for mains power to signal applications
- **Crimp termination available**
- **300+ AMP contacts upon request**





Screw Locking -  
Male & Female

PXP9050

- Flex Body, Flex In-Line & Flange Mount available
- Plug and Socket available
- IP68 Rated
- Up to 1250V AC RMS

Part Number	Poles	Contact Type	Contact Size	Body Type	Backshell
PXP9050/02/P/1	2	Pin	4/0	Flex Body	Yes
PXP9051/02/S/1	2	Socket	4/0	Flex In-Line	Yes
PXP9052/02/S	2	Socket	4/0	Flange Mount	-
PXP9050/04/P/1	4	Pin	1/0	Flex Body	Yes
PXP9051/04/S/1	4	Socket	1/0	Flex In-Line	Yes
PXP9052/04/S	4	Socket	1/0	Flange Mount	-
PXP9050/06/P/1	6	Pin	1/0	Flex Body	Yes
PXP9051/06/S/1	6	Socket	1/0	Flex In-Line	Yes
PXP9052/06/S	6	Socket	1/0	Flange Mount	-
PXP9050/08/P/1	8	Pin	4x 4 & 16AWG 4x	Flex Body	Yes
PXP9051/08/S/1	8	Socket	4x 4 & 16AWG 4x	Flex In-Line	Yes
PXP9052/08/S	8	Socket	4x 4 & 16AWG 4x	Flange Mount	-
PXP9050/11/P/1	11	Pin	10x 4 & 16AWG 1x	Flex Body	Yes
PXP9051/11/S/1	11	Socket	10x 4 & 16AWG 1x	Flex In-Line	Yes
PXP9052/11/S	11	Socket	10x 4 & 16AWG 1x	Flange Mount	-

Bayonet Quarter Turning Lock -  
Male & Female

PXP9010

- Flex Body, Flex In-Line & Flange Mount available
- Plug and Socket available
- IP68 Rated
- Up to 1250V AC RMS
- Robust, with Quick Disconnect System

Part Number	Poles	Contact Type	Contact Size	Body Type	Backshell
PXP9010/02/P/1	2	Pin	4/0	Flex Body	Yes
PXP9011/02/S/1	2	Socket	4/0	Flex In-Line	Yes
PXP9012/02/S	2	Socket	4/0	Flange Mount	-
PXP9010/04/P/1	4	Pin	1/0	Flex Body	Yes
PXP9011/04/S/1	4	Socket	1/0	Flex In-Line	Yes
PXP9012/04/S	4	Socket	1/0	Flange Mount	-
PXP9010/06/P/1	6	Pin	1/0	Flex Body	Yes
PXP9011/06/S/1	6	Socket	1/0	Flex In-Line	Yes
PXP9012/06/S	6	Socket	1/0	Flange Mount	-
PXP9010/08/P/1	8	Pin	4x 4 & 16AWG 4x	Flex Body	Yes
PXP9011/08/S/1	8	Socket	4x 4 & 16AWG 4x	Flex In-Line	Yes
PXP9012/08/S	8	Socket	4x 4 & 16AWG 4x	Flange Mount	-
PXP9010/11/P/1	11	Pin	10x 4 & 16AWG 1x	Flex Body	Yes
PXP9011/11/S/1	11	Socket	10x 4 & 16AWG 1x	Flex In-Line	Yes
PXP9012/11/S	11	Socket	10x 4 & 16AWG 1x	Flange Mount	-

Accessories



PXP9080

- Adapter
- Locator

\*crimping tool required - contact us for more details.

Part Number	Description
PXP9080	1/0 Pin and Socket Adapter to accommodate 6-8awg conductors
PXP9082	Locator

BUCCANEER FOR POWER  
**9000 Series High Power Buccaneer**

Specifications & Part No System



**Electrical:**

No Poles:	2, 4, 6, 8, 11
Current Rating:	
2 Pole	225A
4 Pole	150A
6 Pole	150A
8 Pole	13A, 80A
11 Pole	80A, 13A
Voltage Rating (AC):	1250V AC RMS +700V AC RMS
Operating Temp. Range:	-55°C to +125°C
Approvals:	Standard Available

**Mechanical:**

Locking Mechanism:	Bayonet Quarter Turn Rapid Locking Screw Lock
Sealing:	IP68
Contact Accommodation:	
2 pole	4/0 (107.2 mm <sup>2</sup> )
4 pole	1/0 (53.5 mm <sup>2</sup> )
6 pole	1/0 (107.2 mm <sup>2</sup> )
8 pole	4x 4 (107.2 mm <sup>2</sup> ) & 16 AWG (1.5 mm <sup>2</sup> ) 4x
11 pole	10x 4 (107.2 mm <sup>2</sup> ) & 16 AWG (1.5 mm <sup>2</sup> ) 1x
Cable Acceptance:	Back Shell Inner Diameter 48.26 mm
Terminations:	Crimp Terminals

**Materials:**

**Plastic:**

Body:	Delrin
Colour:	Black
Contacts:	Copper Alloy Silver Plating
Flammability Rating:	UL94 V-0

Dimensions:	
Diameter: (over coupling ring)	72.77mm (bayonet), 80.67mm (screw lock)

**RoHS**

Compliant

<b>PXP90XX</b>	<b>XX</b>	<b>/</b>	<b>XX</b>	<b>/</b>	<b>X</b>	<b>/</b>	<b>X</b>
<b>Series Designation</b>	<b>Series / Body Style</b>		<b>Contact of Poles</b>		<b>Contact Type</b>		<b>Backshell</b>
PXP901X = Bayonet Quarter Turn	10 = Flex Body		02		P = Plug		N/A = No Backshell
PXP905X = Screw Locking	11 = Flex In-Line		04		S = Socket		1 = 4" Screw on Backshell
	12 = Flange Mount		06				
			08				
			11				

**Examples**

PXP9050/02/P/1 = Screw Locking Flex Body Connector, 4 inch Backshell, 2 Contacts, Pin

PXP9012/02/S = Bayonet Locking Flange Mount Connector, No Backshell, 2 Contacts, Socket

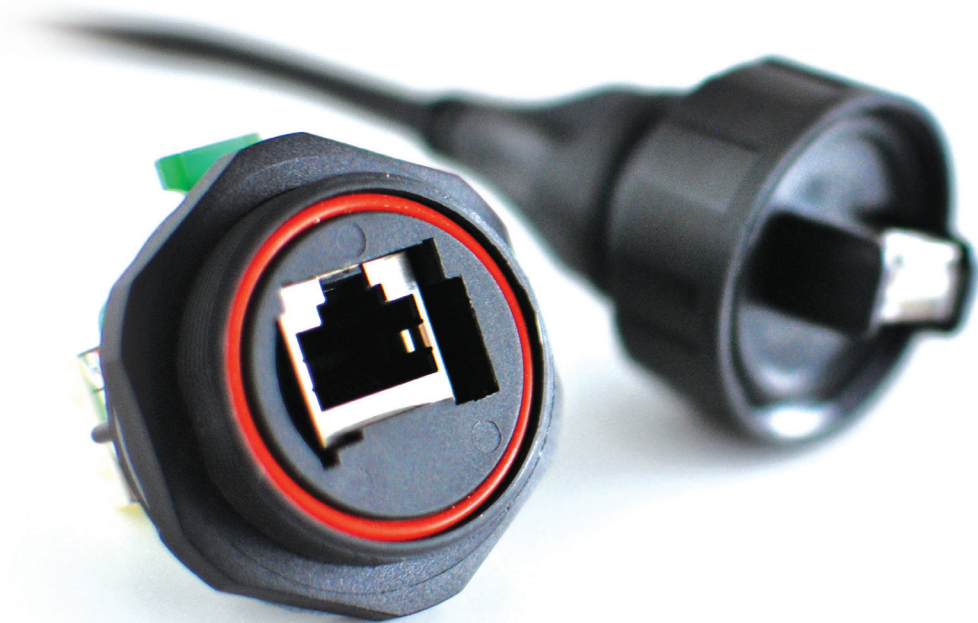
A full range of **IP68** rated environmentally **sealed circular connectors** designed to provide secure and safe connections in harsh or hostile conditions.

The Data Buccaneer range now includes designs specifically for Ethernet, USB and SMB applications. Ethernet Buccaneer meets Cat 5e requirements for data rates up to 100Mbps, USB Buccaneer is designed to meet USB version 2.0 specification for data rates up to 480Mbps, SMB Buccaneer has a frequency response up to 4GHz.

The Buccaneer series finds numerous applications either in external or internal environments where protection against the ingress of dust and moisture is a system requirement.



Standard Buccaneer - Ethernet	68
Standard Buccaneer - USB	75
400 Series - Mini USB Buccaneer	81
400 Series - SMB Buccaneer	86
400 Series - Wireless Buccaneer	89
4000 Series - Micro USB Buccaneer	96
4000 C-Type Series USB Buccaneer	99
6000 Series Buccaneer	104
6000 Series Ethernet Buccaneer	110



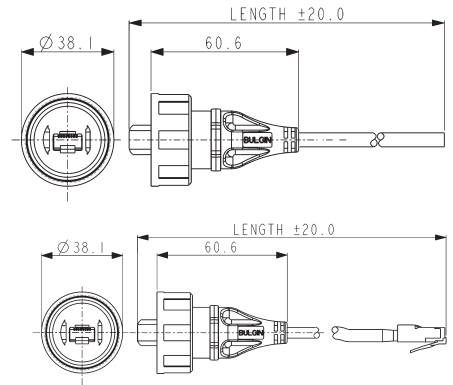
- ⊕ IP68, Tested in accordance with EN60529:1992+A2:2013
- ⊕ IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
- ⊕ Cat 5e or Cat 6a compliant
- ⊕ PUR / PVC jacket on cable
- ⊕ Shielded system
- ⊕ Cat 5e or Cat 6a shielded coupler
- ⊕ Shroud on RJ45
- ⊕ Screw coupling
- ⊕ Rewireable flex connector
- ⊕ PCB mounted panel connector
- ⊕ IDC termination panel connector
- ⊕ Earth lead version of panel adaptor
- ⊕ EN60068-2-52 Test Kb Salt Mist (Cyclic)  
Marine Severity Level 1
- ⊕ Dust and waterproof sealing when mated
- ⊕ Data rate up to 100Mbps
- ⊕ Good chemical resistance, flame retardant
- ⊕ High noise immunity and EMI protection
- ⊕ Maintains shielding
- ⊕ Protection from abuse and mis-mating
- ⊕ Secure, proven locking system
- ⊕ Ability to 'field' terminate
- ⊕ Direct PCB mount panel connector
- ⊕ Simple termination
- ⊕ Continuous screening of panel mount connector

Patch Cord Flex Connector - PUR Jacket

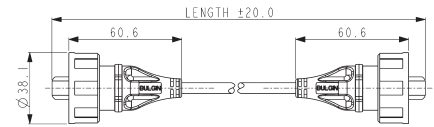


PX0836

- Mates with all panel mounting connectors
- Patchcords with IP68 connector
- Supplied with shielded RJ45 plug
- Single or double end terminated
- Standard lengths: 2m, 3m & 5m
- S-FTP cable construction
- PUR (Cat 5e) or PVC (Cat 6a) jacket cable
- Wiring configuration to 568-B



Part no.	Type	Length	Description
PX0836/2M00	Wire end	2m	Cat 5e IP68 RJ45 Buccaneer to bare end
PX0836/3M00	Wire end	3m	Cat 5e IP68 RJ45 Buccaneer to bare end
PX0836/5M00	Wire end	5m	Cat 5e IP68 RJ45 Buccaneer to bare end
PX0837/2M00	Single ended	2m	Cat 5e IP68 RJ45 Buccaneer to Shielded RJ45
PX0837/3M00	Single ended	3m	Cat 5e IP68 RJ45 Buccaneer to Shielded RJ45
PX0837/5M00	Single ended	5m	Cat 5e IP68 RJ45 Buccaneer to Shielded RJ45
PX0838/2M00	Double ended	2m	Cat 5e IP68 RJ45 Buccaneer to IP68 RJ45 Buccaneer
PX0838/3M00	Double ended	3m	Cat 5e IP68 RJ45 Buccaneer to IP68 RJ45 Buccaneer
PX0838/5M00	Double ended	5m	Cat 5e IP68 RJ45 Buccaneer to IP68 RJ45 Buccaneer
PX0896/2M00	Wire end	2m	Cat 6a IP68 RJ45 Buccaneer to bare end
PX0896/3M00	Wire end	3m	Cat 6a IP68 RJ45 Buccaneer to bare end
PX0896/5M00	Wire end	5m	Cat 6a IP68 RJ45 Buccaneer to bare end
PX0897/2M00	Single ended	2m	Cat 6a IP68 RJ45 Buccaneer to Shielded RJ45
PX0897/3M00	Single ended	3m	Cat 6a IP68 RJ45 Buccaneer to Shielded RJ45
PX0897/5M00	Single ended	5m	Cat 6a IP68 RJ45 Buccaneer to Shielded RJ45
PX0898/2M00	Double ended	2m	Cat 6a IP68 RJ45 Buccaneer to IP68 RJ45 Buccaneer
PX0898/3M00	Double ended	3m	Cat 6a IP68 RJ45 Buccaneer to IP68 RJ45 Buccaneer
PX0898/5M00	Double ended	5m	Cat 6a IP68 RJ45 Buccaneer to IP68 RJ45 Buccaneer

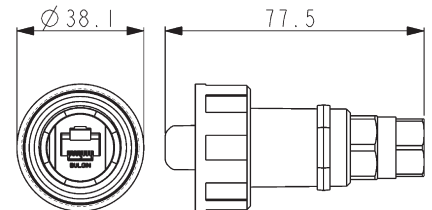


Re wireable Flex Connector



PX0834

- Mates with all panel mounting connectors
- Supplied with shielded RJ45 plug
- Two versions:
- PUR (Cat 5e) or PVC (Cat 6a) jacket cable for other cable sizes from 3.5 to 8mm dia.



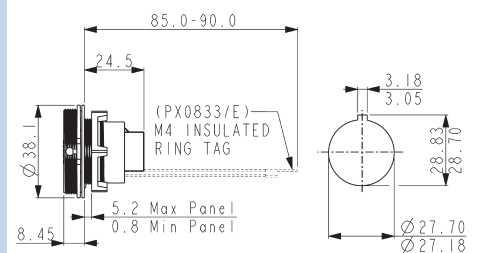
Part no.	Description
PX0834/A	Cat 5e Cable glands optimised for PUR jacket cable to maintain Cat 5e performance
PX0834/B	Cat 5e Suitable for use with cables from 3.5 to 8mm diameter
PX0894/A	Cat 6a Cable glands optimised for PVC jacket cable to maintain Cat 6a performance
PX0894/B	Cat 6a Suitable for use with cables from 3.5 to 8mm diameter

Panel Mounting Connector



PX0833

- Cat 5e mates with PX0836, PX0837, PX0838 & PX0834 flex connectors
- Cat 6a mates with PX0896, PX0897, PX0898 & PX0894 flex connectors
- Standard RJ45 patchcord can be plugged into rear
- Version with earth wire available
- Single hole fixing
- Complete with panel sealing gasket



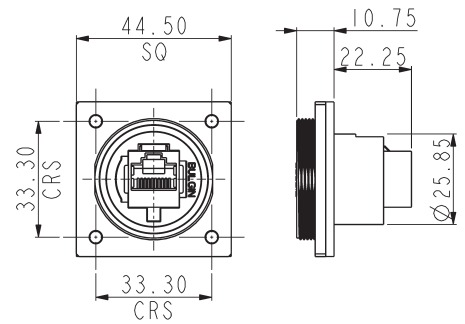
Part no.	Description	Fixing
PX0833	Cat 5e coupler	Front panel mounted
PX0833/E	Cat 5e coupler + earth wire	Front panel mounted
PX0893	Cat 6a coupler	Front panel mounted
PX0893/E	Cat 6a coupler + earth wire	Front panel mounted

Flanged Mounting Connector



PX0870

- Cat 5e mates with PX0836, PX0837, PX0838 & PX0834 flex connectors
- Cat 6a mates with PX0896, PX0897, PX0898 & PX0894 flex connectors
- Standard RJ45 patchcord can be plugged into rear
- Version with earth wire available
- Flange fixing
- Complete with panel sealing gasket



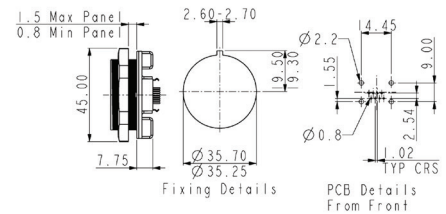
Part no.	Description	Fixing
PX0870	Cat 5e coupler	Flange mounting
PX0870/E	Cat 5e coupler + earth wire	Flange mounting
PX0890	Cat 6a coupler	Flange mounting
PX0890/E	Cat 6a coupler + earth wire	Flange mounting

PCB Mounting Connector



PX0839/PC

- Cat 5e shielded RJ45 interface
- Rear of panel mounted
- Mates with PX0836, PX0837, PX0838 and PX0834 flex connectors
- For direct vertical mounting to PCB, straight pins
- Complete with panel sealing PX0839/PC gasket



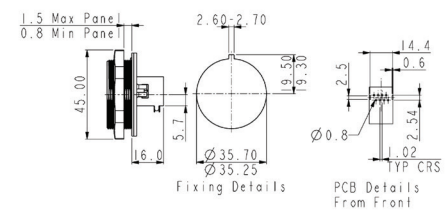
Part no.	Description	Fixing
PX0839/PC	Cat 5e connector - PC	Rear panel mounted

PCB Mounting Connector

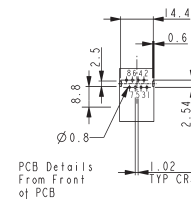


PX0839/90

- Cat 5e shielded RJ45 interface
- Rear of panel mounted
- Mates with PX0836, PX0837, PX0838 and PX0834 flex connectors
- For direct horizontal mounting to PCB, 90° pins
- Complete with panel sealing PX0839/90 gasket



Part no.	Description	Fixing
PX0839/90	Cat 5e connector - 90 degree pins	Rear panel mounted

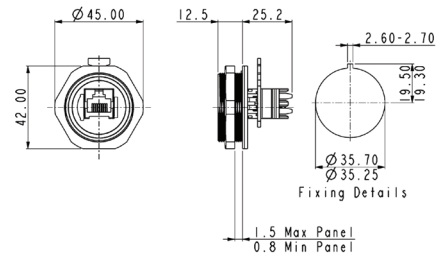


Panel Mounting Connector



PX0839/IDC

- Cat 5e shielded RJ45 interface
- Rear of panel mounted
- Mates with PX0836, PX0837, PX0838 and PX0834 flex connectors
- Two IDC blocks for discrete termination
- Complete with panel sealing



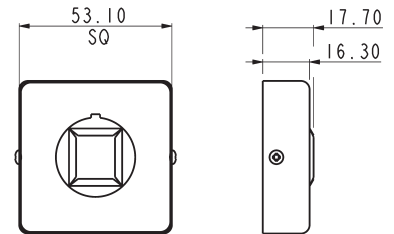
Part no.	Description	Fixing
PX0839/IDC	Cat 5e coupler - IDC	Rear panel mounted

Shield Back Shell Accessory



PX0888

- Maintains RJ45 coupler screening directly to panel
- Shielding can is fixed to rear of panel mount connector
- For use on PX0833



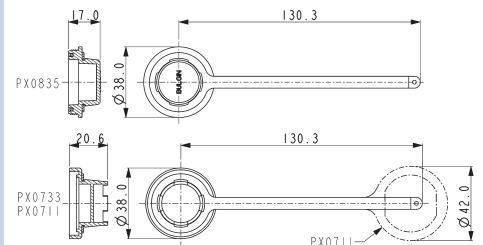
Part no.	Description
PX0888	Shielding backshell accessory

Accessories



Sealing Caps

- Sealing caps to maintain IP68 rating when connectors are not in use
- Replacement shielded RJ45s
- Hand crimp tool for shielded RJ45
- Patch cord cable available in 50m reels



Part no.	Description
PX0835	Sealing Cap for flex connectors (PX0834, PX0836-838, PX0894, PX0896-898)
PX0733	Sealing Cap for panel mounting connector (PX0833, PX0870, PX0893, PX0890)
PX0711	Sealing Cap for rear panel mounting connector (PX0839)
14151	Cat 5e & Cat 6a Hand crimp tooling + die set
14199	Cat 5e PUR Jacket Cable - 50m reel
14150	Cat 5e Replacement shielded RJ45
15241	Cat 6a PVC Jacket Cable - 50m reel



## Connectors

Sealing:	IP68, EN60529:1992+A2:2013 (10m depth for 2 weeks)
	IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
Operating Temperature:	-20°C to +70°C
Materials - Overmoulded	
Overmould material:	PVC (black)
Flammability rating:	UL94V-0
Salt Mist:	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

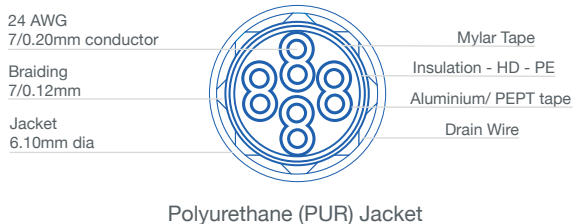
## Materials - Re-wireable and Panel Connectors

Connector body & locking ring	Polyester
Panel connector	Nylon 6
Flammability rating	UL94V-0
'O' rings	Silicone
Panel Gasket - round	Silicone
Panel Gasket - flange	Neoprene
<b>RoHS</b>	Compliant

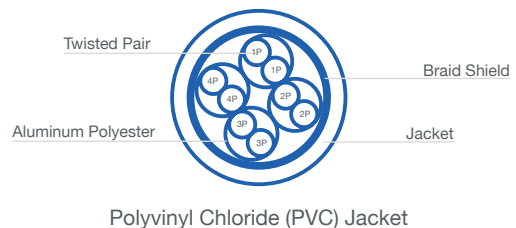
## Cables

	Cat 5e	Cat 6a
Conductors	24AWG (7/0.2mm) bare copper	26AWG (7/0.16mm) bare copper
Insulation	HD-PE	PE (Skin - Foam - Skin)
Pair	2 of the above cores twisted	2 of the above cores twisted
Core	4 of the above cores	4 of the above cores
Screen	1 layer mylar and aluminium tape,	Aluminium & Polyester
Braid	0.12mm tinned copper braid	Tinned Copper Braid
Sheath	PUR Jacket Black	PVC Jacket Black
Op Temperature	-25°C to +85°C	-25°C to +75°C
Diameter	6.1mm nominal	6.0 mm nominal
Flame Test		FT4
Electrical @ 20°C		
Characteristic:		
Impedance	100 Ω ±15 Ω @ 100MHz	
Capacitance	330pF/km	
Conductor Loop		
Resistance	29/Ω100m maximum	26Ω /km
Skew	45 nsec/100m @ 100MHz	
Mechanical Characteristics		
Minimum Tensile Strength of Jacket (kgf/mm <sup>2</sup> )		1.05
Maximum Length for Strip of Jacket (mm)		40

### Cable construction - PX0836, PX0837, PX0838 and 14199



### Cable construction - PX0896, PX0897, PX0898 and 15241



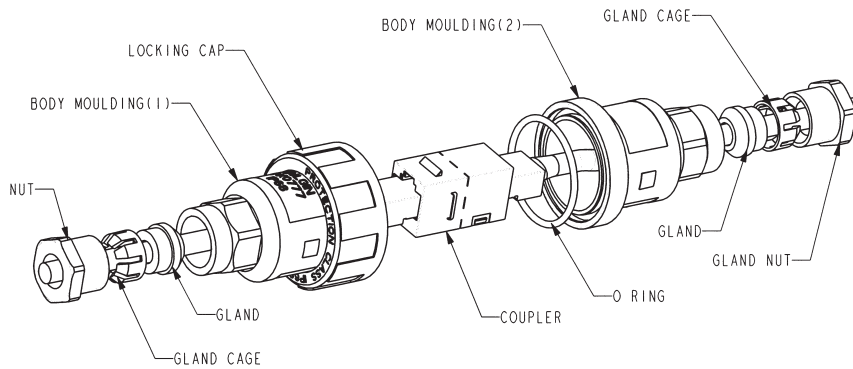
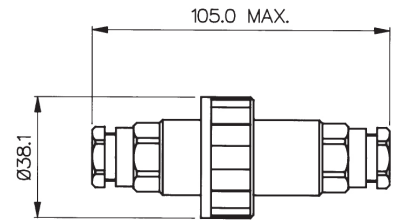
RJ45 Plug	Cat 5e & PoE	Cat 6a
<b>Materials</b>		
Moulding	Polycarbonate	Polycarbonate
Flammability	UL94V-0	UL94V-0
Contact material	Phosphor Bronze	Phosphor Bronze
Contact plating	50 micron gold	50 micron gold
Operating Temperature	-40°C to +70°C	-40°C to +70°C
Mating cycles	1,000 cycles	1,000 cycles
<b>RoHS</b>	Compliant	Compliant
<b>Electrical</b>		
No. Conductors	8	8
Conductor types	24-28AWG, solid or multistranded	24-28AWG, solid or multistranded
Current rating	350mA	1.5 A
Voltage rating	37V AC, 57V DC	30V AC, 42V DC
Contact resistance	10mΩ max.	10mΩ max.
RJ45 Coupler	Cat 5e	Cat 6a
<b>Materials</b>		
Coupler Shell	Copper Alloy	Copper Alloy
Coupler Plating	Nickel	Nickel
Moulding	PBT	PBT
Flammability	UL94V-0	UL94V-0
Contact material	Phosphor Bronze	Phosphor Bronze
Contact plating	50 micron gold	50 micron gold
Operating Temperature	-40°C to +70°C	0°C to +70°C
Mating cycles	1,000 cycles	1,000 cycles
<b>RoHS</b>	Compliant	Compliant
<b>Electrical</b>		
No. Conductors	8	8
Current rating	1.5A	1.5A
Voltage rating	30V AC, 42V DC	30V AC, 42V DC
Contact resistance	10mΩ max.	10mΩ max.
RJ45 PCB Connector	Cat 5e	
<b>Materials</b>		
Coupler Shell	Copper Alloy	
Coupler Plating	Nickel	
Moulding	PBT	
Flammability	UL94V-0	
Contact material	Phosphor Bronze	
Contact plating	50 micron gold	
PC Pins	Tin plated	
Operating Temperature	-40°C to +70°C	
Mating cycles	1,000 cycles	
<b>RoHS</b>	Compliant	
<b>Electrical</b>		
No. Conductors	8	
Current rating	1.5A	
Voltage rating	30V AC, 42V DC	
Contact resistance	10mΩ max.	

Cable Joiner



PX0777

- IP68 Rating
- For Sealed In-Line RJ45 Connections
- Supplied Complete with Coupler
- Shielded (STP) & Unshielded (UTP) versions
- Cat5e Shielded Coupler also available
- Cable Range 3.5 - 8mm (with glands supplied)



Specifications	PX0777/UTP	PX0777/STP	PX0777/CAT5ESTP	PX0777/CAT6ASTP
Rating:	1.5A, 30V AC, 42V DC	1.5A, 30V AC, 42V DC	1.5A, 30V AC, 42V DC	1.5A, 30V AC, 42V DC
No. of Conductors:	8	8	8	8
Coupler Type:	Unshielded	Shielded	Shielded CAT5e performance	Shielded CAT6a performance
Cable Range:	3.5 - 8mm With glands supplied: 3.5 - 5mm (Blue) 5 - 7mm (Green) 6 - 8mm (Red)	3.5 - 8mm With glands supplied: 3.5 - 5mm (Blue) 5 - 7mm (Green) 6 - 8mm (Red)	3.5 - 8mm With glands supplied: 3.5 - 5mm (Blue) 5 - 7mm (Green) 6 - 8mm (Red)	3.5 - 8mm With glands supplied: 3.5 - 5mm (Blue) 5 - 7mm (Green) 6 - 8mm (Red)
Material:	Glass Filled Polyamide UL94V-0	Glass Filled Polyamide UL94V0	Glass Filled Polyamide UL94V0	Glass Filled Polyamide UL94V0
Sealing:	IP68 to BSEN 60529:1992+A2:2013 (10m depth for 2 weeks)	IP68 to BSEN 60529:1992+A2:2013 (10m depth for 2 weeks)	IP68 to BSEN 60529:1992+A2:2013 (10m depth for 2 weeks)	IP68 to BSEN 60529:1992+A2:2013 (10m depth for 2 weeks)
Salt Mist	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
Operating Temp Range:	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
Colour:	Black	Black	Black	Black
<b>RoHS</b>	Compliant	Compliant	Compliant	Compliant



- ⊗ IP68, Tested in accordance with EN60529:1992+A2:2013
- ⊗ IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
- ⊗ USB version 2.0 performance
- ⊗ Plug and play capability
- ⊗ Visual mating indication
- ⊗ Shielded system
- ⊗ Single and double ended cables
- ⊗ Screw coupling
- ⊗ PCB versions
- ⊗ Dust and waterproof sealing when mated
- ⊗ Low and high speed bus connection, 1.5Mbps to 480Mbps
- ⊗ Hot pluggable, standard 4 pole interface
- ⊗ Alignment indicator reduces risk of damage during mating
- ⊗ High noise immunity and EMI protection
- ⊗ Suitable for PC and peripheral configuration
- ⊗ Secure, proven locking system
- ⊗ Direct mounting or via adaptor leads
- ⊗ EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

Sealed USB Cables - Single Ended

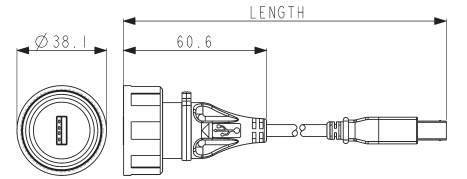


PX0840/A

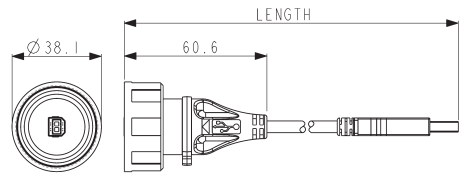


PX0840/B

- Single ended sealed cable assembly
- IP68 'A' type USB connector to standard 'B' type USB connector, mates with all panel mount connectors
- IP68 'B' type USB connector to standard 'A' type USB connector, mates with all panel mount connectors
- Available in 2m, 3m & 5m lengths



PX0840/A/xMxx



PX0840/B/xMxx

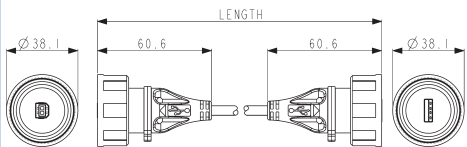
Part no.	Length	Description
PX0840/A/2M00	2m	IP68 A type USB to standard B type USB
PX0840/A/3M00	3m	IP68 A type USB to standard B type USB
PX0840/A/5M00	5m	IP68 A type USB to standard B type USB
PX0840/B/2M00	2m	IP68 B type USB to standard A type USB
PX0840/B/3M00	3m	IP68 B type USB to standard A type USB
PX0840/B/5M00	5m	IP68 B type USB to standard A type USB

Sealed USB Cables Double Ended



PX0841/AB

- Double ended sealed cable assembly
- IP68 'A' type USB connector to
- IP68 'B' type USB connector
- Mates with all panel mount connectors
- Available in 2m, 3m & 5m lengths



PX0841/AB/xMxx

Part no.	Length	Description
PX0841/AB/2M00	2m	IP68 A type USB to IP68 B type USB
PX0841/AB/3M00	3m	IP68 A type USB to IP68 B type USB
PX0841/AB/5M00	5m	IP68 A type USB to IP68 B type USB

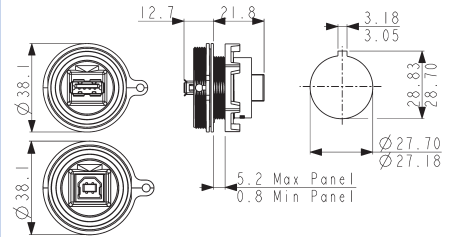
Front Panel Mounting Connector



PX0842/A

PX0842/B

- PX0842/A - USB 'A' type IP68 connector
- PX0842/B - USB 'B' type IP68 connector
- Opposite connector to rear of panel
- Mates with PX0840 and PX0841 cable connectors



**Part no.**

**Description**

PX0842/A  
PX0842/B

IP68 A type USB, front panel mounted. Sealed A type at front of panel, standard B type at rear  
IP68 B type USB, front panel mounted. Sealed B type at front of panel, standard A type at rear.

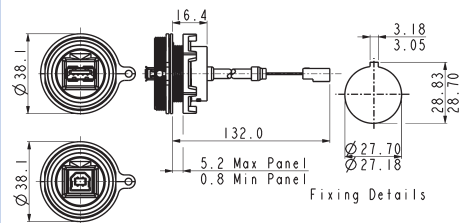
Front Panel Mounting Connector



PX0843/A

PX0843/B

- PX0843/A - USB 'A' type IP68 connector
- PX0843/B - USB 'B' type IP68 connector
- Leaded with 5 way crimp connector
- Mates with PX0840 and PX0841 cable connectors



**Part no.**

**Description**

PX0843/A  
PX0843/B  
PX0460/A  
PX0460/B

IP68 A type USB, front panel mounted. Sealed A type at front of panel, 5 way crimp connector at rear.  
IP68 B type USB, front panel mounted. Sealed B type at front of panel, 5 way crimp connector at rear.  
As PX0843/A with exposed braid for use with PX0465 screening can  
As PX0843/B with exposed braid for use with PX0465 screening can

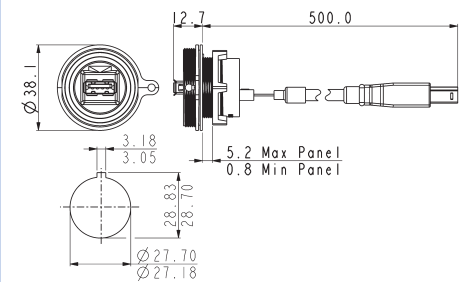
Front Panel Mounting Connector



PX0844/A

PX0844/B

- IP68 Sealed through panel
- PX0844/A - USB 'A' type IP68 connector
- PX0844/B - USB 'B' type IP68 connector
- Standard USB interface plug options to rear of panel
- 500mm standard cable length, other lengths available
- Mates with PX0840 and PX0841 cable connectors



**Part no.**

**Description**

PX0844/A/0M50/A  
PX0844/A/0M50/B  
PX0844/B/0M50/A  
PX0844/B/0M50/B

IP68 A type USB, sealed through panel, Sealed 'A' type at front of panel, standard 'A' type at rear  
IP68 A type USB, sealed through panel, Sealed 'A' type at front of panel, standard 'B' type at rear  
IP68 B type USB, sealed through panel, Sealed 'B' type at front of panel, standard 'B' type at rear  
IP68 B type USB, sealed through panel, Sealed 'B' type at front of panel, standard 'B' type at rear

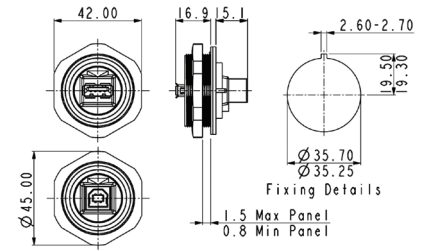
Rear Panel Mounting Connector



PX0848/A

PX0848/B

- PX0848/A - USB 'A' type IP68 connector
- PX0848/B - USB 'B' type IP68 connector
- Opposite connector to rear of panel
- Mates with PX0840 and PX0841 cable connectors



**Part no.** **Description**

PX0848/A	IP68 A type USB, rear panel mounted. Sealed A type at front of panel, standard B type at rear.
PX0848/B	IP68 B type USB, rear panel mounted. Sealed B type at front of panel, standard A type at rear.

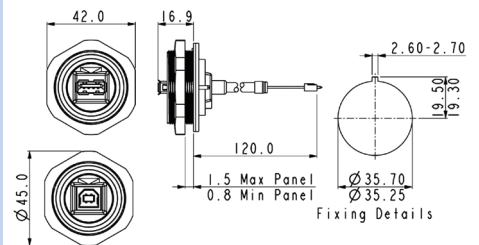
Rear Panel Mounting Connector



PX0849/A

PX0849/B

- PX0849/A - USB 'A' type IP68 connector
- PX0849/B - USB 'B' type IP68 connector
- Leaded with 5 way header
- Mates with PX0840 and PX0841 cable connectors



**Part no.** **Description**

PX0849/A	IP68 A type USB, rear panel mounted. Sealed A type at front of panel, 5 way header at rear.
PX0849/B	IP68 B type USB, rear panel mounted. Sealed B type at front of panel, 5 way header at rear.

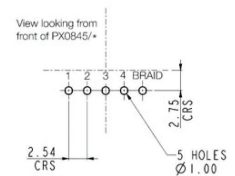
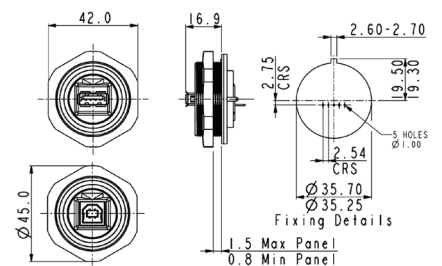
PCB Panel Mounting Connector- PCB Direct Mount



PX0845/A

PX0845/B

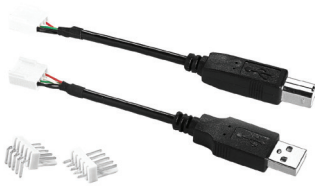
- PX0845/A - USB 'A' type IP68 connector
- PX0845/B - USB 'B' type IP68 connector
- PCB contacts at rear
- Direct PCB mount
- Mates with PX0840 and PX0841 cable connectors



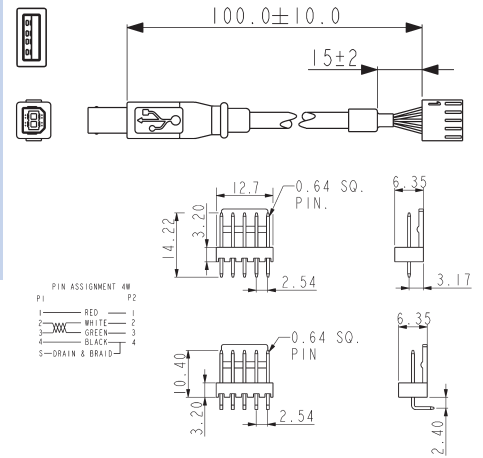
**Part no.** **Description**

PX0845/A	IP68 A type USB, rear panel mounted. Sealed A type at front of panel, direct mount PCB contacts at rear.
PX0845/B	IP68 B type USB, rear panel mounted. Sealed B type at front of panel, direct mount PCB contacts at rear.

PCB Adaptor Leads



- Standard A and B type USB connectors to 5 way crimp adaptor leads
- 5 way headers, 2.54mm pitch, horizontal or vertical mounting



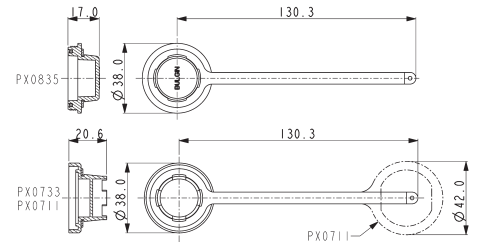
**Part no.**      **Description**

14193	USB 'A' type to 5 way crimp connector
14194	USB 'B' type to 5 way crimp connector
14191	5 way PCB header straight
14192	5 way PCB header right angle

Accessories



- Sealing caps to maintain IP68 rating when connectors are not in use
- PX0835 for cable connectors PX0840 & PX0841
- PX0733 for front panel mount connectors PX0842, PX0843 & PX0844
- PX0711 for rear panel mount connectors PX0848, PX0849 & PX0845



**Part no.**      **Description**

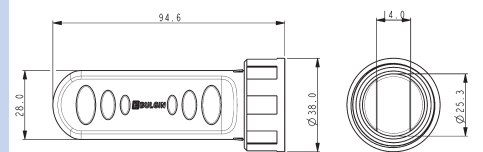
PX0835	Sealing Cap for cable connectors (PX0840, PX0841)
PX0733	Sealing Cap for front panel mounting connector (PX0842, PX0843)
PX0711	Sealing Cap for rear panel mounting connector (PX0848, PX0849, PX0845)

USB Flash Drive Cover



PX0852

- For use with USB Flash Drives
- Maintains IP68 rating when mated with panel connector
- For use with 'A' type connectors: PX0842, PX0843, PX0845, PX0848 & PX0849
- Internal accommodation 17.5 x 14.0 x 83mm approx.

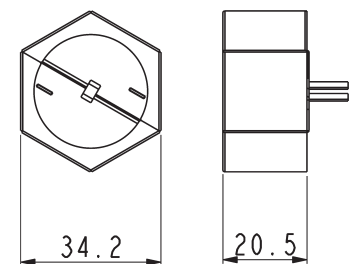


Screening Can



PX0465

- Maintains cable screening directly to panel
- Screening can clips around the panel fixing nut
- For use on PX0460/A and PX0460/B







## Cables & connectors

<b>Mechanical</b>	IP68, EN60529:1992+A2:2013 (10m depth for 2 weeks)
	IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
Operating temperature	0°C to +70°C
Salt Mist	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
<b>Electrical</b>	
No. of poles	4
Current rating	1A
Voltage rating	30V AC (RMS)
Contact resistance	30m Ω max.
Performance	USB version 2.0

### Materials - Overmoulded

Overmould material	PVC (black)
Flammability rating	UL94V-0

### Materials - Re-wireable and Panel Connectors

Shell material	Steel
Shell plating	Nickel
Contact material	Copper Alloy
Contact plating	30 micro inch Gold
Connector body & locking ring	Glass Loaded Polyester
Panel connector	Acetal
Flammability rating	UL94 HB
'O' rings	Silicone
Panel Gasket - round	Silicone
Panel Gasket - square	Neoprene
Mating cycles	1,000
RoHS	Compliant

### Materials - cable

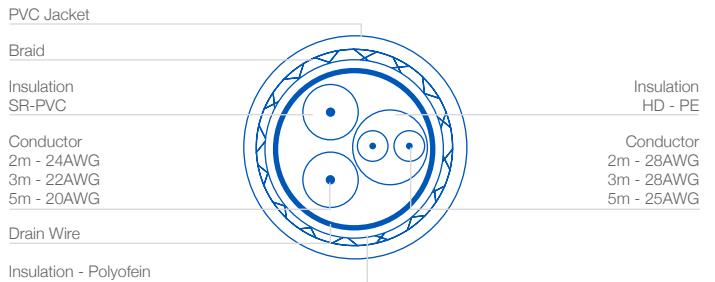
Cable Jacket	PVC (black)
Screen	Tinned copper braid
Flammability	UL94V-0
<b>RoHS</b>	Compliant

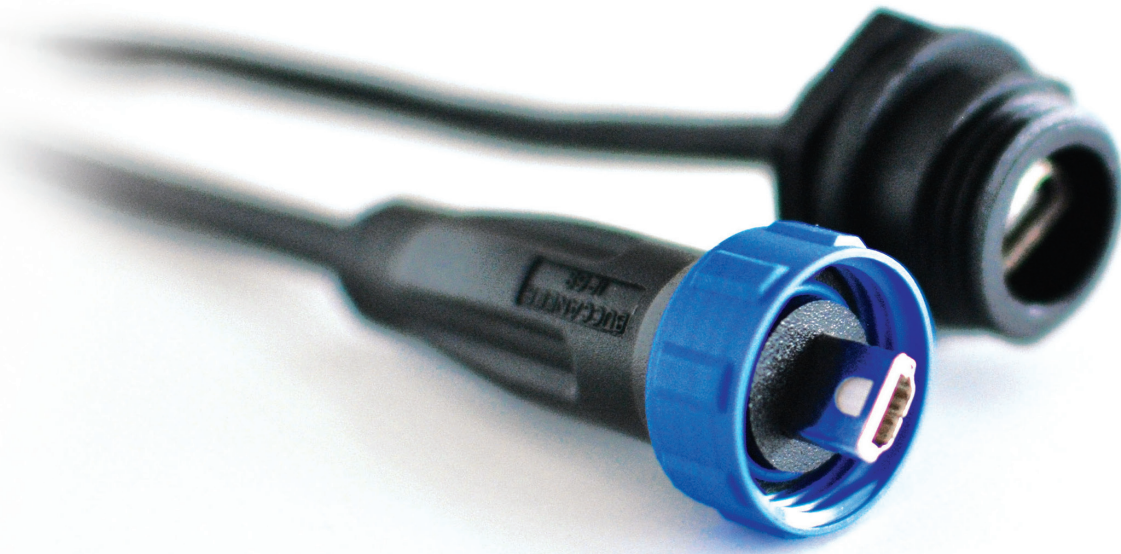
Length:	Dia	Conductors Signal	Conductors Power
2m	4.8mm	2 x 28AWG	2 x 24AWG
3m	5.0mm	2 x 28AWG	2 x 22AWG
5m	5.2mm	2 x 25AWG	2 x 20AWG

## PCB adaptor leads

<b>Electrical</b>	
No. of conductors	4
Current rating	1A
Voltage rating	30V AC (RMS)
Contact resistance	<10m Ω max.
PCB pitch	2.54mm
<b>Materials</b>	
Moulding	Polycarbonate
Flammability	UL94V-0
Contact material	Copper Alloy
Contact plating	30 micro inch Gold
Wire insulation	PVC (black)
Flammability	UL94-V0
Conductors	4 x 28AWG
Operating temperature	0°C to +70°C
Mating cycles	1,000
RoHS	Compliant

## Cable construction - PX0840, PX0841





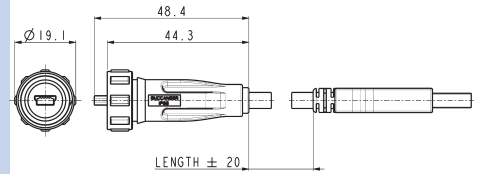
- ⊗ IP68, Tested in accordance with EN60529:1992+A2:2013
- ⊗ IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
- ⊗ USB version 2.0 performance
- ⊗ Plug and play capability
- ⊗ Shielded system
- ⊗ Overmoulded cables
- ⊗ Screw coupling
- ⊗ PCB versions
- ⊗ Dust and waterproof to EN60529
- ⊗ Data rates up to 480Mbps
- ⊗ Hot pluggable, standard 4 pole interface
- ⊗ High noise immunity
- ⊗ Tamperproof construction
- ⊗ Secure, proven locking system
- ⊗ Direct mounting or via adaptor leads
- ⊗ EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

Sealed Mini 'B' to Standard 'A'



PX0441

- IP68 Sealed Mini 'B' Plug to Standard 'A' Plug
- Fully overmoulded construction
- Available in 2, 3 & 4.5m lengths
- Mates with PX0443, PX0446, PX0447, PX0456, PX0457 & PX0458

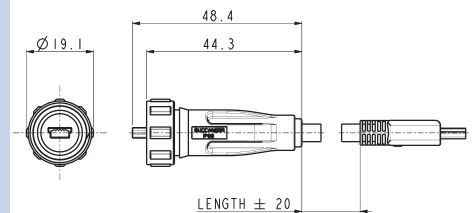


Sealed Mini 'B' to Mini 'A'



PX0442

- IP68 Sealed Mini 'B' Plug to Mini 'A' Plug
- Fully overmoulded construction
- Available in 2, 3 & 4.5m lengths
- Mates with PX0443, PX0446, PX0447, PX0456, PX0457 & PX0458

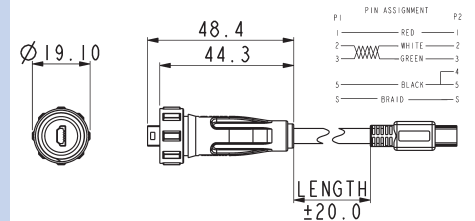


Sealed Mini 'A' to Mini 'B'



PX0444

- IP68 Sealed Mini 'A' Plug to Mini 'B' Plug
- Fully overmoulded construction
- Available in 2, 3 & 4.5m lengths
- Mates with PX0456, PX0457 & PX0458



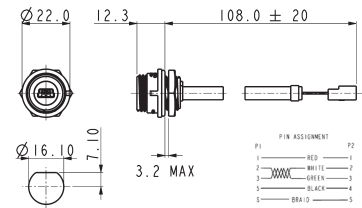
Part No.	Length	Description
PX0441/2M00	2.0m	IP68 Sealed Mini 'B' to Standard 'A' Type USB
PX0441/3M00	3.0m	IP68 Sealed Mini 'B' to Standard 'A' Type USB
PX0441/4M50	4.5m	IP68 Sealed Mini 'B' to Standard 'A' Type USB
PX0442/2M00	2.0m	IP68 Sealed Mini 'B' to Mini 'A' Type USB
PX0442/3M00	3.0m	IP68 Sealed Mini 'B' to Mini 'A' Type USB
PX0442/4M50	4.5m	IP68 Sealed Mini 'B' to Mini 'A' Type USB
PX0444/2M00	2.0m	IP68 Sealed Mini 'A' to Mini 'B' Type USB
PX0444/3M00	3.0m	IP68 Sealed Mini 'A' to Mini 'B' Type USB
PX0444/4M50	4.5m	IP68 Sealed Mini 'A' to Mini 'B' Type USB

Front Panel Mounting Connector



PX0443

- Mini 'B' Type Receptacle
- Leaded with 5 way crimp, for use with PCB header
- Mates with PX0441 & PX0442 type cables



**Part no.**                      **Description**

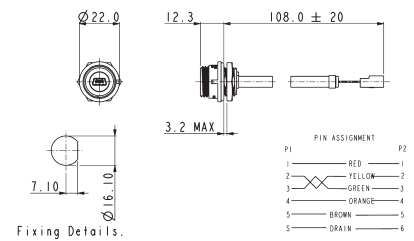
PX0443	IP68 B type Mini USB, front panel mounted. 5 way crimp connector at rear.
PX0459	As PX0443 with exposed braid for use with PX0464 screening can

Front Panel Mounting Connector



PX0456

- Mini 'AB' Type Receptacle
- Leaded with 6 way crimp, for use with PCB header
- Mates with PX0441, PX0442 & PX0444 type cables



**Part no.**                      **Description**

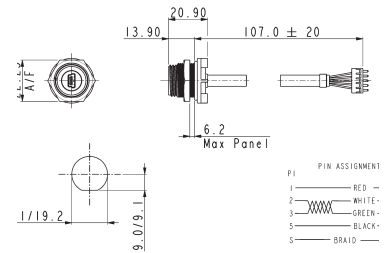
PX0456	IP68 AB type Mini USB, front panel mounted. 6 way crimp connector at rear.
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Rear Panel Mounting Connector



PX0446

- Mini 'B' Type Receptacle
- Leaded with 5 way header
- Mates with PX0441 & PX0442 type cables

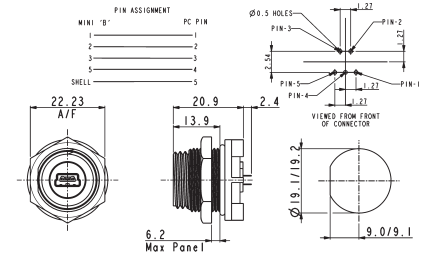


Rear Panel Mounting Connector



PX0447

- Mini 'B' Type Receptacle
- With pins for direct PCB mounting
- Mates with PX0441 & PX0442 type cables



**Part no.**                      **Description**

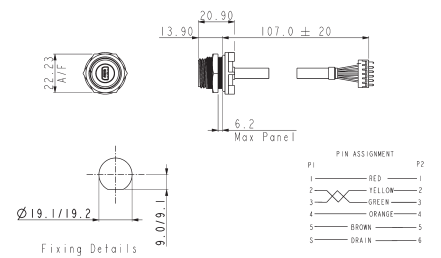
PX0446	IP68 B type Mini USB, rear panel mounted. 5 way header connector at rear.
PX0447	IP68 B type Mini USB, rear panel mounted. PCB terminals at rear.

Rear Panel Mounting Connector



PX0457

- Mini 'AB' Type Receptacle
- Leaded with 6 way header
- Mates with PX0441, PX0442 & PX0444 type cables

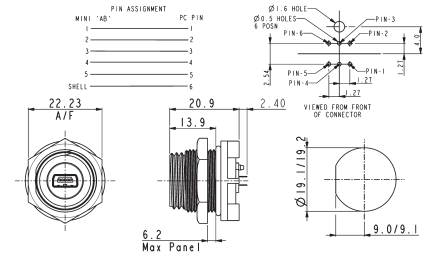


Rear Panel Mounting Connector



PX0458

- Mini 'AB' Type Receptacle
- With pins for direct PCB mounting
- Mates with PX0441, PX0442 & PX0444 type cables



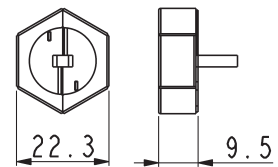
Part no.	Description
PX0457	IP68 AB type Mini USB, rear panel mounted. 6 way header connector at rear.
PX0458	IP68 AB type Mini USB, rear panel mounted. PCB terminals at rear.

Screening Can



PX0464

- Maintains cable shielding directly to panel
- Shielding can clips around the panel fixing nut
- For use on PX0459



Accessories



- Sealing caps to maintain IP rating when connectors are not in use
- PCB headers for use with PX0443 & PX0456

Part no.	Description
PX0485	Sealing cap for use with PX0441, PX0442 & PX0444
PX0480	Sealing cap for use with PX0443 & PX0456
PX0484	Sealing cap for use with PX0446, PX0447, PX0457 & PX0458
14191	5 way straight header
14192	5 way right angle header
14563	6 way straight header
14564	6 way right angle header

**Cables & connectors**

**Mechanical**

Sealing	IP68, EN60529:1992+A2:2013 (10m depth for 2 weeks) IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9K
Operating temperature	0°C to +70°C
Salt Mist	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

**Electrical**

No. of poles	4 and 5
Current rating	1A
Voltage rating	30V AC, 42V DC
Contact resistance	50m Ω max.
Performance	USB version 2.0

**Materials - Overmoulded**

Overmould material	PVC (black)
Flammability rating	UL94V-0

**Materials - Re-wireable and Panel Connectors**

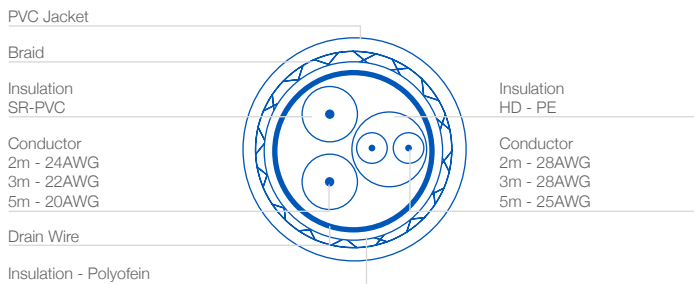
Shell material	Steel
Shell plating	Nickel
Contact material	Copper Alloy
Contact plating	50 micro inch Gold
Connector body & locking ring	Polyester
Panel connector	Nylon 6
Flammability rating	UL94V-0
'O' rings	Nitrile
Mating cycles	5,000
<b>RoHS</b>	Compliant

**Materials - cable**

Cable Jacket	PVC (black)
Screen	Tinned copper braid
Flammability	UL94V-0
<b>RoHS</b>	Compliant

Length:	Dia	Conductors Signal	Conductors Power
2m	4.8mm	2 x 28AWG	2 x 24AWG
3m	5.0mm	2 x 28AWG	2 x 22AWG
5m	5.2mm	2 x 25AWG	2 x 20AWG

**Cable construction - PX0441, PX0442, PX0444**





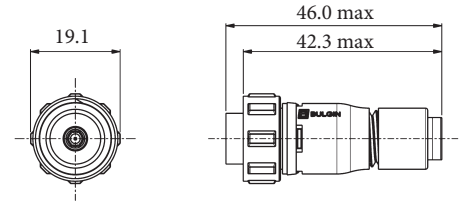
- ⬡ IP68, Tested in accordance with EN60529:1992+A2:2013
- ⬡ IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
- ⬡ 50Ω Impedance SMB connector
- ⬡ Frequency range 0-4GHz
- ⬡ Contact resistance
  - centre - 6mΩ max.
  - outer - 2.5mΩ max.
- ⬡ Gold plated contacts
- ⬡ Diameter over coupling ring 19mm
- ⬡ Body moulding, Nylon UL94-V0 rated
- ⬡ Two versions of Flex Connector
  - re-wireable
  - pre-wired - lengths 1m, 3m & 5m
- ⬡ Panel connector
  - pre-wired - lengths 0.5m, 1m & 1.5m
- ⬡ Cable accommodation (flex re-wireable), RG-174
- ⬡ Cable type (pre-wired connectors), RG-174

Re- Wireable Flex Connector



PX0415/1

- Mates with Panel connector (PX0414)
- Re-wireable connector
- For RG-174 cable
- Supplied with SMB plug



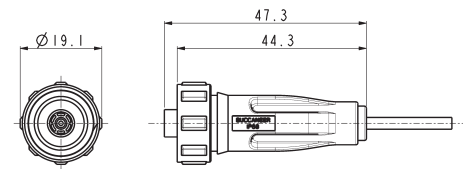
Part no.	Description
PX0415/1	Re-wireable connector with SMB Plug - for RG-174 cable

Pre- Wireable Flex Connector



PX0416/xMxx

- Mates with Panel connector (PX0414)
- Pre-wired
- Overmoulded construction
- Supplied with SMB plug terminated with RG-174 cable
- 1m, 3m & 5m cable lengths



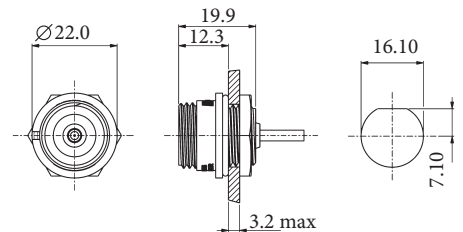
Part no.	Description
PX0416/1M00	Overmoulded connector with SMB plug - cable length 1m
PX0416/3M00	Overmoulded connector with SMB plug - cable length 3m
PX0416/5M00	Overmoulded connector with SMB plug - cable length 5m

Panel Mounting Connector



PX0414/xMxx

- Mates with Flex connectors (PX0415, PX0416)
- Single hole fixing
- Supplied with SMB jack terminated with RG-174 cable
- U.FL cable version also available



Part no.	Description
PX0414/0M50	Panel connector with SMB jack - cable length 0.5m
PX0414/1M00	Panel connector with SMB jack - cable length 1m
PX0414/1M50	Panel connector with SMB jack - cable length 1.5m

Sealing Caps



PX0480 PX0481 PX0485

- Sealing caps maintain IP rating when connectors are not in use

Part no.	Description
PX0480	Sealing cap for PX0414 chassis connector
PX0481	Sealing cap for PX0415 re-wireable flex connectors
PX0485	Sealing cap for PX0416 overmoulded flex connector
14319	Hand crimp tool for SMB





### Electrical

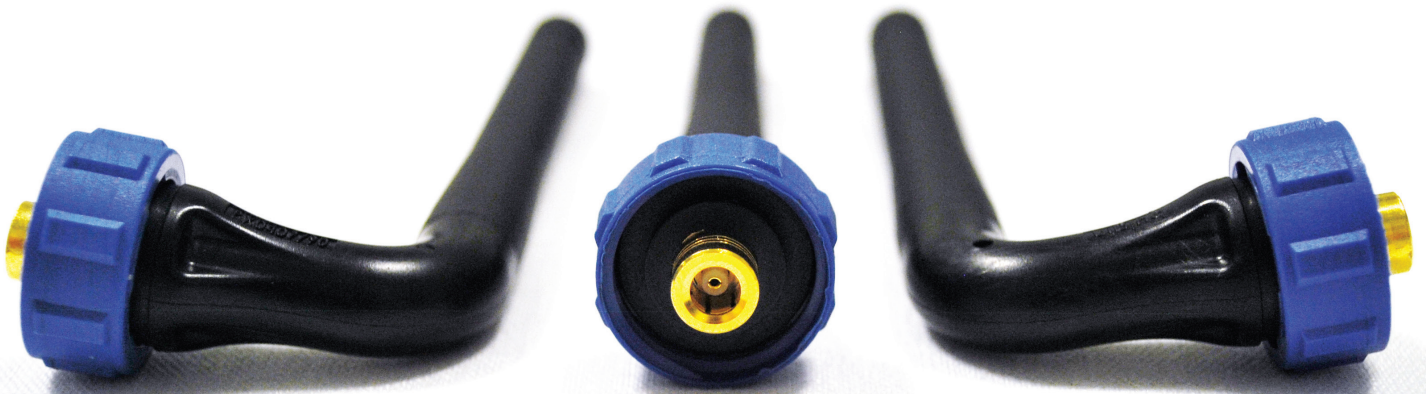
Impedance:	50Ω
Frequency Range:	0-4GHz
Contact Resistance:	
Centre:	6mΩ (max.)
Outer:	2.5mΩ (max.)
Insulator Resistance:	1000MΩ (max.)

### Mechanical:

Sealing:	IP68, EN60529:1992+A2:2013 (10m depth for 2 weeks)
	IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
Salt Mist	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
Cable Acceptance:	RG-174
Insertion/Withdrawal Force:	
Insertion Force:	36N
Withdrawal Force:	36N
Cable Retention Force:	18N
Mating Cycles:	500
Operating Temperature:	-20°C to +80°C

### Material:

PX0415/1 and PX0414	
Body Mouldings:	Polyamide
Flammability Rating:	UL94V-0
UV Resistance:	To EN 50021:1999
PX0416	
Body Mouldings:	PVC (black)
Flammability Rating:	UL94V-0
O Rings:	Nitrile
Panel Sealing O Ring:	Nitrile
SMB Connector	
Body:	Brass to QQ-B-626, Gold Plated
Centre Contact:	
Plug:	Brass to QQ-B-626, Gold Plated
Jack:	Beryllium Copper to QQ-B-530, Gold Plated
Insulator:	Teflon
Crimp Ferrules:	Annealed Copper
<b>RoHS</b>	Compliant



#### SMB Antenna

- ⊕ IP68, Tested in accordance with EN60529:1992+A2:2013
- ⊕ IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
- ⊕ SMB 50 ohm interface
- ⊕ For use with SMB Buccaneer
- ⊕ Three frequency bands:  
440 to 470MHz  
850-900/1800/1900MHz  
2.4 to 2.5GHz
- ⊕ Maintains sealing integrity of equipment

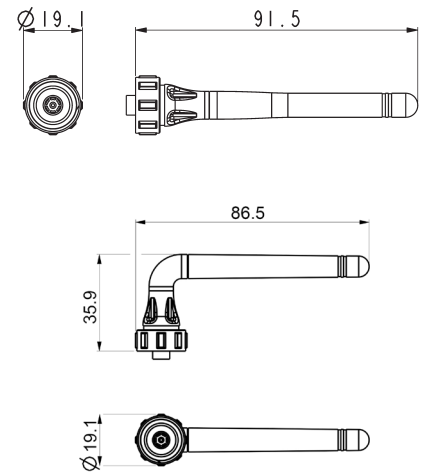
#### Bluetooth Cable Replacement

- ⊕ IP68, Tested in accordance with EN60529:1992+A2:2013
- ⊕ RS485/RS232 serial interfaces
- ⊕ Serial data to Bluetooth
- ⊕ Wireless transparent data connection
- ⊕ Up to 100m range (class 1)
- ⊕ Maintains sealing integrity of equipment

SMB Antenna



- Dust & waterproof to IP68  
EN60529 when mated
- Secure screw thread locking
- Built-in sealed antenna
- Mates with SMB Buccaneer  
PX0414
- Frequency bands:  
2.4 to 2.5GHz  
440 to 470MHz  
850-900/1800/1900MHz



Part no.	Description
PX0407	IP68 rated, Buccaneer Antenna, 2.4 to 2.5GHz frequency band
PX0408	IP68 rated, Buccaneer Antenna, 440 to 470MHz frequency band
PX0409	IP68 rated, Buccaneer Antenna, 850-900/1800/1900MHz frequency band
PX0407/90	IP68 rated, Buccaneer Antenna, 2.4 to 2.5GHz frequency band
PX0408/90	IP68 rated, Buccaneer Antenna, 440 to 470MHz frequency band
PX0409/90	IP68 rated, Buccaneer Antenna, 850-900/1800/1900MHz frequency band

**Specification**

**Electrical**

Frequency	
PX0407	2.4 to 2.5GHz
PX0408	440 to 470MHz
PX0409	850-900/1800/1900MHz

Configuration	
PX0407	¼ Wavelength
PX0408	½ Wavelength
PX0409	½ Wavelength

Radiation	Omnidirectional
Polarization	Vertical
Impedance	50Ω nominal
VSWR	<2

**Mechanical**

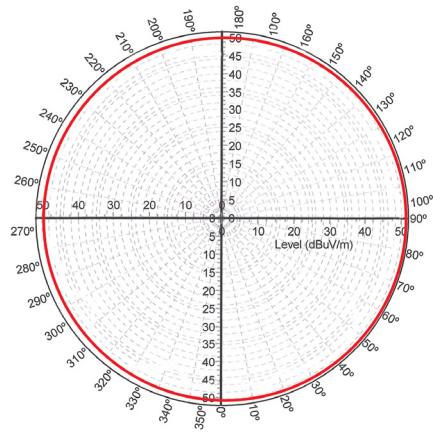
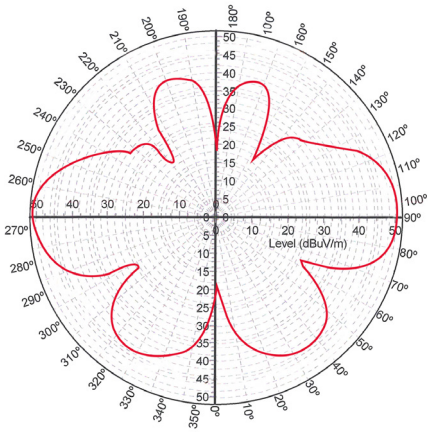
Sealing	IP68, EN60529:1992+A2:2013, when mated (10m depth for 2 weeks) IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
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Operating Temperature:	-20°C to +65°C
Salt Mist	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

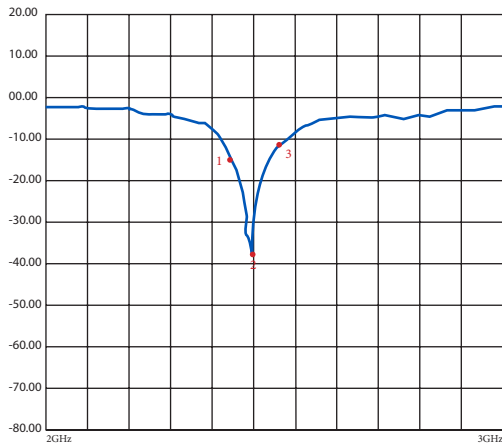
**Material**

Body Mouldings	PVC
Flammability Rating	UL94V-0
UV Resistance	EN50021:1999
RoHS	Compliant

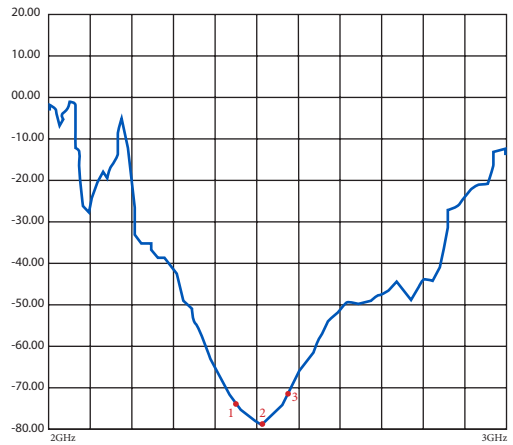
## PX0407 Polar plots - 2.4 to 2.5GHz Frequency Band



## PX0407 Radiation Pattern plots



- 1 -12.624 dB 2.4000 GHz
- 2 -34.951 dB 2.4500 GHz
- 3 -12.777 dB 2.5000 GHz



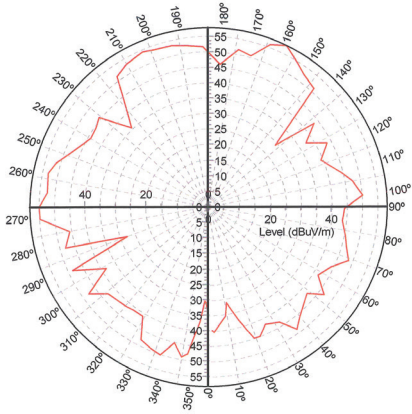
- 1 1.5659 dB 2.4000 GHz
- 2 1.6514 dB 2.4500 GHz
- 3 1.6032 dB 2.5000 GHz

# 400 Series - Wireless Buccaneer

Polar/Antenna Plots

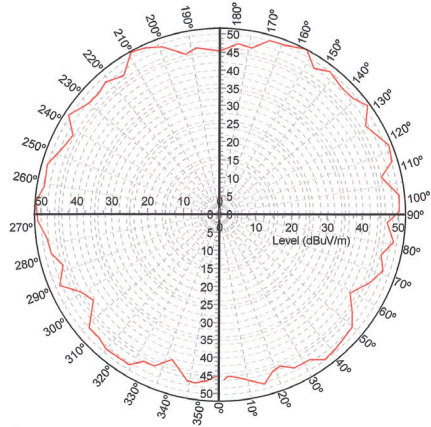


## PX0408 Polar plots - 440 to 470MHz Frequency Band



Pattern Field

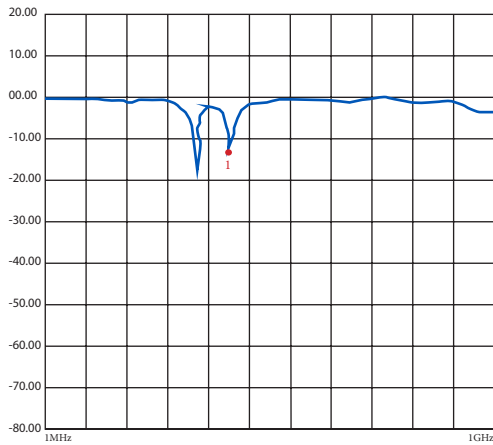
E



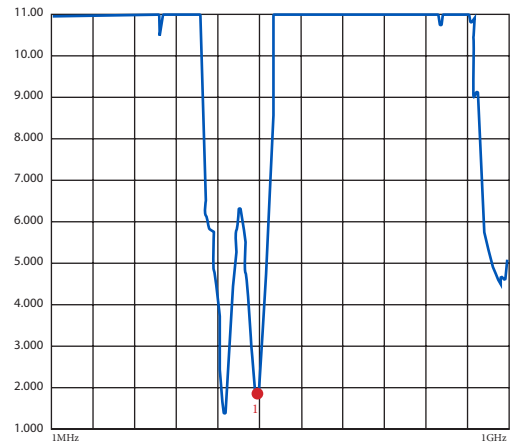
Pattern Field

H

## PX0408 Radiation Pattern plots



1 450.00000 MHz -13.300 dB



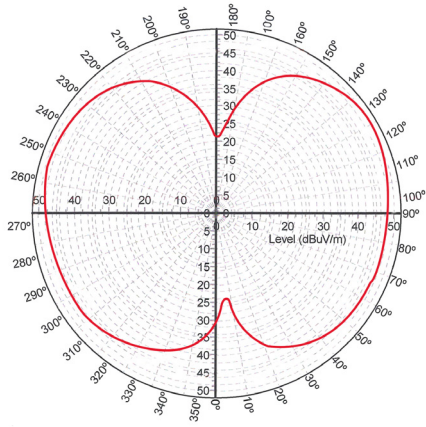
1 450.00000 MHz -13.300 dB

# 400 Series - Wireless Buccaneer

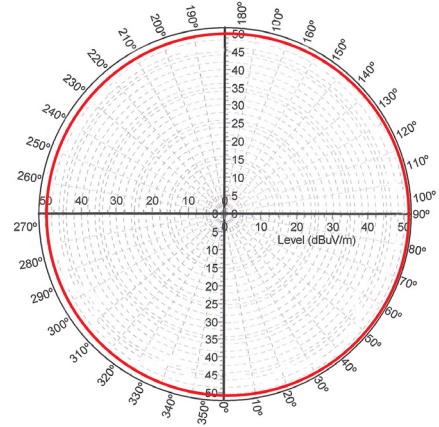
Polar/Antenna Plots



## PX0409 / 850-900MHz Polar plots

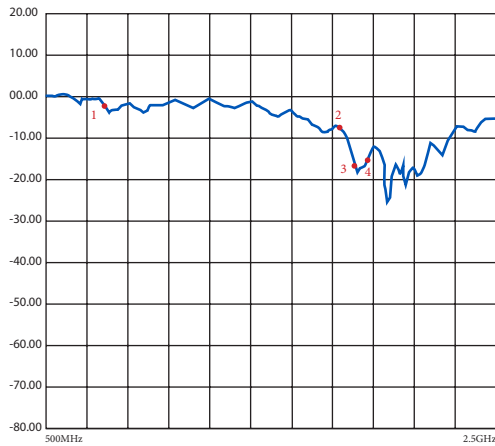


Pattern Field E

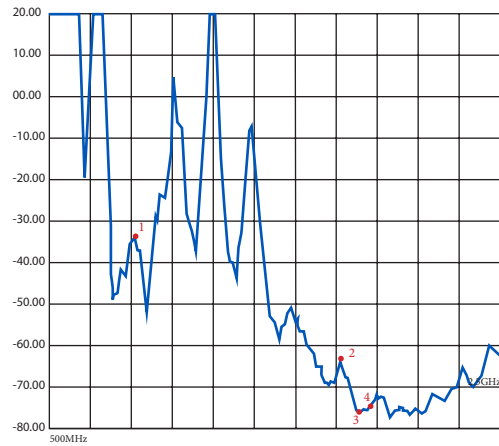


Pattern Field H

## PX0409 / 850-900MHz Radiation Pattern plots

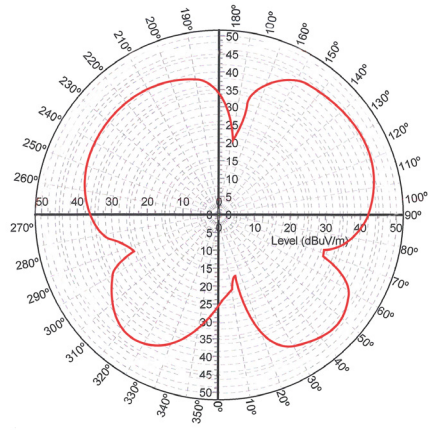


- 1 900.00000 MHz -3.4307 dB
- 2 1.8000000 GHz -9.0130 dB
- 3 1.8800000 GHz -19.516 dB
- 4 1.9000000 GHz -20.297 dB



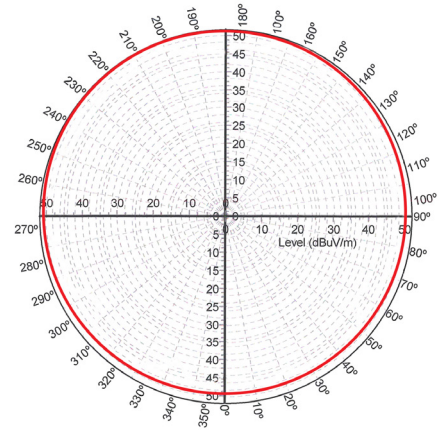
- 1 900.00000 MHz 5.1694 dB
- 2 1.8000000 GHz 2.2481 dB
- 3 1.8800000 GHz 1.2377 dB
- 4 1.9000000 GHz 1.2052 dB

## PX0409 / 1800MHz Polar plots



Pattern Field

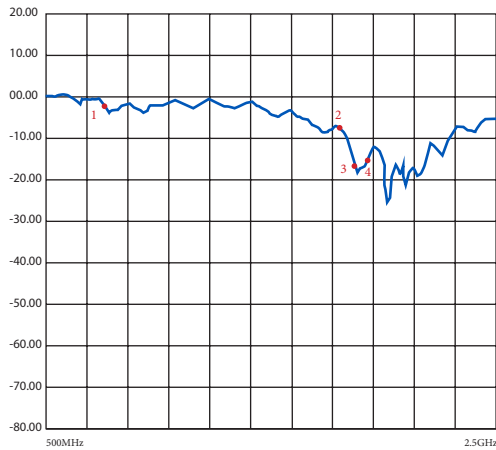
E



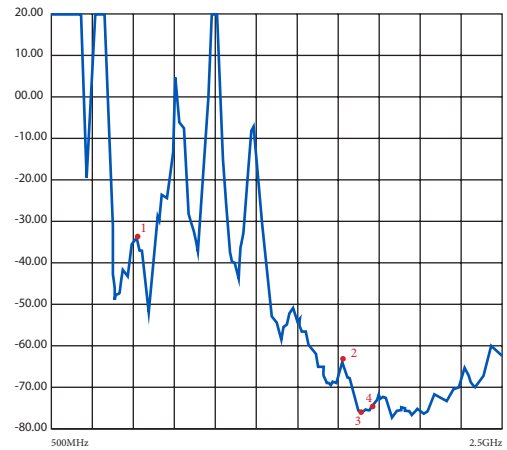
Pattern Field

H

## PX0409 / 1800MHz Radiation Pattern plots



- 1 900.00000 MHz -3.4307 dB
- 2 1.8000000 GHz -9.0130 dB
- 3 1.8800000 GHz -19.516 dB
- 4 1.9000000 GHz -20.297 dB



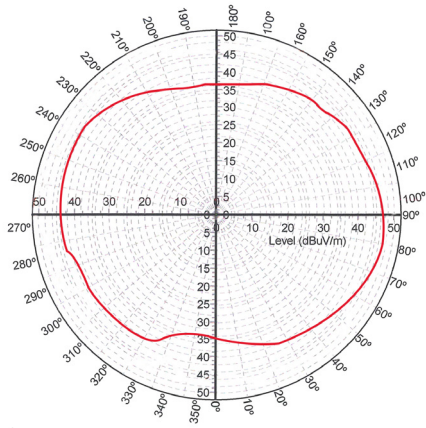
- 1 900.00000 MHz 5.1694 dB
- 2 1.8000000 GHz 2.2481 dB
- 3 1.8800000 GHz 1.2377 dB
- 4 1.9000000 GHz 1.2052 dB

# 400 Series - Wireless Buccaneer

Polar/Antenna Plots

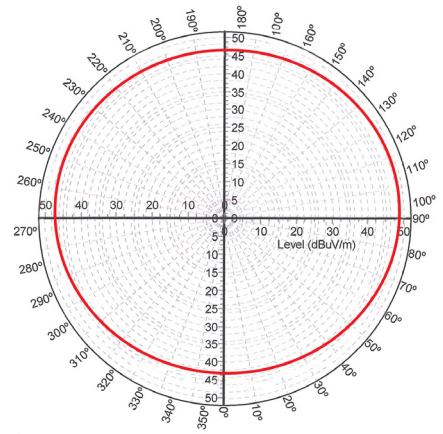


## PX0409 / 1900MHz Polar plots



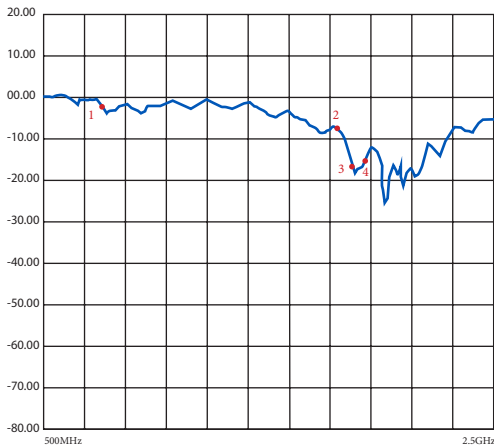
Pattern Field

E

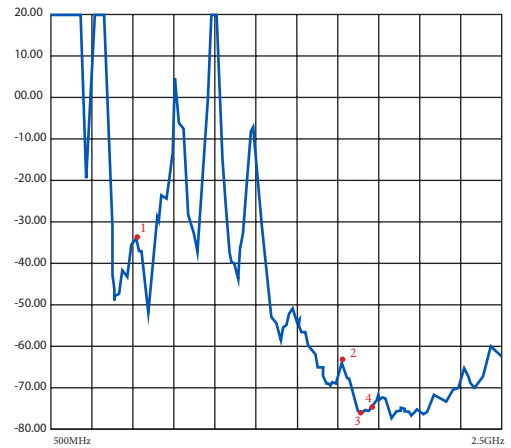


Pattern Field

H



- 1 190.00000 MHz -3.4307 dB
- 2 1.8000000 GHz -9.0130 dB
- 3 1.8800000 GHz -19.516 dB
- 4 1.9000000 GHz -20.297 dB



- 1 190.00000 MHz 5.1694 dB
- 2 1.8000000 GHz 2.2481 dB
- 3 1.8800000 GHz 1.2377 dB
- 4 1.9000000 GHz 1.2052 dB





- ⊞ IP66, IP68 and IP69K rated
- ⊞ USB version 2.0 performance
- ⊞ Plug and play capability
- ⊞ Shielded system
- ⊞ Overmoulded cables
- ⊞ EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
- ⊞ Data rates up to 480Mbps
- ⊞ Secure, proven locking system
- ⊞ Tamperproof Construction
- ⊞ Colour coded O-rings & washers for easy identification purposes

BUCCANEER FOR DATA  
**4000 Series - Micro USB Buccaneer**

Sealed Micro USB Cables - Single Ended

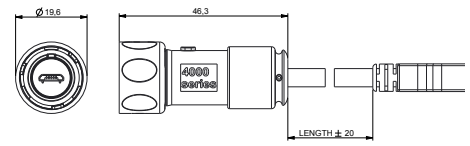


Sealed Micro 'B' to Standard 'A'



PXP4040

- Sealed Micro 'B' plug to Standard 'A' plug
- Available in 2, 3 & 5m lengths
- Plug variant mates with PXP4043



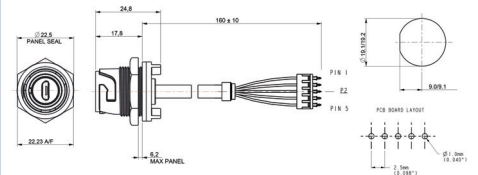
Part No.	Length	Description
PXP4040/B/2M00	2.0m	IP-sealed micro 'B' to Standard 'A' type USB
PXP4040/B/3M00	3.0m	IP-sealed micro 'B' to Standard 'A' type USB
PXP4040/B/5M00	5.0m	IP-sealed micro 'B' to Standard 'A' type USB

Rear Panel Mounting Connector



PXP4043

- Micro 'B' type
- Leaded with 5 way header
- Socket variant mates with PXP4040 type cables



Part no.	Description
PXP4043	IP-sealed B type Micro USB, rear panel mounted. 5 way header connector at rear.

Accessories



- Sealing caps to maintain IP rating when connectors are not in use

Part no.	Description
PXP4081	Sealing cap for use with PXP4010 & PXP4040
PXP4082	Sealing cap for use with PXP4011
PXP4083	Sealing cap for use with PXP4013 & PXP4043

Gland Packs



Part no.	Description
PXP4088/0305	Pack of 4 pairs cable glands and collets to suit cables from 3.0 to 5.0mm diameter.
PXP4088/0507	Pack of 4 pairs cable glands and collets to suit cables from 5.0 to 7.0mm diameter.

O-ring & washer pack



Part no.	Description
PXP4089/YL	Yellow coloured O-ring and washer pack
PXP4089/BL	Blue coloured O-ring and washer pack
PXP4089/RD	Red coloured O-ring and washer pack
PXP4089/WH	White coloured O-ring and washer pack
PXP4089/GN	Green coloured O-ring and washer pack

**Cables & connectors**

**Mechanical**

Sealing	IP69K, DIN40050-9 IP68, EN60529:1992+A2:2013 (10m depth for 2 weeks) IP66, EN60529:1992+A2:2013
Panel Mount Nut	1.0 - 1.1NM (91lb.in)
Operating temperature	-40°C to +70°C
Salt Mist	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

**Electrical**

No. of poles	4 and 5
Current rating	1A
Voltage rating	30V AC, 42V DC
Contact resistance	50m Ω max.
Performance	USB version 2.0

**Materials - Re-wireable and Panel Connectors**

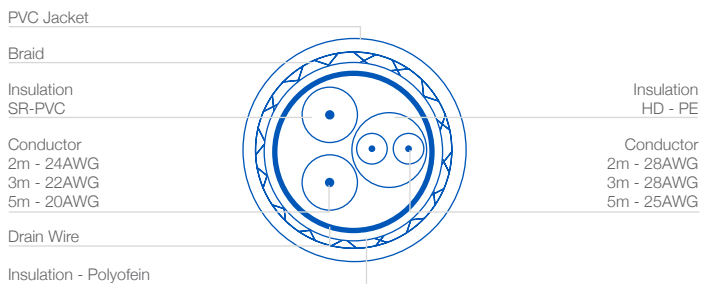
Shell material	Steel
Shell plating	Nickel
Contact material	Copper Alloy
Contact plating	50 micro inch Gold
Connector body & locking ring	PC/PBT
Panel connector	PC/PBT
Flammability rating	UL94V-0
'O' rings	Silicone
Mating cycles	1,000
<b>RoHS</b>	Compliant

**Materials - cable**

Cable Jacket	PVC (black)
Screen	Tinned copper braid
Flammability	UL94V-0
<b>RoHS</b>	Compliant

<b>Length:</b>	<b>Dia</b>	<b>Conductors Signal</b>	<b>Conductors Power</b>
2m	4.8mm	2 x 28AWG	2 x 24AWG
3m	5.0mm	2 x 28AWG	2 x 22AWG
5m	5.2mm	2 x 25AWG	2 x 20AWG

**Cable construction - PXP4040 & PXP4043**





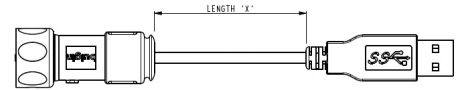
- ⊕ IP66, IP68 and IP69K rated
- ⊕ USB4 supported
- ⊕ Plug and play capability
- ⊕ Shielded system
- ⊕ Secure, proven locking system
- ⊕ EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
- ⊕ Data rates up to 40 Gbps
- ⊕ Tamperproof Construction
- ⊕ Colour coded O-rings & washers for easy identification purposes

Sealed 'C' type to Standard 'A'



PXP4040/C

- Standard 'A' type to sealed 'C' Type
- Available in 1, 2, 3 & 5m lengths
- Plug variant mates with PXP4043/C
- USB4 Supported



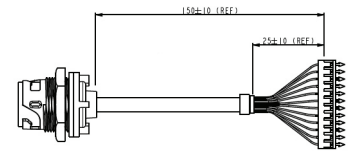
Part No.	Length	Description
PXP4040/C/1M00	1.0m	IP-sealed 'C' type to Standard 'A' type USB
PXP4040/C/2M00	2.0m	IP-sealed 'C' type to Standard 'A' type USB
PXP4040/C/3M00	3.0m	IP-sealed 'C' type to Standard 'A' type USB
PXP4040/C/5M00	5.0m	IP-sealed 'C' type to Standard 'A' type USB

Rear Panel Mount



PXP4043/C

- USB 'C' type plug
- Leaded with 2x 12 way header
- Socket variant mates with PXP4040/C type cables
- USB4 supported



Part no.	Description
PXP4043/C	IP-sealed 'C' type USB, rear panel mounted. 2x 12 way header connector at rear

Sealing Caps



- Sealing caps to maintain IP rating when connectors are not in use

Part no.	Description
PXP4081	Sealing cap for use with PXP4040/C
PXP4083	Sealing cap for use with PXP4043/C

O-ring & washer pack



Part no.	Description
PXP4089/YL	Yellow coloured O-ring and washer pack
PXP4089/BL	Blue coloured O-ring and washer pack
PXP4089/RD	Red coloured O-ring and washer pack
PXP4089/WH	White coloured O-ring and washer pack
PXP4089/GN	Green coloured O-ring and washer pack

## Cables & connectors

### Mechanical

Sealing	IP69K, DIN40050-9 IP68, EN60529:1992+A2:2013 (10m depth for 2 weeks) IP66, EN60529:1992+A2:2013
Panel Mount Nut	1.0 - 1.1NM (91lb.in)
Operating temperature	-40°C to +80°C
Salt Mist	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

### Electrical

No. of poles	2x 12 way
Current rating	5A
Voltage rating	≤ 30V AC
Contact resistance	40m Ω max.
USB4 Gen 2 - 1 lane:	10Gbps (1m maximum length)
USB4 Gen 2x2 - 2 lane:	20Gbps (1m maximum length)
USB4 Gen 3 - 1 lane:	20Gbps (0.8m maximum length)
USB4 Gen 3x2 - 2 lane:	40Gbps (0.8m maximum length)

Performance	USB4
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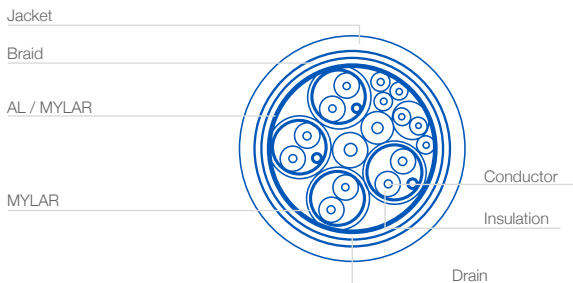
### Materials - Re-wireable and Panel Connectors

Shell material	Stainless Steel
Shell plating	Nickel
Contact material	Copper Alloy
Contact plating	30 micro inch Gold
Connector body & locking ring	PC/PBT
Panel connector	PC/PBT
Flammability rating	UL94V-0
'O' rings	Silicone
Mating cycles	1,000
<b>RoHS</b>	Compliant

### Materials - cable

Cable Jacket	PVC (black)
Screen	Tinned copper braid
Flammability	UL94V-0
<b>RoHS</b>	Compliant

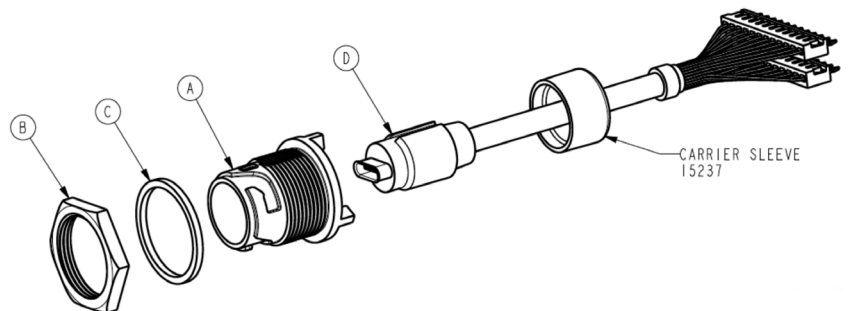
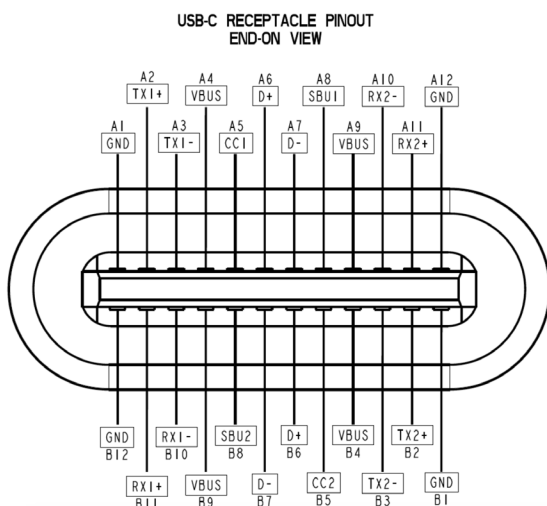
## Cable construction - PXP4040 & PXP4043



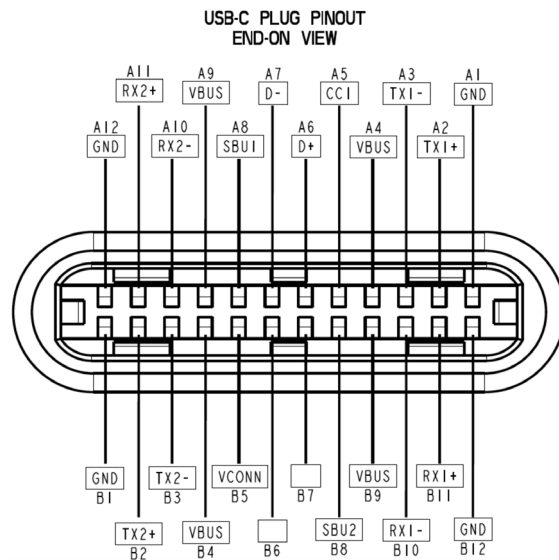
	Wire Colour	Label	Type	Cable Number	PCB Header Pins P2	PCB Header Pins P3
A1	-	Gnd	Braid	-	1	-
A2	Orange	Tx1+	( Shielded Twisted )	3	2	-
A3	Brown	Tx1-	( Shielded Twisted )	3	3	-
A4	Red	Vbus	Power	11	4	-
A5	Blue	CC	Single	10	5	-
A6	White	D0+	( Shielded Twisted )	5	6	-
A7	Green	D0-	( Shielded Twisted )	5	7	-
A8	Orange	SbuA	Single	8	8	-
A9	Red	Vbus	Power	11	9	-
A10	Blue	Rx2+	( Shielded Twisted )	2	10	-
A11	Black	Rx2-	( Shielded Twisted )	2	11	-
A12	-	Gnd	Braid	-	12	-
B1	-	Gnd	Braid	-	-	12
B2	White	Tx2+	( Shielded Twisted )	1	-	11
B3	Red	Tx2-	( Shielded Twisted )	1	-	10
B4	Red	Vbus	Power	11	-	9
B5	Yellow	Vconn	Single	9	-	8
B6	Purple	DI-	( Twisted Pair )	6	-	7
B7	Grey	DI+	( Twisted Pair )	6	-	6
B8	Brown	SbuB	Single	7	-	5
B9	Red	Vbus	Power	11	-	4
B10	Yellow	RX1-	( Shielded Twisted )	4	-	3
B11	Green	RX1+	( Shielded Twisted )	4	-	2
B12	-	Gnd	Braid	-	-	1

Receptacle Pin Colour Key:

- A1, A12, B12, B1: Cable Ground
- A2, A3, B3, B2: High Speed Path (TX for USB or for DP Alt mode)
- A4, A9, B9, B4: Cable Bus Power
- A6, A7, B7, B6: USB 2.0 Interface
- A8, B8: For Sideband Use (not used for USB)
- A5, B5: Plug Configuration Detection (- One becomes Vconn, for cable or adaptor power. - CC is used for USB-PD communication)
- A10, A11, B11, B10: High Speed Data Path (RX for USB, or TX for DP Alt Mode)



	Wire Colour	Label	Type	Cable Number	USB-3 Plug P2
A1, B1, A12, B12	-	Gnd	Braid	-	4, 7
A4, B4, A9, B9	Red	Vbus	-	10, 11	1
A5	-	CC	-	-	-
B5	-	Vconn	-	-	-
A6	Green	Dp 1	( Twisted Pair )	5	3
A7	White	D -	( Twisted Pair )	5	2
A2	Blue (Brown Jacket)	SSTXp 1	( Twisted Pair )	1	6
A3	White (Brown Jacket)	SSTXn 1	( Twisted Pair )	1	5
B11	Blue (Red Jacket)	SSRXp 1	( Twisted Pair )	2	9
B10	White (Red Jacket)	SSRXn 1	( Twisted Pair )	2	8
Shell	-	-	Braid	Screen	Shield



**Wiring Notes:**

1. Cable used has shielded twisted pairs with drain wires used for all SDP's.
2. Pin A5 (CC) of the USB Type-C Plug shall be connected to Vbus through a 56 K  $\Omega$   $\pm$ 5% resistor.
3. Contacts B6 and B7 are not connected in the USB Type-C Plug.
4. All Vbus pins are connected together within the USB Type-C Plug. A Bypass Capacitor is required between the ground pins in the USB Type-C Plug side of the cable. The Bypass Capacitor is 10nF  $\pm$  20%. The bypass capacitor shall be as close as possible to the power supply pad.
5. All ground return pins are connected together within the USB Type-C Plug.
6. Shield and Gnd grounds are connected within the USB Type-C and USB 3.1 standard-A plugs on both ends of the cable assembly.
7. All USB Type-C plug pins that are not listed in this table shall be open (not connected).



6000 Series Buccaneer – **circular connectors** that combine the ease of use of a **push/pull coupling mechanism** with proven environmental sealing. Available with **metal** or **plastic** bodies, the range supports both data (USB and Ethernet), signal and mains power. Designed and independently tested to **IP66, IP68 & IP69K** standards, they are ideal for applications where ingress of dust and water must be avoided and where ease of connection, space and appearance are important considerations.

- **30° twist locking**  
Tamperproof lock prevents accidental un-mating
- **IP66, IP68 and IP69K when mated**  
Suitable for a wide range of dust and water borne environments
- **Independent sealing tests**  
IP Ratings independently verified
- **USB version 2.0 performance**  
Low and high speed bus connection, 1.5Mbps to 480Mbps
- **Plug and play capability**  
Hot pluggable, standard 4 pole interface
- **Shielded system**  
High noise immunity and EMI protection
- **Single and double ended cables**  
Suitable for PCB and peripheral configuration
- **Push-pull latching system\***  
Secure, instant latching. Quick connector mating and release
- **Cat 5e compliant**  
Data rate up to 100Mbps
- **PUR jacket on cable**  
Good chemical resistance, flame retardant
- **Cat 5e shielded coupler**  
Maintains shielding
- **Visual mating indication**  
Alignment indicator reduces risk of damage during mating
- **Earth lead version of panel adaptor on plastic connector**  
Continuous screening of panel mount connector
- **Metal connector grounded to cable screen**  
Continuous screening of panel mount connector
- **Sealed through panel Ethernet**  
Prevent water ingress into equipment
- **EN60068-2-52 Test Kb Salt Mist (Cyclic)**  
Marine Severity Level 1



Sealed USB Cables - Single Ended

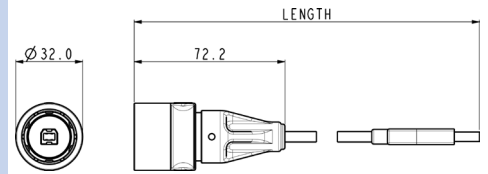
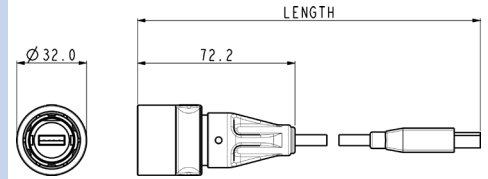


PXP6040/A



PXP6040/B

- Single ended sealed cable assembly
- Mates with all panel mounting connectors
- 30° twist locking
- IP rated 'A' type USB connector to standard 'B' type USB connector, mates with all panel mount connectors
- IP rated 'B' type USB connector to standard 'A' type USB connector, mates with all panel mount connectors
- Available in 2m, 3m & 5m lengths



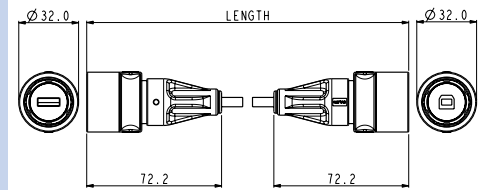
Part no	Length	Description
PXP6040/A/2M00	2m	IP rated A type USB to standard B type USB
PXP6040/A/3M00	3m	IP rated A type USB to standard B type USB
PXP6040/A/5M00	5m	IP rated A type USB to standard B type USB
PXP6040/B/2M00	2m	IP rated B type USB to standard A type USB
PXP6040/B/3M00	3m	IP rated B type USB to standard A type USB
PXP6040/B/5M00	5m	IP rated B type USB to standard A type USB

Sealed USB Cables - Double Ended



PXP6041/AB

- Double ended sealed cable assembly
- Mates with all panel mount connectors
- 30° twist locking
- IP rated 'A' type USB connector to 'B' type USB connector
- Available in 2m, 3m & 5m lengths



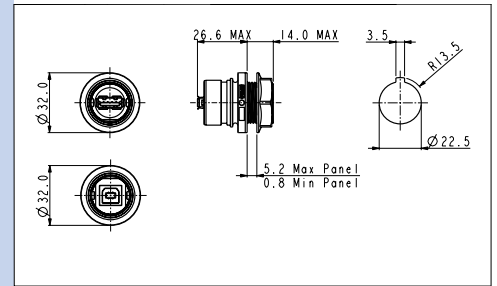
Part no	Length	Description
PXP6041/AB/2M00	2m	IP rated A type USB to IP rated B type USB
PXP6041/AB/3M00	3m	IP rated A type USB to IP rated B type USB
PXP6041/AB/5M00	5m	IP rated A type USB to IP rated B type USB

Front Panel Mounting Connector



PXP6042/B PXP6042/A

- PXP6042/A - USB 'A' type IP rated connector
- PXP6042/B - USB 'B' type IP rated connector
- Opposite USB type connector to rear of panel
- Mates with PXP6040 and PXP6041 cable connectors



**Part No.**      **Description**

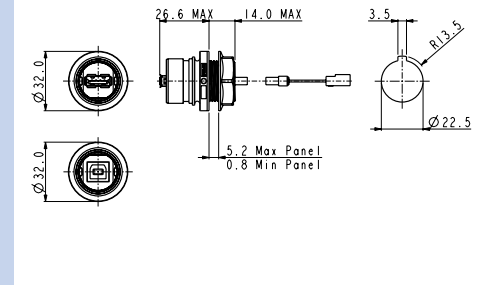
PXP6042/A	IP rated A type USB, front panel mounted. Sealed A type at front of panel, standard B type at rear.
PXP6042/B	IP rated B type USB, front panel mounted. Sealed B type at front of panel, standard A type at rear.

Front Panel Mounting Connector



PXP6043/B PXP6043/A

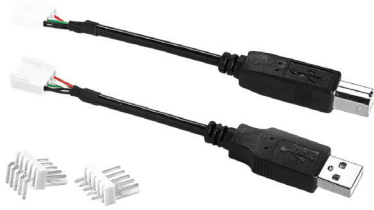
- PXP6043/A - USB 'A' type IP rated connector
- PXP6043/B - USB 'B' type IP rated connector
- Leaded with 5 way crimp connector
- Mates with PXP6040 and PXP6041 cable connectors



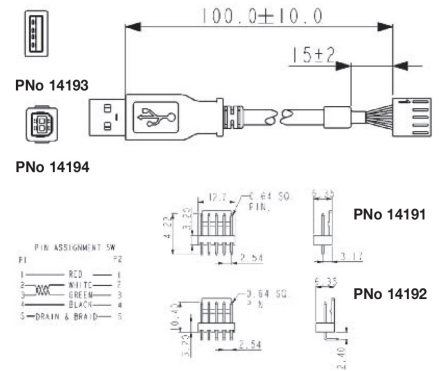
**Part No.**      **Description**

PXP6043/A	IP rated A type USB, front panel mounted. Sealed A type at front of panel, 5 way crimp connector at rear.
PXP6043/B	IP rated B type USB, front panel mounted. Sealed B type at front of panel, 5 way crimp connector at rear.

PCB Adaptor Leads



- Standard A and B type USB connectors to 5 way crimp adaptor leads
- 5 way headers, 2.54mm pitch, horizontal or vertical mounting



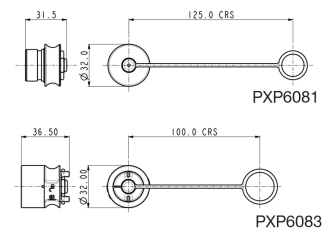
Part No.	Description
14193	USB 'A' type to 5 way crimp connector
14194	USB 'B' type to 5 way crimp connector
14191	5 way PCB header straight
14192	5 way PCB header right angle

Sealing Caps



PXP6083 & PXP6081

- Sealing caps to maintain IP rating when connectors are not in use
- PXP6081 for cable connectors PXP6040 & PXP6041
- PXP6083 for front panel mount connectors PXP6042 & PXP6043, with 30° twist lock



Part No.	Description
PXP6081	Sealing Cap for Flex cable connectors (PXP6040, PXP6041)
PXP6083	Sealing Cap for front panel mounting connector (PXP6042, PXP6043)



<b>PXP</b>	<b>6XXX</b>	<b>X or XX</b>	<b>XXXX</b>
<b>Series Designation</b>	<b>Series / Body Style</b> 040 = Single ended cable 041 = Double ended cable 042 = Panel with adaptor 043 = Panel with lead	<b>Characteristics</b> A = 'A' type sealed interface B = 'B' type sealed interface AB = 'A' & 'B' type sealed interface (for use with 6041 only)	<b>Cable length</b> 2M00 = 2 metre cable length (for use with 6040 and 6041 cables only) 3M00 = 3 metre cable length (for use with 6040 and 6041 cables only) 5M00 = 5 metre cable length (for use with 6040 and 6041 cables only) Blank for 6042 & 6043 panel bodies

**Examples**

PXP6040/A/2M00 = Cable assembly with sealed 'A' type connector to unsealed 'B' type connector, 2 metres long

PXP6042/A = Panel mounted adapter with sealed 'A' type to unsealed 'B' type at rear

**Cables & connectors**

**Mechanical**

Sealing	IP69K, DIN40050-9 IP68, EN60529:1992+A2:2013 (10m depth for 2 weeks) IP66, EN60529:1992+A2:2013
Salt Mist	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
Operating temperature	0°C to +70°C

**Electrical**

No. of poles	4
Current rating	1A
Voltage rating	30V AC (RMS)
Contact resistance	30mΩ max.
Performance	USB version 2.0

**Materials - Overmoulded**

Overmould material	PVC (black)
Flammability rating	UL94V-0

**Materials - Re-wireable and Panel Connectors**

Plastic	PC/PBT
Metal	Machined Brass, Nickel Plated
Flammability rating	UL94V-0
'O' rings	Silicone
Panel Gasket - round	Silicone
Panel Gasket - flange	Silicone

**Materials - cable**

Cable Jacket	PVC (black)
Screen	Tinned copper braid
Flammability	UL94V-0
RoHS	Compliant

Length:	Dia	Conductors	
		Signal	Power
2m	4.8mm	2 x 28AWG	2 x 24AWG
3m	5.0mm	2 x 28AWG	2 x 22AWG
5m	5.2mm	2 x 28AWG	2 x 20AWG

**PCB adaptor leads**

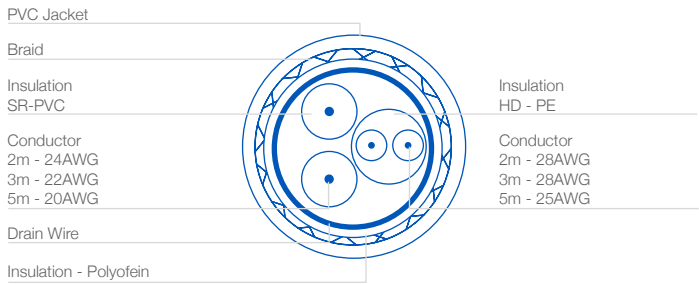
**Electrical**

No. of conductors	4
Current rating	1A
Voltage rating	30V AC (RMS)
Contact resistance	<10mΩ max.
PCB pitch	2.54mm

**Materials**

Moulding	Polycarbonate
Flammability	UL94V-0
Contact material	Copper Alloy
Contact plating	30 micro inch Gold
Wire insulation	PVC (black)
Flammability	UL94-V0
Conductors	4 x 28AWG
Operating temperature	0°C to +70°C
Mating cycles	1,000
RoHS	Compliant

**Cable construction - PXP6040, PXP6041**

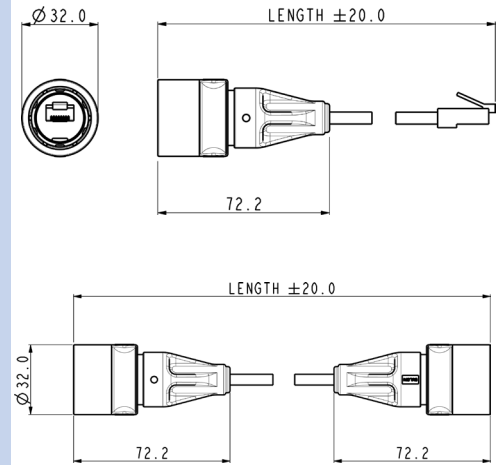


Patch Cord Flex Connector - Pur Jacket Cable



PXP6037

- Mates with PXP6033TP type panel mounting connectors
- 30° twist locking
- Overmoulded patchcords with IP rated connector
- Supplied with shielded RJ45 plug
- Single or double end terminated
- Standard lengths: 2m, 3m & 5m
- S-FTP cable construction
- PUR jacket cable
- Wiring configuration to 568-B
- Exceeds EIA/TIA Cat 5e



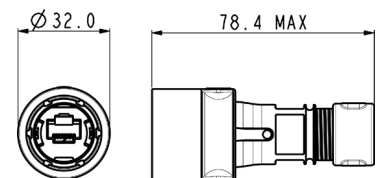
Part no	Type	Length	Description
PXP6037/2M00	Single ended	2m	IP RJ Buccaneer to Shielded RJ45
PXP6037/3M00	Single ended	3m	IP RJ Buccaneer to Shielded RJ45
PXP6037/5M00	Single ended	5m	IP RJ Buccaneer to Shielded RJ45
PXP6038/2M00	Double ended	2m	IP RJ Buccaneer to IP68 RJ Buccaneer
PXP6038/3M00	Double ended	3m	IP RJ Buccaneer to IP68 RJ Buccaneer
PXP6038/5M00	Double ended	5m	IP RJ Buccaneer to IP68 RJ Buccaneer

Rewireable Flex Connector



PXP6034

- Mates with PXP6033TP type panel mounting connectors
- 30° twist locking
- Supplied with shielded RJ45 plug
- Two versions:  
for PUR jacket cable (Cat 5e)  
for other cable sizes from  
4.0 to 10.0mm dia.



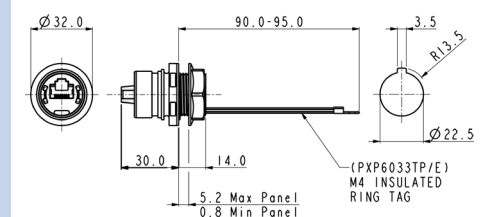
Part no	Description
PXP6034/A	Cable glands optimised for PUR jacket cable to maintain Cat 5e performance
PXP6034/B	Suitable for use with cables from 4.0 to 10.0mm diameter

Front Panel Mounting Connector



PXP6033TP

- Sealed through panel
- Cat 5e shielded coupler
- Mates with all plastic flex connectors
- Standard RJ45 patchcord can be plugged into rear
- Version with earth wire available
- Single hole fixing
- Complete with panel sealing gasket



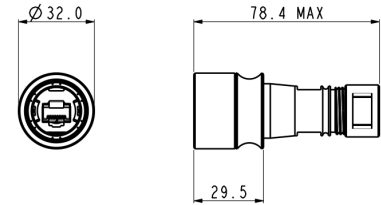
Part no	Description	Fixing
PXP6033TP	Cat 5e coupler	Front panel mounted - sealed through panel
PXP6033TP/E	Cat 5e coupler + earth wire	Front panel mounted - sealed through panel

Re-wireable Flex Connector



PXM6034

- Mates with PXM6033TP type panel mounting connectors
- 30° twist locking
- Supplied with shielded RJ45 plug
- Two versions:  
for PUR jacket cable (Cat 5e)  
for other cable sizes from  
4.0 to 10.0mm dia.



**Part no**

**Description**

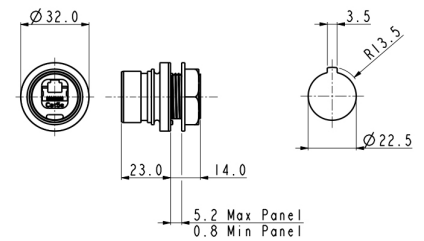
PXM6034/A	Cable glands optimised for PUR jacket cable to maintain Cat 5e performance
PXM6034/B	Suitable for use with cables from 4.0 to 10.0mm diameter

Front Panel Mounting Connector



PXM6033

- Sealed through panel
- Cat 5e shielded coupler
- Mates with PXM6034 type flex connectors
- Standard RJ45 patchcord can be plugged into rear
- Connector shell ground to cable screen
- Single hole fixing
- Complete with panel sealing gasket



**Part no**

**Description**

**Fixing**

PXM6033TP	Cat 5e coupler	Front panel mounted - sealed through panel
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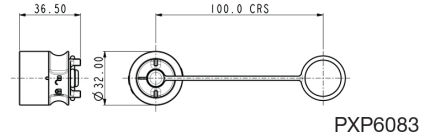
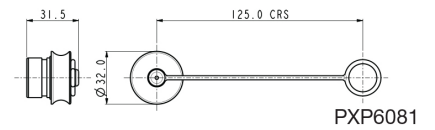
Sealing Caps



PXP6083 & PXP6081

- Plastic connectors
- PXP6081 for cable connectors
  - PXP6034, PXP6037 & PXP6038
  - PXP6083 for front panel mount connectors PXP6033, with 30° twist lock

Sealing caps to maintain IP rating when connectors are not in use



**Part no**                      **Description**

PXP6081	Sealing Cap for plastic Flex cable connectors
PXP6083	Sealing Cap for plastic front panel mounting connector

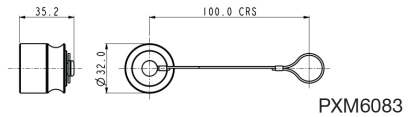
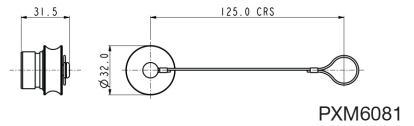
Sealing Caps



PXM6083 & PXM6081

- Metal connectors
- PXM6081 for cable connectors
  - PXM6034
  - PXM6083 for front panel mount connectors

Sealing caps to maintain IP rating when connectors are not in use



**Part no**                      **Description**

PXM6081	Sealing Cap for metal Flex cable connectors
PXM6083	Sealing Cap for metal front panel mounting connector
14151	Hand crimp tooling + die set
14199	PUR Jacket cable - 50m reel
14150	Replacement shielded RJ45



**Series Designation**

PXP - Plastic  
 PXM - Metal

**Series / Body Style**

033 = Panel  
 034 = Re-wireable Flex  
 037 = Patchcord  
 (Single Ended)  
 038 = Patchcord  
 (Double Ended)

**Panel Sealing**

TP = through panel sealing (for use  
 with PXP6033 panel body only)  
  
 Blank = not applicable

**Characteristics**

E = Earth lead (for use with PXP6033 plastic panel body only)  
 A = Glanding for PUR cable (for use with PXP6034 re-wireable flex only)  
 B = Glanding for 3.5 to 8mm cables (for use with PXP6034 re-wireable flex only)  
 2M00 = 2 metre cable length (for use with PXP6037 and PXP6038 patchcords only)  
 3M00 = 3 metre cable length (for use with PXP6037 and PXP6038 patchcords only)  
 5M00 = 5 metre cable length (for use with PXP6037 and PXP6038 patchcords only)

**Examples**

PXP6033TP/E= Panel mounted coupler, sealed through panel with earth lead

PXP6037/2M00= Patchcord with one sealed end, 2 metres long

PXM6034/A = Flex re-wireable connector for use with PUR cable

PXM6033TP = Panel mounted coupler, through panel sealed

**Ethernet – Metal and Thermo-plastic versions**

**Connectors**

**Mechanical**

Sealing	IP69K, DIN40050-9 IP68, EN60529:1992+A2:2013 (10m depth for 2 weeks) IP66, EN60529:1992+A2:2013
Salt Mist:	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
Operating Temperature	
Re-wireable and Metal	-20°C to +70°C
Overmoulded patchcords	0°C to +70°C

**Materials - Overmoulded**

Overmould material	PVC (black)
Flammability rating	UL94V-0

**Materials - Re-wireable and Panel Connectors**

Plastic	PC/PBT
Metal	Machined Brass, Nickel Plated
Flammability rating	UL94V-0
'O' rings	Silicone
Panel Gasket - round	Silicone
Panel Gasket - flange	Silicone
Approvals	

RoHS	Compliant
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**Stranded S-FTP Patch cord cable - PUR Jacket**

Polyurethane (PUR) jacket cable with internal construction exceeding Cat 5e performance levels. The PUR jacket has excellent abrasion, chemical and ozone resistance, low smoke, low halogen flame retardant construction suitable for internal and external industrial environments.

**Cable**

Conductors	24AWG (7/0.2mm) bare copper
Insulation	HD-PE
Pair	2 of the above cores twisted
Core	4 of the above cores
Tape	1 lap mylar tape
Screen	1 layer mylar and aluminium tape, 0.12mm tinned copper braid
Sheath	PUR Jacket Black
Op Temperature	-25°C to +85°C
Min. bend radius	10 x O/D (installation)
Min. bend radius	6 x O/D (installed)
Diameter	6.1mm nominal

**Electrical @ 20°C**

Characteristic Impedance	100Ω ±15Ω @ 100MHz
Capacitance	330pF/km
Conductor Loop resistance	29Ω/100m maximum
Skew	45 nsec/100m @ 100MHz
TIA/EIA Rating	Cat 5e & POE

**Cable construction - PXP6037, PXP6038 and 14199**

**PCB adaptor leads**

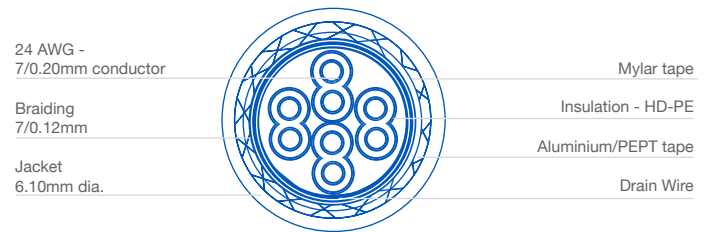
**Electrical**

No. of conductors	4
Current rating	350mA
Voltage rating	37V - 57V
Contact resistance	<10mΩ max.
PCB pitch	2.54mm

**Materials**

Moulding	Polycarbonate
Flammability	UL94V-0
Contact material	Copper Alloy
Contact plating	30 micro inch Gold
Wire insulation	PVC (black)
Flammability	UL94-V0
Conductors	4 x 28AWG
Operating temperature	0°C to +70°C
Mating cycles	1,000
RoHS	Compliant

**Cable construction - PXP6040, PXP6041**



The Bulgin Circular Fiber Connector range offer **high quality** and **reliable fiber** connectivity solutions. Suitable for use in industries such as outdoor broadcast, FTTX (fibre to the x), server room engineering, civil engineering, marine, aviation and rail applications.


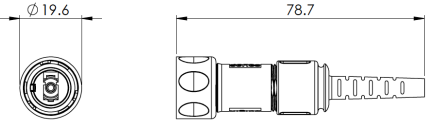

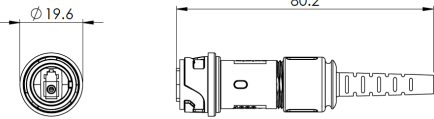

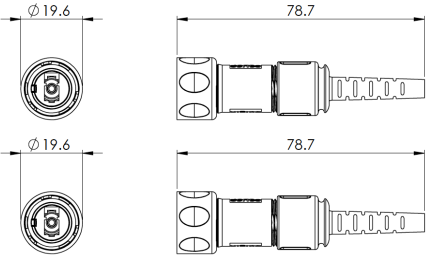

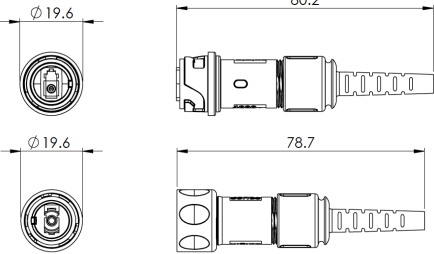

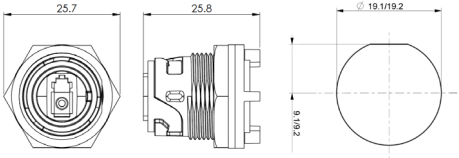


4000 Series - Simplex LC Fiber Buccaneer  
6000 Series - Duplex LC Fiber Buccaneer

116  
123



- Sealed to IP66 IP68 and IP69K when mated
- IP68 rating tested at 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks
- Simplex LC-Type Interface
- Cabled Versions: 0S1, 0M1, 0M3
- Cable range from 5 to 450m
- Diameter over coupling ring 19.7mm
- Flex, Flex In-Line and Rear Panel
- Colour coded O-rings & washers for easy identification purposes
- Secure, proven locking system
- Flame Retardant moulding material - Polyamide UL94-V0
- Tamper proof construction
- Sealing caps available to maintain IP68 rating
- EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

 <p>PXF4050XXX</p>	<ul style="list-style-type: none"> <li>○ Patchcords with IP68 connectors</li> <li>○ Available in 5 - 450m lengths</li> <li>○ Supplied with LC fiber plug</li> <li>○ 0S1, 0M1 or 0M3 cable options</li> <li>○ Termination options</li> </ul>	
 <p>PXF4051XXX</p>	<ul style="list-style-type: none"> <li>○ Patchcords with IP68 connectors</li> <li>○ Available in 5 - 450m lengths</li> <li>○ Supplied with LC fiber plug</li> <li>○ 0S1, 0M1 or 0M3 cable options</li> <li>○ Termination options</li> </ul>	
 <p>PXF4054XXX</p>	<ul style="list-style-type: none"> <li>○ Patchcords with IP68 connectors</li> <li>○ Available in 5 - 450m lengths</li> <li>○ Supplied with LC fiber plug</li> <li>○ 0S1, 0M1 or 0M3 cable options</li> <li>○ Termination options</li> </ul>	
 <p>PXF4055XXX</p>	<ul style="list-style-type: none"> <li>○ Patchcords with IP68 connectors</li> <li>○ Available in 5 - 450m lengths</li> <li>○ Supplied with LC fiber plug</li> <li>○ 0S1, 0M1 or 0M3 cable options</li> <li>○ Termination options</li> </ul>	
<p>Rear Panel Mounting Connector</p>  <p>PXF4053XXX</p>	<ul style="list-style-type: none"> <li>○ LC fiber adapter</li> <li>○ Leaded with LC connector</li> <li>○ Socket variant mates with PXF4050 type cables</li> </ul>	

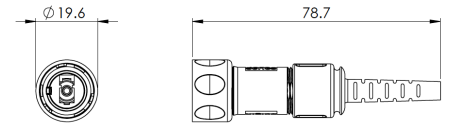
Part no.	Description
PXF4053	IP-Sealed LC Type, Rear Panel Mounted, LC Connector at Rear.

Flex Cable Connector



PXF4050

- Mates with Flex In-Line or Panel mounting versions PXF4051, PXF4053
- 30° turn locking ring
- Supplied without LC Connector

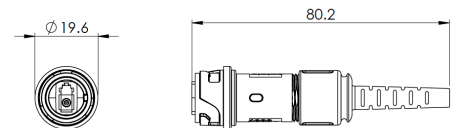


In-Line Flex Cable Connector



PXF4051

- Mates with Flex Cable connector PXF4050
- For In-Line connection
- Supplied without LC Connector

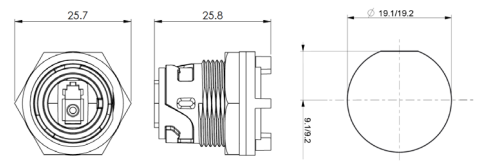


Rear Panel Mounting Connector



PXF4053

- Mates with Flex Cable connector PXF4050
- Rear Panel Mounting
- Single hole fixing
- Supplied without LC Connector



Sealing Caps



- Sealing caps to maintain IP rating when connectors are not in use

Part no.	Description
PXP4081	Sealing cap for use with PXF4050's
PXP4082	Sealing cap for use with PXF4051
PXP4083	Sealing cap for use with PXF4053's

O-ring & washer pack



Part no.	Description
PXP4089/YL	Yellow coloured O-ring and washer pack
PXP4089/BL	Blue coloured O-ring and washer pack
PXP4089/RD	Red coloured O-ring and washer pack
PXP4089/WH	White coloured O-ring and washer pack
PXP4089/GN	Green coloured O-ring and washer pack

## Cables & connectors

### Mechanical

Sealing:	IP69K, DIN40050-9 IP68, EN60529:1992+A2:2013 (10m depth for 2 weeks) IP66, EN60529:1992+A2:2013
Panel Mount Nut:	1.0-1.1Nm (91lb.in)
Operating temperature:	-25°C to +70°C
Salt Mist:	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

### Material:

Body Mouldings:	Polyamide
Flammability Rating:	UL94v-0
UV Resistance:	To EN 500021:1999

### Optical

IEC 61753-1:	
Max Insertion Loss:	0.2db } single mode
AVG Insertion Loss:	0.1db } single mode

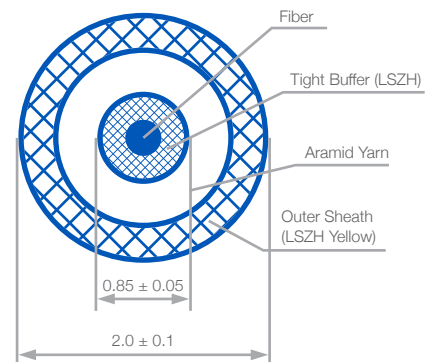
O Rings:	Silicone
Panel Sealing O Ring:	Silicone

**RoHS** Compliant

## Fiber Specification - SECTION OSI

Item	Detail	Specification
Fiber type:	/	G.657A2 (OS1)
Wavelength:		1310nm
Mode field diameter:	Range of nominal values	8.6µm-9.5µm±0.4µm
Cladding diameter:	Dimension	125.0µm±0.7µm
Core concentricity error:		≤0.5µm
Cladding non-circularity:		≤1%
Coating diameter:	Dimension	245µm±10µm
Coating-cladding concentricity error:		≤12.5µm
Cut-off wavelength:		≤1260nm
Uncabled fiber macrobending loss:	Radius(mm)	15    10    7.5
	Number of turns	10    1    1
	Max. at 1550nm(dB)	0.03    0.1    0.5
	Max. at 1625nm(dB)	0.1    0.2    1.0
Min. proof stress:		0.69GPa
Dynamic fatigue parameter:		≥20
Chromatic dispersion coefficient:	λ0min	1300nm
	λ0max	1324nm
	S0max	0.092ps/nm2×km
Other parameters meet standard:	ITU-T G.657	

Cable Construction (in mm):



## Optical Cable Specification

### Structure Parameter

Tight buffer:	Material	LSZH (Low-Smoke Zero-Halogen)
	Outer diameter	0.85mm±0.05mm
Strength member:	Material	Aramid yarn
Outer sheath:	Sheath material	LSZH (Low-Smoke Zero-Halogen)
	Sheath color	Yellow(Pantone 136C) Chromatic aberration E: ≤4.0
	Min. sheath thickness	0.3mm
	Dimension	2.0mm±0.1mm

### Transmission Performance

Attenuation coefficient:	Wavelength 1310nm~1625nm	≤0.4dB/km
	Maximum at 1383nm ±3nm	≤0.4dB/km
	Wavelength 1550nm	≤0.3dB/km
Macrobending loss	Radius(mm)	15    10    7.5
	Number of turns	10    1    1
	Max. at 1550nm(dB)	0.03    0.1    0.5
	Max. at 1625nm(dB)	0.1    0.2    1.0

### Other performances

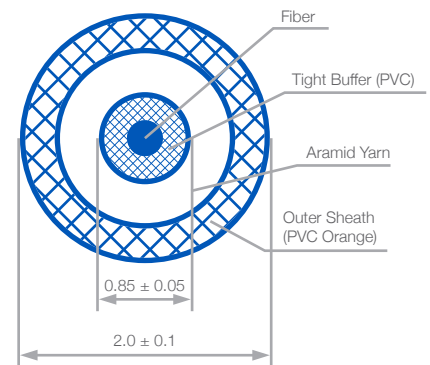
Min. bending radius of work	10mm
Other parameter meet standard	IEC60794-2-50, YD/T1258.2, ITU-T G.657



### Fiber Specification - SECTION OMI

Item	Detail	Specification
Fiber type:	/	62.5/125(A1b) (OM1)
Core diameter:	Dimension	62.5µm±3µm
Cladding diameter:	Dimension	125.0µm±2µm
Core-cladding concentricity error:		≤3µm
Cladding non-circularity:		≤2%
Core non-circularity:		≤6%
Primary coating diameter (uncoloured):	Dimension	245µm±10µm
Primary coating-cladding : concentricity error:	Radius(mm)	≤12.5µm 37.5
Uncabled fiber macrobending loss:	Number of turns At wavelengths 850nm & 1310nm	100 0.5(dB)
Min. proof stress:		0.69GPa
Dynamic fatigue parameter:		≥20
Minimum modal bandwidth- length:	Wavelength 850nm	200MHzkm
Product for overfilled launch:	Wavelength 1310nm	500MHzkm
Other parameters meet standard:	IEC 60793-2-10	

**Cable Construction (in mm):**

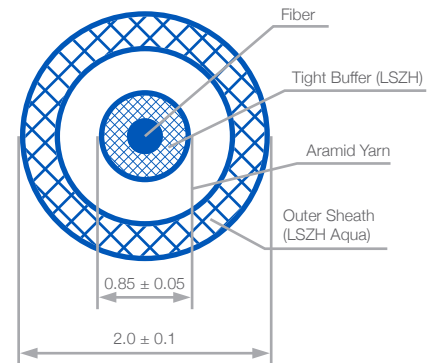


### Optical Cable Specification

Item	Specification
<b>Structure Parameter</b>	
Tight buffer:	Material: PVC Outer diameter: 0.85mm±0.05mm
Strength member:	Material: Aramid yarn
Outer sheath:	Sheath material: PVC Sheath color: Orange(Pantone 164C) Chromatic aberration E: ≤4.0 Min. sheath thickness: 0.3mm Dimension: 2.0mm±0.1mm
<b>Transmission Performance</b>	
Attenuation coefficient	Wavelength 850m: ≤3.5dB/km Wavelength 1300nm: ≤1.5dB/km
<b>Other performances</b>	
Min. bending radius of work	30mm
Other parameter meet standard	IEC60794-2-50, YD/T1258.2

**Fiber Specification - SECTION OM3**

Item	Detail	Specification
Fiber type:	/	50/125(OM3)
Core diameter:	Dimension	50 $\mu$ m $\pm$ 2.5 $\mu$ m
Cladding diameter:	Dimension	125.0 $\mu$ m $\pm$ 2 $\mu$ m
Core-cladding concentricity error:		$\leq$ 3 $\mu$ m
Cladding non-circularity:		$\leq$ 2%
Core non-circularity:		$\leq$ 6%
Primary coating diameter (uncoloured):	Dimension	245 $\mu$ m $\pm$ 10 $\mu$ m
Primary coating-cladding concentricity error		$\leq$ 12.5 $\mu$ m
Uncabled fiber macrobending loss	Radius(mm)	15    7.5
	Number of turns	2    2
	Max. at 850nm(dB)	0.1    0.2
	Max. at 1310nm(dB)	0.3    0.5
Min. mode bandwidth:	Overfilled launch bandwidth at 850nm	1500MHz.km
	Overfilled launch bandwidth at 1310nm	500MHz.km
	Effective laser launch bandwidth at 850nm	2000MHz.km
Min. proof stress:		0.69GPa
Dynamic fatigue parameter:		$\leq$ 20
	$\lambda$ 0min	1295nm
	$\lambda$ 0max	1340nm
Chromatic dispersion coefficient:	S0max(from1295nm $\leq\lambda$ 0 $\leq$ 1310nm)	0.105ps/nm <sup>2</sup> ×km
	S0max(from1310nm $\leq\lambda$ 0 $\leq$ 1340nm)	0.000375(1590- $\lambda$ 0) ps/nm <sup>2</sup> ×km
Other parameters meet standard:	IEC 60793-2-10	



**Optical Cable Specification**

Item	Specification
<b>Structure Parameter</b>	
Tight buffer:	Material: LSZH
	Outer diameter: 0.85mm $\pm$ 0.05mm
Strength member:	Material: Aramid yarn
Outer sheath:	Sheath material: LSZH
	Sheath color: Aqua(Pantone 3248C) Chromatic aberration E: $\leq$ 4.0
	Min. sheath thickness: 0.3mm
	Dimension: 2.0mm $\pm$ 0.1mm
<b>Transmission Performance</b>	
Attenuation coefficient:	Wavelength 850nm: $\leq$ 3.5dB/km
	Wavelength 1300nm: $\leq$ 1.5dB/km
Macrobending loss:	Radius (mm): 15    7.5
	Number of turns: 2    2
	Max. at 850nm(dB): 0.1    0.2
	Max. at 1310nm(dB): 0.3    0.5
<b>Other performances</b>	
Min. bending radius of work:	10mm
Other parameter meet standard:	IEC60794-2-50, YD/T1258.2



<b>PXF405 x</b>	<b>X</b>	<b>XX</b>
<p><b>Body Styles</b></p> <p>PXF4050 PXF4051 PXF4053 PXF4054 PXF4055</p>	<p><b>Cable Type</b></p> <p>Blank = No cable A = OS1 (Singlemode) B = OM1 (Multimode) C = OM3 (Multimode)</p>	<p><b>Cable Length (m)</b></p> <p>Blank = No Cable AA = 1 (1m on Chassis Version Only PXF4053) AA = 5 AB = 10 AC = 25 AD = 50 AE = 100 AF = 150 AG = 200 AH = 300 AJ = 450</p>

**Examples:**

**PXF4050** = Flex Connector, No Cable

**PXF4050AAA** = Flex Connector, OS1 Single Mode Cable, 5 Metre Length to LC Type Connector

**PXF4053BAA** = Panel Mount Connector, OM1 Multi Mode Cable, 1 Metre Length to LC Type Connector



- Sealed to IP66 IP68 and IP69K when mated
- IP68 rating tested at 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks
- Duplex LC-Type Interface
- Cabled Versions: 0S1, 0M1, 0M3
- Cable range from 5 to 450m
- Diameter over coupling ring 32.0mm
- Flex, Flex In-Line and Front Panel
- Secure, proven locking system
- 30° twist locking. Tamperproof lock prevents accidental un-mating
- All plastic body version; UL94-V0 rated, UV stable, halogen free Light-weight, self-extinguishing material suitable for long-term outdoor use.
- Sealing caps available to maintain IP68 rating
- EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

CIRCULAR FIBER CONNECTORS  
**6000 Series - Duplex LC Fiber Buccaneer**



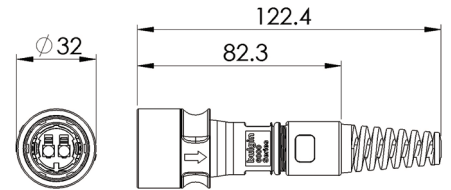
Duplex LC Fiber



PXF6050XXX

- Patchcords with IP68 connectors
- Available in 5 - 450m lengths
- Supplied with LC fiber plug
- OS1, 0M1 or 0M3 cable options

\*Fiber assignment on page 6



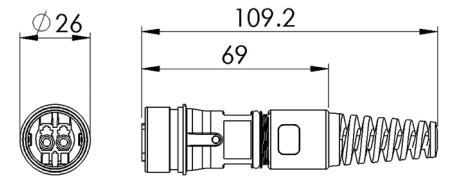
Duplex LC Fiber



PXF6051XXX

- Patchcords with IP68 connectors
- Available in 5 - 450m lengths
- Supplied with LC fiber plug
- OS1, 0M1 or 0M3 cable options

\*Fiber assignment on page 6



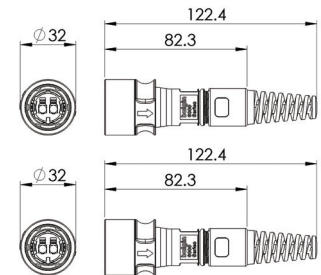
Duplex LC Fiber



PXF6054XXX

- Patchcords with IP68 connectors
- Available in 5 - 450m lengths
- Supplied with LC fiber plug
- OS1, 0M1 or 0M3 cable options

\*Fiber assignment on page 6



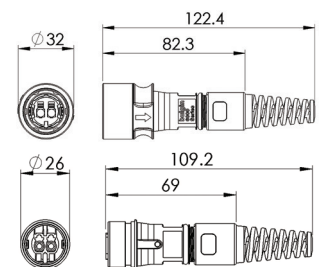
Duplex LC Fiber



PXF6055XXX

- Patchcords with IP68 connectors
- Available in 5 - 450m lengths
- Supplied with LC fiber plug
- OS1, 0M1 or 0M3 cable options

\*Fiber assignment on page 6



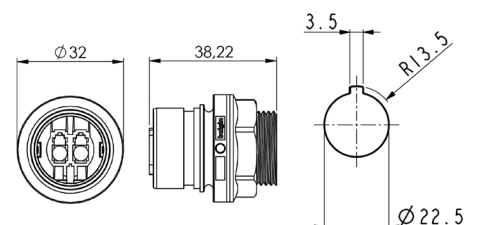
Front Panel Mounting Connector


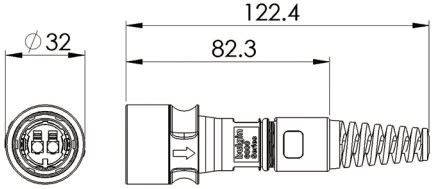

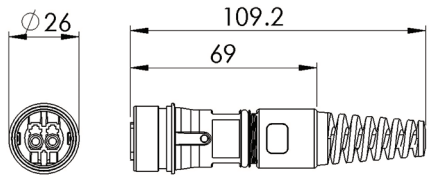

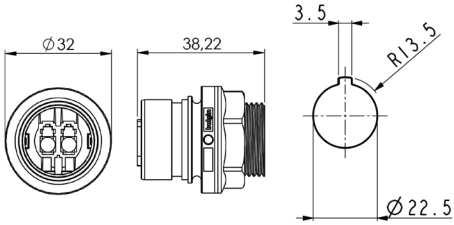

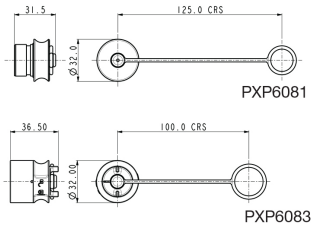


PXF6052XXX

- LC fiber adapter
- Leaded with LC connector
- Socket variant mates with PXF6050 type connectors

\*Fiber assignment on page 6



<p>Flex Cable Connector</p>  <p>PXF6050X</p>	<ul style="list-style-type: none"> <li>○ Mates with Flex In-Line or Panel mounting versions PXF6051, PXF6053</li> <li>○ 30° turn locking ring</li> <li>○ Supplied without LC Connectors</li> </ul>	
<p>In-Line Flex Cable Connector</p>  <p>PXF6051X</p>	<ul style="list-style-type: none"> <li>○ Mates with Flex Cable connector PXF6050</li> <li>○ For In-Line connection</li> <li>○ Supplied without LC Connectors</li> </ul>	
<p>Front Panel Mounting Connector</p>  <p>PXF6052X</p>	<ul style="list-style-type: none"> <li>○ Mates with Flex Cable connector PXF6050</li> <li>○ Rear Panel Mounting</li> <li>○ Single hole fixing</li> <li>○ Supplied without LC Connectors</li> </ul>	
<p>Sealing Caps</p> 	<ul style="list-style-type: none"> <li>○ Sealing caps to maintain IP rating when connectors are not in use</li> <li>○ PXP6081 for cable connectors PXF6050.</li> <li>○ PXP6083 for front panel mount connectors PXF6052 &amp; PXF6051, with 30° twist lock</li> </ul>	

Part No.	Description
PXP6081	Sealing Cap for Flex cable connectors (PXF6050)
PXP6083	Sealing Cap for front panel mounting connector (PXF6052, PXF6051)

**Cables & connectors**

**Mechanical**

Sealing :	IP69K, DIN40050-9 IP68, EN60529:1992+A2:2013 (10m depth for 2 weeks) IP66, EN60529:1992+A2:2013 1.0-1.1Nm (91lb.in)
Panel Mount Nut:	1.0-1.1Nm (91lb.in)
Operating temperature:	-25°C to +70°C
Salt Mist:	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

**Material:**

Body Mouldings:	Polyamide
Flammability Rating:	UL94v-0
UV Resistance:	To EN 500021:1999
Cable Outer Jacket:	Polyethylene for UV and Weather Resistance
O Rings:	Silicone
Panel Sealing O Ring:	Silicone

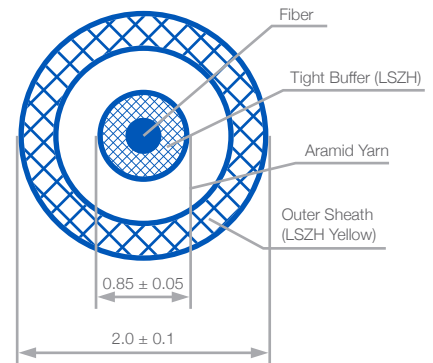
**Optical**

IEC 61753-1:	
Max Insertion Loss:	0.2db } single mode
AVG Insertion Loss:	0.1db } single mode

**RoHS** Compliant

**Fiber Specification - SECTION OSI**

Item	Detail	Specification		
Fiber type:	/	G.657A2 (OS1)		
Mode field diameter:	Wavelength Dimension	1310mm 8.6µm-9.5µm±0.4µm		
Cladding diameter:	Dimension	125.0µm±0.7µm		
Core concentricity error:		≤0.5µm		
Cladding non-circularity:		≤1%		
Coating diameter:	Dimension	245µm±10µm		
Coating-cladding concentricity error:		≤12.5µm		
Cut-off wavelength:	Radius(mm)	≤1260nm		
Uncabled fiber macrobending loss:	Number of turns	15	10	7.5
	Max. at 1550nm(dB)	10	1	1
	Max. at 1625nm(dB)	0.03	0.1	0.5
Min. proof stress:		0.1	0.2	1.0
Dynamic fatigue parameter:		0.69GPa		
	λ0min	≥20		
Chromatic dispersion coefficient:	λ0max	1300nm		
	S0max	1324nm		
		0.092ps/nm2×km		
Other parameters meet standard:	ITU-T G.657			



**Optical Cable Specification**

**Structure Parameter**

Tight buffer:	Material	Polyolefin (POE)
	Outer diameter	0.85mm±0.05mm
Strength member:	Material	Aramid yarn
Outer sheath:	Sheath material	Polyolefin (POE)
	Sheath color	Yellow(Pantone 136C) Chromatic aberration E: ≤4.0
	Min. sheath thickness	0.3mm
	Dimension	2.0mm±0.1mm

**Transmission Performance**

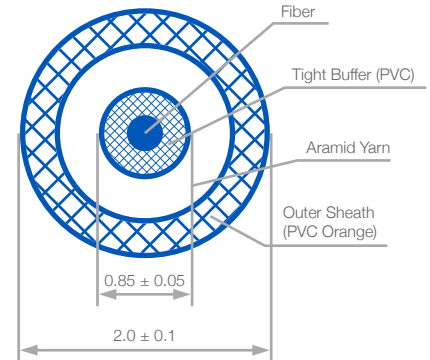
Attenuation coefficient:	Wavelength 1310nm~1625nm	≤0.4dB/km
	Maximum at 1383nm±3nm	≤0.4dB/km
	Wavelength 1550nm	≤0.3dB/km
Macrobending loss:	Radius(mm)	15    10    7.5
	Number of turns	10    1    1
	Max. at 1550nm(dB)	0.03    0.1    0.5
	Max. at 1625nm(dB)	0.1    0.2    1.0

**Other performances**

Min. bending radius of work	10mm
Other parameter meet standard	IEC60794-2-50, YD/T1258.2, ITU-T G.657

**Fiber Specification - SECTION OMI**

Item	Detail	Specification
Fiber type	/	62.5/125(A1b) (OM1)
Core diameter	Dimension	62.5μm±3μm
Cladding diameter	Dimension	125.0μm±2μm
Core-cladding concentricity error		≤3μm
Cladding non-circularity		≤2%
Core non-circularity		≤6%
Primary coating diameter (uncoloured)	Dimension	245μm±10μm
Primary coating-cladding		≤12.5μm
Concentricity error	Radius(mm)	37.5
Uncabled fiber macrobending loss	Number of turns At wavelengths 850nm and 1300nm(dB)	100 0.5
Min. proof stress		0.69GPa
Dynamic fatigue parameter		≥20
Minimum modal bandwidth- length Product for overfilled launch	Wavelength 850nm Wavelength 1300nm	200MHzkm 500MHzkm
Other parameters meet standard	IEC 60793-2-10	



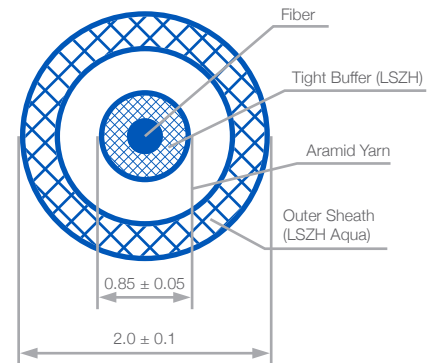
**Optical Cable Specification**

Item	Specification
<b>Structure Parameter</b>	
Tight buffer	Material: Polyolefin (POE) Outer diameter: 0.85mm±0.05mm
Strength member	Material: Aramid yarn
Outer sheath	Sheath material: Polyolefin (POE) Sheath color: Orange(Pantone 164C) Chromatic aberration E: ≤4.0 Min. sheath thickness: 0.3mm Dimension: 2.0mm±0.1mm
<b>Transmission Performance</b>	
Attenuation coefficient	Wavelength 850m: ≤3.5dB/km Wavelength 1300nm: ≤1.5dB/km
<b>Other performances</b>	
Min. bending radius of work	30mm
Other parameter meet standard	IEC60794-2-50, YD/T1258.2



**Fiber Specification - SECTION OM3**

Item	Detail	Specification
Fiber type	/	50/125(OM3)
Core diameter	Dimension	50 $\mu\text{m}$ $\pm$ 2.5 $\mu\text{m}$
Cladding diameter	Dimension	125.0 $\mu\text{m}$ $\pm$ 2 $\mu\text{m}$
Core-cladding concentricity error		$\leq$ 3 $\mu\text{m}$
Cladding non-circularity		$\leq$ 2%
Core non-circularity		$\leq$ 6%
Primary coating diameter (uncoloured)	Dimension	245 $\mu\text{m}$ $\pm$ 10 $\mu\text{m}$
Primary coating-cladding concentricity error	Radius(mm)	15      7.5
Uncabled fiber macrobending loss	Number of turns Max. at 850nm(dB) Max. at 1300nm(dB)	2      2 0.1    0.2 0.3    0.5
Min. mode bandwidth	Overfilled launch bandwidth at 850nm Overfilled launch bandwidth at 1300nm Effective laser launch bandwidth at 850nm	1500 MHz. km 500 MHz. km 2000 MHz. km
Min. proof stress		0.69GPa
Dynamic fatigue parameter	$\lambda$ 0min $\lambda$ 0max	$\leq$ 20 1295nm 1340nm
Chromatic dispersion coefficient	S0max(from1295nm $\leq\lambda$ 0 $\leq$ 1310nm) S0max(from1310nm $\leq\lambda$ 0 $\leq$ 1340nm)	0.105ps/nm <sup>2</sup> ×km 0.000375(1590- $\lambda$ <sub>0</sub> ) ps/nm <sup>2</sup> ×km
Other parameters meet standard	IEC 60793-2-10	



**Optical Cable Specification**

Item	Specification
<b>Structure Parameter</b>	
Tight buffer	Material: Polyolefin (POE) Outer diameter: 0.85mm $\pm$ 0.05mm
Strength member	Material: Aramid yarn
Outer sheath	Sheath material: Polyolefin (POE) Sheath color: Aqua(Pantone 3248C) Chromatic aberration E: $\leq$ 4.0 Min. sheath thickness: 0.3mm Dimension: 2.0mm $\pm$ 0.1mm
<b>Transmission Performance</b>	
Attenuation coefficient	Wavelength 850m: $\leq$ 3.5dB/km Wavelength 1300nm: $\leq$ 1.5dB/km
Macrobending loss	Radius (mm): 15      7.5 Number of turns: 2      2 Max. at 850 nm (dB): 0.1    0.2 Max. at 1300 nm (dB): 0.3    0.5
<b>Other performances</b>	
Min. bending radius of work	10mm
Other parameter meet standard	IEC60794-2-50, YD/T1258.2

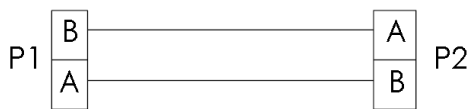


<b>PXF605 X</b>	<b>X</b>	<b>XX</b>
<p><b>Body Styles</b></p> <p>PXF6050 PXF6051 PXF6052 PXF6054 PXF6055</p>	<p><b>For Cable Type</b></p> <p>A = OM3 (Multimode) B = OM1 (Multimode) C = OS1 (Single Mode)</p>	<p><b>Cable Length</b></p> <p>Blank = No cable AA = 1 (1m on chassis version only PXF6052)</p> <p>AA = 5 AB = 10 AC = 15 AD = 25 AE = 50 AF = 100 AG = 150 AH = 200 AJ = 300 AK = 450</p>

**Examples:**

- PXF6050A = Flex connector, for OM3 (Multimode) no cable supplied
- PXF6050AAA = Flex connector, OM3 multimode cable, 5 metre length to LC type connector
- PXF6052BAA = Panel mount connector, OM1 multi mode cable, 1 metre length to LC type connector

**Fiber Assignment:**



The M-Series Buccaneer range has been designed to offer flexible connectivity solutions for a variety of **industrial automation** applications. With metal and plastic variants, these **rugged** and **robust** interconnects are ideal for industries requiring **secure** and **reliable connections**.

- ⊕ Available types: M5, M8, M12, M16 & M23
- ⊕ Reliable sensor, actuator and data connectivity solutions
- ⊕ Straight and right angled configurations
- ⊕ Quick and secure screw coupling mechanism
- ⊕ Backwards compatible versions
- ⊕ Available as field attachable connectors, receptacles or with overmolded cables
- ⊕ Plastic and Metal Variants
- ⊕ Ratings from 1A, 30V ac/dc up to 8A, 250V ac/dc
- ⊕ Overmolded cables PVC & PUR
- ⊕ IP67 Rating
- ⊕ Cable lengths from 1m - 15m
- ⊕ A, B and D Coding Options
- ⊕ Power Distribution Units Available



M5 Series	132
M8 Series	138
M12 Series	149
M12 X Coding Series	167
M16 Series	175
M23 Series	180
M-Series - Distribution Units	184

Bulgin's M-Series connector range is the ideal connectivity solution for **industrial automation** technologies that require fast, secure and reliable connections with a **high degree of environmental protection**.



Bulgin's automation interconnect range includes circular metric connectors with industry standard M5, M8, M12, M16 & M23 threads in addition to panel mount receptacles, overmolded cable variants and power/signal distributor units. This comprehensive product portfolio offers a large degree of flexibility with chemically and mechanically robust connectors that are easy to install, help decrease downtime and increase production efficiency in a wide range of markets.

## Applications include:

- Factory Automation
- Robotics
- Measurement & Instrumentation
- Manufacturing & Machine Tools
- Process Control Systems
- Medical
- Food & Beverage Processing
- Industrial Network

The most **compact connector** type in the M-Series range, Bulgin's **waterproof M5 sensor connectors** come in straight and angled forms with **PVC** or **PUR overmolded cable** options and a variety of panel mount receptacles.



With an industry standard screw coupling mechanism and IP67 rating, this circular connector product line is particularly suited to automotive, process control, commercial electronics & instrumentation applications that require reliable and robust miniature sensors.

## Key features:

- Secure & reliable screw locking mechanism
- Robust PVC & PUR overmolded cables
- Cable length from 1m - 15m
- High degree of environmental protection - IP67 rated
- Straight & right angled cable connectors
- Rear & front panel mount receptacles
- Available with 3 or 4 poles
- Interchangeable with other EN61076-2-105

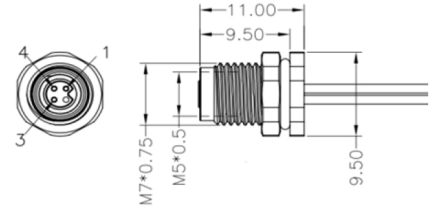
**Full Contact Diagrams Page 132**

M5 Rear Panel Mounting Female



PXMBNI05RPF

- Available in 3 and 4 poles
- PCB or flying lead termination
- Rear panel mounting M7 nut
- Available in 3 and 4 poles
- PCB or flying lead termination
- Mates with Flex Inline Body connectors



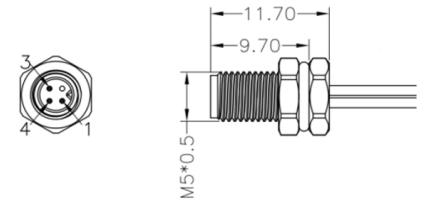
Part Number	Poles	Code	Termination	Lead Length
PXMBNI05RPF03AFL001	03	A	Flying Lead	100 mm
PXMBNI05RPF03AFL002	03	A	Flying Lead	200 mm
PXMBNI05RPF03AFL003	03	A	Flying Lead	300 mm
PXMBNI05RPF04AFL001	04	A	Flying Lead	100 mm
PXMBNI05RPF04AFL002	04	A	Flying Lead	200 mm
PXMBNI05RPF04AFL003	04	A	Flying Lead	300 mm
PXMBNI05RPF03APC	03	A	PCB Terminal	-
PXMBNI05RPF04APC	04	A	PCB Terminal	-

M5 Rear Panel Mounting Male



PXMBNI05RPM

- Available in 3 and 4 poles
- PCB or flying lead termination
- Rear panel mounting M5 nut
- Mates with Flex Body connectors



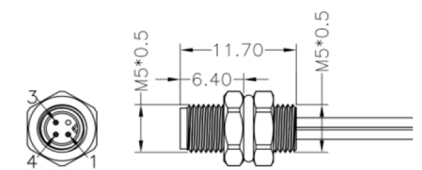
Part Number	Poles	Code	Termination	Lead Length
PXMBNI05RPM03AFL001	03	A	Flying Lead	100 mm
PXMBNI05RPM03AFL002	03	A	Flying Lead	200 mm
PXMBNI05RPM03AFL003	03	A	Flying Lead	300 mm
PXMBNI05RPM04AFL001	04	A	Flying Lead	100 mm
PXMBNI05RPM04AFL002	04	A	Flying Lead	200 mm
PXMBNI05RPM04AFL003	04	A	Flying Lead	300 mm
PXMBNI05RPM03APC	03	A	PCB Terminal	-
PXMBNI05RPM04APC	04	A	PCB Terminal	-

M5 Front Panel Mounting Male



PXMBNI05FPM

- Available in 3 and 4 poles
- PCB or flying lead termination
- Rear panel mounting M5
- Mates with Flex Body connectors



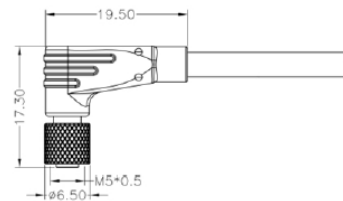
Part Number	Poles	Code	Termination	Lead Length
PXMBNI05FPM03AFL001	03	A	Flying Lead	100 mm
PXMBNI05FPM03AFL002	03	A	Flying Lead	200 mm
PXMBNI05FPM03AFL003	03	A	Flying Lead	300 mm
PXMBNI05FPM04AFL001	04	A	Flying Lead	100 mm
PXMBNI05FPM04AFL002	04	A	Flying Lead	200 mm
PXMBNI05FPM04AFL003	04	A	Flying Lead	300 mm
PXMBNI05FPM03APC	03	A	PCB Terminal	-
PXMBNI05FPM04APC	04	A	PCB Terminal	-

M5 Right Angled Female



PXPTPU05RAF  
PXPPVC05RAF

- Available in 3 and 4 poles
- 1,2,3,5,10 & 15M cable options
- Overmold Flex Body
- Mates with Flex Inline Body & panel mount connectors



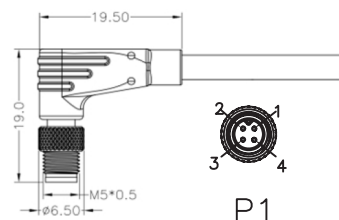
Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPPVC05RAF03ACL010PVC	03	A	Overmold Cable	1m	PVC
PXPTPU05RAF03ACL010PUR	03	A	Overmold Cable	1m	PUR
PXPPVC05RAF03ACL020PVC	03	A	Overmold Cable	2m	PVC
PXPTPU05RAF03ACL020PUR	03	A	Overmold Cable	2m	PUR
PXPPVC05RAF03ACL030PVC	03	A	Overmold Cable	3m	PVC
PXPTPU05RAF03ACL030PUR	03	A	Overmold Cable	3m	PUR
PXPPVC05RAF03ACL050PVC	03	A	Overmold Cable	5m	PVC
PXPTPU05RAF03ACL050PUR	03	A	Overmold Cable	5m	PUR
PXPPVC05RAF03ACL100PVC	03	A	Overmold Cable	10m	PVC
PXPTPU05RAF03ACL100PUR	03	A	Overmold Cable	10m	PUR
PXPPVC05RAF03ACL150PVC	03	A	Overmold Cable	15m	PVC
PXPTPU05RAF03ACL150PUR	03	A	Overmold Cable	15m	PUR
PXPPVC05RAF04ACL010PVC	04	A	Overmold Cable	1m	PVC
PXPTPU05RAF04ACL010PUR	04	A	Overmold Cable	1m	PUR
PXPPVC05RAF04ACL020PVC	04	A	Overmold Cable	2m	PVC
PXPTPU05RAF04ACL020PUR	04	A	Overmold Cable	2m	PUR
PXPPVC05RAF04ACL030PVC	04	A	Overmold Cable	3m	PVC
PXPTPU05RAF04ACL030PUR	04	A	Overmold Cable	3m	PUR
PXPPVC05RAF04ACL050PVC	04	A	Overmold Cable	5m	PVC
PXPTPU05RAF04ACL050PUR	04	A	Overmold Cable	5m	PUR
PXPPVC05RAF04ACL100PVC	04	A	Overmold Cable	10m	PVC
PXPTPU05RAF04ACL100PUR	04	A	Overmold Cable	10m	PUR
PXPPVC05RAF04ACL150PVC	04	A	Overmold Cable	15m	PVC
PXPTPU05RAF04ACL150PUR	04	A	Overmold Cable	15m	PUR

M5 Right Angled Male



PXPTPU05RAM  
PXPPVC05RAM

- Available in 3 and 4 poles
- 1,2,3,5,10 & 15M cable options
- Overmold Flex Inline Body
- Mates with Flex Body & panel mount connectors



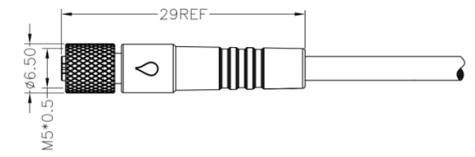
Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPPVC05RAM03ACL010PVC	03	A	Overmold Cable	1m	PVC
PXPTPU05RAM03ACL010PUR	03	A	Overmold Cable	1m	PUR
PXPPVC05RAM03ACL020PVC	03	A	Overmold Cable	2m	PVC
PXPTPU05RAM03ACL020PUR	03	A	Overmold Cable	2m	PUR
PXPPVC05RAM03ACL030PVC	03	A	Overmold Cable	3m	PVC
PXPTPU05RAM03ACL030PUR	03	A	Overmold Cable	3m	PUR
PXPPVC05RAM03ACL050PVC	03	A	Overmold Cable	5m	PVC
PXPTPU05RAM03ACL050PUR	03	A	Overmold Cable	5m	PUR
PXPPVC05RAM03ACL100PVC	03	A	Overmold Cable	10m	PVC
PXPTPU05RAM03ACL100PUR	03	A	Overmold Cable	10m	PUR
PXPPVC05RAM03ACL150PVC	03	A	Overmold Cable	15m	PVC
PXPTPU05RAM03ACL150PUR	03	A	Overmold Cable	15m	PUR
PXPPVC05RAM04ACL010PVC	04	A	Overmold Cable	1m	PVC
PXPTPU05RAM04ACL010PUR	04	A	Overmold Cable	1m	PUR
PXPPVC05RAM04ACL020PVC	04	A	Overmold Cable	2m	PVC
PXPTPU05RAM04ACL020PUR	04	A	Overmold Cable	2m	PUR
PXPPVC05RAM04ACL030PVC	04	A	Overmold Cable	3m	PVC
PXPTPU05RAM04ACL030PUR	04	A	Overmold Cable	3m	PUR
PXPPVC05RAM04ACL050PVC	04	A	Overmold Cable	5m	PVC
PXPTPU05RAM04ACL050PUR	04	A	Overmold Cable	5m	PUR
PXPPVC05RAM04ACL100PVC	04	A	Overmold Cable	10m	PVC
PXPTPU05RAM04ACL100PUR	04	A	Overmold Cable	10m	PUR
PXPPVC05RAM04ACL150PVC	04	A	Overmold Cable	15m	PVC
PXPTPU05RAM04ACL150PUR	04	A	Overmold Cable	15m	PUR

M5 Flex Body Female



PXPTPU05FBF  
PXPPVC05FBF

- Available in 3 and 4 poles
- Overmold Flex Body
- 1,2,3,5,10 & 15M cable options
- Mates with Flex Inline Body & panel mount connectors



Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPPVC05FBF03ACL010PVC	03	A	Overmold Cable	1m	PVC
PXPTPU05FBF03ACL010PUR	03	A	Overmold Cable	1m	PUR
PXPPVC05FBF03ACL020PVC	03	A	Overmold Cable	2m	PVC
PXPTPU05FBF03ACL020PUR	03	A	Overmold Cable	2m	PUR
PXPPVC05FBF03ACL030PVC	03	A	Overmold Cable	3m	PVC
PXPTPU05FBF03ACL030PUR	03	A	Overmold Cable	3m	PUR
PXPPVC05FBF03ACL050PVC	03	A	Overmold Cable	5m	PVC
PXPTPU05FBF03ACL050PUR	03	A	Overmold Cable	5m	PUR
PXPPVC05FBF03ACL100PVC	03	A	Overmold Cable	10m	PVC
PXPTPU05FBF03ACL100PUR	03	A	Overmold Cable	10m	PUR
PXPPVC05FBF03ACL150PVC	03	A	Overmold Cable	15m	PVC
PXPTPU05FBF03ACL150PUR	03	A	Overmold Cable	15m	PUR
PXPPVC05FBF04ACL010PVC	04	A	Overmold Cable	1m	PVC
PXPTPU05FBF04ACL010PUR	04	A	Overmold Cable	1m	PUR
PXPPVC05FBF04ACL020PVC	04	A	Overmold Cable	2m	PVC
PXPTPU05FBF04ACL020PUR	04	A	Overmold Cable	2m	PUR
PXPPVC05FBF04ACL030PVC	04	A	Overmold Cable	3m	PVC
PXPTPU05FBF04ACL030PUR	04	A	Overmold Cable	3m	PUR
PXPPVC05FBF04ACL050PVC	04	A	Overmold Cable	5m	PVC
PXPTPU05FBF04ACL050PUR	04	A	Overmold Cable	5m	PUR
PXPPVC05FBF04ACL100PVC	04	A	Overmold Cable	10m	PVC
PXPTPU05FBF04ACL100PUR	04	A	Overmold Cable	10m	PUR
PXPPVC05FBF04ACL150PVC	04	A	Overmold Cable	15m	PVC
PXPTPU05FBF04ACL150PUR	04	A	Overmold Cable	15m	PUR

M5 Flex Inline Body Male



PXPTPU05FIM  
PXPPVC05FIM

- Available in 3 and 4 poles
- 1,2,3,5,10 & 15M cable options
- Overmold Flex Inline Body
- Mates with Flex Body & panel mount connectors



Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPPVC05FIM03ACL010PVC	03	A	Overmold Cable	1m	PVC
PXPTPU05FIM03ACL010PUR	03	A	Overmold Cable	1m	PUR
PXPPVC05FIM03ACL020PVC	03	A	Overmold Cable	2m	PVC
PXPTPU05FIM03ACL020PUR	03	A	Overmold Cable	2m	PUR
PXPPVC05FIM03ACL030PVC	03	A	Overmold Cable	3m	PVC
PXPTPU05FIM03ACL030PUR	03	A	Overmold Cable	3m	PUR
PXPPVC05FIM03ACL050PVC	03	A	Overmold Cable	5m	PVC
PXPTPU05FIM03ACL050PUR	03	A	Overmold Cable	5m	PUR
PXPPVC05FIM03ACL100PVC	03	A	Overmold Cable	10m	PVC
PXPTPU05FIM03ACL100PUR	03	A	Overmold Cable	10m	PUR
PXPPVC05FIM03ACL150PVC	03	A	Overmold Cable	15m	PVC
PXPTPU05FIM03ACL150PUR	03	A	Overmold Cable	15m	PUR
PXPPVC05FIM04ACL010PVC	04	A	Overmold Cable	1m	PVC
PXPTPU05FIM04ACL010PUR	04	A	Overmold Cable	1m	PUR
PXPPVC05FIM04ACL020PVC	04	A	Overmold Cable	2m	PVC
PXPTPU05FIM04ACL020PUR	04	A	Overmold Cable	2m	PUR
PXPPVC05FIM04ACL030PVC	04	A	Overmold Cable	3m	PVC
PXPTPU05FIM04ACL030PUR	04	A	Overmold Cable	3m	PUR
PXPPVC05FIM04ACL050PVC	04	A	Overmold Cable	5m	PVC
PXPTPU05FIM04ACL050PUR	04	A	Overmold Cable	5m	PUR
PXPPVC05FIM04ACL100PVC	04	A	Overmold Cable	10m	PVC
PXPTPU05FIM04ACL100PUR	04	A	Overmold Cable	10m	PUR
PXPPVC05FIM04ACL150PVC	04	A	Overmold Cable	15m	PVC
PXPTPU05FIM04ACL150PUR	04	A	Overmold Cable	15m	PUR



**Electrical**

No. Poles:	3	4
Current Rating:	1A	1A
Voltage Rating (ac/dc) :	60V	60V
Contact Resistance:	<10mΩ	
Insulation Resistance:	>100MΩ	
AC Breakdown Voltage:		
3 Pole	1.5KV	
4 Pole	1.5KV	
Operating Temp Range:	-25°C to 80°C	

**Mechanical:**

Locking Mechanism:	Screw coupling
Sealing:	IP67
Terminations:	
3 Pole	Single wire / PCB / Cable
4 Pole	Single wire / PCB / Cable
Mechanical Operation:	500 mating cycles
Diameter over coupling ring:	6.5mm

**Materials:**

**Panel Mount:**

**Cable Connectors:**

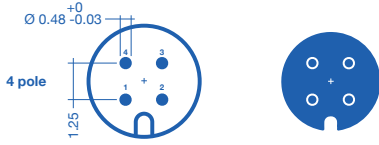
Body:	Nickel Plated Brass	TPU / PVC
Coupling Nut:	Nickel Plated Brass	Nickel Plated Brass
Colour:	Grey	Black
Pin Contacts:	Brass, Gold plating	Brass, Gold plating
Socket Contacts:	Phosphor Bronze, Gold plating	Phosphor Bronze, Gold plating
O Rings & Gaskets:	Viton	Viton
RoHS:	Compliant	Compliant

<b>XXX</b>	<b>XXX</b>	<b>XX</b>	<b>XX</b>	<b>X</b>	<b>XX</b>	<b>X</b>	<b>XX</b>
<b>Series</b>	<b>Material</b>	<b>Series Size</b>	<b>Body Style</b>	<b>Orientation</b>	<b>NO. Contacts</b>	<b>Code</b>	<b>Termination</b>
PXM	BNI = Brass Nickel	05	FB = Flex Body	M	03	A	PC = PCB
PXP	TPU = overmold for PUR PVC = overmold for PVC		FI = Flex Inline Body FP = Front Panel Mounting RP = Rear Panel Mounting RA = Right Angle	F	04		FL = Flying Lead CL = Cable

<b>XXX</b>	<b>XXX</b>
<b>Lead Length</b>	<b>Cable Material</b>
001	PUR
002	PVC
003	
010	
030	
050	
100	
150	

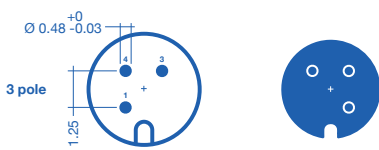
**Contact Diagrams (Front View 'A' Code):**





XXXXXXXXXXM03XXXXXXXXXX  
XXXXXXXXXXF03XXXXXXXXXX



P1	PAIR	WIRE COLOUR	P2
1		BROWN	1
3		BLUE	3
4		BLACK	4

XXXXXXXXXXM04XXXXXXXXXX  
XXXXXXXXXXF04XXXXXXXXXX



P1	PAIR	WIRE COLOUR	P2
1		BROWN	1
2		WHITE	2
3		BLUE	3
4		BLACK	4

Bulgin's **M8 circular connectors** and overmolded cables are designed to fulfil the ever growing demand for **sensor**, **actuator** and **data connections** in process control, industrial machinery and factory automation applications.



These compact sensor and automation connectors with screw lock coupling are mechanically and chemically robust, easy to install, minimise downtime and help to increase production efficiency. Rated to the IP67 standard, Bulgin's M8 Series ensure safe, secure and reliable protection from liquids, dust, moisture and dirt whilst also providing great resistance against vibrations to ensure that connections are not disrupted.

## Key features:

- ⊕ Straight & right angled configurations
- ⊕ 3, 4 or 5 contacts
- ⊕ Metal & plastic shell options
- ⊕ A, B & P coded
- ⊕ Environmental protection class IP67
- ⊕ Field installable connectors, panel mounts & overmolded cable options
- ⊕ PVC or PUR jacketed cable variants with many lengths from 1m – 15m
- ⊕ Compliant with EN 61076-2-104

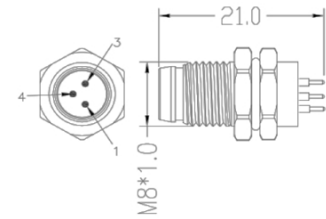
[Full Contact Diagrams Page 143](#)

M8 Rear Panel Mounting Male



PXMBNI08RPM

- Available in 3, 4, 5 & 8 poles
- PCB or flying lead termination
- Mates with Flex Body connectors



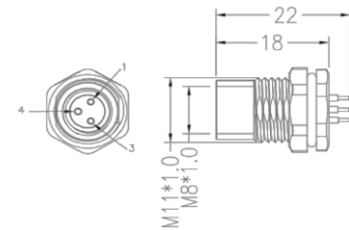
Part Number	Poles	Code	Termination	Lead Length
PXMBNI08RPM03APC	03	A	PCB Terminal	-
PXMBNI08RPM04APC	04	A	PCB Terminal	-
PXMBNI08RPM05BPC	05	B	PCB Terminal	-
PXMBNI08RPM03AFL001	03	A	Flying Lead	100mm
PXMBNI08RPM03AFL002	03	A	Flying Lead	200mm
PXMBNI08RPM03AFL003	03	A	Flying Lead	300mm
PXMBNI08RPM04AFL001	04	A	Flying Lead	100mm
PXMBNI08RPM04AFL002	04	A	Flying Lead	200mm
PXMBNI08RPM04AFL003	04	A	Flying Lead	300mm
PXMBNI08RPM05BFL001	05	B	Flying Lead	100mm
PXMBNI08RPM05BFL002	05	B	Flying Lead	200mm
PXMBNI08RPM05BFL003	05	B	Flying Lead	300mm
PXMBNI08RPM08AFLM8002	08	A	Flying Lead	200mm

M8 Rear Panel Mounting Female



PXMBNI08RPF

- Available in 3, 4, 5 & 6 poles
- PCB or flying lead termination
- Mates with Flex Inline Body connectors



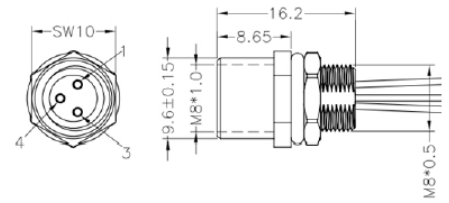
Part Number	Poles	Code	Termination	Lead Length
PXMBNI08RPF03APC	03	A	PCB Terminal	-
PXMBNI08RPF04APC	04	A	PCB Terminal	-
PXMBNI08RPF05BPC	05	B	PCB Terminal	-
PXMBNI08RPF03AFL001	03	A	Flying Lead	100mm
PXMBNI08RPF03AFL002	03	A	Flying Lead	200mm
PXMBNI08RPF03AFL003	03	A	Flying Lead	300mm
PXMBNI08RPF04AFL001	04	A	Flying Lead	100mm
PXMBNI08RPF04AFL002	04	A	Flying Lead	200mm
PXMBNI08RPF04AFL003	04	A	Flying Lead	300mm
PXMBNI08RPF05BFL001	05	B	Flying Lead	100mm
PXMBNI08RPF05BFL002	05	B	Flying Lead	200mm
PXMBNI08RPF05BFL003	05	B	Flying Lead	300mm
PXMBNI08RPF06AFLM8001	06	A	Flying Lead	100mm
PXMBNI08RPF08AFLM8002	08	A	Flying Lead	200mm

M8 Front Panel Mounting Female



PXMBNI08FPF

- Available in 3, 4, 5, 6 & 8 poles
- Flying lead termination
- Mates with Flex Inline Body connector



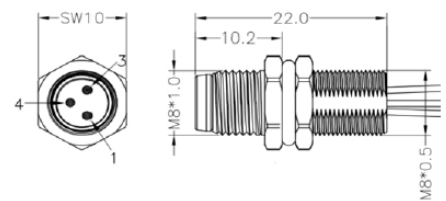
Part Number	Poles	Code	Termination	Lead Length
PXMBNI08FPF03AFL001	03	A	Flying Lead	100mm
PXMBNI08FPF03AFL002	03	A	Flying Lead	200mm
PXMBNI08FPF03AFL003	03	B	Flying Lead	300mm
PXMBNI08FPF04AFL001	04	A	Flying Lead	100mm
PXMBNI08FPF04AFL002	04	A	Flying Lead	200mm
PXMBNI08FPF04AFL003	04	A	Flying Lead	300mm
PXMBNI08FPF05BFL001	05	B	Flying Lead	100mm
PXMBNI08FPF05BFL002	05	B	Flying Lead	200mm
PXMBNI08FPF05BFL003	05	B	Flying Lead	300mm
PXMBNI08FPF06AFLM11001	06	A	Flying Lead	100mm
PXMBNI08FPF08AFLM11002	08	A	Flying Lead	200mm

M8 Front Panel Mounting Male



PXMBNI08FPM

- Available in 3, 4 and 5 poles
- PCB or flying lead termination
- Front panel mounting M8
- Mates with Flex Body connectors



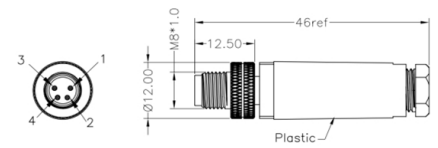
Part Number	Poles	Code	Termination	Lead Length
PXMBNI08FPM03AFL001	03	A	Flying Lead	100mm
PXMBNI08FPM03AFL002	03	A	Flying Lead	200mm
PXMBNI08FPM03AFL003	03	A	Flying Lead	300mm
PXMBNI08FPM04AFL001	04	A	Flying Lead	100mm
PXMBNI08FPM04AFL002	04	A	Flying Lead	200mm
PXMBNI08FPM04AFL003	04	A	Flying Lead	300mm
PXMBNI08FPM05BFL001	05	B	Flying Lead	100mm
PXMBNI08FPM05BFL002	05	B	Flying Lead	200mm
PXMBNI08FPM05BFL003	05	B	Flying Lead	300mm
PXMBNI08FPM04PPC	04	P	PCB Terminal	-

M8 Flex Inline Body Male



PXPPAM08FIM

- Available in 3 and 4 poles
- Screw termination
- Plastic Flex Inline Body
- Mates with Flex Body and panel mount connectors



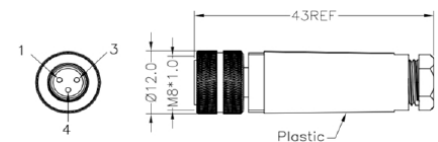
Part Number	Poles	Code	Termination
PXPPAM08FIM03AST	03	A	Screw Terminal
PXPPAM08FIM04AST	04	A	Screw Terminal

M8 Flex Body Female



PXPPAM08FBF

- Available in 3 and 4 poles
- Screw termination
- Plastic Flex Body
- Mates with Flex Inline Body and panel mount connectors



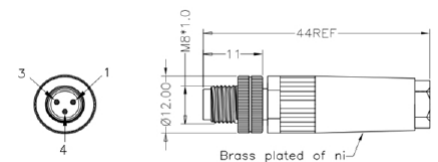
Part Number	Poles	Code	Termination
PXPPAM08FBF03AST	03	A	Screw Terminal
PXPPAM08FBF04AST	04	A	Screw Terminal

Brass - Nickel Plating M8 Flex Inline Body Male



PXMBNI08FIM

- Available in 3, 4 and 5 poles
- Solder termination
- Metal Flex Inline Body
- Mates with Flex Body and panel mount connectors



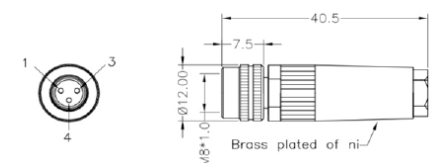
Part Number	Poles	Code	Termination
PXMBNI08FIM03ASC	03	A	Solder Terminal
PXMBNI08FIM04ASC	04	A	Solder Terminal
PXMBNI08FIM05BSC	05	B	Solder Terminal

Brass - Nickel Plating M8 Flex Body Female



PXMBNI08FBF

- Available in 3, 4 and 5 poles
- Solder termination
- Metal Flex Body
- Mates with Flex Inline Body and panel mount connectors



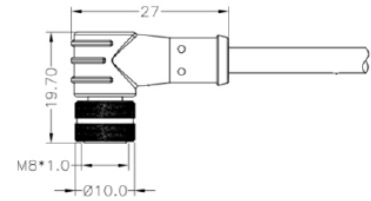
Part Number	Poles	Code	Termination
PXMBNI08FBF03ASC	03	A	Solder Terminal
PXMBNI08FBF04ASC	04	A	Solder Terminal
PXMBNI08FBF05BSC	05	B	Solder Terminal

M8 Right Angled Female



PXPTPU08RAF  
PXPPVC08RAF

- Available in 3, 4, 5, 6 & 8 poles
- 1, 1.5, 2, 3, 5, 7.5, 10 & 15M
- cable options
- Overmold Cable Body
- Mates with Flex Inline Body & panel mount connectors



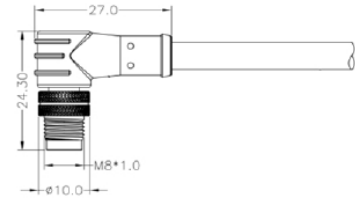
Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPPVC08RAF03ACL010PVC	03	A	Overmold Cable	1m	PVC
PXPTPU08RAF03ACL010PUR	03	A	Overmold Cable	1m	PUR
PXPPVC08RAF03ACL020PVC	03	A	Overmold Cable	2m	PVC
PXPTPU08RAF03ACL020PUR	03	A	Overmold Cable	2m	PUR
PXPPVC08RAF03ACL030PVC	03	A	Overmold Cable	3m	PVC
PXPTPU08RAF03ACL030PUR	03	A	Overmold Cable	3m	PUR
PXPPVC08RAF03ACL050PVC	03	A	Overmold Cable	5m	PVC
PXPTPU08RAF03ACL050PUR	03	A	Overmold Cable	5m	PUR
PXPPVC08RAF03ACL100PVC	03	A	Overmold Cable	10m	PVC
PXPTPU08RAF03ACL100PUR	03	A	Overmold Cable	10m	PUR
PXPPVC08RAF03ACL150PVC	03	A	Overmold Cable	15m	PVC
PXPTPU08RAF03ACL150PUR	03	A	Overmold Cable	15m	PUR
PXPPVC08RAF04ACL010PVC	04	A	Overmold Cable	1m	PVC
PXPTPU08RAF04ACL010PUR	04	A	Overmold Cable	1m	PUR
PXPPVC08RAF04ACL020PVC	04	A	Overmold Cable	2m	PVC
PXPTPU08RAF04ACL020PUR	04	A	Overmold Cable	2m	PUR
PXPPVC08RAF04ACL030PVC	04	A	Overmold Cable	3m	PVC
PXPTPU08RAF04ACL030PUR	04	A	Overmold Cable	3m	PUR
PXPPVC08RAF04ACL050PVC	04	A	Overmold Cable	5m	PVC
PXPTPU08RAF04ACL050PUR	04	A	Overmold Cable	5m	PUR
PXPPVC08RAF04ACL100PVC	04	A	Overmold Cable	10m	PVC
PXPTPU08RAF04ACL100PUR	04	A	Overmold Cable	10m	PUR
PXPPVC08RAF04ACL150PVC	04	A	Overmold Cable	15m	PVC
PXPTPU08RAF04ACL150PUR	04	A	Overmold Cable	15m	PUR
PXPPVC08RAF05BCL010PVC	05	B	Overmold Cable	1m	PVC
PXPTPU08RAF05BCL010PUR	05	B	Overmold Cable	1m	PUR
PXPPVC08RAF05BCL020PVC	05	B	Overmold Cable	2m	PVC
PXPTPU08RAF05BCL020PUR	05	B	Overmold Cable	2m	PUR
PXPPVC08RAF05BCL030PVC	05	B	Overmold Cable	3m	PVC
PXPTPU08RAF05BCL030PUR	05	B	Overmold Cable	3m	PUR
PXPPVC08RAF05BCL050PVC	05	B	Overmold Cable	5m	PVC
PXPTPU08RAF05BCL050PUR	05	B	Overmold Cable	5m	PUR
PXPPVC08RAF05BCL100PVC	05	B	Overmold Cable	10m	PVC
PXPTPU08RAF05BCL100PUR	05	B	Overmold Cable	10m	PUR
PXPPVC08RAF05BCL150PVC	05	B	Overmold Cable	15m	PVC
PXPTPU08RAF05BCL150PUR	05	B	Overmold Cable	15m	PUR
PXPPVC08RAF06ACL020PVC	06	A	Overmold Cable	2m	PVC
PXPPVC08RAF08ACL010PVC	08	A	Overmold Cable	1m	PVC
PXPPNP08RAF04ACL015PVC	04	A	Overmold Cable	1.5m	PVC
PXPPNP08RAF04ACL030PVC	04	A	Overmold Cable	3m	PVC
PXPPNP08RAF04ACL050PVC	04	A	Overmold Cable	5m	PVC
PXPPNP08RAF04ACL075PVC	04	A	Overmold Cable	7.5m	PVC
PXPPNP08RAF04ACL100PVC	04	A	Overmold Cable	10m	PVC

M8 Right Angled Male



PXPTPU08RAM  
PXPPVC08RAM

- Available in 3, 4 and 5 poles
- 1,2,3,5,10 & 15M cable options
- Overmold Flex Inline Body
- Mates with Flex Body & panel mount connectors



Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPPVC08RAM03ACLO10PVC	03	A	Overmold Cable	1m	PVC
PXPTPU08RAM03ACLO10PUR	03	A	Overmold Cable	1m	PUR
PXPPVC08RAM03ACLO20PVC	03	A	Overmold Cable	2m	PVC
PXPTPU08RAM03ACLO20PUR	03	A	Overmold Cable	2m	PUR
PXPPVC08RAM03ACLO30PVC	03	A	Overmold Cable	3m	PVC
PXPTPU08RAM03ACLO30PUR	03	A	Overmold Cable	3m	PUR
PXPPVC08RAM03ACLO50PVC	03	A	Overmold Cable	5m	PVC
PXPTPU08RAM03ACLO50PUR	03	A	Overmold Cable	5m	PUR
PXPPVC08RAM03ACL100PVC	03	A	Overmold Cable	10m	PVC
PXPTPU08RAM03ACL100PUR	03	A	Overmold Cable	10m	PUR
PXPPVC08RAM03ACL150PVC	03	A	Overmold Cable	15m	PVC
PXPTPU08RAM03ACL150PUR	03	A	Overmold Cable	15m	PUR
PXPPVC08RAM04ACLO10PVC	04	A	Overmold Cable	1m	PVC
PXPTPU08RAM04ACLO10PUR	04	A	Overmold Cable	1m	PUR
PXPPVC08RAM04ACLO20PVC	04	A	Overmold Cable	2m	PVC
PXPTPU08RAM04ACLO20PUR	04	A	Overmold Cable	2m	PUR
PXPPVC08RAM04ACLO30PVC	04	A	Overmold Cable	3m	PVC
PXPTPU08RAM04ACLO30PUR	04	A	Overmold Cable	3m	PUR
PXPPVC08RAM04ACLO50PVC	04	A	Overmold Cable	5m	PVC
PXPTPU08RAM04ACLO50PUR	04	A	Overmold Cable	5m	PUR
PXPPVC08RAM04ACL100PVC	04	A	Overmold Cable	10m	PVC
PXPTPU08RAM04ACL100PUR	04	A	Overmold Cable	10m	PUR
PXPPVC08RAM04ACL150PVC	04	A	Overmold Cable	15m	PVC
PXPTPU08RAM04ACL150PUR	04	A	Overmold Cable	15m	PUR
PXPPVC08RAM05BCL010PVC	05	B	Overmold Cable	1m	PVC
PXPTPU08RAM05BCL010PUR	05	B	Overmold Cable	1m	PUR
PXPPVC08RAM05BCL020PVC	05	B	Overmold Cable	2m	PVC
PXPTPU08RAM05BCL020PUR	05	B	Overmold Cable	2m	PUR
PXPPVC08RAM05BCL030PVC	05	B	Overmold Cable	3m	PVC
PXPTPU08RAM05BCL030PUR	05	B	Overmold Cable	3m	PUR
PXPPVC08RAM05BCL050PVC	05	B	Overmold Cable	5m	PVC
PXPTPU08RAM05BCL050PUR	05	B	Overmold Cable	5m	PUR
PXPPVC08RAM05BCL100PVC	05	B	Overmold Cable	10m	PVC
PXPTPU08RAM05BCL100PUR	05	B	Overmold Cable	10m	PUR
PXPPVC08RAM05BCL150PVC	05	B	Overmold Cable	15m	PVC
PXPTPU08RAM05BCL150PUR	05	B	Overmold Cable	15m	PUR

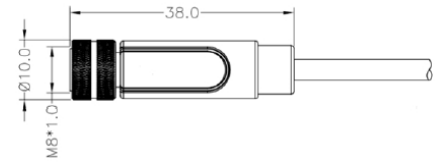


M8 Flex Body Female



PXPTPU08FBF  
PXPPVC08FBF

- Available in 3, 4, 5, 6 & 8 poles
- 1,2,3,5,10 & 15M cable options
- Overmold Flex Body
- Mates with Flex Inline Body & panel mount connectors



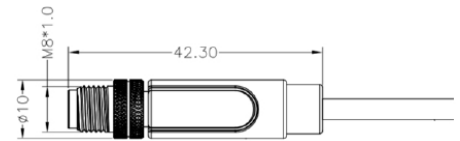
Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPPVC08FBF03ACL010PVC	03	A	Overmold Cable	1m	PVC
PXPTPU08FBF03ACL010PUR	03	A	Overmold Cable	1m	PUR
PXPPVC08FBF03ACL020PVC	03	A	Overmold Cable	2m	PVC
PXPTPU08FBF03ACL020PUR	03	A	Overmold Cable	2m	PUR
PXPPVC08FBF03ACL030PVC	03	A	Overmold Cable	3m	PVC
PXPTPU08FBF03ACL030PUR	03	A	Overmold Cable	3m	PUR
PXPPVC08FBF03ACL050PVC	03	A	Overmold Cable	5m	PVC
PXPTPU08FBF03ACL050PUR	03	A	Overmold Cable	5m	PUR
PXPPVC08FBF03ACL100PVC	03	A	Overmold Cable	10m	PVC
PXPTPU08FBF03ACL100PUR	03	A	Overmold Cable	10m	PUR
PXPPVC08FBF03ACL150PVC	03	A	Overmold Cable	15m	PVC
PXPTPU08FBF03ACL150PUR	03	A	Overmold Cable	15m	PUR
PXPPVC08FBF04ACL010PVC	04	A	Overmold Cable	1m	PVC
PXPTPU08FBF04ACL010PUR	04	A	Overmold Cable	1m	PUR
PXPPVC08FBF04ACL020PVC	04	A	Overmold Cable	2m	PVC
PXPTPU08FBF04ACL020PUR	04	A	Overmold Cable	2m	PUR
PXPPVC08FBF04ACL030PVC	04	A	Overmold Cable	3m	PVC
PXPTPU08FBF04ACL030PUR	04	A	Overmold Cable	3m	PUR
PXPPVC08FBF04ACL050PVC	04	A	Overmold Cable	5m	PVC
PXPTPU08FBF04ACL050PUR	04	A	Overmold Cable	5m	PUR
PXPPVC08FBF04ACL100PVC	04	A	Overmold Cable	10m	PVC
PXPTPU08FBF04ACL100PUR	04	A	Overmold Cable	10m	PUR
PXPPVC08FBF04ACL150PVC	04	A	Overmold Cable	15m	PVC
PXPTPU08FBF04ACL150PUR	04	A	Overmold Cable	15m	PUR
PXPPVC08FBF05BCL010PVC	05	B	Overmold Cable	1m	PVC
PXPTPU08FBF05BCL010PUR	05	B	Overmold Cable	1m	PUR
PXPPVC08FBF05BCL020PVC	05	B	Overmold Cable	2m	PVC
PXPTPU08FBF05BCL020PUR	05	B	Overmold Cable	2m	PUR
PXPPVC08FBF05BCL030PVC	05	B	Overmold Cable	3m	PVC
PXPTPU08FBF05BCL030PUR	05	B	Overmold Cable	3m	PUR
PXPPVC08FBF05BCL050PVC	05	B	Overmold Cable	5m	PVC
PXPTPU08FBF05BCL050PUR	05	B	Overmold Cable	5m	PUR
PXPPVC08FBF05BCL100PVC	05	B	Overmold Cable	10m	PVC
PXPTPU08FBF05BCL100PUR	05	B	Overmold Cable	10m	PUR
PXPPVC08FBF05BCL150PVC	05	B	Overmold Cable	15m	PVC
PXPTPU08FBF05BCL150PUR	05	B	Overmold Cable	15m	PUR
PXPTPU08FBF06ACL020PUR	06	A	Overmold Cable	2m	PUR
PXPPVC08FBF08ACL010PVC	08	A	Overmold Cable	1m	PVC
PXPTPU08FBF04PCL010PUR	04	P	Overmold Cable	1m	PUR

M8 Flex Inline Body Male



PXPTPU08FIM  
PXPPVC08FIM

- Available in 3, 4 and 5 poles
- 1, 1.5, 2, 3, 5, 7.5, 10 & 15M
- cable options
- Overmold Flex Inline Body
- Mates with Flex Body & panel mount connectors



Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPPVC08FIM03ACL010PVC	03	A	Overmold Cable	1m	PVC
PXPTPU08FIM03ACL010PUR	03	A	Overmold Cable	1m	PUR
PXPPVC08FIM03ACL020PVC	03	A	Overmold Cable	2m	PVC
PXPTPU08FIM03ACL020PUR	03	A	Overmold Cable	2m	PUR
PXPPVC08FIM03ACL030PVC	03	A	Overmold Cable	3m	PVC
PXPTPU08FIM03ACL030PUR	03	A	Overmold Cable	3m	PUR
PXPPVC08FIM03ACL050PVC	03	A	Overmold Cable	5m	PVC
PXPTPU08FIM03ACL050PUR	03	A	Overmold Cable	5m	PUR
PXPPVC08FIM03ACL100PVC	03	A	Overmold Cable	10m	PVC
PXPTPU08FIM03ACL100PUR	03	A	Overmold Cable	10m	PUR
PXPPVC08FIM03ACL150PVC	03	A	Overmold Cable	15m	PVC
PXPTPU08FIM03ACL150PUR	03	A	Overmold Cable	15m	PUR
PXPPVC08FIM04ACL010PVC	04	A	Overmold Cable	1m	PVC
PXPTPU08FIM04ACL010PUR	04	A	Overmold Cable	1m	PUR
PXPPVC08FIM04ACL020PVC	04	A	Overmold Cable	2m	PVC
PXPTPU08FIM04ACL020PUR	04	A	Overmold Cable	2m	PUR
PXPPVC08FIM04ACL030PVC	04	A	Overmold Cable	3m	PVC
PXPTPU08FIM04ACL030PUR	04	A	Overmold Cable	3m	PUR
PXPPVC08FIM04ACL050PVC	04	A	Overmold Cable	5m	PVC
PXPTPU08FIM04ACL050PUR	04	A	Overmold Cable	5m	PUR
PXPPVC08FIM04ACL100PVC	04	A	Overmold Cable	10m	PVC
PXPTPU08FIM04ACL100PUR	04	A	Overmold Cable	10m	PUR
PXPPVC08FIM04ACL150PVC	04	A	Overmold Cable	15m	PVC
PXPTPU08FIM04ACL150PUR	04	A	Overmold Cable	15m	PUR
PXPPVC08FIM05BCL010PVC	05	B	Overmold Cable	1m	PVC
PXPTPU08FIM05BCL010PUR	05	B	Overmold Cable	1m	PUR
PXPPVC08FIM05BCL020PVC	05	B	Overmold Cable	2m	PVC
PXPTPU08FIM05BCL020PUR	05	B	Overmold Cable	2m	PUR
PXPPVC08FIM05BCL030PVC	05	B	Overmold Cable	3m	PVC
PXPTPU08FIM05BCL030PUR	05	B	Overmold Cable	3m	PUR
PXPPVC08FIM05BCL050PVC	05	B	Overmold Cable	5m	PVC
PXPTPU08FIM05BCL050PUR	05	B	Overmold Cable	5m	PUR
PXPPVC08FIM05BCL100PVC	05	B	Overmold Cable	10m	PVC
PXPTPU08FIM05BCL100PUR	05	B	Overmold Cable	10m	PUR
PXPPVC08FIM05BCL150PVC	05	B	Overmold Cable	15m	PVC
PXPTPU08FIM05BCL150PUR	05	B	Overmold Cable	15m	PUR
PXPPNP08FIM04ACL015PVC	04	A	Overmold Cable	1.5m	PVC
PXPPNP08FIM04ACL030PVC	04	A	Overmold Cable	3m	PVC
PXPPNP08FIM04ACL050PVC	04	A	Overmold Cable	5m	PVC
PXPPNP08FIM04ACL075PVC	04	A	Overmold Cable	7.5m	PVC
PXPPNP08FIM04ACL100PVC	04	A	Overmold Cable	10m	PVC
PXPPVC08FIM04PCL010PVC	04	P	Overmold Cable	1m	PVC



**Electrical**

No. Poles:	3	4	5	6	8
Current Rating:	3A	3A	1.5A	1.5A	1.5A
Voltage Rating (ac/dc) :	60V	30V	30V	30V	30V
Contact Resistance:	<10mΩ				
Insulation Resistance:	>100MΩ				
AC Breakdown Voltage:					
3 Pole	1.5KV				
4 Pole	0.8KV				
5 Pole	0.8KV				
6 Pole	0.8KV				
8 Pole	0.8KV				
Operating Temp Range:	-25°C to 80°C				

**Mechanical:**

Locking Mechanism:	Screw coupling
Sealing:	IP67
Contact Accommodation:	3, 4 & 5 Pole
Cable Acceptance:	28AWG-22AWG
Terminations:	3.0 - 3.5 mm Dia
3 Pole	Single wire / PCB / Cable Screw / Solder
4 Pole	Single wire / PCB / Cable Screw / Solder
5 Pole	Single wire / PCB / Cable Screw / Solder
6 Pole	Single wire / PCB / Cable Screw / Solder
8 Pole	Single wire / PCB / Cable Screw / Solder
Mechanical Operation:	500 Mating Cycles
Diameter over coupling ring:	12.0mm

**Materials:**

**Panel Mount:**

**Cable Connectors:**

**Flex & Inline Connectors:**

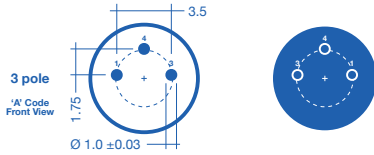
Body:	Nickel Plated Brass	TPU / PVC	Nickel Plated Brass / PA66
Coupling Nut:	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass
Colour:	Grey	Black	Black or Grey
Pin Contacts:	Brass, Gold plating	Brass, Gold plating	Brass, Gold plating
Socket Contacts:	Phosphor Bronze, Gold plating	Phosphor Bronze, Gold plating	Phosphor Bronze, Gold plating
O Rings & Gaskets:	Viton	Viton	Viton
RoHS:	Compliant	Compliant	Compliant

<b>XXX</b>	<b>XXX</b>	<b>XX</b>	<b>XX</b>	<b>X</b>	<b>XX</b>	<b>X</b>	<b>XX</b>
Series	Material	Series Size	Body Style	Orientation	NO. Contacts	Code	Termination
PXM	BNI = Brass Nickel PAM = Polyamide	08	FB = Flex Body FI = Flex Inline Body	M F	03 04 05 06 08	A B P	ST = Screw Terminal PC = PCB FL = Flying Lead CL = Cable SC = Solder YT = Y-Type
PXP	TPU = overmold for PUR PVC = overmold for PVC PNP = LED PNP		FP = Front Panel Mounting RP = Rear Panel Mounting RA = Right Angle TS = T-Splitter	T-Split = MM MF			T-Split Only = FIIFI FBIFB FBBFB

<b>XXX</b>	<b>XXX</b>	<b>XXX</b>
Mounting Nut	Lead Length	Cable Material
M12 M16	001 002 003 010 020 030 050 075 100 150	PUR PVC

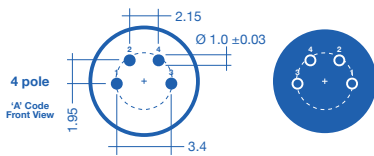
**Contact Diagrams:**

XXXXXXXXXXM03XXXXXXXXXX  
XXXXXXXXXXF03XXXXXXXXXX



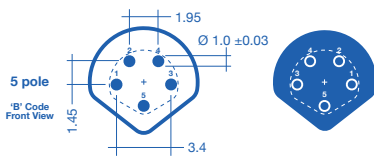
P1	PAIR	WIRE COLOUR	P2
1	⌘	BROWN	1
3	⌘	BLUE	3
4	⌘	BLACK	4

XXXXXXXXXXM04XXXXXXXXXX  
XXXXXXXXXXF04XXXXXXXXXX



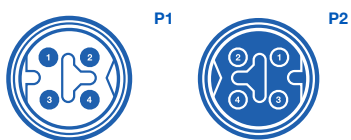
P1	PAIR	WIRE COLOUR	P2
1	⌘	BROWN	1
2	⌘	WHITE	2
3	⌘	BLUE	3
4	⌘	BLACK	4

XXXXXXXXXXM06XXXXXXXXXX  
XXXXXXXXXXF06XXXXXXXXXX



P1	PAIR	WIRE COLOUR	P2
1	⌘	BROWN	1
2	⌘	WHITE	2
3	⌘	BLUE	3
4	⌘	BLACK	4
5	⌘	GREY	5
6	⌘	PINK	6

XXXXXXXXXXM04XXXXXXXXXXXXXX  
XXXXXXXXXXF04XXXXXXXXXXXXXX



**4 PINS P-CODED**

P1	PAIR	COLOUR	P2
1	⌘	YELLOW	OPEN
2	⌘	WHITE	
3	⌘	BLUE	
4	⌘	BROWN	

With a high degree of mechanical and electrical stability, **Bulgin's M12 connectors** provide a **cost effective** and **flexible connectivity solution** for onsite installations, helping to **decrease downtime** in process control, manufacturing automation and industrial instrumentation applications.



## Key features:

- Reliable industry standard (EN 61076-2-101) screw locking mechanism
- IP67 degree of protection
- A, B, D, L, S & T Coded versions
- Field installable, cable and panel mount options
- Plastic and metal options variants
- Straight and right angled forms
- Overmolded PVC, PUR, PNP or NPN cable connectors
- Pole variants from 3 – 17

**Full Contact Diagrams Page 159**

M12 connectors are established as one of the most reliable and efficient connection standards for Industrial Machinery and Factory Automation applications. With a small footprint, extremely low failure rate and high performance capabilities, this range is ideal not only for sensor connections but also for a variety of fieldbus systems.

These M12 Series circular connectors are rugged, easy to use and extremely reliable solutions for sensor/actuator connectivity in industrial automation and control applications. With an IP67 rating, they are also extremely effective in harsh environments outside of industrial automation applications where compact and dependable connections with environmental protection are required.

Bulgin's field attachable M12 connectors feature a robust aluminium coupling nut, making them a lightweight and durable alternative to the more common nickel-plated M12 nut variants and an ideal plug and play solution for upgrading sensor systems with M12 connectivity.



Bulgin's M12 Series connectors are available in a variety of industry standard keying/coding options to further minimize wiring errors and serve a large variety of customer needs.

## M12 Series coding options:



A-Coding



B-Coding



D-Coding



L-Coding



S-Coding



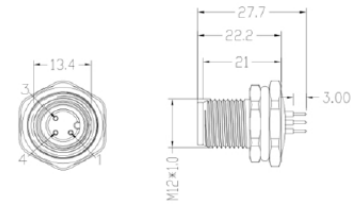
T-Coding

M12 Rear Panel Mounting Male



PXMBNI12RPM

- 3, 4, 5, 8 and 12 poles
- PCB termination
- Different panel mounting options available
- Mates with Flex Body connectors



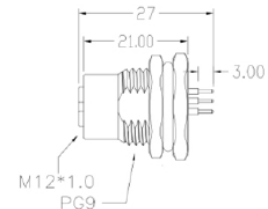
Part Number	Poles	Code	Termination	Mounting Nut
PXMBNI12RPM03APCPG9	03	A	PCB Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12RPM04APCPG9	04	A	PCB Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12RPM05APCPG9	05	A	PCB Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12RPM08APCPG9	08	A	PCB Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12RPM12APCPG9	12	A	PCB Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12RPM05BPCPG9	05	B	PCB Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12RPM04DPCPG9	04	D	PCB Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12RPM03APCM16	03	A	PCB Terminal	M16 Mounting / Gland Nut Thread
PXMBNI12RPM04APCM16	04	A	PCB Terminal	M16 Mounting / Gland Nut Thread
PXMBNI12RPM05APCM16	05	A	PCB Terminal	M16 Mounting / Gland Nut Thread
PXMBNI12RPM08APCM16	08	A	PCB Terminal	M16 Mounting / Gland Nut Thread
PXMBNI12RPM12APCM16	12	A	PCB Terminal	M16 Mounting / Gland Nut Thread
PXMBNI12RPM05BPCM16	05	B	PCB Terminal	M16 Mounting / Gland Nut Thread
PXMBNI12RPM04DPCM16	04	D	PCB Terminal	M16 Mounting / Gland Nut Thread
PXMBNI12RPM03APCM12	03	A	PCB Terminal	M12 Mounting / Gland Nut Thread
PXMBNI12RPM04APCM12	04	A	PCB Terminal	M12 Mounting / Gland Nut Thread
PXMBNI12RPM05APCM12	05	A	PCB Terminal	M12 Mounting / Gland Nut Thread
PXMBNI12RPM08APCM12	08	A	PCB Terminal	M12 Mounting / Gland Nut Thread
PXMBNI12RPM12APCM12	12	A	PCB Terminal	M12 Mounting / Gland Nut Thread
PXMBNI12RPM05BPCM12	05	B	PCB Terminal	M12 Mounting / Gland Nut Thread
PXMBNI12RPM04DPCM12	04	D	PCB Terminal	M12 Mounting / Gland Nut Thread

M12 Rear Panel Mounting Female



PXMBNI12RPF

- 3, 4, 5, 8 and 12 poles
- PCB termination
- Different panel mounting options available
- Mates with Flex Inline Body connectors



Part Number	Poles	Code	Termination	Mounting Nut
PXMBNI12RPF03APCPG9	03	A	PCB Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12RPF04APCPG9	04	A	PCB Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12RPF05APCPG9	05	A	PCB Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12RPF08APCPG9	08	A	PCB Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12RPF12APCPG9	12	A	PCB Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12RPF05BPCPG9	05	B	PCB Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12RPF04DPCPG9	04	D	PCB Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12RPF03APCM16	03	A	PCB Terminal	M16 Mounting / Gland Nut Thread
PXMBNI12RPF04APCM16	04	A	PCB Terminal	M16 Mounting / Gland Nut Thread
PXMBNI12RPF05APCM16	05	A	PCB Terminal	M16 Mounting / Gland Nut Thread
PXMBNI12RPF08APCM16	08	A	PCB Terminal	M16 Mounting / Gland Nut Thread
PXMBNI12RPF12APCM16	12	A	PCB Terminal	M16 Mounting / Gland Nut Thread
PXMBNI12RPF05BPCM16	05	B	PCB Terminal	M16 Mounting / Gland Nut Thread
PXMBNI12RPF04DPCM16	04	D	PCB Terminal	M16 Mounting / Gland Nut Thread

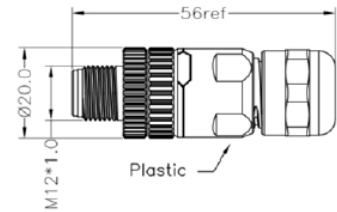


M12 Flex Inline Body Male



PXPPAM12FIM

- 3, 4, 5 and 8 poles
- Screw termination
- Plastic Flex Inline Body
- Mates with Flex body and panel mount connectors



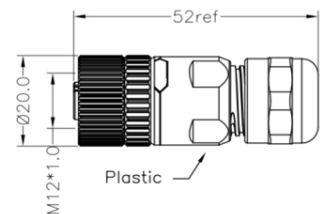
Part Number	Poles	Code	Termination
PXPPAM12FIM03ASTPG9	03	A	Screw Terminal
PXPPAM12FIM04ASTPG9	04	A	Screw Terminal
PXPPAM12FIM05ASTPG9	05	A	Screw Terminal
PXPPAM12FIM08ASTPG9	08	A	Screw Terminal

M12 Flex Body Female



PXPPAM12FBF

- 3, 4, 5 and 8 poles
- Screw termination
- Plastic Flex Body
- Mates with Flex Inline Body and panel mount connectors



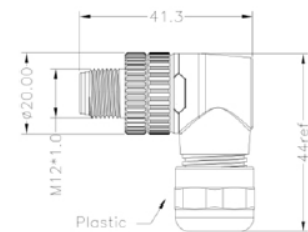
Part Number	Poles	Code	Termination
PXPPAM12FBF03ASTPG9	03	A	Screw Terminal
PXPPAM12FBF04ASTPG9	04	A	Screw Terminal
PXPPAM12FBF05ASTPG9	05	A	Screw Terminal
PXPPAM12FBF08ASTPG9	08	A	Screw Terminal

M12 Right Angled Male



PXPPAM12RAM

- 3, 4, 5 and 8 poles
- Screw termination
- Plastic Flex Inline Body
- Mates with Flex Body and panel mount connectors



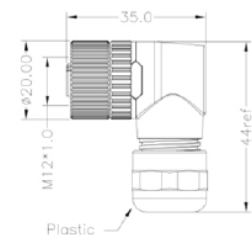
Part Number	Poles	Code	Termination
PXPPAM12RAM03ASTPG9	03	A	Screw Terminal
PXPPAM12RAM04ASTPG9	04	A	Screw Terminal
PXPPAM12RAM05ASTPG9	05	A	Screw Terminal
PXPPAM12RAM08ASTPG9	08	A	Screw Terminal

M12 Right Angled Female



PXPPAM12RAF

- 3, 4, 5 and 8 poles
- Screw termination
- Plastic Flex Body
- Mates with Flex Inline Body and panel mount connectors



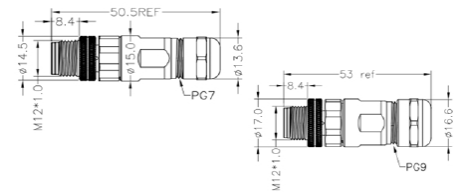
Part Number	Poles	Code	Termination
PXPPAM12RAF03ASTPG9	03	A	Screw Terminal
PXPPAM12RAF04ASTPG9	04	A	Screw Terminal
PXPPAM12RAF05ASTPG9	05	A	Screw Terminal
PXPPAM12RAF08ASTPG9	08	A	Screw Terminal

Nickel Plating M12 Flex Inline Body Male



PXMBNI12FIM

- 3, 4, 5, 8 and 12 poles
- Solder termination
- Metal Flex Inline Body
- Mates with Flex body and panel mount connectors



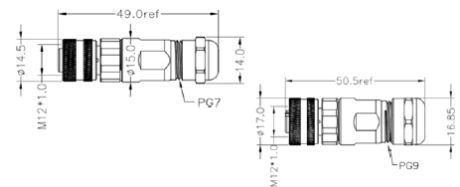
Part Number	Poles	Code	Termination	Mounting Nut
PXMBNI12FIM03ASCPG7	03	A	Solder Terminal	PG7 Mounting / Gland Nut Thread
PXMBNI12FIM04ASCPG7	04	A	Solder Terminal	PG7 Mounting / Gland Nut Thread
PXMBNI12FIM05ASCPG7	05	A	Solder Terminal	PG7 Mounting / Gland Nut Thread
PXMBNI12FIM08ASCPG7	08	A	Solder Terminal	PG7 Mounting / Gland Nut Thread
PXMBNI12FIM12ASCPG7	12	A	Solder Terminal	PG7 Mounting / Gland Nut Thread
PXMBNI12FIM05BSCPG7	05	B	Solder Terminal	PG7 Mounting / Gland Nut Thread
PXMBNI12FIM04DSCPG7	04	D	Solder Terminal	PG7 Mounting / Gland Nut Thread
PXMBNI12FIM03ASCPG9	03	A	Solder Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12FIM04ASCPG9	04	A	Solder Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12FIM05ASCPG9	05	A	Solder Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12FIM08ASCPG9	08	A	Solder Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12FIM12ASCPG9	12	A	Solder Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12FIM05BSCPG9	05	B	Solder Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12FIM04DSCPG9	04	D	Solder Terminal	PG9 Mounting / Gland Nut Thread

Nickel Plating M12 Flex Body Female



PXMBNI12FBF

- 3, 4, 5, 8 and 12 poles
- Solder termination
- Metal Flex Body
- Mates with Flex Inline Body and panel mount connectors



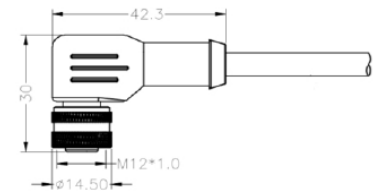
Part Number	Poles	Code	Termination	Mounting Nut
PXMBNI12FBF03ASCPG7	03	A	Solder Terminal	PG7 Mounting / Gland Nut Thread
PXMBNI12FBF04ASCPG7	04	A	Solder Terminal	PG7 Mounting / Gland Nut Thread
PXMBNI12FBF05ASCPG7	05	A	Solder Terminal	PG7 Mounting / Gland Nut Thread
PXMBNI12FBF08ASCPG7	08	A	Solder Terminal	PG7 Mounting / Gland Nut Thread
PXMBNI12FBF12ASCPG7	12	A	Solder Terminal	PG7 Mounting / Gland Nut Thread
PXMBNI12FBF05BSCPG7	05	B	Solder Terminal	PG7 Mounting / Gland Nut Thread
PXMBNI12FBF04DSCPG7	04	D	Solder Terminal	PG7 Mounting / Gland Nut Thread
PXMBNI12FBF04TSCPG7	04	T	Solder Terminal	PG7 Mounting / Gland Nut Thread
PXMBNI12FBF03ASCPG9	03	A	Solder Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12FBF04ASCPG9	04	A	Solder Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12FBF05ASCPG9	05	A	Solder Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12FBF08ASCPG9	08	A	Solder Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12FBF12ASCPG9	12	A	Solder Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12FBF05BSCPG9	05	B	Solder Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12FBF04DSCPG9	04	D	Solder Terminal	PG9 Mounting / Gland Nut Thread
PXMBNI12FBF04TSCPG7	04	T	Solder Terminal	PG7 Mounting / Gland Nut Thread

M12 Right Angled Female



PXPTPU12RAF  
PXPPVC12RAF

- 3, 4, 5, 8 and 12 poles
- 1,2,3,5,10 & 15M cable options
- Overmold Flex Body
- Mates with Flex Inline Body & panel mount connectors



Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPPVC12RAF03ACL010PVC	03	A	Overmold Cable	1m	PVC
PXPTPU12RAF03ACL010PUR	03	A	Overmold Cable	1m	PUR
PXPPVC12RAF03ACL020PVC	03	A	Overmold Cable	2m	PVC
PXPTPU12RAF03ACL020PUR	03	A	Overmold Cable	2m	PUR
PXPPVC12RAF03ACL030PVC	03	A	Overmold Cable	3m	PVC
PXPTPU12RAF03ACL030PUR	03	A	Overmold Cable	3m	PUR
PXPPVC12RAF03ACL050PVC	03	A	Overmold Cable	5m	PVC
PXPTPU12RAF03ACL050PUR	03	A	Overmold Cable	5m	PUR
PXPPVC12RAF03ACL100PVC	03	A	Overmold Cable	10m	PVC
PXPTPU12RAF03ACL100PUR	03	A	Overmold Cable	10m	PUR
PXPPVC12RAF03ACL150PVC	03	A	Overmold Cable	15m	PVC
PXPTPU12RAF03ACL150PUR	03	A	Overmold Cable	15m	PUR
PXPPVC12RAF04ACL010PVC	04	A	Overmold Cable	1m	PVC
PXPTPU12RAF04ACL010PUR	04	A	Overmold Cable	1m	PUR
PXPPNP12RAF04ACL010PVC	04	A	Overmold Cable	1m	PVC
PXPTPU12RAF04ACL020PVC	04	A	Overmold Cable	2m	PVC
PXPTPU12RAF04ACL020PUR	04	A	Overmold Cable	2m	PUR
PXPPVC12RAF04ACL030PVC	04	A	Overmold Cable	3m	PVC
PXPTPU12RAF04ACL030PUR	04	A	Overmold Cable	3m	PUR
PXPPNP12RAF04ACL030PVC	04	A	Overmold Cable	3m	PVC
PXPPVC12RAF04ACL050PVC	04	A	Overmold Cable	5m	PVC
PXPTPU12RAF04ACL050PUR	04	A	Overmold Cable	5m	PUR
PXPPNP12RAF04ACL050PVC	04	A	Overmold Cable	5m	PVC
PXPPVC12RAF04ACL100PVC	04	A	Overmold Cable	10m	PVC
PXPTPU12RAF04ACL100PUR	04	A	Overmold Cable	10m	PUR
PXPPNP12RAF04ACL100PVC	04	A	Overmold Cable	10m	PVC
PXPPVC12RAF04ACL150PVC	04	A	Overmold Cable	15m	PVC
PXPTPU12RAF04ACL150PUR	04	A	Overmold Cable	15m	PUR
PXPPVC12RAF05ACL010PVC	05	A	Overmold Cable	1m	PVC
PXPTPU12RAF05ACL010PUR	05	A	Overmold Cable	1m	PUR
PXPPVC12RAF05ACL020PVC	05	A	Overmold Cable	2m	PVC
PXPTPU12RAF05ACL020PUR	05	A	Overmold Cable	2m	PUR
PXPPVC12RAF05ACL030PVC	05	A	Overmold Cable	3m	PVC
PXPTPU12RAF05ACL030PUR	05	A	Overmold Cable	3m	PUR
PXPPVC12RAF05ACL050PVC	05	A	Overmold Cable	5m	PVC
PXPTPU12RAF05ACL050PUR	05	A	Overmold Cable	5m	PUR
PXPPVC12RAF05ACL100PVC	05	A	Overmold Cable	10m	PVC
PXPTPU12RAF05ACL100PUR	05	A	Overmold Cable	10m	PUR
PXPPVC12RAF05ACL150PVC	05	A	Overmold Cable	15m	PVC
PXPTPU12RAF05ACL150PUR	05	A	Overmold Cable	15m	PUR
PXPPVC12RAF08ACL010PVC	08	A	Overmold Cable	1m	PVC
PXPTPU12RAF08ACL010PUR	08	A	Overmold Cable	1m	PUR
PXPPVC12RAF08ACL020PVC	08	A	Overmold Cable	2m	PVC
PXPTPU12RAF08ACL020PUR	08	A	Overmold Cable	2m	PUR
PXPPVC12RAF08ACL030PVC	08	A	Overmold Cable	3m	PVC
PXPTPU12RAF08ACL030PUR	08	A	Overmold Cable	3m	PUR
PXPPVC12RAF08ACL050PVC	08	A	Overmold Cable	5m	PVC
PXPTPU12RAF08ACL050PUR	08	A	Overmold Cable	5m	PUR
PXPPVC12RAF08ACL100PVC	08	A	Overmold Cable	10m	PVC
PXPTPU12RAF08ACL100PUR	08	A	Overmold Cable	10m	PUR
PXPPVC12RAF08ACL150PVC	08	A	Overmold Cable	15m	PVC
PXPTPU12RAF08ACL150PUR	08	A	Overmold Cable	15m	PUR
PXPPVC12RAF12ACL010PVC	12	A	Overmold Cable	1m	PVC
PXPTPU12RAF12ACL010PUR	12	A	Overmold Cable	1m	PUR
PXPPVC12RAF12ACL020PVC	12	A	Overmold Cable	2m	PVC
PXPTPU12RAF12ACL020PUR	12	A	Overmold Cable	2m	PUR
PXPPVC12RAF12ACL030PVC	12	A	Overmold Cable	3m	PVC
PXPTPU12RAF12ACL030PUR	12	A	Overmold Cable	3m	PUR
PXPPVC12RAF12ACL050PVC	12	A	Overmold Cable	5m	PVC
PXPTPU12RAF12ACL050PUR	12	A	Overmold Cable	5m	PUR
PXPPVC12RAF12ACL100PVC	12	A	Overmold Cable	10m	PVC
PXPTPU12RAF12ACL100PUR	12	A	Overmold Cable	10m	PUR
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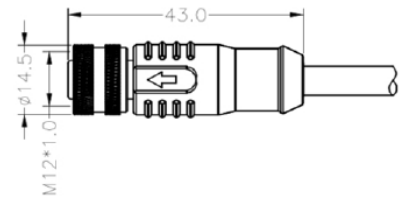
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PXPTPU12RAF05BCL010PUR	05	B	Overmold Cable	1m	PUR
PXPPVC12RAF05BCL020PVC	05	B	Overmold Cable	2m	PVC
PXPTPU12RAF05BCL020PUR	05	B	Overmold Cable	2m	PUR
PXPPVC12RAF05BCL030PVC	05	B	Overmold Cable	3m	PVC
PXPTPU12RAF05BCL030PUR	05	B	Overmold Cable	3m	PUR
PXPPVC12RAF05BCL050PVC	05	B	Overmold Cable	5m	PVC
PXPTPU12RAF05BCL050PUR	05	B	Overmold Cable	5m	PUR
PXPPVC12RAF05BCL100PVC	05	B	Overmold Cable	10m	PVC
PXPTPU12RAF05BCL100PUR	05	B	Overmold Cable	10m	PUR
PXPPVC12RAF05BCL150PVC	05	B	Overmold Cable	15m	PVC
PXPTPU12RAF05BCL150PUR	05	B	Overmold Cable	15m	PUR
PXPPVC12RAF04DCL010PVC	04	D	Overmold Cable	1m	PVC
PXPTPU12RAF04DCL010PUR	04	D	Overmold Cable	1m	PUR
PXPPVC12RAF04DCL020PVC	04	D	Overmold Cable	2m	PVC
PXPTPU12RAF04DCL020PUR	04	D	Overmold Cable	2m	PUR
PXPPVC12RAF04DCL030PVC	04	D	Overmold Cable	3m	PVC
PXPTPU12RAF04DCL030PUR	04	D	Overmold Cable	3m	PUR
PXPPVC12RAF04DCL050PVC	04	D	Overmold Cable	5m	PVC
PXPTPU12RAF04DCL050PUR	04	D	Overmold Cable	5m	PUR
PXPPVC12RAF04DCL100PVC	04	D	Overmold Cable	10m	PVC
PXPTPU12RAF04DCL100PUR	04	D	Overmold Cable	10m	PUR
PXPPVC12RAF04DCL150PVC	04	D	Overmold Cable	15m	PVC
PXPTPU12RAF04DCL150PUR	04	D	Overmold Cable	15m	PUR
PXPPNP12RAF04ACL010PVC	04	A	Overmold Cable	1m	PVC
PXPPNP12RAF04ACL030PVC	04	A	Overmold Cable	3m	PVC
PXPPNP12RAF04ACL050PVC	04	A	Overmold Cable	5m	PVC
PXPPNP12RAF04ACL100PVC	04	A	Overmold Cable	10m	PVC

M12 Flex Body Female



PXPTPU12FBF  
PXPPVC12FBF

- ⊕ 3, 4, 5, 8 and 12 poles
- ⊕ 1,2,3,5,10 & 15M cable options
- ⊕ Overmold Flex Body
- ⊕ Mates with Flex Inline Body & panel mount connectors



Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPPVC12FBF03ACL010PVC	03	A	Overmold Cable	1m	PVC
PXPTPU12FBF03ACL010PUR	03	A	Overmold Cable	1m	PUR
PXPPVC12FBF03ACL020PVC	03	A	Overmold Cable	2m	PVC
PXPTPU12FBF03ACL020PUR	03	A	Overmold Cable	2m	PUR
PXPPVC12FBF03ACL030PVC	03	A	Overmold Cable	3m	PVC
PXPTPU12FBF03ACL030PUR	03	A	Overmold Cable	3m	PUR
PXPPVC12FBF03ACL050PVC	03	A	Overmold Cable	5m	PVC
PXPTPU12FBF03ACL050PUR	03	A	Overmold Cable	5m	PUR
PXPPVC12FBF03ACL100PVC	03	A	Overmold Cable	10m	PVC
PXPTPU12FBF03ACL100PUR	03	A	Overmold Cable	10m	PUR
PXPPVC12FBF03ACL150PVC	03	A	Overmold Cable	15m	PVC
PXPTPU12FBF03ACL150PUR	03	A	Overmold Cable	15m	PUR
PXPPVC12FBF04ACL010PVC	04	A	Overmold Cable	1m	PVC
PXPTPU12FBF04ACL010PUR	04	A	Overmold Cable	1m	PUR
PXPPNP12FBF04ACL010PVC	04	A	Overmold Cable	1m	PVC
PXPPVC12FBF04ACL020PVC	04	A	Overmold Cable	2m	PVC
PXPTPU12FBF04ACL020PUR	04	A	Overmold Cable	2m	PUR
PXPPVC12FBF04ACL030PVC	04	A	Overmold Cable	3m	PVC
PXPTPU12FBF04ACL030PUR	04	A	Overmold Cable	3m	PUR
PXPPNP12FBF04ACL030PVC	04	A	Overmold Cable	3m	PVC
PXPPVC12FBF04ACL050PVC	04	A	Overmold Cable	5m	PVC
PXPTPU12FBF04ACL050PUR	04	A	Overmold Cable	5m	PUR
PXPPNP12FBF04ACL050PVC	04	A	Overmold Cable	5m	PVC
PXPPVC12FBF04ACL100PVC	04	A	Overmold Cable	10m	PVC
PXPTPU12FBF04ACL100PUR	04	A	Overmold Cable	10m	PUR
PXPPNP12FBF04ACL100PVC	04	A	Overmold Cable	10m	PVC
PXPPVC12FBF04ACL150PVC	04	A	Overmold Cable	15m	PVC
PXPTPU12FBF04ACL150PUR	04	A	Overmold Cable	15m	PUR
PXPPVC12FBF05ACL010PVC	05	A	Overmold Cable	1m	PVC
PXPTPU12FBF05ACL010PUR	05	A	Overmold Cable	1m	PUR
PXPPVC12FBF05ACL020PVC	05	A	Overmold Cable	2m	PVC
PXPTPU12FBF05ACL020PUR	05	A	Overmold Cable	2m	PUR
PXPPVC12FBF05ACL030PVC	05	A	Overmold Cable	3m	PVC
PXPTPU12FBF05ACL030PUR	05	A	Overmold Cable	3m	PUR
PXPPVC12FBF05ACL050PVC	05	A	Overmold Cable	5m	PVC
PXPTPU12FBF05ACL050PUR	05	A	Overmold Cable	5m	PUR
PXPPVC12FBF05ACL100PVC	05	A	Overmold Cable	10m	PVC

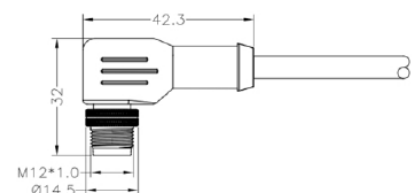
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PXPPVC12FBF05ACL150PVC	05	A	Overmold Cable	15m	PVC
PXPTPU12FBF05ACL150PUR	05	A	Overmold Cable	15m	PUR
PXPPVC12FBF08ACL010PVC	08	A	Overmold Cable	1m	PVC
PXPTPU12FBF08ACL010PUR	08	A	Overmold Cable	1m	PUR
PXPPVC12FBF08ACL020PVC	08	A	Overmold Cable	2m	PVC
PXPTPU12FBF08ACL020PUR	08	A	Overmold Cable	2m	PUR
PXPPVC12FBF08ACL030PVC	08	A	Overmold Cable	3m	PVC
PXPTPU12FBF08ACL030PUR	08	A	Overmold Cable	3m	PUR
PXPPVC12FBF08ACL050PVC	08	A	Overmold Cable	5m	PVC
PXPTPU12FBF08ACL050PUR	08	A	Overmold Cable	5m	PUR
PXPPVC12FBF08ACL100PVC	08	A	Overmold Cable	10m	PVC
PXPTPU12FBF08ACL100PUR	08	A	Overmold Cable	10m	PUR
PXPPVC12FBF08ACL150PVC	08	A	Overmold Cable	15m	PVC
PXPTPU12FBF08ACL150PUR	08	A	Overmold Cable	15m	PUR
PXPPVC12FBF12ACL010PVC	12	A	Overmold Cable	1m	PVC
PXPTPU12FBF12ACL010PUR	12	A	Overmold Cable	1m	PUR
PXPPVC12FBF12ACL020PVC	12	A	Overmold Cable	2m	PVC
PXPTPU12FBF12ACL020PUR	12	A	Overmold Cable	2m	PUR
PXPPVC12FBF12ACL030PVC	12	A	Overmold Cable	3m	PVC
PXPTPU12FBF12ACL030PUR	12	A	Overmold Cable	3m	PUR
PXPPVC12FBF12ACL050PVC	12	A	Overmold Cable	5m	PVC
PXPTPU12FBF12ACL050PUR	12	A	Overmold Cable	5m	PUR
PXPPVC12FBF12ACL100PVC	12	A	Overmold Cable	10m	PVC
PXPTPU12FBF12ACL100PUR	12	A	Overmold Cable	10m	PUR
PXPPVC12FBF12ACL150PVC	12	A	Overmold Cable	15m	PVC
PXPTPU12FBF12ACL150PUR	12	A	Overmold Cable	15m	PUR
PXPPVC12FBF05BCL010PVC	05	B	Overmold Cable	1m	PVC
PXPTPU12FBF05BCL010PUR	05	B	Overmold Cable	1m	PUR
PXPPVC12FBF05BCL020PVC	05	B	Overmold Cable	2m	PVC
PXPTPU12FBF05BCL020PUR	05	B	Overmold Cable	2m	PUR
PXPPVC12FBF05BCL030PVC	05	B	Overmold Cable	3m	PVC
PXPTPU12FBF05BCL030PUR	05	B	Overmold Cable	3m	PUR
PXPPVC12FBF05BCL050PVC	05	B	Overmold Cable	5m	PVC
PXPTPU12FBF05BCL050PUR	05	B	Overmold Cable	5m	PUR
PXPPVC12FBF05BCL100PVC	05	B	Overmold Cable	10m	PVC
PXPTPU12FBF05BCL100PUR	05	B	Overmold Cable	10m	PUR
PXPPVC12FBF05BCL150PVC	05	B	Overmold Cable	15m	PVC
PXPTPU12FBF05BCL150PUR	05	B	Overmold Cable	15m	PUR
PXPPVC12FBF04DCL010PVC	04	D	Overmold Cable	1m	PVC
PXPTPU12FBF04DCL010PUR	04	D	Overmold Cable	1m	PUR
PXPPVC12FBF04DCL020PVC	04	D	Overmold Cable	2m	PVC
PXPTPU12FBF04DCL020PUR	04	D	Overmold Cable	2m	PUR
PXPPVC12FBF04DCL030PVC	04	D	Overmold Cable	3m	PVC
PXPTPU12FBF04DCL030PUR	04	D	Overmold Cable	3m	PUR
PXPPVC12FBF04DCL050PVC	04	D	Overmold Cable	5m	PVC
PXPTPU12FBF04DCL050PUR	04	D	Overmold Cable	5m	PUR
PXPPVC12FBF04DCL100PVC	04	D	Overmold Cable	10m	PVC
PXPTPU12FBF04DCL100PUR	04	D	Overmold Cable	10m	PUR
PXPPVC12FBF04DCL150PVC	04	D	Overmold Cable	15m	PVC
PXPTPU12FBF04DCL150PUR	04	D	Overmold Cable	15m	PUR
PXPTPU12FBF04TCL010PUR	05	L	Overmold Cable	1m	PUR
PXPTPU12FBF04SCL010PUR	04	S	Overmold Cable	1m	PUR
PXPTPU12FBF05LCL010PUR	04	T	Overmold Cable	1m	PUR
PXPPNP12FBF04ACL010PVC	04	A	Overmold Cable	1m	PVC
PXPPNP12FBF04ACL030PVC	04	A	Overmold Cable	3m	PVC
PXPPNP12FBF04ACL050PVC	04	A	Overmold Cable	5m	PVC
PXPPNP12FBF04ACL100PVC	04	A	Overmold Cable	10m	PVC

M12 Right Angled Male



PXPTPU12RAM  
PXPPVC12RAM

- ⊕ 3, 4, 5, 8 and 12 poles
- ⊕ 1,2,3,5,10 & 15M cable options
- ⊕ Overmold Flex Inline Body
- ⊕ Mates with Flex Body & panel mount connectors



Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPPVC12RAM03ACL010PVC	03	A	Overmold Cable	1m	PVC
PXPTPU12RAM03ACL010PUR	03	A	Overmold Cable	1m	PUR
PXPPVC12RAM03ACL020PVC	03	A	Overmold Cable	2m	PVC
PXPTPU12RAM03ACL020PUR	03	A	Overmold Cable	2m	PUR
PXPPVC12RAM03ACL030PVC	03	A	Overmold Cable	3m	PVC
PXPTPU12RAM03ACL030PUR	03	A	Overmold Cable	3m	PUR
PXPPVC12RAM03ACL050PVC	03	A	Overmold Cable	5m	PVC

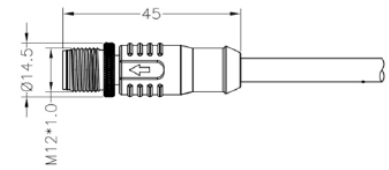
PXPTPU12RAM03ACL050PUR	03	A	Overmold Cable	5m	PUR
PXPPVC12RAM03ACL100PVC	03	A	Overmold Cable	10m	PVC
PXPTPU12RAM03ACL100PUR	03	A	Overmold Cable	10m	PUR
PXPPVC12RAM03ACL150PVC	03	A	Overmold Cable	15m	PVC
PXPTPU12RAM03ACL150PUR	03	A	Overmold Cable	15m	PUR
PXPPVC12RAM04ACL010PVC	04	A	Overmold Cable	1m	PVC
PXPTPU12RAM04ACL010PUR	04	A	Overmold Cable	1m	PUR
PXPPVC12RAM04ACL020PVC	04	A	Overmold Cable	2m	PVC
PXPTPU12RAM04ACL020PUR	04	A	Overmold Cable	2m	PUR
PXPPVC12RAM04ACL030PVC	04	A	Overmold Cable	3m	PVC
PXPTPU12RAM04ACL030PUR	04	A	Overmold Cable	3m	PUR
PXPPVC12RAM04ACL050PVC	04	A	Overmold Cable	5m	PVC
PXPTPU12RAM04ACL050PUR	04	A	Overmold Cable	5m	PUR
PXPPVC12RAM04ACL100PVC	04	A	Overmold Cable	10m	PVC
PXPTPU12RAM04ACL100PUR	04	A	Overmold Cable	10m	PUR
PXPPVC12RAM04ACL150PVC	04	A	Overmold Cable	15m	PVC
PXPTPU12RAM04ACL150PUR	04	A	Overmold Cable	15m	PUR
PXPPVC12RAM05ACL010PVC	05	A	Overmold Cable	1m	PVC
PXPTPU12RAM05ACL010PUR	05	A	Overmold Cable	1m	PUR
PXPPVC12RAM05ACL020PVC	05	A	Overmold Cable	2m	PVC
PXPTPU12RAM05ACL020PUR	05	A	Overmold Cable	2m	PUR
PXPPVC12RAM05ACL030PVC	05	A	Overmold Cable	3m	PVC
PXPTPU12RAM05ACL030PUR	05	A	Overmold Cable	3m	PUR
PXPPVC12RAM05ACL050PVC	05	A	Overmold Cable	5m	PVC
PXPTPU12RAM05ACL050PUR	05	A	Overmold Cable	5m	PUR
PXPPVC12RAM05ACL100PVC	05	A	Overmold Cable	10m	PVC
PXPTPU12RAM05ACL100PUR	05	A	Overmold Cable	10m	PUR
PXPPVC12RAM05ACL150PVC	05	A	Overmold Cable	15m	PVC
PXPTPU12RAM05ACL150PUR	05	A	Overmold Cable	15m	PUR
PXPPVC12RAM08ACL010PVC	08	A	Overmold Cable	1m	PVC
PXPTPU12RAM08ACL010PUR	08	A	Overmold Cable	1m	PUR
PXPPVC12RAM08ACL020PVC	08	A	Overmold Cable	2m	PVC
PXPTPU12RAM08ACL020PUR	08	A	Overmold Cable	2m	PUR
PXPPVC12RAM08ACL030PVC	08	A	Overmold Cable	3m	PVC
PXPTPU12RAM08ACL030PUR	08	A	Overmold Cable	3m	PUR
PXPPVC12RAM08ACL050PVC	08	A	Overmold Cable	5m	PVC
PXPTPU12RAM08ACL050PUR	08	A	Overmold Cable	5m	PUR
PXPPVC12RAM08ACL100PVC	08	A	Overmold Cable	10m	PUR
PXPTPU12RAM08ACL100PUR	08	A	Overmold Cable	10m	PUR
PXPPVC12RAM08ACL150PVC	08	A	Overmold Cable	15m	PVC
PXPTPU12RAM08ACL150PUR	08	A	Overmold Cable	15m	PUR
PXPPVC12RAM12ACL010PVC	12	A	Overmold Cable	1m	PVC
PXPTPU12RAM12ACL010PUR	12	A	Overmold Cable	1m	PUR
PXPPVC12RAM12ACL020PVC	12	A	Overmold Cable	2m	PVC
PXPTPU12RAM12ACL020PUR	12	A	Overmold Cable	2m	PUR
PXPPVC12RAM12ACL030PVC	12	A	Overmold Cable	3m	PVC
PXPTPU12RAM12ACL030PUR	12	A	Overmold Cable	3m	PUR
PXPPVC12RAM12ACL050PVC	12	A	Overmold Cable	5m	PVC
PXPTPU12RAM12ACL050PUR	12	A	Overmold Cable	5m	PUR
PXPPVC12RAM12ACL100PVC	12	A	Overmold Cable	10m	PVC
PXPTPU12RAM12ACL100PUR	12	A	Overmold Cable	10m	PUR
PXPPVC12RAM12ACL150PVC	12	A	Overmold Cable	15m	PVC
PXPTPU12RAM12ACL150PUR	12	A	Overmold Cable	15m	PUR
PXPPVC12RAM05BCL010PVC	05	B	Overmold Cable	1m	PVC
PXPTPU12RAM05BCL010PUR	05	B	Overmold Cable	1m	PUR
PXPPVC12RAM05BCL020PVC	05	B	Overmold Cable	2m	PVC
PXPTPU12RAM05BCL020PUR	05	B	Overmold Cable	2m	PUR
PXPPVC12RAM05BCL030PVC	05	B	Overmold Cable	3m	PVC
PXPTPU12RAM05BCL030PUR	05	B	Overmold Cable	3m	PUR
PXPPVC12RAM05BCL050PVC	05	B	Overmold Cable	5m	PVC
PXPTPU12RAM05BCL050PUR	05	B	Overmold Cable	5m	PUR
PXPPVC12RAM05BCL100PVC	05	B	Overmold Cable	10m	PVC
PXPTPU12RAM05BCL100PUR	05	B	Overmold Cable	10m	PUR
PXPPVC12RAM05BCL150PVC	05	B	Overmold Cable	15m	PVC
PXPTPU12RAM05BCL150PUR	05	B	Overmold Cable	15m	PUR
PXPPVC12RAM04DCL010PVC	04	D	Overmold Cable	1m	PVC
PXPTPU12RAM04DCL010PUR	04	D	Overmold Cable	1m	PUR
PXPPVC12RAM04DCL020PVC	04	D	Overmold Cable	2m	PVC
PXPTPU12RAM04DCL020PUR	04	D	Overmold Cable	2m	PUR
PXPPVC12RAM04DCL030PVC	04	D	Overmold Cable	3m	PVC
PXPTPU12RAM04DCL030PUR	04	D	Overmold Cable	3m	PUR
PXPPVC12RAM04DCL050PVC	04	D	Overmold Cable	5m	PVC
PXPTPU12RAM04DCL050PUR	04	D	Overmold Cable	5m	PUR
PXPPVC12RAM04DCL100PVC	04	D	Overmold Cable	10m	PVC
PXPTPU12RAM04DCL100PUR	04	D	Overmold Cable	10m	PUR
PXPPVC12RAM04DCL150PVC	04	D	Overmold Cable	15m	PVC
PXPTPU12RAM04DCL150PUR	04	D	Overmold Cable	15m	PUR

M12 Flex Inline Body Male



PXPTPU12FIM  
PXPPVC12FIM

- 3, 4, 5, 8 and 12 poles
- 1,2,3,5,10 & 15M cable options
- Overmold Flex Inline Body
- Mates with Flex Body & panel mount connectors



Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPPVC12FIM03ACL010PVC	03	A	Overmold Cable	1m	PVC
PXPTPU12FIM03ACL010PUR	03	A	Overmold Cable	1m	PUR
PXPPVC12FIM03ACL020PVC	03	A	Overmold Cable	2m	PVC
PXPTPU12FIM03ACL020PUR	03	A	Overmold Cable	2m	PUR
PXPPVC12FIM03ACL030PVC	03	A	Overmold Cable	3m	PVC
PXPTPU12FIM03ACL030PUR	03	A	Overmold Cable	3m	PUR
PXPPVC12FIM03ACL050PVC	03	A	Overmold Cable	5m	PVC
PXPTPU12FIM03ACL050PUR	03	A	Overmold Cable	5m	PUR
PXPPVC12FIM03ACL100PVC	03	A	Overmold Cable	10m	PVC
PXPTPU12FIM03ACL100PUR	03	A	Overmold Cable	10m	PUR
PXPPVC12FIM03ACL150PVC	03	A	Overmold Cable	15m	PVC
PXPTPU12FIM03ACL150PUR	03	A	Overmold Cable	15m	PUR
PXPPVC12FIM04ACL010PVC	04	A	Overmold Cable	1m	PVC
PXPTPU12FIM04ACL010PUR	04	A	Overmold Cable	1m	PUR
PXPPVC12FIM04ACL020PVC	04	A	Overmold Cable	2m	PVC
PXPTPU12FIM04ACL020PUR	04	A	Overmold Cable	2m	PUR
PXPPVC12FIM04ACL030PVC	04	A	Overmold Cable	3m	PVC
PXPTPU12FIM04ACL030PUR	04	A	Overmold Cable	3m	PUR
PXPPVC12FIM04ACL050PVC	04	A	Overmold Cable	5m	PVC
PXPTPU12FIM04ACL050PUR	04	A	Overmold Cable	5m	PUR
PXPPVC12FIM04ACL100PVC	04	A	Overmold Cable	10m	PVC
PXPTPU12FIM04ACL100PUR	04	A	Overmold Cable	10m	PUR
PXPPVC12FIM04ACL150PVC	04	A	Overmold Cable	15m	PVC
PXPTPU12FIM04ACL150PUR	04	A	Overmold Cable	15m	PUR
PXPPVC12FIM05ACL010PVC	05	A	Overmold Cable	1m	PVC
PXPTPU12FIM05ACL010PUR	05	A	Overmold Cable	1m	PUR
PXPPVC12FIM05ACL020PVC	05	A	Overmold Cable	2m	PVC
PXPTPU12FIM05ACL020PUR	05	A	Overmold Cable	2m	PUR
PXPPVC12FIM05ACL030PVC	05	A	Overmold Cable	3m	PVC
PXPTPU12FIM05ACL030PUR	05	A	Overmold Cable	3m	PUR
PXPPVC12FIM05ACL050PVC	05	A	Overmold Cable	5m	PVC
PXPTPU12FIM05ACL050PUR	05	A	Overmold Cable	5m	PUR
PXPPVC12FIM05ACL100PVC	05	A	Overmold Cable	10m	PVC
PXPTPU12FIM05ACL100PUR	05	A	Overmold Cable	10m	PUR
PXPPVC12FIM05ACL150PVC	05	A	Overmold Cable	15m	PVC
PXPTPU12FIM05ACL150PUR	05	A	Overmold Cable	15m	PUR
PXPPVC12FIM08ACL010PVC	08	A	Overmold Cable	1m	PVC
PXPTPU12FIM08ACL010PUR	08	A	Overmold Cable	1m	PUR
PXPPVC12FIM08ACL020PVC	08	A	Overmold Cable	2m	PVC
PXPTPU12FIM08ACL020PUR	08	A	Overmold Cable	2m	PUR
PXPPVC12FIM08ACL030PVC	08	A	Overmold Cable	3m	PVC
PXPTPU12FIM08ACL030PUR	08	A	Overmold Cable	3m	PUR
PXPPVC12FIM08ACL050PVC	08	A	Overmold Cable	5m	PVC
PXPTPU12FIM08ACL050PUR	08	A	Overmold Cable	5m	PUR
PXPPVC12FIM08ACL100PVC	08	A	Overmold Cable	10m	PVC
PXPTPU12FIM08ACL100PUR	08	A	Overmold Cable	10m	PUR
PXPPVC12FIM08ACL150PVC	08	A	Overmold Cable	15m	PVC
PXPTPU12FIM08ACL150PUR	08	A	Overmold Cable	15m	PUR
PXPPVC12FIM12ACL010PVC	12	A	Overmold Cable	1m	PVC
PXPTPU12FIM12ACL010PUR	12	A	Overmold Cable	1m	PUR
PXPPVC12FIM12ACL020PVC	12	A	Overmold Cable	2m	PVC
PXPTPU12FIM12ACL020PUR	12	A	Overmold Cable	2m	PUR
PXPPVC12FIM12ACL030PVC	12	A	Overmold Cable	3m	PVC
PXPTPU12FIM12ACL030PUR	12	A	Overmold Cable	3m	PUR
PXPPVC12FIM12ACL050PVC	12	A	Overmold Cable	5m	PVC
PXPTPU12FIM12ACL050PUR	12	A	Overmold Cable	5m	PUR
PXPPVC12FIM12ACL100PVC	12	A	Overmold Cable	10m	PVC
PXPTPU12FIM12ACL100PUR	12	A	Overmold Cable	10m	PUR
PXPPVC12FIM12ACL150PVC	12	A	Overmold Cable	15m	PVC
PXPTPU12FIM12ACL150PUR	12	A	Overmold Cable	15m	PUR

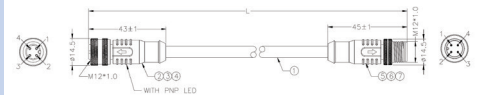
PXPPVC12FIM05BCL010PVC	05	B	Overmold Cable	1m	PVC
PXPTPU12FIM05BCL010PUR	05	B	Overmold Cable	1m	PUR
PXPPVC12FIM05BCL020PVC	05	B	Overmold Cable	2m	PVC
PXPTPU12FIM05BCL020PUR	05	B	Overmold Cable	2m	PUR
PXPPVC12FIM05BCL030PVC	05	B	Overmold Cable	3m	PVC
PXPTPU12FIM05BCL030PUR	05	B	Overmold Cable	3m	PUR
PXPPVC12FIM05BCL050PVC	05	B	Overmold Cable	5m	PVC
PXPTPU12FIM05BCL050PUR	05	B	Overmold Cable	5m	PUR
PXPPVC12FIM05BCL100PVC	05	B	Overmold Cable	10m	PVC
PXPTPU12FIM05BCL100PUR	05	B	Overmold Cable	10m	PUR
PXPPVC12FIM05BCL150PVC	05	B	Overmold Cable	15m	PVC
PXPTPU12FIM05BCL150PUR	05	B	Overmold Cable	15m	PUR
PXPPVC12FIM04DCL010PVC	04	D	Overmold Cable	1m	PVC
PXPTPU12FIM04DCL010PUR	04	D	Overmold Cable	1m	PUR
PXPPVC12FIM04DCL020PVC	04	D	Overmold Cable	2m	PVC
PXPTPU12FIM04DCL020PUR	04	D	Overmold Cable	2m	PUR
PXPPVC12FIM04DCL030PVC	04	D	Overmold Cable	3m	PVC
PXPTPU12FIM04DCL030PUR	04	D	Overmold Cable	3m	PUR
PXPPVC12FIM04DCL050PVC	04	D	Overmold Cable	5m	PVC
PXPTPU12FIM04DCL050PUR	04	D	Overmold Cable	5m	PUR
PXPPVC12FIM04DCL100PVC	04	D	Overmold Cable	10m	PVC
PXPTPU12FIM04DCL100PUR	04	D	Overmold Cable	10m	PUR
PXPPVC12FIM04DCL150PVC	04	D	Overmold Cable	15m	PVC
PXPTPU12FIM04DCL150PUR	04	D	Overmold Cable	15m	PUR
PXPTPU12FIM05LCL010PUR	05	L	Overmold Cable	1m	PUR
PXPTPU12FIM04SCL010PUR	04	S	Overmold Cable	1m	PUR
PXPTPU12FIM04TCL010PUR	04	T	Overmold Cable	1m	PUR

M12 Flex Body To Flex In-Line



PXPPNP12FBF

- 4 poles
- 0.3, 0.6, 1 & 2M cable options
- Overmold Flex Inline Body to Flex In-Line
- Mates with Flex Body & panel mount connectors



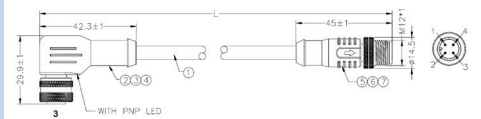
Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPPNP12FBF04AFI003PUR	04	A	Flex In-Line	0.3m	PUR
PXPPNP12FBF04AFI006PUR	04	A	Flex In-Line	0.6m	PUR
PXPPNP12FBF04AFI010PUR	04	A	Flex In-Line	1m	PUR
PXPPNP12FBF04AFI020PUR	04	A	Flex In-Line	2m	PUR

M12 Right Angle To Flex In-Line



PXPPNP12RAF

- 4 poles
- 0.3, 0.6, 1 & 2M cable options
- Overmold Flex Inline Body to Flex In-Line
- Mates with Flex Body & panel mount connectors



Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPPNP12RAF04AFI003PUR	04	A	Flex In-Line	0.3m	PUR
PXPPNP12RAF04AFI006PUR	04	A	Flex In-Line	0.6m	PUR
PXPPNP12RAF04AFI010PUR	04	A	Flex In-Line	1m	PUR
PXPPNP12RAF04AFI020PUR	04	A	Flex In-Line	2m	PUR

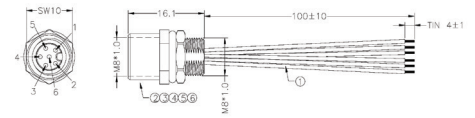


M12 Front & Rear Panel Mount Flying Leads



PXMBNI12RPM  
PXMBNI12RPF  
PXMBNI12FPF  
PXMBNI12FPM

- 4, 5 and 17 poles
- 0.1 & 0.2M cable options
- Overmold Flex Inline Body
- Mates with Flex Body
- Different panel mounting options available



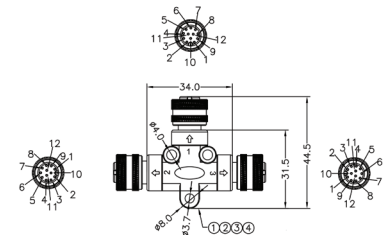
Part Number	Poles	Code	Termination	Lead Length	Mounting Nut
PXMBNI12FPM17AFLM12001	17	A	Flying Lead	0.1m	M12
PXMBNI12FPF17AFLPG9001	17	A	Flying Lead	0.1m	PG9
PXMBNI12FPM17AFLPG9001	17	A	Flying Lead	0.1m	PG9
PXMBNI12FPF17AFLM16001	17	A	Flying Lead	0.1m	M16
PXMBNI12FPM17AFLM16001	17	A	Flying Lead	0.1m	M16
PXMBNI12RPM17AFLM12001	17	A	Flying Lead	0.1m	M12
PXMBNI12RPF17AFLPG9001	17	A	Flying Lead	0.1m	PG9
PXMBNI12RPM17AFLPG9001	17	A	Flying Lead	0.1m	PG9
PXMBNI12RPF17AFLM16001	17	A	Flying Lead	0.1m	M16
PXMBNI12RPM17AFLM16001	17	A	Flying Lead	0.1m	M16
PXMBNI12RPM05LFLM16001	5	L	Flying Lead	0.1m	M16
PXMBNI12RPF05LFLM16001	5	L	Flying Lead	0.1m	M16
PXMBNI12RPM04SFLM16002	4	S	Flying Lead	0.2m	M16
PXMBNI12RPF04SFLM16002	4	S	Flying Lead	0.2m	M16
PXMBNI12RPM04TFLM16001	4	T	Flying Lead	0.1m	M16
PXMBNI12RPF04TFLM16001	4	T	Flying Lead	0.1m	M16

M12 T-Splitters



PXPPVC12TS

- 4, 5, 8 and 12 poles
- Mates with Flex Body & panel mount connectors



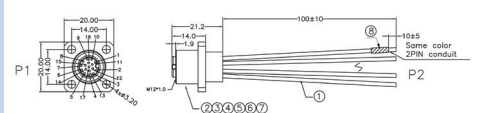
Part Number	Poles	Code	Termination
PXPPVC12TSMM04AFIIF	4	A	Male-Male-Male
PXPPVC12TSMM05AFIIF	5	A	Male-Male-Male
PXPPVC12TSMM08AFIIF	8	A	Male-Male-Male
PXPPVC12TSMM12AFIIF	12	A	Male-Male-Male
PXPPVC12TSFM04AFBIFB	4	A	Female-Male-Male
PXPPVC12TSFM05AFBIFB	5	A	Female-Male-Male
PXPPVC12TSFM08AFBIFB	8	A	Female-Male-Male
PXPPVC12TSFM12AFBIFB	12	A	Female-Male-Male
PXPPVC12TSFF04AFBBFB	4	A	Female-Female-Female
PXPPVC12TSFF05AFBBFB	5	A	Female-Female-Female
PXPPVC12TSFF08AFBBFB	8	A	Female-Female-Female
PXPPVC12TSFF12AFBBFB	12	A	Female-Female-Female

M12 Fixed Flange



PXMBNI12FL

- 17 poles
- 0.1M cable options
- Mates with Flex Body



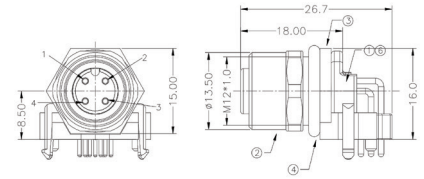
Part Number	Poles	Code	Termination	Lead Length	Mounting
PXMBNI12FLF17AFLFFL001	17	A	Flying Lead	0.1m	Fixed Flange
PXMBNI12FLM17AFLFFL001	17	A	Flying Lead	0.1m	Fixed Flange

M12 Right Angle Rear Panel Mount



PXMBNI12RA

- 4, 5, 8 and 12 poles
- Mates with Flex Body
- PCB Termination



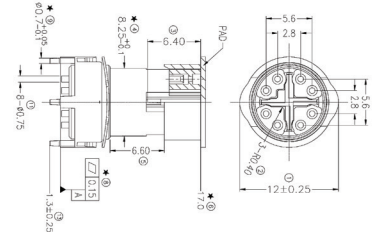
Part Number	Poles	Code	Termination	Mounting Nut
PXMBNI12RAF04APCM12	4	A	PCB Terminal	M12
PXMBNI12RAF05APCM12	5	A	PCB Terminal	M12
PXMBNI12RAF08APCM12	8	A	PCB Terminal	M12
PXMBNI12RAF12APCM12	12	A	PCB Terminal	M12
PXMBNI12RAM04APCM12	4	A	PCB Terminal	M12
PXMBNI12RAM05APCM12	5	A	PCB Terminal	M12
PXMBNI12RAM08APCM12	8	A	PCB Terminal	M12
PXMBNI12RAM12APCM12	12	A	PCB Terminal	M12

M12 SMT Connectors



PXPLCP12SM

- 4, 5, 8 and 12 poles
- Male and Female options
- PCB Termination



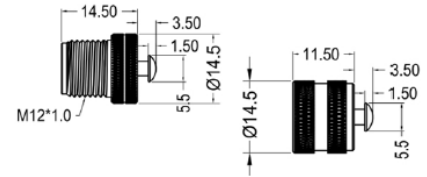
Part Number	Poles	Code	Termination
PXPLCP12SMM04APC	4	A	PCB Terminal
PXPLCP12SMF05APC	5	A	PCB Terminal
PXPLCP12SMM08APC	8	A	PCB Terminal
PXPLCP12SMM12APC	12	A	PCB Terminal
PXPLCP12SMF05APC	5	A	PCB Terminal
PXPLCP12SMF08APC	8	A	PCB Terminal

PA66 M12 Sealing Cap



PXPPAM12

- Sealing caps to maintain IP rating
- Male & Female versions



**Part Number**

**Series**

**Type**

**Material**

PXPPAM12CAM  
PXPPAM12CAF

M12  
M12

Male  
Female

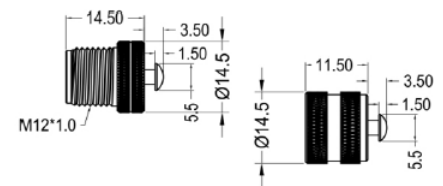
PA66  
PA66

Brass - Nickel Plating M12 Sealing Cap



PXMBNI12

- Sealing caps to maintain IP rating
- Male & Female versions



**Part Number**

**Series**

**Type**

**Material**

PXMBNI12CAM  
PXMBNI12CAF

M12  
M12

Male  
Female

Brass - Nickel Plating  
Brass - Nickel Plating

**Electrical**

No. Poles:	3	4	5	6	8	12	17
Current Rating:	4A	4A	4A	1.5A	2A	1.5A	1.5A
Voltage Rating (ac/dc) :	250V	250V	60V	30V	30V	30V	30V
Contact Resistance:	<10mΩ						
Insulation Resistance:	>100MΩ						
AC Breakdown Voltage:							
3 Pole	1.5KV						
4 Pole	1.5KV						
5 Pole	1.5KV						
6 Pole	1.5KV						
8 Pole	0.8KV						
12 Pole	0.8KV						
17 Pole	0.8KV						
Operating Temp Range:	-25°C to 80°C						

**Mechanical:**

Locking Mechanism:	Screw coupling
Sealing:	IP67
Contact Accomodation:	3, 4, 5, 6, 8, 12 & 17 Pole
Cable Acceptance:	28AWG-22AWG
Terminations:	4.6 - 8.0mm Dia
3, 4, 5, 6, 8, 12, 17	PCB / Screw / Solder / Cable PCB / Solder / Cable
Mechanical Operation:	500 & 100 mating cycle options available
Largest diameter over coupling ring:	20.0mm

**Materials:**

**Panel Mount:**

**Cable Connectors:**

**Flex & Inline Connectors:**

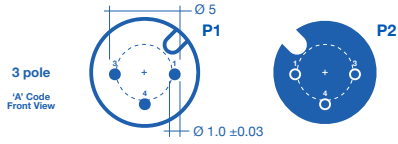
Body:	Nickel Plated Brass	TPU / PVC / LCP	Nickel Plated Brass / PA66
Coupling Nut:	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass
Colour:	Grey	Black	Black or Grey
Pin Contacts:	Brass, Gold plating	Brass, Gold plating	Brass, Gold plating
Socket Contacts:	Phosphor Bronze, Gold plating	Phosphor Bronze, Gold plating	Phosphor Bronze, Gold plating
O Rings & Gaskets:	Viton	Viton	Viton
RoHS:	Compliant	Compliant	Compliant

<b>XXX</b>	<b>XXX</b>	<b>XX</b>	<b>XX</b>	<b>X</b>	<b>XX</b>	<b>X</b>	<b>XX</b>
Series	Material	Series Size	Body Style	Orientation	NO. Contacts	Code	Termination
PXM	BNI = Brass Nickel PAM = Polyamide	12	FB = Flex Body FI = Flex Inline Body	M F	03 04 05	A B D	ST = Screw Terminal PC = PCB CL = Cable
PXP	TPU = Overmold for PUR PVC = Overmold for PVC PNP = + Signal LED NPN = - Signal LED LCP = Liquid Crystal Polymer		RP = Rear Panel Mounting RA = Right Angle SC = Sealing Cap FP = Front Panel Mounting TS = T-Splitter FL = Flange SM = Surface Mount	T-Splitters = MM FM FF	06 08 12 17	L S T P	SC = Solder FI = Flex In-Line FL = Flying Lead  T-Splitter = FIIFI FBIFB FBBFB

<b>XXX</b>	<b>XXX</b>	<b>XXX</b>
Mounting / Gland Nut Thread	Lead Length	Cable Material
PG9	001 002	PUR
PG7	003 006	PVC
M16	010 020	
M12	030 050	
FFL = Fixed Flange	100 150	

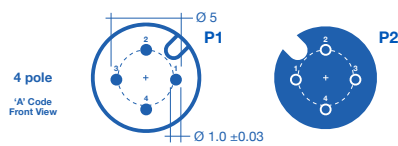
**Contact Diagrams:**

XXXXXXXXXXM03XXXXXXXXXXXXX  
XXXXXXXXXXF03XXXXXXXXXXXXX



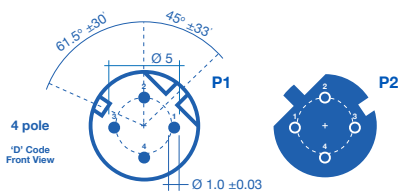
P1	PAIR	WIRE COLOUR	P2
1	⌘	BROWN	1
3	⌘	BLUE	3
4	⌘	BLACK	4

XXXXXXXXXXM04XXXXXXXXXXXXX  
XXXXXXXXXXF04XXXXXXXXXXXXX



**4 PINS A-CODED**

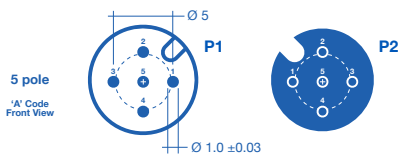
P1	PAIR	WIRE COLOUR	P2
1	⌘	BROWN	1
2	⌘	WHITE	2
3	⌘	BLUE	3
4	⌘	BLACK	4



**4 PINS D-CODED**

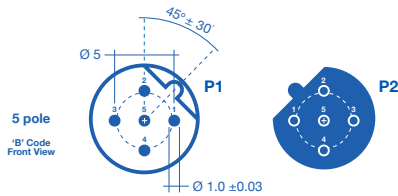
P1	PAIR	WIRE COLOUR	P2
1	⌘	YELLOW	1
2	⌘	WHITE	2
3	⌘	ORANGE	3
4	⌘	BLUE	4

XXXXXXXXXXM05XXXXXXXXXXXXX  
XXXXXXXXXXF05XXXXXXXXXXXXX



**5 PINS A-CODED**

P1	PAIR	WIRE COLOUR	P2
1	⌘	BROWN	1
2	⌘	WHITE	2
3	⌘	BLUE	3
4	⌘	BLACK	4
5	⌘	GREY	5

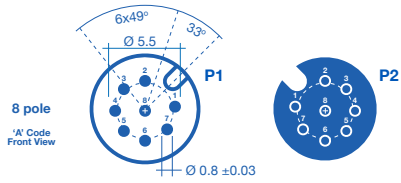


**5 PINS B-CODED**

P1	PAIR	WIRE COLOUR	P2
1	⌘	BROWN	1
2	⌘	WHITE	2
3	⌘	BLUE	3
4	⌘	BLACK	4
5	⌘	GREY	5

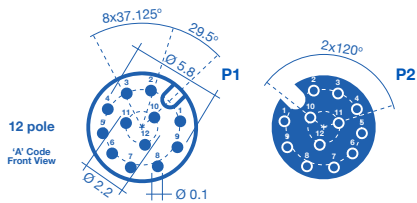
Contact Diagrams:

XXXXXXXXXXM08XXXXXXXXXXXX  
XXXXXXXXXXF08XXXXXXXXXXXX



P1	PAIR	WIRE COLOUR	P2
1	⌘	WHITE	1
2	⌘	BROWN	2
3	⌘	GREEN	3
4	⌘	YELLOW	4
5	⌘	GREY	5
6	⌘	PINK	6
7	⌘	BLUE	7
8	⌘	RED	8

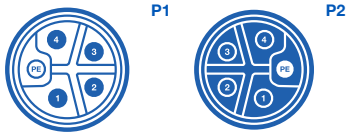
XXXXXXXXXXM12XXXXXXXXXXXX  
XXXXXXXXXXF12XXXXXXXXXXXX



P1	PAIR	WIRE COLOUR	P2
1	⌘	BROWN	1
2	⌘	BLUE	2
3	⌘	WHITE	3
4	⌘	GREEN	4
5	⌘	PINK	5
6	⌘	YELLOW	6
7	⌘	BLACK	7
8	⌘	GREY	8
9	⌘	RED	9
10	⌘	VIOLET	10
11	⌘	GREY / PINK	11
12	⌘	RED / BLUE	12

Contact Diagrams:

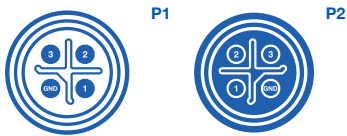
XXXXXXXXXXM05XXXXXXXXXXXXX  
XXXXXXXXXXF05XXXXXXXXXXXXX



5 PINS L-CODED

P1	PAIR	COLOUR	P2
1	⌘	BROWN	OPEN
2	⌘	WHITE	
3	⌘	BLUE	
4	⌘	BLACK	
PE	⌘	GREY	

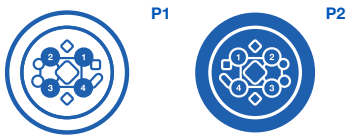
XXXXXXXXXXM04XXXXXXXXXXXXX  
XXXXXXXXXXF04XXXXXXXXXXXXX



4 PINS S-CODED

P1	PAIR	COLOUR	P2
1	⌘	BROWN	OPEN
2	⌘	WHITE	
3	⌘	BLUE	
GND	⌘	BLACK	

XXXXXXXXXXM04XXXXXXXXXXXXX  
XXXXXXXXXXF04XXXXXXXXXXXXX



4 PINS T-CODED

P1	PAIR	COLOUR	P2
1	⌘	BROWN	OPEN
2	⌘	WHITE	
3	⌘	BLUE	
4	⌘	BLACK	

With a high degree of mechanical and electrical stability, **Bulgin's M12 X Coding connectors** provide a **cost effective and flexible connectivity solution** for onsite installations, helping to **decrease downtime** in process control, manufacturing automation and industrial instrumentation applications.

## Key features:

- Reliable industry standard (EN 61076-2-109) screw locking mechanism
- Field installable, cable and panel mount options
- Maximum Data Signaling Rate to 10Gbit/s
- -25 °C to 85 °C Temperature Range
- Plastic and metal options variants
- Cat6a cables
- Ethernet, Profinet Application
- 800V Rated Impulse Voltage
- IP67 degree of protection
- 0.5A Rated Current
- M12 X Coding

**Full Contact Diagrams Page 169**



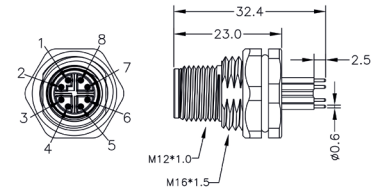


M12 X Code Rear Panel Mounting Male



PXMBNI12RPM08XPCM16

- 8 pole
- PCB termination
- Different panel mounting options available
- Mates with flex body connectors



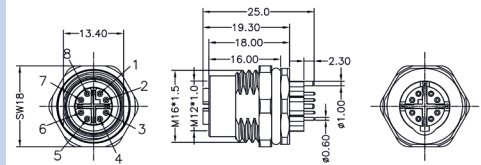
Part Number	Poles	Code	Termination	Mounting Nut
PXMBNI12RPM08XPCM16	08	X	PCB Terminal	M16 Mounting / Gland Nut Thread

M12 X Code Rear Panel Mounting Female



PXMBNI12RPF08XPCM16

- 8 pole
- PCB termination
- Different panel mounting options available
- Mates with flex inline body connectors



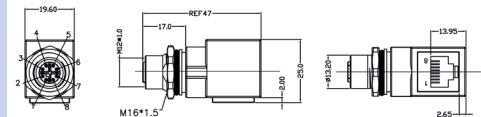
Part Number	Poles	Code	Termination	Mounting Nut
PXMBNI12RPF08XPCM16	08	X	PCB Terminal	M16 Mounting / Gland Nut Thread

M12 X Code Rear Panel Mounting Female - RJ45



PXMBNI12RAF08XRJM16

- 8 pole
- Solder termination
- Metal flex body
- Mates with flex inline body connectors



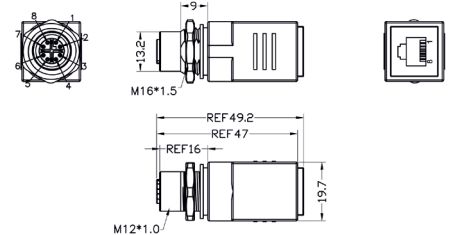
Part Number	Poles	Code	Termination	Mounting Nut
PXMBNI12RAF08XRJM16	08	X	RJ45	M16 Mounting / Gland Nut Thread

M12 X Code Rear Panel Mounting Female - RJ45



PXMBNI12RPM08XRJM16

- 8 pole
- Solder termination
- Metal flex body
- Mates with flex inline body connectors



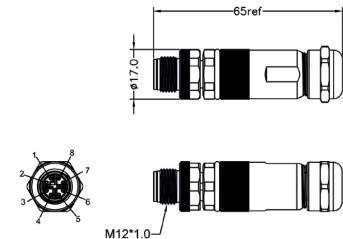
Part Number	Poles	Code	Termination	Mounting Nut
PXMBNI12RPM08XRJM16	08	X	RJ45	M16 Mounting / Gland Nut Threa

Nickel Plated M12 X Code Flex Inline Body Male



PXMBNI12FIM08XSCPG9

- 8 pole
- Solder termination
- Metal flex inline body
- Mates with flex body and panel mount connectors



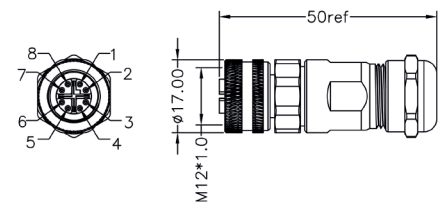
Part Number	Poles	Code	Termination	Mounting Nut
PXMBNI12FIM08XSCPG9	08	X	Solder Terminal	PG9 Mounting / Gland Nut Thread

Nickel Plating M12 X Code Flex Body Female



PXMBNI12FBF08XSCPG9

- 8 pole
- Solder termination
- Metal Flex Body
- Mates with Flex Inline Body and panel mount connectors

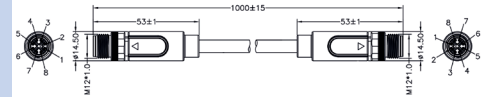


Part Number	Poles	Code	Termination	Mounting Nut
PXMBNI12FBF08XSCPG9	08	X	Solder Terminal	PG9 Mounting / Gland Nut Threa



PXPTPU12FIM08XFI010PU

- 8 pole
- Choice of cable lengths
- TPU flex body overmold
- PU jacket cable

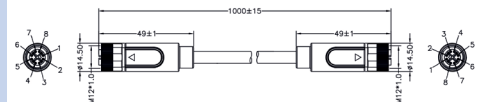


Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPTPU12FIM08XFI010PU	08	X	Overmold Cable	1m	PU
PXPTPU12FIM08XFI020PU	08	X	Overmold Cable	2m	PU
PXPTPU12FIM08XFI030PU	08	X	Overmold Cable	3m	PU
PXPTPU12FIM08XFI050PU	08	X	Overmold Cable	5m	PU
PXPTPU12FIM08XFI100PU	08	X	Overmold Cable	10m	PU



PXPTPU12FBF08XFB010PU

- 8 pole
- Choice of cable lengths
- TPU flex body overmold
- PU jacket cable

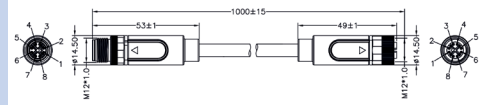


Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPTPU12FBF08XFB010PU	08	X	Overmold Cable	1m	PU
PXPTPU12FBF08XFB020PU	08	X	Overmold Cable	2m	PU
PXPTPU12FBF08XFB030PU	08	X	Overmold Cable	3m	PU
PXPTPU12FBF08XFB050PU	08	X	Overmold Cable	5m	PU
PXPTPU12FBF08XFB100PU	08	X	Overmold Cable	10m	PU



PXPTPU12FIM08XFB010PU

- 8 pole
- Choice of cable lengths
- TPU flex body overmold
- PU jacket cable

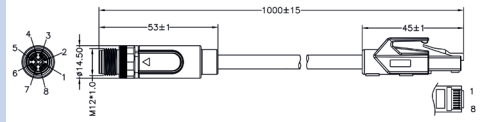


Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPTPU12FIM08XFB010PU	08	X	Overmold Cable	1m	PU
PXPTPU12FIM08XFB020PU	08	X	Overmold Cable	2m	PU
PXPTPU12FIM08XFB030PU	08	X	Overmold Cable	3m	PU
PXPTPU12FIM08XFB050PU	08	X	Overmold Cable	5m	PU
PXPTPU12FIM08XFB100PU	08	X	Overmold Cable	10m	PU



PXPTPU12FIM08XRJ010PU

- 8 pole
- Choice of cable lengths
- TPU flex body overmold
- PU jacket cable

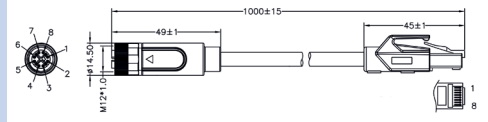


Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPTPU12FIM08XRJ010PU	08	X	Overmold Cable	1m	PU
PXPTPU12FIM08XRJ020PU	08	X	Overmold Cable	2m	PU
PXPTPU12FIM08XRJ030PU	08	X	Overmold Cable	3m	PU
PXPTPU12FIM08XRJ050PU	08	X	Overmold Cable	5m	PU
PXPTPU12FIM08XRJ100PU	08	X	Overmold Cable	10m	PU



PXPTPU12FBF08XRJ010PU

- 8 pole
- Choice of cable lengths
- TPU flex body overmold
- PU jacket cable

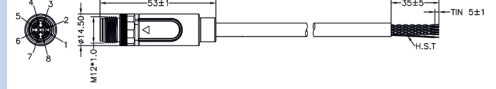


Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPTPU12FBF08XRJ010PU	08	X	Overmold Cable	1m	PU
PXPTPU12FBF08XRJ020PU	08	X	Overmold Cable	2m	PU
PXPTPU12FBF08XRJ030PU	08	X	Overmold Cable	3m	PU
PXPTPU12FBF08XRJ050PU	08	X	Overmold Cable	5m	PU
PXPTPU12FBF08XRJ100PU	08	X	Overmold Cable	10m	PU



PXPTPU12FIM08XCL010PU

- 8 pole
- Choice of cable lengths
- TPU flex body overmold
- PU jacket cable

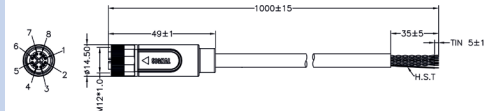


Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPTPU12FIM08XCL010PU	08	X	Overmold Cable	1m	PU
PXPTPU12FIM08XCL020PU	08	X	Overmold Cable	2m	PU
PXPTPU12FIM08XCL030PU	08	X	Overmold Cable	3m	PU
PXPTPU12FIM08XCL050PU	08	X	Overmold Cable	5m	PU
PXPTPU12FIM08XCL100PU	08	X	Overmold Cable	10m	PU



PXPTPU12FBF08XCL010PU

- 8 pole
- Choice of cable lengths
- TPU flex body overmold
- PU jacket cable



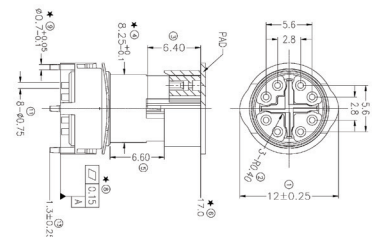
Part Number	Poles	Code	Termination	Lead Length	Cable Material
PXPTPU12FBF08XCL010PU	08	X	Overmold Cable	1m	PU
PXPTPU12FBF08XCL020PU	08	X	Overmold Cable	2m	PU
PXPTPU12FBF08XCL030PU	08	X	Overmold Cable	3m	PU
PXPTPU12FBF08XCL050PU	08	X	Overmold Cable	5m	PU
PXPTPU12FBF08XCL100PU	08	X	Overmold Cable	10m	PU

M12 SMT Connectors



PXPLCP12SM

- 4, 5, 8 and 12 poles
- Male and Female options
- PCB Termination



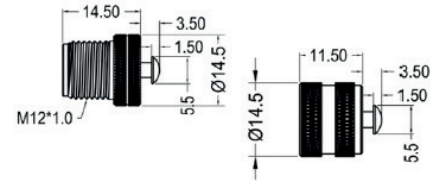
Part Number	Poles	Code	Termination
PXPLCP12SMF08XPC	8	X	PCB Terminal

PA66 M12 Sealing Cap



PXPPAM12

- Sealing caps to maintain IP rating
- Male & Female versions



**Part Number**

**Series**

**Type**

**Material**

PXPPAM12CAM  
PXPPAM12CAF

M12  
M12

Male  
Female

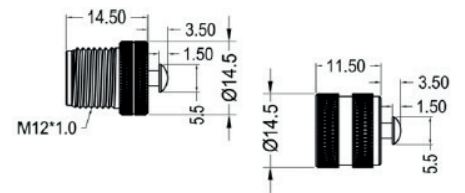
PA66  
PA66

Brass - Nickel Plating M12 Sealing Cap



PXMBNI12

- Sealing caps to maintain IP rating
- Male & Female versions



**Part Number**

**Series**

**Type**

**Material**

PXMBNI12CAM  
PXMBNI12CAF

M12  
M12

Male  
Female

Brass - Nickel Plating  
Brass - Nickel Plating

Buccaneer  
**M12 X Coding Series**

Specifications



**Electrical**

No. Poles:	8
Current Rating:	0.5A
Voltage Rating (ac/dc) :	48V
Contact Resistance:	<5mΩ
Insulation Resistance:	>100MΩ
Operating Temp Range:	-25°C to 85°C

**Mechanical:**

Locking Mechanism:	Screw coupling
Sealing:	IP67
Contact Accomodation:	
8 Pole	26AWG x 4P + AEB
Cable:	6.2mm Dia
Terminations:	
8	PCB / Solder / Cable
Mechanical Operation:	500 mating cycles
Largest diameter over coupling ring:	20.0mm

**Materials:**

**Panel Mount:**

**Cable Connectors:**

**Flex & Inline Connectors:**

Body:	Nickel Plated Brass	TPU / LCP	Nickel Plated Brass
Coupling Nut:	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass
Colour:	Grey	Black	Grey
Pin Contacts:	Brass, Gold plating	Brass, Gold plating	Brass, Gold plating
Socket Contacts:	Phosphor Bronze, Gold plating	Phosphor Bronze, Gold plating	Phosphor Bronze, Gold plating
O Rings & Gaskets:	Viton	Viton	Viton
RoHS:	Compliant	Compliant	Compliant

<b>MX</b>	<b>XXX</b>	<b>XX</b>	<b>XX</b>	<b>X</b>	<b>XX</b>	<b>X</b>	<b>XX</b>
<b>Series</b>	<b>Material</b>	<b>Series Size</b>	<b>Body Style</b>	<b>Orientation</b>	<b>NO. Contacts</b>	<b>Code</b>	<b>Termination</b>
PXM	BNI = Brass Nickel	12	FB = Flex Body	M	08	X	PC = PCB
PXP	TPU = overmold for PUR LCP = Liquid Crystal Polymer		FI = Flex Inline Body RP = Rear Panel Mounting RA = Right Angle	F			CL = Cable SC = Solder RJ = RJ45 FB = FLEX BODY FI = FLEX INLINE BODY

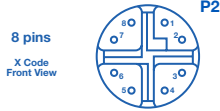
<b>XXX</b>	<b>XXX</b>	<b>XXX</b>
<b>Mounting / Gland Nut Thread</b>	<b>Lead Length</b>	<b>Cable Material</b>
PG9	010	PU
M16	020	
	030	
	050	
	100	

Contact Diagrams:

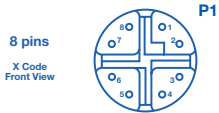
PXMBNI12RPM08XPCM16  
PXMBNI12FIM08XSCPG9



PXMBNI12RPF08XPCM16  
PXMBNI12FBF08XSCPG9



PXMBNI12RAF08XRJM16  
PXMBNI12RPM08XRJM16



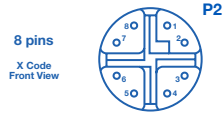
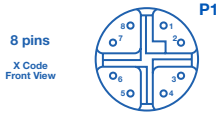
P1	PAIR	WIRE COLOUR	P2
1	XX	WHITE / ORANGE	1
2			2
3	XX	WHITE / GREEN	3
4			4
5	XX	WHITE / BLUE	5
6			6
7	XX	WHITE / BROWN	7
8			8

PXPTPU12FIM08XFI010PU



P1	PAIR	WIRE COLOUR	P2
1	XX	WHITE / ORANGE	1
2			2
3	XX	WHITE / GREEN	3
4			4
5	XX	WHITE / BLUE	5
6			6
7	XX	WHITE / BROWN	7
8			8
SHELL	—		SHELL

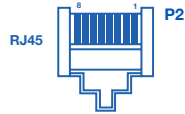
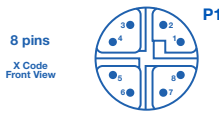
PXPTPU12FBF08XFB010PU



PXPTPU12FIM08XFB010PU

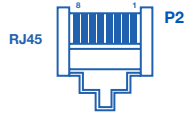
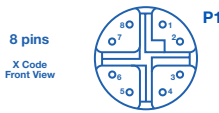


PXPTPU12FIM08XRJ010PU



P1	PAIR	WIRE COLOUR	P2
1	XX	WHITE / ORANGE	1
2			2
3	XX	WHITE / GREEN	3
4			4
5	XX	WHITE / BLUE	5
6			6
7	XX	WHITE / BROWN	7
8			8
SHELL	—	BRAID	SHELL

PXPTPU12FBF08XRJ010PU



PXPTPU12FIM08XCL010PU



P1	PAIR	WIRE COLOUR	P2
1	XX	WHITE / ORANGE	OPEN
2			
3	XX	WHITE / GREEN	
4			
5	XX	WHITE / BLUE	
6			
7	XX	WHITE / BROWN	
8			
SHELL	—	BRAID	

PXPTPU12FBF08XCL010PU



With a rugged metal housing and environmental protection rating of IP67 when mated, Bulgin's robust M16 circular DIN connector range is an ideal solution for ensuring that power and signal connections are not compromised in harsh environments and industrial applications.



## Key features:

- Screw locking compliant with DIN EN 61076-2-106
- IP67 degree of protection
- Robust metal connector
- Excellent EMI shielding
- Pole variants from 3 - 12

**Full Contact Diagrams Page 174**

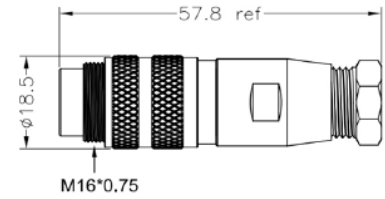


M16 Flex Inline Body Male



PXMBNI16FIM

- 3, 4, 5, 6, 8 and 12 poles
- Solder termination
- Metal Flex Inline Body
- Mates with Flex Body and panel mount connectors



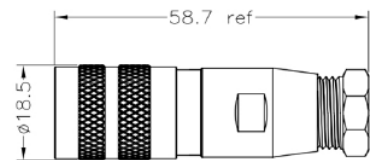
Part Number	Poles	Code	Termination
PXMBNI16FIM03ASC	03	A	Solder Terminal
PXMBNI16FIM04ASC	04	A	Solder Terminal
PXMBNI16FIM05ASC	05	A	Solder Terminal
PXMBNI16FIM06ASC	06	A	Solder Terminal
PXMBNI16FIM08ASC	08	A	Solder Terminal
PXMBNI16FIM12ASC	12	A	Solder Terminal

M16 Flex Body Female



PXMBNI16FBF

- 3, 4, 5, 6, 8 and 12 poles
- Solder termination
- Metal Flex Body
- Mates with Flex Inline Body and panel mount connectors



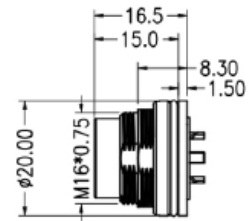
Part Number	Poles	Code	Termination
PXMBNI16FBF03ASC	03	A	Solder Terminal
PXMBNI16FBF04ASC	04	A	Solder Terminal
PXMBNI16FBF05ASC	05	A	Solder Terminal
PXMBNI16FBF06ASC	06	A	Solder Terminal
PXMBNI16FBF08ASC	08	A	Solder Terminal
PXMBNI16FBF12ASC	12	A	Solder Terminal

M16 Rear Panel Mounting Male



PXMBNI16RPM

- 3, 4, 5, 6, 8 and 12 poles
- Solder termination
- Rear panel mount M16
- Mates with Flex body connectors



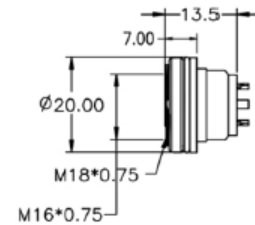
Part Number	Poles	Code	Termination
PXMBNI16RPM03ASC	03	A	Solder Terminal
PXMBNI16RPM04ASC	04	A	Solder Terminal
PXMBNI16RPM05ASC	05	A	Solder Terminal
PXMBNI16RPM06ASC	06	A	Solder Terminal
PXMBNI16RPM08ASC	08	A	Solder Terminal
PXMBNI16RPM12ASC	12	A	Solder Terminal

M16 Rear Panel Mounting Female



PXMBNI16RPF

- 3, 4, 5, 6, 8 and 12 poles
- Solder termination
- Rear panel mount M16
- Mates with Flex Inline Body connectors



Part Number	Poles	Code	Termination
PXMBNI16RPF03ASC	03	A	Solder Terminal
PXMBNI16RPF04ASC	04	A	Solder Terminal
PXMBNI16RPF05ASC	05	A	Solder Terminal
PXMBNI16RPF06ASC	06	A	Solder Terminal
PXMBNI16RPF08ASC	08	A	Solder Terminal
PXMBNI16RPF12ASC	12	A	Solder Terminal



**Electrical**

No. Poles:	3	4	5	6	8	12
Current Rating:	7A	7A	6A	5A	5A	3A
Voltage Rating (ac/dc) :	250V	250V	250V	125V	60V	60V
Contact Resistance:	<5mΩ 3, 4, 5, 6 and 8 Pole <3mΩ 12 Pole					
Insulation Resistance:	>100MΩ					
AC Breakdown Voltage:						
3 Pole						2.0KV
4 Pole						2.0KV
5 Pole						2.0KV
6 Pole						1.5KV
8 Pole						1.5KV
12 Pole						1.5KV
Operating Temp Range:	-25°C to 80°C					

**Mechanical:**

Locking Mechanism:	Screw coupling
Sealing:	IP67
Contact Accomodation:	
3, 4, 5, 6 and 8 Pole	20AWG
12 Pole	24 AWG
Cable Acceptance:	5.0 - 7.5mm Dia
Terminations:	Solder
Mechanical Operation:	500 mating cycles
Diameter over coupling ring:	18.5mm

**Materials:**

Body:	Nickel Plated Brass
Coupling Nut:	Nickel Plated Brass
Colour:	Grey
Pin Contacts:	Brass, Gold plating
Socket Contacts:	Phosphor Bronze, Gold plating
O Rings & Gaskets:	Viton
RoHS:	Compliant

**Panel Mount:**

Body:	Nickel Plated Brass
Coupling Nut:	Nickel Plated Brass
Colour:	Grey
Pin Contacts:	Brass, Gold plating
Socket Contacts:	Phosphor Bronze, Gold plating
O Rings & Gaskets:	Viton
RoHS:	Compliant

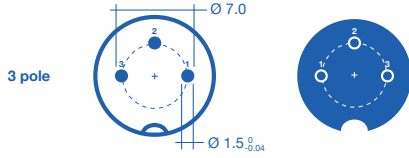
**Flex & Inline Connectors:**

Body:	Nickel Plated Brass
Coupling Nut:	Nickel Plated Brass
Colour:	Grey
Pin Contacts:	Brass, Gold plating
Socket Contacts:	Phosphor Bronze, Gold plating
O Rings & Gaskets:	Viton
RoHS:	Compliant

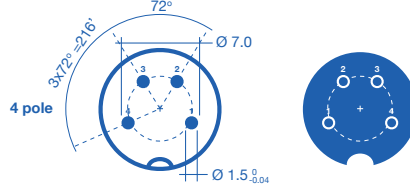
XXX	XXX	XX	XX	X	XX	X	XX	XXX
Series	Material	Series Size	Body Style	Orientation	NO. Contacts	Code	Termination	Mounting / Gland Nut Thread
PXM	BNI = Brass Nickel	16	FB = Flex Body	M	03	A	SC = Solder	
			FI = Flex Inline Body	F	04			PG9
			RP = Rear Panel Mounting		05			M16
					06			
					08			
					12			

**Contact Diagrams (Front View 'A' Code):**

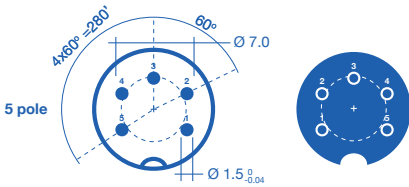
XXXXXXXXXXM03XXXXXX  
XXXXXXXXXXF03XXXXXX



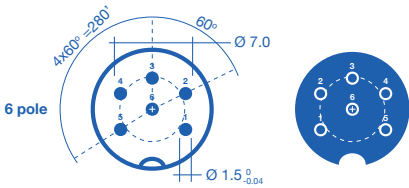
XXXXXXXXXXM04XXXXXX  
XXXXXXXXXXF04XXXXXX



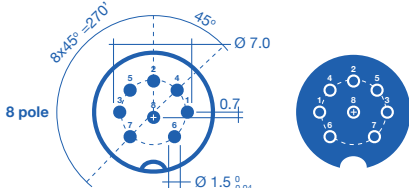
XXXXXXXXXXM05XXXXXX  
XXXXXXXXXXF05XXXXXX



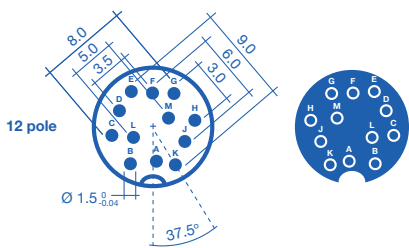
XXXXXXXXXXM06XXXXXX  
XXXXXXXXXXF06XXXXXX



XXXXXXXXXXM08XXXXXX  
XXXXXXXXXXF08XXXXXX



XXXXXXXXXXM12XXXXXX  
XXXXXXXXXXF12XXXXXX



Typically used for providing **high performance, reliable and robust connections** in commercial and industrial automation applications, these **IP67 rated signal and power connectors** offer a **high degree of protection** against environmental factors such as water, dirt and moisture.

Bulgin's range of M23 Connectors includes field installable male and female connectors as well as front panel mount options from 12- to 19-pole in straight and right angled versions.



## Key features:

- A-Coded
- Male and female variants, 12 or 19 poles
- Straight and angled configurations
- Robust metal housing
- IP67 protection rating (when mated)
- Voltages up to 200 V and currents up to 8 A

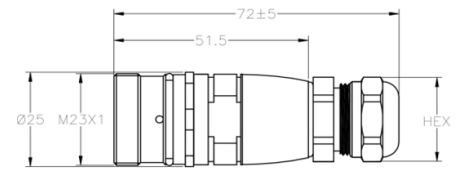
**Full Contact Diagrams Page 178**

M23 Flex Inline Body



PXMBNI23FIM

- Available in 12 and 19 poles
- Solder termination
- Metal Flex Inline Body
- Mates with panel mount connectors



Part Number	Poles	Code	Termination
-------------	-------	------	-------------

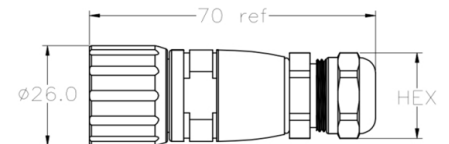
PXMBNI23FIM12ASC	12	A	Screw Terminal
PXMBNI23FIM19ASC	19	A	Screw Terminal

M23 Flex Body Female



PXMBNI23FBF

- Available in 12 and 19 poles
- Solder termination
- Metal Flex Body
- Mates with panel mount connectors



Part Number	Poles	Code	Termination
-------------	-------	------	-------------

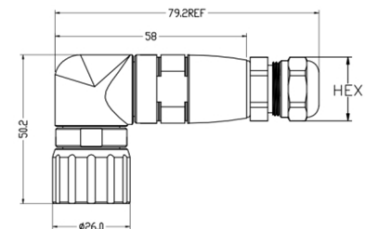
PXMBNI23FBF12ASC	12	A	Screw Terminal
PXMBNI23FBF19ASC	19	A	Screw Terminal

M23 Right Angled Female



PXMBNI23RAF

- Available in 12 and 19 poles
- Solder termination
- Metal Right Angle Flex Body
- Mates with panel mount connectors



Part Number	Poles	Code	Termination
-------------	-------	------	-------------

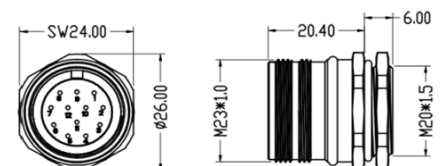
PXMBNI23RAF12ASC	12	A	Screw Terminal
PXMBNI23RAF19ASC	19	A	Screw Terminal

M23 Front Panel Mounting Male



PXMBNI23FPM

- Available in 12 and 19 poles
- Solder termination
- Front panel M20
- Mates with Flex Body connectors



Part Number	Poles	Code	Termination
-------------	-------	------	-------------

PXMBNI23FPM12ASC	12	A	Screw Terminal
PXMBNI23FPM19ASC	19	A	Screw Terminal

**Electrical**

No. Poles:	12	19
Current Rating:	8A	8A
Voltage Rating (ac/dc) :	200V	150V
Contact Resistance:	<3mΩ	
Insulation Resistance:	>100 <sup>3</sup> MΩ	
AC Breakdown Voltage:		
12 Pole	1.5KV	
19 Pole	1.5KV	
Operating Temp Range:	-25°C to 80°C	

**Mechanical:**

Locking Mechanism:	Screw coupling
Sealing:	IP67
Contact Accomodation:	
12 Pole	18 AWG
19 Pole	17 AWG
Cable Acceptance:	6.0 - 8.0mm Dia
Terminations:	Solder
Mechanical Operation:	500 mating cycles
Diameter over coupling ring:	26.0mm

**Materials:**

Body:	Nickel Plated Brass
Coupling Nut:	Nickel Plated Brass
Colour:	Grey
Pin Contacts:	Brass, Gold plating
Socket Contacts:	Phosphor Bronze, Gold plating
O Rings & Gaskets:	Viton
RoHS:	Compliant

**Panel Mount:**

Body:	Nickel Plated Brass
Coupling Nut:	Nickel Plated Brass
Colour:	Grey
Pin Contacts:	Brass, Gold plating
Socket Contacts:	Phosphor Bronze, Gold plating
O Rings & Gaskets:	Viton
RoHS:	Compliant

**Flex & Inline Connectors:**

Body:	Nickel Plated Brass
Coupling Nut:	Nickel Plated Brass
Colour:	Grey
Pin Contacts:	Brass, Gold plating
Socket Contacts:	Phosphor Bronze, Gold plating
O Rings & Gaskets:	Viton
RoHS:	Compliant

XXX	XXX	XX	XX	X	XX	X	XX
Series	Material	Series Size	Body Style	Orientation	NO. Contacts	Code	Termination
PXM	BNI = Brass Nickel	23	FB = Flex Body	M	12	A	SC = Solder
PXP			FI = Flex Inline Body	F	19		
			FP = Front Panel Mounting				
			RA = Right Angle				

**Contact Diagrams (Front View 'A' Code):**

XXXXXXXXXXM12XXX  
XXXXXXXXXXF12XXX

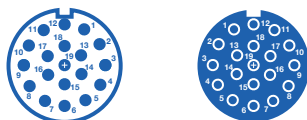
12 pole



P	X	Y
1	3.60	4.30
2	5.55	1.00
3	4.90	-2.80
4	1.90	-5.30
5	-1.90	-5.30
6	-4.90	-2.80
7	-5.55	1.00
8	-3.60	4.30
9	0.00	4.50
10	1.90	1.00
11	0.00	-2.20
12	-1.90	1.00

XXXXXXXXXXM19XXX  
XXXXXXXXXXF19XXX

19 pole



P	X	Y
1	3.00	5.20
2	5.20	3.00
3	6.00	5.00
4	5.20	-3.00
5	3.00	-5.20
6	0.00	-6.00
7	-3.00	5.20
8	-5.20	-3.00
9	-6.00	0.00
10	-5.20	3.00
11	-3.00	5.20
12	0.00	6.00
13	2.75	1.60
14	2.75	-1.60
15	0.00	-3.00
16	-2.75	-1.60
17	-2.75	1.60
18	0.00	3.00
19	0.00	0.00




Passive distribution boxes provide a **convenient and compact connectivity solution** that can be installed quickly and easily in the field. They offer considerable **cost saving benefits** when compared to hard-wiring I/O connections due to their pre-wired connector slot configurations which enables numerous **sensor and actuator signals** to be transmitted back to a control system with ease.



### Key features:

- Anodised Aluminium housing
- M12 & M8 I/O ports
- Available with or without LED indicators
- IP67 rated
- 5, 8, and 9 port configurations
- Operating Temp Range -25°C to 80°C



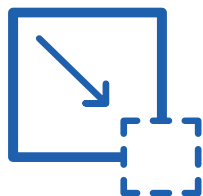
**Bulgin's passive distribution boxes feature industry standard M12 and M8 I/O connection ports. With a compact design and robust aluminium housing that is IP67 sealed and fully potted; these distribution units offer high performance and protection against elements such as moisture, liquids and dirt in environmentally challenging applications.**

## The Benefits:



### Save Time

With the need to hard wire I/O connections removed and variants coming equipped with identification labels and integrated LEDs, Bulgin's distribution boxes help to save on costs associated with installation, maintenance and repair time by making it easy and quick to troubleshoot connection faults.



### Save Space

Distribution boxes save space in the field as they require less space than more conventional distribution systems due to their compact design. They take up far less space than loose wires and require fewer terminal blocks/boxes, making them the ideal solution for many machine requirements or automation systems.



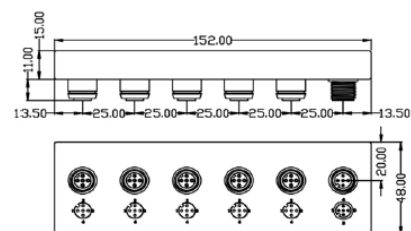
### Save Money

By simplifying the wiring control system and eliminating the need for additional enclosures, distributor boxes can be installed quickly which saves time and costs. Their ability to reduce troubleshooting time also means that downtime can be significantly minimised in manufacturing, food-processing and industrial automation applications.



BOX1M1205MA05

- 5 outputs
- Sealed using sealing caps
- Anodised aluminium body
- Mates with Flex Body and Flex Inline connectors

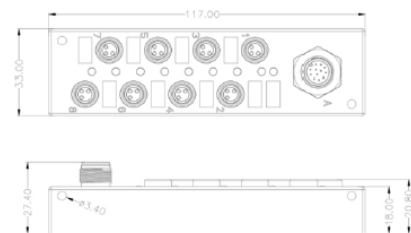


Part Number	Input Type	Input Pole Count	Output Type	Output Pole Count	Output Ports
BOX1M1205MA05M1205F	M12	5 Contacts	M12	5 Contacts	5 Ports



BOX1M1212MA08

- 8 outputs
- Sealed using sealing caps
- Anodised aluminium body
- Mates with Flex Body and Flex Inline connectors

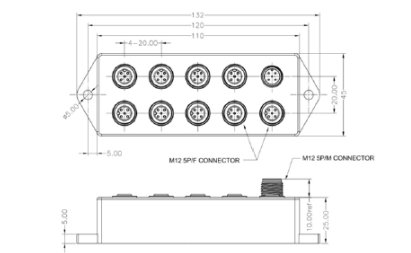


Part Number	Input Type	Input Pole Count	Output Type	Output Pole Count	Output Ports
BOX1M1212MA08M803F	M12	12 Contacts	M8	3 Contacts	8 Ports



BOX1M1205MA09

- 9 outputs
- Sealed using sealing caps
- Anodised aluminium body
- Mates with Flex Body and Flex Inline connectors



Part Number	Input Type	Input Pole Count	Output Type	Output Pole Count	Output Ports
BOX1M1205MA09M1205F	M12	5 Contacts	M12	5 Contacts	9 Ports

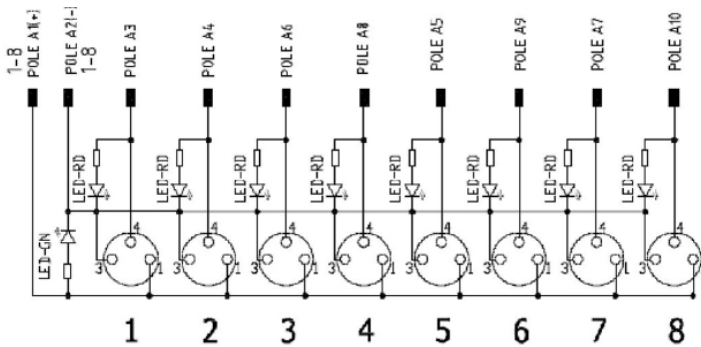
**Specifications:**

Locking mechanism: Screw coupling  
 Sealing: IP67  
 Operating Temp Range: -25°C to 80°C

**Materials: Box & Panel Mount:**

Body: Anodised Aluminium  
 Colour: Black  
 Pin Contacts: Brass, Gold plating  
 Socket Contacts: Phosphor Bronze, Gold plating  
 RoHS: Compliant

**Wiring diagram for BOX1M1212MA08M803F**



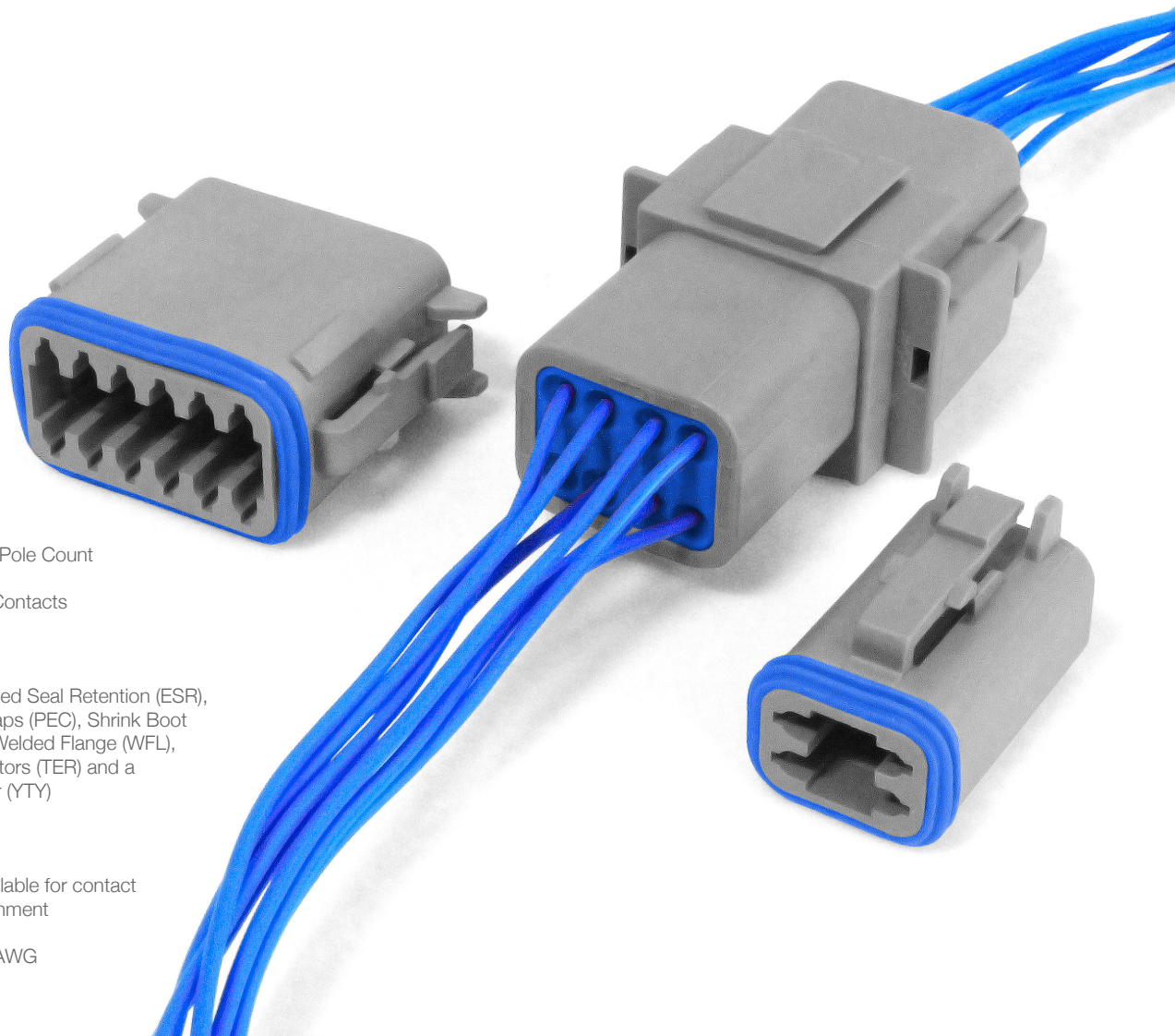
<b>BOX</b>	<b>X</b>	<b>XX</b>	<b>XX</b>	<b>X</b>	<b>X</b>	<b>XX</b>	<b>XX</b>	<b>XX</b>	<b>X</b>
<b>Series</b>	<b>Inputs</b>	<b>Input Series</b>	<b>Input Poles</b>	<b>Orientation</b>	<b>Code</b>	<b>Outputs</b>	<b>Output Series</b>	<b>Output Poles</b>	<b>Orientation</b>
Box	1	M12	05 12	M	A	05 08 09	M8 M12	03 05	F

The Bulgin Rectangular Power Connector range offers a reliable, rugged solution for cable to cable applications in harsh environments with its environmentally sealed range of products.

The series has a male and female option, as well as modifications such as enhanced seal retention, protective end caps, shrink boot adapters, welded flange, terminating resistors and a Y-Type connector for the automotive industry.

Key Features:

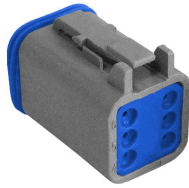
- 2, 3, 4, 6, 8 & 12 Pole Count
- Accepts size 16 Contacts
- IP68
- Choice of Enhanced Seal Retention (ESR), Protective End Caps (PEC), Shrink Boot Adapters (SBA), Welded Flange (WFL), Terminating Resistors (TER) and a Y-Type Connector (YTY)
- Rated to 13A
- Wedge-locks available for contact retention and alignment
- Accepts 14 - 20 AWG



# RECTANGULAR Standard Rectangular Power Connectors

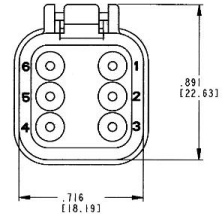


Rectangular Power Connector Male



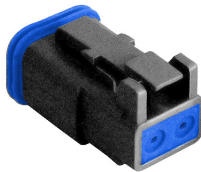
PX0100

- 2, 3, 4, 6, 8 & 12 poles
- Male housing
- Socket contacts
- Available in Grey and Black
- Additional options available



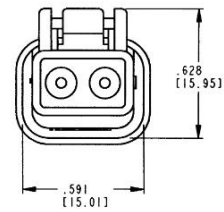
Part Number	Poles	Key	Termination	Colour	Additional
PX0100S02BK	2	-	Crimp	Black	-
PX0100S02GY	2	-	Crimp	Grey	-
PX0100S03BK	3	-	Crimp	Black	-
PX0100S03GY	3	-	Crimp	Grey	-
PX0100S04BK	4	-	Crimp	Black	-
PX0100S04GY	4	-	Crimp	Grey	-
PX0100S06BK	6	-	Crimp	Black	-
PX0100S06GY	6	-	Crimp	Grey	-
PX0100S08AGY	8	A	Crimp	Grey	-
PX0100S12AGY	12	A	Crimp	Grey	-

Rectangular Power Connector Male - ESR



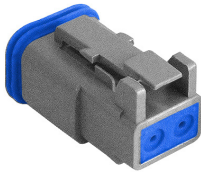
PX0102

- 2 poles
- Male housing
- Enhanced seal retention
- Socket contacts
- Available in Black
- Additional options available



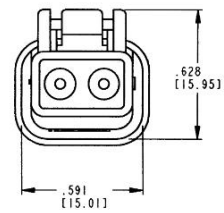
Part Number	Poles	Key	Termination	Colour	Additional
PX0102S02BK	2	-	Crimp	Black	ESR

Rectangular Power Connector Male - ESR & PEC



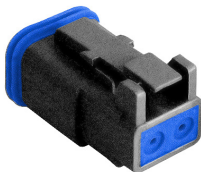
PX0103

- 2 poles
- Male housing
- Enhanced seal retention & protective end cap
- Socket contacts
- Available in Grey
- Additional options available



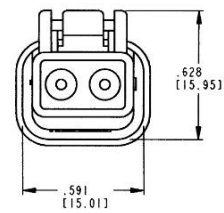
Part Number	Poles	Key	Termination	Colour	Additional
PX0103S02GY	2	-	Crimp	Grey	ESR & PEC

Rectangular Power Connector Male - ESR & SBA



PX0104

- 2 poles
- Male housing
- Enhanced seal retention & shrink boot adapter
- Socket contacts
- Available in Black
- Additional options available



Part Number	Poles	Key	Termination	Colour	Additional
PX0104S02BK	2	-	Crimp	Black	ESR & SBA

# RECTANGULAR Standard Rectangular Power Connectors

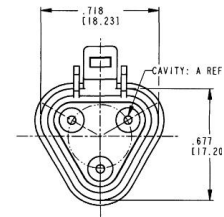


Rectangular Power Connector Male -  
PEC



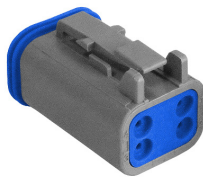
PX0105

- 2, 3, 4, 6, 8 & 12 poles
- Male housing
- Protective end cap
- Socket contacts
- Available in Grey and Black
- Additional options available



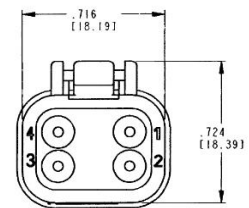
Part Number	Poles	Key	Termination	Colour	Additional
PX0105S02BK	2	-	Crimp	Black	PEC
PX0105S02GY	2	-	Crimp	Grey	PEC
PX0105S03BK	3	-	Crimp	Black	PEC
PX0105S03GY	3	-	Crimp	Grey	PEC
PX0105S04BK	4	-	Crimp	Black	PEC
PX0105S04GY	4	-	Crimp	Grey	PEC
PX0105S06BK	6	-	Crimp	Black	PEC
PX0105S06GY	6	-	Crimp	Grey	PEC
PX0105S08ABK	8	A	Crimp	Black	PEC
PX0105S08AGY	8	A	Crimp	Grey	PEC
PX0105S12AGY	12	A	Crimp	Grey	PEC
PX0105S12ABK	12	A	Crimp	Black	PEC

Rectangular Power Connector Male -  
SBA



PX0108

- 2, 3, 4 poles
- Male housing
- Shrink boot adapter
- Socket contacts
- Available in Grey
- Additional options available



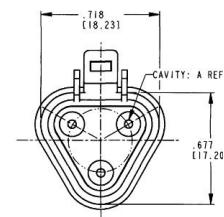
Part Number	Poles	Key	Termination	Colour	Additional
PX0108S02GY	2	-	Crimp	Grey	SBA
PX0108S03GY	3	-	Crimp	Grey	SBA
PX0108S04GY	4	-	Crimp	Grey	SBA

Rectangular Power Connector Male -  
TER



PX0110

- 3 poles
- Male housing
- Terminating resistor
- Socket contacts
- Available in Grey
- Additional options available



Part Number	Poles	Key	Termination	Colour	Additional
PX0110S03GY	3	-	Crimp	Grey	TER

# RECTANGULAR Standard Rectangular Power Connectors

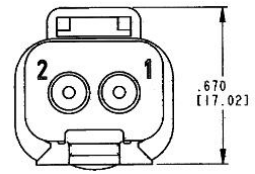


## Rectangular Power Connectors Female



PX0101

- 2, 3, 4, 6, 8 & 12 poles
- Female Housing
- Pin contacts
- Available in Grey and Black
- Additional options available



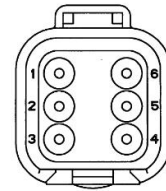
Part Number	Poles	Key	Termination	Colour	Additional
PX0101P02BK	2	-	Crimp	Black	-
PX0101P02GY	2	-	Crimp	Grey	-
PX0101P03BK	3	-	Crimp	Black	-
PX0101P03GY	3	-	Crimp	Grey	-
PX0101P04BK	4	-	Crimp	Black	-
PX0101P04GY	4	-	Crimp	Grey	-
PX0101P06BK	6	-	Crimp	Black	-
PX0101P06GY	6	-	Crimp	Grey	-
PX0101P08ABK	8	A	Crimp	Black	-
PX0101P08AGY	8	A	Crimp	Grey	-
PX0101P12ABK	12	A	Crimp	Black	-
PX0101P12AGY	12	A	Crimp	Grey	-

## Rectangular Power Connectors Female - PEC



PX0106

- 2, 3, 4, 6, 8 & 12 poles
- Female Housing
- Protective end cap
- Pin contacts
- Available in Grey and Black
- Additional options available



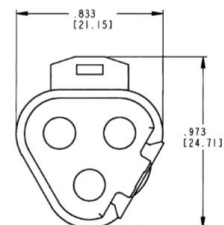
Part Number	Poles	Key	Termination	Colour	Additional
PX0106P02BK	2	-	Crimp	Black	PEC
PX0106P02GY	2	-	Crimp	Grey	PEC
PX0106P03BK	3	-	Crimp	Black	PEC
PX0106P03GY	3	-	Crimp	Grey	PEC
PX0106P04BK	4	-	Crimp	Black	PEC
PX0106P04GY	4	-	Crimp	Grey	PEC
PX0106P06BK	6	-	Crimp	Black	PEC
PX0106P06GY	6	-	Crimp	Grey	PEC
PX0106P08ABK	8	A	Crimp	Black	PEC
PX0106P08AGY	8	A	Crimp	Grey	PEC
PX0106P12ABK	12	A	Crimp	Black	PEC
PX0106P12AGY	12	A	Crimp	Grey	PEC

## Rectangular Power Connector Female - PEC & SBA



PX0107

- 3 poles
- Female Housing
- Protective end cap & shrink boot adapter
- Pin contacts
- Available in Grey
- Additional options available



Part Number	Poles	Key	Termination	Colour	Additional
PX0107P03GY	3	-	Crimp	Grey	PEC & SBA



RECTANGULAR  
Standard Rectangular Power Connectors

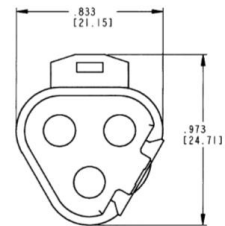


Rectangular Power Connector Female - SBA



PX0109

- 2, 3 & 4 poles
- Female Housing
- Shrink boot adapter
- Pin contacts
- Available in Grey and Black
- Additional options available



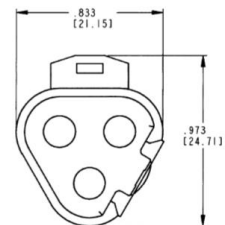
Part Number	Poles	Key	Termination	Colour	Additional
PX0109P02BK	2	-	Crimp	Black	SBA
PX0109P02GY	2	-	Crimp	Grey	SBA
PX0109P03BK	3	-	Crimp	Black	SBA
PX0109P04GY	4	-	Crimp	Grey	SBA

Rectangular Power Connector Female - TER



PX0111

- 3 poles
- Female Housing
- Terminating resistor
- Pin contacts
- Available in Grey
- Additional options available



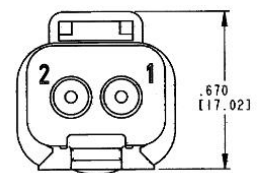
Part Number	Poles	Key	Termination	Colour	Additional
PX0111P03GY	3	-	Crimp	Grey	TER

Rectangular Power Connector Female - WFL



PX0112

- 2, 3, 4, 8 & 12 poles
- Female Housing
- Welded flange
- Pin contacts
- Available in Grey
- Additional options available



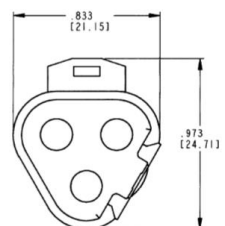
Part Number	Poles	Key	Termination	Colour	Additional
PX0112P02GY	2	-	Crimp	Grey	WFL
PX0112P03GY	3	-	Crimp	Grey	WFL
PX0112P04GY	4	-	Crimp	Grey	WFL
PX0112P08AGY	8	A	Crimp	Grey	WFL
PX0112P12AGY	12	A	Crimp	Grey	WFL

Rectangular Power Connector Female - YTY



PX0113

- 3 poles
- Female Housing
- Y-type connector
- Pin contacts
- Available in Grey
- Additional options available



Part Number	Poles	Key	Termination	Colour	Additional
PX0113P03GY	3	-	Crimp	Grey	YTY

Accessories

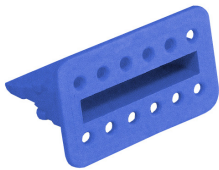


SA100

- Crimp Pin & Sockets
- Choice of Gold and Nickel Plated
- Green Stripe available

Part Number	Plating	AWG	Type	Pin / Socket	Additional
SA1000/G	Nickel Plating	14	Solid	Pin	Green Stripe
SA1001/G	Nickel Plating	14	Solid	Socket	Green Stripe
SA1002/G	Nickel Plating	16 - 20	Solid	Pin	Green Stripe
SA1003/G	Nickel Plating	16 - 20	Solid	Socket	Green Stripe
SA1000	Nickel Plating	14	Solid	Pin	-
SA1001	Nickel Plating	14	Solid	Socket	-
SA1002	Nickel Plating	16 - 20	Solid	Pin	-
SA1003	Nickel Plating	16 - 20	Solid	Socket	-
SA1004	Nickel Plating	16 - 20	Stamped	Pin	Bandolier
SA1005	Nickel Plating	16 - 20	Stamped	Socket	Bandolier
SA1006	Nickel Plating	14, 16, 18	Stamped	Pin	Bandolier
SA1007	Nickel Plating	14, 16, 18	Stamped	Socket	Bandolier
SA1008	Gold Plating	14, 16, 18	Stamped	Pin	Bandolier
SA1009	Gold Plating	14, 16, 18	Stamped	Socket	Bandolier

Wedgelocks



WLP12

- Pin & Sockets available
- 2, 3, 4, 6, 8 & 12 Pole

\* Wedgelocks are sold separately and are required for confirmation of alignment of contact. Please refer to the chart above to determine part required: e.g. WLP02 is required for 2 pole female housings

Part Number	Contacts	Pin / Socket	Additional
WLP02	02	Pin	-
WLS02	02	Socket	-
WLS02ENS	02	Socket	Enhanced Seal
WLP03	03	Pin	-
WLS03	03	Socket	-
WLP04	04	Pin	-
WLS04	04	Socket	-
WLP06	06	Pin	-
WLS06	06	Socket	-
WLP08	08	Pin	-
WLS08	08	Socket	-
WLP12	12	Pin	-
WLS12	12	Socket	-

Tooling



- Crimp tooling available
- Probe extraction tool

Part Number	Additional
10000	Crimping tool for heavy duty Rectangular Connectors (series coming soon)
10001	Probe extraction tool
10002	Crimping tool for Rectangular Connectors

**Electrical:**

No Poles:	2, 3, 4, 6, 8 & 12
Current Rating:	13A
Voltage Rating:	250V DC
Insulation Resistance:	>1000MΩ (@ 500V DC)
Dielectric Strength:	<2mA @ 15V AC
Operating Temperature Range:	-40°C to +120°C

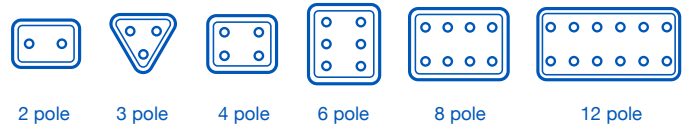
**Material**

Body Mouldings:	Polybutylene Terephthalate, Polyamide Glass Fiber
Contacts:	Copper Alloy Nickel Plated, Copper Alloy Gold Plated
Rubber Seal:	Silicone Rubber
RoHS	Compliant

**Mechanical:**

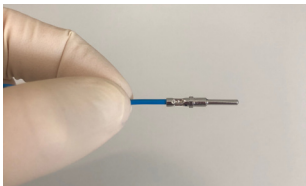
Sealing:	IP68
Contact Accommodation:	14 - 20 AWG 2.5-0.35 mm <sup>2</sup>
Termination:	Crimp terminals
Contact Retention:	Size 16: 111N (25 lbs)
Cycles:	100

**Contact Layout**



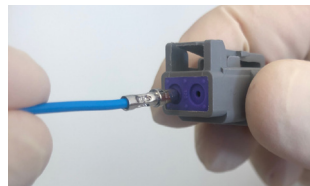
**Contact Insertion Instructions**

Step One:



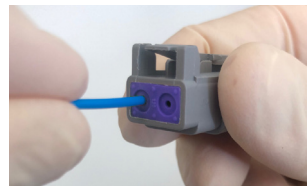
Use a previously crimped contact and wire and hold just behind the contact barrel.

Step Two:



Line the contact up with the grommet.

Step Three:



Push the contact until a click is felt. Check the contact is in place by gently tugging and confirming alignment. Repeat for number of contacts desired

Step Four:



When contacts are in place, insert the appropriate wedgelock until a click is heard. Once male and female housings are prepared the parts can be mated

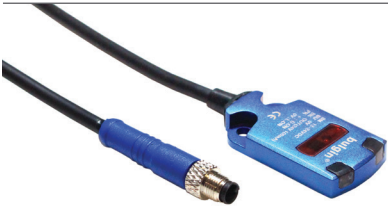
PX0	XXX	X	XX	X	XX
Range	Body Type	Contact Type	Contacts	Key	Colour
PX0	100 = Male 101 = Female 102 = Male Enhanced Seal Retention 103 = Male Enhanced Seal Retention & Protective End Cap 104 = Male Enhanced Seal Retention & Shrink Boot Adapter 105 = Male Protective End Cap 106 = Female Protective End Cap 107 = Female Protective End Cap & Shrink Boot Adapter 108 = Male Shrink Boot Adapter 109 = Female Shrink Boot Adapter 110 = Male Terminating Resistor 111 = Terminating Resistor 112 = Female Welded Flange 113 = Female Y Type	S = Socket P = Pin	02 = 2 Contacts 03 = 3 Contacts 04 = 4 Contacts 06 = 6 Contacts 08 = 8 Contacts 12 = 12 Contacts	A = A Key	GY = Grey BK = Black

Bulgin's slim line **photoelectric sensor** range offers a high degree of mechanical and electrical stability. A cost effective and **flexible sensing solution**. Designed specifically for manufacturing automation and **industrial automation** sensing operations.

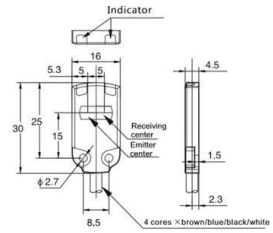


Key Features:

- Sealed to IP67
- Stainless Steel 316 shell
- Cabled versions with or without connector
- 2M cable length
- <0.5ms response time
- NPN & PNP output
- Detection distance 1 - 40mm
- Light point diameter 5.0mm at 30mm
- Power supply voltage 12 - 24 VDC
- Ambient humidity 35 - 85%
- Operating temperature -10 to 50°C
- Small body, just 4.5mm thick

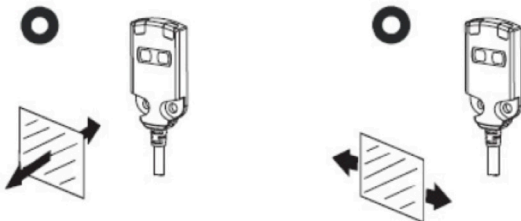


- Diffuse Reflective IP67 Sensors
- Choice of M5 Connector Termination
- Stainless Steel 316 Body
- Up to 40mm Sensing Range



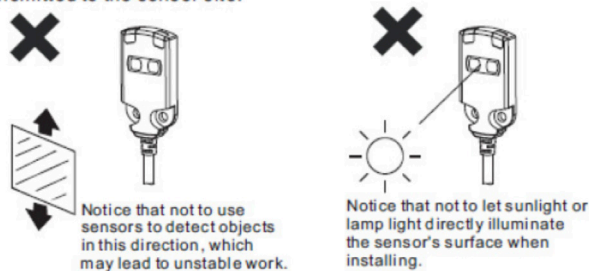
Part no.	Operation Mode	Output Configuration	Sensing Distance	Connection Method
SLLP3002M5	Light on	NPN	2 - 30mm	M5
SLDP3002M5	Dark on	NPN	2 - 30mm	M5
SLLN3002M5	Light on	PNP	2 - 30mm	M5
SLDN3002M5	Dark on	PNP	2 - 30mm	M5
SLLP4002M5	Light on	NPN	2 - 40mm	M5
SLDP4002M5	Dark on	NPN	2 - 40mm	M5
SLLN4002M5	Light on	PNP	2 - 40mm	M5
SLDN4002M5	Dark on	PNP	2 - 40mm	M5
SLLP3002CL	Light on	NPN	2 - 30mm	Cable
SLDP3002CL	Dark on	NPN	2 - 30mm	Cable
SLLN3002CL	Light on	PNP	2 - 30mm	Cable
SLDN3002CL	Dark on	PNP	2 - 30mm	Cable
SLLP4002CL	Light on	NPN	2 - 40mm	Cable
SLDP4002CL	Dark on	NPN	2 - 40mm	Cable
SLLN4002CL	Light on	PNP	2 - 40mm	Cable
SLDN4002CL	Dark on	PNP	2 - 40mm	Cable

○ The way to detect objects correctly

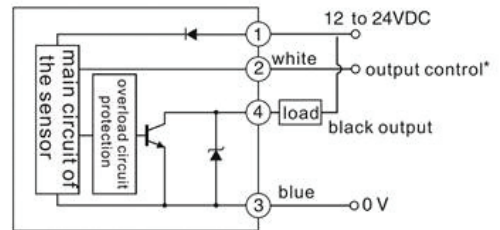


The wrong way to use the sensor

- Use in direct sunlight
- Used in a place of high humidity or dew
- Use in corrosive gas sites
- The use of vibration or shock energy can be directly transmitted to the sensor site.

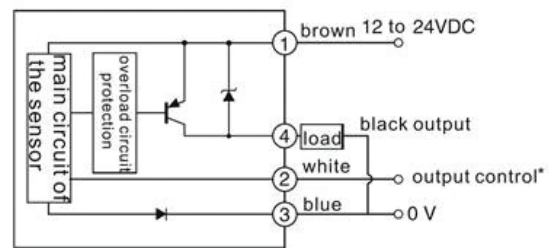


·NPN output



\* DARK-ON mode white ---12 to 24VDC  
 LIGHT-ON mode ---0V

·PNP output



\* DARK-ON mode white ---12 to 24VDC  
 LIGHT-ON mode ---0V

### Electrical:

<b>Power voltage:</b>	12 V~24VDC ( $\pm 10\%$ )
<b>Current consumption:</b>	11 mA
<b>Output Control (normal):</b>	NPN output type: The NPN collector is open below 24VDC, below 50mA Residual voltage: below 10mA, 10~30mA below 1.5V Below 10mA, when 30~50mA below 2.0V Leakage current: when load resistance 3K $\Omega$ below 0.3mA when load resistance 1K $\Omega$ below 0.5mA when load resistance 0.2K $\Omega$ below 1.5mA
<b>Maximum switching load current:</b>	50 mA

### Mechanical:

<b>Operating temperature:</b>	-10 to 50°C
<b>Ambient humidity:</b>	35-85%
<b>Sealing:</b>	IP67
<b>Vibration resistance:</b>	10-50Hz double amplitudes, X. Y. Z. each direction 2 hours
<b>Shock resistance:</b>	1000m/s <sup>2</sup> , X. Y. Z. each direction 6 times
<b>Cable Length:</b>	02 = 2M
<b>Termination:</b>	M5 = M5 connector CL = Blunt cut wire

### Operation:

<b>Indicator:</b>	<ul style="list-style-type: none"> <li>· Out Red;</li> <li>· Stable operation: Green;</li> <li>· Transmitters power supply: Green</li> <li>· Detection: Red &amp; Green</li> </ul>
<b>Range:</b>	SL
<b>Operation Mode:</b>	L + Light On D = Dark On
<b>Output Configuration:</b>	P = NPN N = PNP
<b>Sensing Distance:</b>	30 = upto 30mm 40 = upto 40mm

### Materials:

Body:
Coupling Nut:
Colour:
Pin Contacts:
Socket Contacts:
O Rings & Gaskets:
RoHS:

### Cable Connectors:

TPU
Nickel Plated Brass
Blue
Brass, Gold plating
Phosphor Bronze, Gold plating
Viton
Compliant

### Sensor:

Stainless Steel 316
-
Blue
-
-
-
Compliant

<b>SL</b>	<b>X</b>	<b>X</b>	<b>XX</b>	<b>XX</b>	<b>XX</b>
<b>Range</b>	<b>Operation Mode</b>	<b>Output Configuration</b>	<b>Sensing Distance</b>	<b>Cable Length</b>	<b>Termination</b>
SL	L = Light On D = Dark On	P = NPN N = PNP	30 = upto 30mm 40 = upto 40mm	02 = 2M	M5 = M5 connector CL = Blunt cut wire

Manufactured from **Stainless Steel**, Bulgin's **extensive range** of vandal resistant security switches are designed with a **high resistance** to wear and tear, corrosion and harsh use in potentially hostile environments such as access control applications.

The front and rear panel mounted versions have three profiles –prominent, domed and low profile – with a choice of switching and IP66 & IP68 front panel sealing which combined together to meet the ergonomic, electrical and environmental demands of switch panel design. New additions of Black Anodised Alloy as well as Stainless Steel are now available - and where the ultimate strength of steel is not needed, there is a brass, chrome plated alternative. Low profile style switches are also now available with a latching, push on - push off, action.

The illuminated versions are available in dot and ring LED indication and a variety of illumination colours including bi-colour LED's. Newer versions also feature LED illumination driven by 6V, 12V & 24V together with rear of panel sealing, these options will add that extra dimension to control panel layouts and functionality.



Push Button	213
Voltage Selectors	232
Capacitive Switches	233
Piezo Switches	239
Miniature Stainless Steel Vandal Resistant	245
Rocker Switches	251
Toggle Switches	278
Refrigerator Switches	283
Slide Switches	288

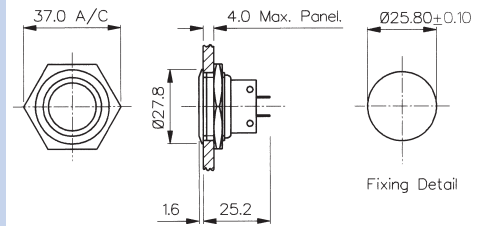


## Front Panel Mounting



MP0027

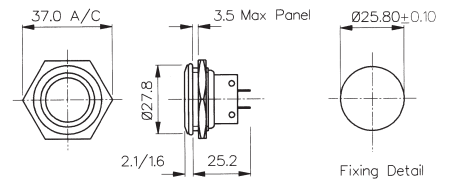
- 28mm diameter
- S.P.C.O. Microswitch
- 5A, 250Vac



## Front Panel Mounting

MP0038  
Sealed to IP66

- Front Panel Sealed to IP66
- 28mm diameter
- S.P.C.O. Microswitch
- 5A, 250Vac



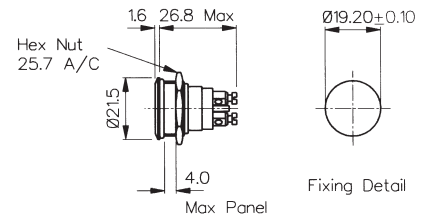
Specifications	MP0027	MP0038
Terminations:	Solder Tags	Solder Tags
Switching:	S.P.C.O. Momentary Action (Microswitch)	S.P.C.O. Momentary Action (Microswitch)
Max. Rating:	5A, 250Vac 2A, 28Vdc	5A, 250Vac 2A, 28Vdc
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>3</sup> MΩ	>10 <sup>3</sup> MΩ
Dielectric Strength:	>2.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +70°C	-20°C to +70°C
Sealing (Front of panel only):		Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)
Operations Mechanical:	1,000,000 (min)	1,000,000 (min)
Electrical:	35,000 (min)	35,000 (min)
Operating Pressure:	7.5N (typ)	12.5N (typ)
Rear Nut Fixing Torque:	2.5Nm	1.13Nm
Materials Mouldings:	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Tin Plated	Brass, Tin Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Fine Silver	Fine Silver
Thread size:	1.0" x 26TPI	1.0" x 26TPI
<b>RoHS</b>	Compliant	Compliant

## Front Panel Mounting



MP0037  
Sealed to IP68

- Front Panel Sealed to IP68
- 21.5mm diameter
- S.P. Push to Make
- 1A, 50Vac/dc
- Industry Standard Size

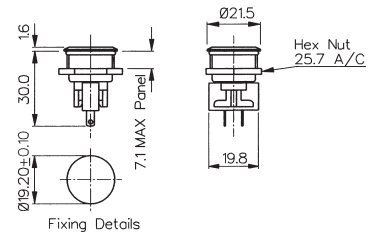


## Front Panel Mounting



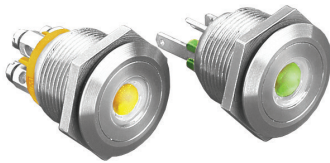
MP0031  
Sealed to IP66

- Front Panel Sealed to IP66
- 21.5mm diameter
- S.P.C.O. Microswitch
- 5A, 250Vac



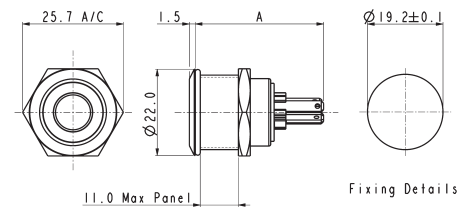
Specifications	MP0037	MP0031
Terminations:	Screw Terminals	Solder Tags
Switching:	S.P. Push to make Momentary action	S.P.C.O. Momentary Action (Microswitch)
Max. Rating:	1A, 50Vac/dc	5A, 250Vac 2A, 28Vdc
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>5</sup> MΩ	>10 <sup>3</sup> MΩ
Dielectric Strength:	>1.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +70°C	-20°C to +70°C
Sealing (Front of panel only):	Protection Classification: IP68 EN 60529:1992+A2:2013 (Micro switch not sealed)	Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)
IP68 rating 10M for 2 weeks test:	Passed	
Operations		
Mechanical:	1,000,000 (min)	1,000,000 (min)
Electrical:	30,000 (min)	35,000 (min)
Operating Pressure:	7.5N (typ)	4.7N (typ)
Rear Nut Fixing Torque:	0.57Nm	0.57Nm
Materials		
Mouldings:	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Silver Plated	Brass, Tin Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Brass, Silver Plated, Silver	Fine Silver
Thread size:	0.747" x 26TPI	0.747" x 26TPI
RoHS	Compliant	Compliant

## Front Panel Mounting



MPI001 - front panel seal to IP66

- Dot illumination
- 22mm diameter
- Single pole push to make
- 50mA, 24Vdc contact rating
- Red, Green, Amber, Blue, White or dual colour illumination
- Bright daylight LEDs
- Independent LED terminals
- Front panel seal to IP66
- Integral supply resistors
- TVS protection

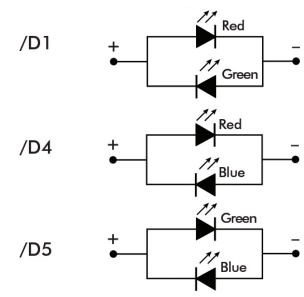


## Specifications

## MPI001/Termination/Colour/Voltage

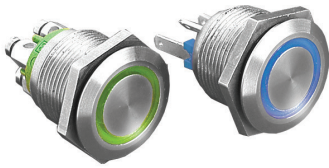
Illumination style:	Dot							
Terminations:	/28 (2.8mm tabs), /TERM or /TE (screw terminals)							
Switching:	Single pole, push to make, tactile (momentary action)							
Max. Switch Rating:	50mA, 24Vdc							
LEDs (ratings @ 20mA)								
Part No.	/RD	/GN	/AM	/BL	/WH	/D1	/D4	/D5
Colours	Red	Green	Amber	Blue	White	Red/Green	Red/Blue	Green/Blue
Luminous Intensity	900mcd	2500mcd	900mcd	1500mcd	900mcd	2500mcd/5000mcd	2000mcd/850mcd	4000mcd/2000mcd
Forward Voltage	1.85V	3.5V	2.3V	3.5V	3.6V	2.05V/3.6V	2.0V/3.6V	3.6V/3.6V
Forward Current	20mA	20mA	20mA	20mA	20mA	20mA	20mA	20mA
Moulding Colour	Red	Green	Amber	Blue	White	Black	Black	Black
Illumination Voltage:	/no suffix No resistor fitted. <b>An appropriate resistor must be series connected by the user.</b> Voltages as above.							
	/6	6Vdc						
	/12	12Vdc						
	/24	24Vdc						
Contact Resistance:	<100mΩ							
Insulation Resistance:	>10 <sup>9</sup> MΩ							
Dielectric Strength:	Contact to Panel >2.0kV Contact to Contact 1500							
Operating Temp. Range:	-30°C to +70°C							
Sealing (Front of panel only):	Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)							
Operations								
Mechanical:	750,000 (min)							
Electrical:	35,000 (min)							
Operating Pressure:	12N							
Rear Nut Fixing Torque:	0.57Nm							
Screw Terminal Torque	0.2Nm Max							
Materials								
Switch assembly:	UL94V-0 rated Polyamide (Nylon)							
Tags:	Copper Alloy							
Terminals:	Copper Alloy							
Switch Body & Button:	Stainless Steel							
Lens and Lens Body:	Polycarbonate							
O ring:	Nitrile							
Internal seal:	Silicone							
Contact Plate:	Gold Plated							
Thread size:	18.97mm x 26TPI							

## Dual Colour LED Configuration



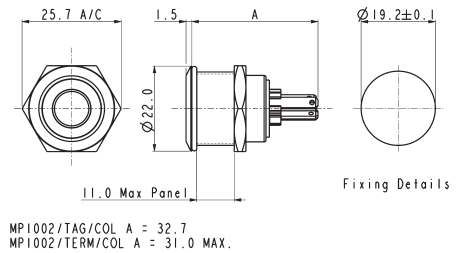
Compliant

## Front Panel Mounting



MPI002- front panel seal to IP66

- Ring illumination
- 22mm diameter
- Single pole push to make
- 50mA, 24Vdc contact rating
- Red, Green, Amber, Blue, White or dual colour illumination
- Bright daylight LEDs
- Independent LED terminals
- Front panel seal to IP66
- Integral supply resistors
- TVS protection



## Specifications

## MPI002/Termination/Colour/Voltage

Illumination style:	Ring									
Terminations:	/28 (2.8mm tabs), /TERM or /TE (screw terminals)									
Switching:	Single pole, push to make, tactile (momentary action)									
Max. Switch Rating:	50mA, 24Vdc									
LEDs (ratings @ 20mA)										
Part No.	/RD	/GN	/AM	/BL	/WH	/D1	/D4	/D5	/D6	
Colours	Red	Green	Amber	Blue	White	Red/Green	Red/Blue	Green/Blue	Green/White	
Luminous Intensity	900mcd	2500mcd	900mcd	1500mcd	900mcd	2500mcd/5000mcd	2000mcd/850mcd	4000mcd/2000mcd	178mcd/450mcd	
Forward Voltage	1.85V	3.5V	2.3V	3.5V	3.6V	2.05V/3.6V	2.0V/3.6V	3.6V/3.6V	3.4V/3.2V	
Forward Current	20mA	20mA	20mA	20mA	20mA	20mA	20mA	20mA	20mA	
Moulding Colour	Red	Green	Amber	Blue	White	Black	Black	Black	Black	
Illumination Voltage:	/no suffix No resistor fitted. <b>An appropriate resistor must be series connected by the user.</b> Voltages as above.									
	/6	6Vdc								
	/12	12Vdc								
	/24	24Vdc								
Contact Resistance:	<100mΩ									
Insulation Resistance:	>10 <sup>3</sup> MΩ									
Dielectric Strength:	Contact to Panel >2.0kV Contact to Contact 1500									
Operating Temp. Range:	-30°C to +70°C									
Sealing (Front of panel only):	Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)									
Operations										
Mechanical:	750,000 (min)									
Electrical:	35,000 (min)									
Operating Pressure:	12N									
Rear Nut Fixing Torque:	0.57Nm									
Screw Terminal Torque	0.2Nm Max									

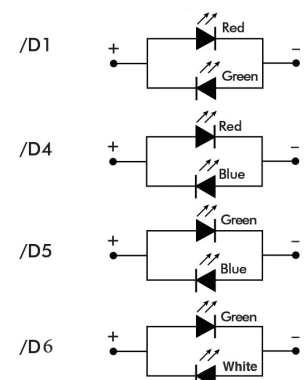
## Materials

Switch assembly:	UL94V-0 rated Polyamide (Nylon)
Tags:	Copper Alloy
Terminals:	Copper Alloy
Switch Body & Button:	Stainless Steel
Lens and Lens Body:	Polycarbonate
O ring:	Nitrile
Internal seal:	Silicone
Contact Plate:	Gold Plated
Thread size:	18.97mm x 26TPI



Compliant

## Dual Colour LED Configuration



# Stainless Steel Illuminated Vandal Resistant

Rear of panel IP66 seal

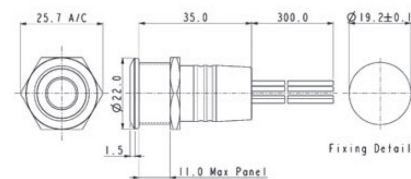


## Rear Panel Sealed - Flying Leads



MPI002/FL/xx/x

- Dot or ring illumination
- 22mm diameter
- Single pole push to make
- 50mA, 24Vdc contact rating
- Red, Green, Amber, Blue, White or dual colour illumination
- Bright daylight LEDs
- Independent LED terminals
- Front and rear panel seal to IP66
- Integral supply resistors
- TVS protection



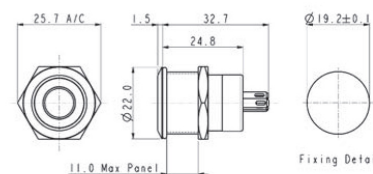
Flying lead colours: LED: red + and black - . Switch contacts: white.

## Rear Panel Sealed - Solder Tags



MPI001/RP/xx/x

- Dot or ring illumination
- 22mm diameter
- Single pole push to make
- 50mA, 24Vdc contact rating
- Red, Green, Amber, Blue & White illumination
- Bright daylight LEDs
- Independent LED terminals
- Front and rear panel seal to IP66
- Solder tag termination
- TVS protection



LED terminals marked + and -. Switch terminals unmarked.

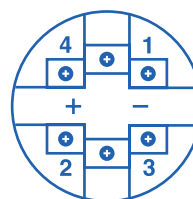
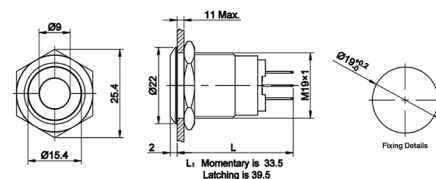
Specifications	MPI001/Termination/Colour/Voltage	MPI002/Termination/Colour/Voltage
<b>Illumination style:</b> Dot <b>Terminations:</b> /FL (Flying leads) /RP (Solder tags) <b>Switching:</b> Single pole, push to make, tactile (momentary action) <b>Max. Switch Rating:</b> 50mA, 24Vdc <b>LEDs (ratings @ 20mA)</b> Part No. /RD /GN /AM /BL /WH Colours Red Green Amber Blue White Luminous Intensity 900mcd 2500mcd 900mcd 1500mcd 900mcd Forward Voltage 1.85V 3.5V 2.3V 3.5V 3.6V Forward Current 20mA 20mA 20mA 20mA 20mA Moulding Colour Red Green Amber Blue White	/RD /GN /AM /BL /WH Red Green Amber Blue White 900mcd 2500mcd 900mcd 1500mcd 900mcd 1.85V 3.5V 2.3V 3.5V 3.6V 20mA 20mA 20mA 20mA 20mA Red Green Amber Blue White	Ring /FL (Flying leads) /RP (Solder tags) Single pole, push to make, tactile (momentary action) 50mA, 24Vdc /RD /GN /AM /BL /WH Red Green Amber Blue White 900mcd 2500mcd 900mcd 1500mcd 900mcd 1.85V 3.5V 2.3V 3.5V 3.6V 20mA 20mA 20mA 20mA 20mA Red Green Amber Blue White
<b>Illumination Voltage:</b> /no suffix No resistor fitted. An appropriate resistor must be series connected by the user. Voltages as above. /6 6Vdc /12 12Vdc /24 24Vdc	/no suffix No resistor fitted. An appropriate resistor must be series connected by the user. Voltages as above. /6 6Vdc /12 12Vdc /24 24Vdc	/no suffix No resistor fitted. An appropriate resistor must be series connected by the user. Voltages as above. /6 6Vdc /12 12Vdc /24 24Vdc
<b>Contact Resistance:</b> <100mΩ <b>Insulation Resistance:</b> >10 <sup>9</sup> MΩ <b>Dielectric Strength:</b> Contact to Panel >2.0kV Contact to Contact 1500	<100mΩ >10 <sup>9</sup> MΩ Contact to Panel >2.0kV Contact to Contact 1500	<100mΩ >10 <sup>9</sup> MΩ Contact to Panel >2.0kV Contact to Contact 1500
<b>Operating Temp. Range:</b> -30°C to +70°C <b>Sealing (Front of panel only):</b> Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)	-30°C to +70°C Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)	-30°C to +70°C Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)
<b>Operations</b> <b>Mechanical:</b> 750,000 (min) <b>Electrical:</b> 35,000 (min)	750,000 (min) 35,000 (min)	750,000 (min) 35,000 (min)
<b>Operating Pressure:</b> 12N <b>Rear Nut Fixing Torque:</b> 0.57Nm	12N 0.57Nm	12N 0.57Nm
<b>Materials</b> <b>Switch assembly:</b> UL94V-0 rated Polyamide (Nylon) <b>Tags:</b> Copper Alloy <b>Terminals:</b> Copper Alloy <b>Switch Body &amp; Button:</b> Stainless Steel <b>Lens and Lens Body:</b> Polycarbonate <b>O ring:</b> Nitrile <b>Internal seal:</b> Silicone <b>Contact Plate:</b> Gold Plated <b>Thread size:</b> 18.97mm x 26TPI	UL94V-0 rated Polyamide (Nylon) Copper Alloy Copper Alloy Stainless Steel Polycarbonate Nitrile Silicone Gold Plated 18.97mm x 26TPI	UL94V-0 rated Polyamide (Nylon) Copper Alloy Copper Alloy Stainless Steel Polycarbonate Nitrile Silicone Gold Plated 18.97mm x 26TPI
	Compliant	Compliant

Low Profile

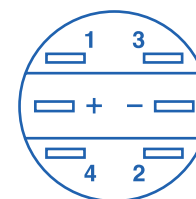


MPI005

- 22mm bezel diameter
- 19.2mm ± 0.2mm fixing hole diameter
- S.P.C.O



Screw Layout



Pin Layout

1, 2 are normally closed (NC)  
 3, 4 are normally opened (NO)  
 +, - are lamp terminals, the standard  
 LED terminals have no difference  
 of anode and cathode,.

### Specifications MPI005/Actuator/Terminal/Function/Material/Colour/Voltage

Terminations:	Pin Terminal or Screw Terminal
Switching:	S.P.C.O Momentary Action and Latching
Sealing:	IP65 (Momentary variants can be made to IP67 upon request)
Max. Rating:	5A @ 12VDC or 24 VDC 5A @ 125VAC 3A @ 250 VAC
Contact Resistance:	50mΩ max. @ 1A, 2V
Insulation Resistance:	>1000 MΩ @ 500Vdc
Dielectric Strength:	> 2.0kVac
Operating Temp. Range:	-25°C to +55°C
Operations	
Mechanical:	1,000,000 (min)
Electrical:	50,000 (min)
Rear Nut Fixing Torque:	0.8Nm
Materials	
Mouldings:	Polycarbonate
Tags/Terminations:	Brass, Gold Plated
Switch Body & Button:	Stainless Steel / Aluminium Alloy
Contacts:	Silver
RoHS	Compliant

MPI / 005 / X / X / X / X / X / X							
Series	Type	Actuator Type	Terminal	Switching Type	Material	Illumination	Voltage
19mm Metal  Push Button	19mm Illuminated AV Switch	<b>D</b> = Dot Illumination  <b>R</b> = Ring  <b>P</b> = Illuminated Power  <b>O</b> = Power Symbol / Ring	<b>28</b> = 2.8mm Pin Terminal  <b>TE</b> = Screw Terminal	<b>M</b> = Momentary  <b>L</b> = Latching	<b>S</b> = Stainless Steel  <b>A</b> = Black Anodized Aluminum	<b>BL</b> <b>GN</b> <b>RD</b> <b>AM</b> <b>WH</b>  <b>Others</b> <b>on request</b>	<b>12</b> = 12VAC  Others Available on request

**Examples:**

**MPI005/D/28/L/S/BL/12** = 19mm Metal Push Button, Dot Illumination, 2.8mm Pin Terminal, Latching, Stainless Steel, Blue, 12 Volt

**Note:**

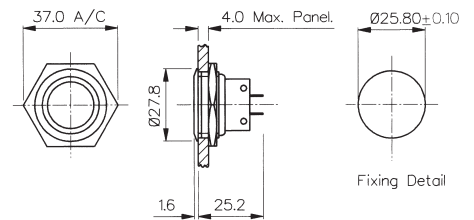
Power Symbol / Ring not available in black anodized aluminum

## Front Panel Mounting



MPB038  
Sealed to IP66

- Front Panel Sealed to IP66
- 28mm diameter
- S.P.C.O. Microswitch
- 5A, 250Vac

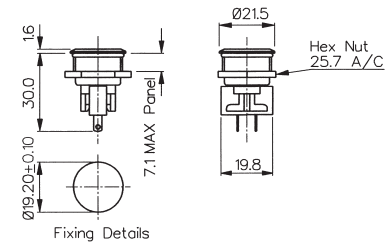


## Front Panel Mounting

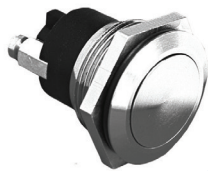


MPB031  
Sealed to IP66

- Front Panel Sealed to IP66
- 21mm diameter
- S.P.C.O. Microswitch
- 5A, 250Vac

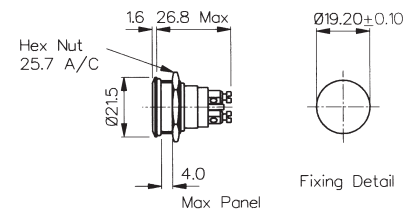


## Front Panel Mounting



MPB037  
Sealed to IP68

- Front Panel Sealed to IP68
- 21.5mm diameter
- S.P. Push to Make
- 1A, 50Vac/dc



Specifications	MPB038	MPB031	MPB037
Terminations:	Solder Tags	Solder Tags	Screw Terminals
Switching:	S.P.C.O. Momentary Action (Microswitch)	S.P.C.O. Momentary Action (Microswitch)	S.P. Push to make Momentary action
Max. Rating:	5A, 250Vac. 2A, 28Vdc	5A, 250Vac. 2A, 28Vdc	1A, 50Vac/dc
Contact Resistance:	<10mΩ	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>3</sup> MΩ	>10 <sup>3</sup> MΩ	>10 <sup>5</sup> MΩ
Dielectric Strength:	>2.0kVac	>2.0kVac	>1.0kVac
Operating Temp. Range:	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
Sealing (Front of panel only):	Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)	Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)	Protection Classification: IP68 EN60529-1:1992 + A2:2013. (Micro switch not sealed) (10m for 2 weeks)
Operations			
Mechanical:	1,000,000 (min)	1,000,000 (min)	1,000,000 (min)
Electrical:	35,000 (min)	35,000 (min)	30,000 (min)
Operating Pressure:	12.5N (typ)	4.7N (typ)	7.5N (typ)
Rear Nut Fixing Torque:	1.13Nm	0.57Nm	0.57Nm
Materials			
Mouldings:	Glass Filled Nylon	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Tin Plated	Brass, Tin Plated	Brass, Tin Plated
Switch Body & Button:	Brass	Brass	Brass
Contacts:	Fine Silver	Fine Silver	Brass, Silver Plated, Silver
Thread size:	1.0" x 26TPI	0.747" x 26TPI	0.747" x 26TPI
RoHS	Compliant	Compliant	Compliant

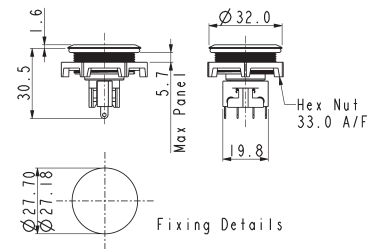


## Front Panel Mounting - Low Profile



MP0050

- Front Panel Sealed to IP68
- Flush button
- 32.0mm diameter
- S.P.C.O. switching
- Momentary action
- 5A, 250Vac

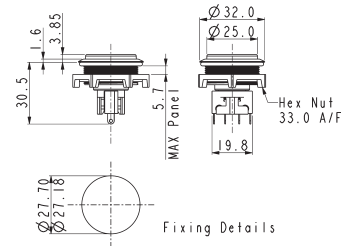


## Front Panel Mounting - Protruding Profile



MP0050/2

- Front Panel Sealed to IP68
- Protruding button
- 32.0mm diameter
- S.P.C.O. switching
- Momentary action
- 5A, 250Vac



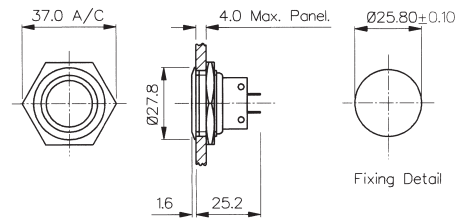
Specifications	MP0050	MP0050/2
Terminations:	Solder Tags	Solder Tags
Switching:	S.P.C.O. Momentary Action (Microswitch)	S.P.C.O. Momentary Action (Microswitch)
Max. Rating:	5A, 250Vac. 2A, 28Vdc	5A, 250Vac. 2A, 28Vdc
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>3</sup> MΩ	>10 <sup>3</sup> MΩ
Dielectric Strength:	>2.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +70°C	-20°C to +70°C
Sealing (Front of panel only):	Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)	Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)
Operations Mechanical:	1,000,000 (min)	1,000,000 (min)
Electrical:	35,000 (min)	35,000 (min)
Operating Pressure:	4.7Nm	4.7N (typ)
Rear Nut Fixing Torque:	0.57Nm	0.57Nm
Materials Mouldings:	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Tin Plated	Brass, Tin Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Fine Silver	Fine Silver
Thread size:	M27 x 1.0-6H	M27 x 1.0-6H
<b>RoHS</b>	Compliant	Compliant

## Front Panel Mounting



MP0027/3

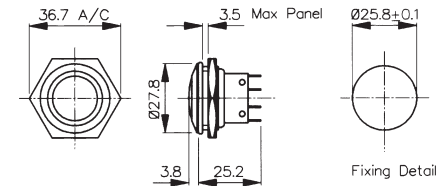
- 28mm diameter
- Domed Profile
- S.P.C.O. Microswitch
- 5A, 250Vac



## Front Panel Mounting

MP0038/3  
Sealed to IP66

- Front Panel Sealed to IP66
- 28mm diameter
- Domed Profile
- S.P.C.O. Microswitch
- 5A, 250Vac

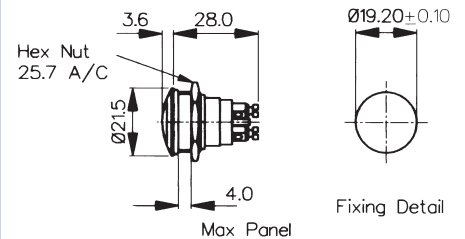


Specifications	MP0027/3	MP0038/3
Terminations:	Solder Tags	Solder Tags
Switching:	S.P.C.O. Momentary Action (Microswitch)	S.P.C.O. Momentary Action (Microswitch)
Max. Rating:	5A, 250Vac. 2A, 28Vdc	5A, 250Vac. 2A, 28Vdc
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>9</sup> MΩ	>10 <sup>9</sup> MΩ
Dielectric Strength:	>2.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +70°C	-20°C to +70°C
Sealing (Front of panel only):		Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)
Operations		
Mechanical:	1,000,000 (min)	1,000,000 (min)
Electrical:	35,000 (min)	35,000 (min)
Operating Pressure:	7.5N (typ)	12.5N (typ)
Rear Nut Fixing Torque:	2.5Nm	1.13Nm
Materials		
Mouldings:	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Tin Plated	Brass, Tin Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Fine Silver	Fine Silver
Thread size:	1.0" x 26TPI	0.747" x 26TPI
<b>RoHS</b>	Compliant	Compliant

## Front Panel Mounting

MP0037/3  
Sealed to IP68

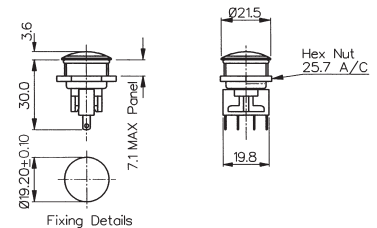
- Front Panel Sealed to IP68
- 21.5mm diameter
- Domed Profile
- S.P. Push to Make
- 1A, 50Vac/dc



## Front Panel Mounting

MP0031/3  
Sealed to IP66

- Front Panel Sealed to IP66
- 21.5mm diameter
- Domed Profile
- S.P.C.O. Microswitch
- 5A, 250Vac



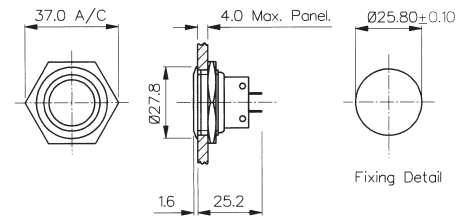
Specifications	MP0037/3	MP0031/3
Terminations:	Screw Terminals	Solder Tags
Switching:	S.P. Push to make Momentary action	S.P.C.O. Momentary Action (Microswitch)
Max. Rating:	1A, 50Vac/dc	5A, 250Vac. 2A, 28Vdc
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>5</sup> MΩ	>10 <sup>3</sup> MΩ
Dielectric Strength:	>1.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +70°C	-20°C to +70°C
Sealing (Front of panel only):	Protection Classification: IP68 EN60529-1:1992 + A2:2013. (Micro switch not sealed) (10m for 2 weeks)	Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)
Operations		
Mechanical:	1,000,000 (min)	1,000,000 (min)
Electrical:	35,000 (min)	35,000 (min)
Operating Pressure:	7.5N (typ)	4.7N (typ)
Rear Nut Fixing Torque:	2.5Nm	0.57Nm
Materials		
Mouldings:	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Tin Plated	Brass, Tin Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Brass, Silver Plated, Silver	Fine Silver
Thread size:	0.747" x 26TPI	0.747" x 26TPI
<b>RoHS</b>	Compliant	Compliant

## Front Panel Mounting



MP0027/2

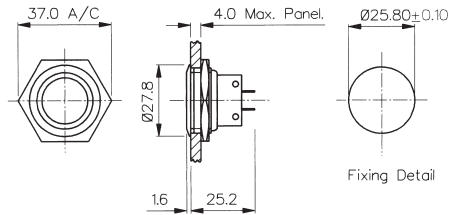
- 28mm diameter
- Prominent Button
- S.P.C.O. Microswitch
- 5A, 250Vac



## Front Panel Mounting

MP0038/2  
Sealed to IP66

- Front Panel Sealed to IP66
- 28mm diameter
- Prominent Button
- S.P.C.O. Microswitch
- 5A, 250Vac



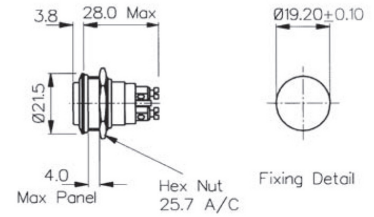
Specifications	MP0027/2	MP0038/2
Terminations:	Solder Tags	Solder Tags
Switching:	S.P.C.O. Momentary Action (Microswitch)	S.P.C.O. Momentary Action (Microswitch)
Max. Rating:	5A, 250Vac 2A, 28Vdc	5A, 250Vac. 2A, 28Vdc
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>3</sup> MΩ	>10 <sup>3</sup> MΩ
Dielectric Strength:	>2.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +70°C	-20°C to +70°C
Sealing (Front of panel only):		Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)
Operations		
Mechanical:	1,000,000 (min)	1,000,000 (min)
Electrical:	35,000 (min)	35,000 (min)
Operating Pressure:	7.5N (typ)	12.5N (typ)
Rear Nut Fixing Torque:	2.5Nm	1.13Nm
Materials		
Mouldings:	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Tin Plated	Brass, Tin Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Fine Silver	Fine Silver
Thread size:	1.0" x 26TPI	1.0" x 26TPI
<b>RoHS</b>	Compliant	Compliant

## Front Panel Mounting



MP0037/2  
Sealed to IP68

- Front Panel Sealed to IP68
- 21.5mm diameter
- Prominent Button
- S.P. Push to Make
- 1A, 50Vac/dc

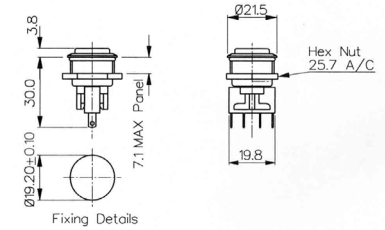


## Front Panel Mounting



MP0031/2  
Sealed to IP66

- Front Panel Sealed to IP66
- 21.5mm diameter
- Prominent Button
- S.P.C.O. Microswitch
- 5A, 250Vac



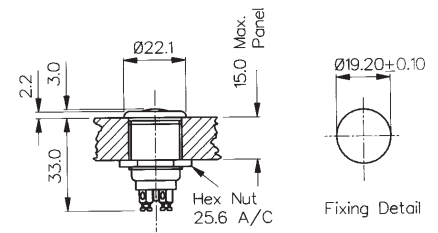
Specifications	MP0037/2	MP0031/2
Terminations:	Screw Terminals	Solder Tags
Switching:	S.P. Push to make Slow momentary action	S.P.C.O. Momentary Action (Microswitch)
Max. Rating:	1A, 50Vac/dc	5A, 250Vac. 2A, 28Vdc
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>5</sup> MΩ	>10 <sup>3</sup> MΩ
Dielectric Strength:	>1.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +70°C	-20°C to +70°C
Sealing (Front of panel only):	Protection Classification: IP68 EN60529-1:1992 + A2:2013. (Micro switch not sealed) (10m for 2 weeks)	Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)
Operations Mechanical:	1,000,000 (min)	1,000,000 (min)
Electrical:	35,000 (min)	35,000 (min)
Operating Pressure:	7.5N (typ)	4.7N (typ)
Rear Nut Fixing Torque:	0.57Nm	0.57Nm
Materials Mouldings:	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Tin Plated	Brass, Tin Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Brass, Silver Plated, Silver	Fine Silver
Thread size:	0.747" x 26TPI	0.747" x 26TPI
<b>RoHS</b>	Compliant	Compliant

Front Panel Mounting



MP0013  
MP0033

- Proud Fitting
- 22mm diameter
- S.P. Push to Make
- 1A, 50V
- Brass, Chrome Plated Body, Stainless Steel Button
- MP0033 Internally Sealed

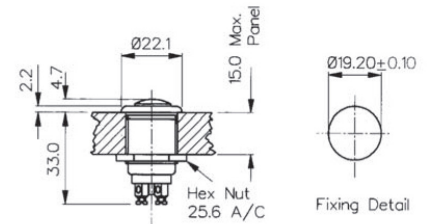


Front Panel Mounting



MP0013/2  
MP0033/2

- Prominent Button
- 22mm diameter
- S.P. Push to Make
- 1A, 50V
- Brass, Chrome Plated Body, Stainless Steel Button
- MP0033/2 Internally Sealed



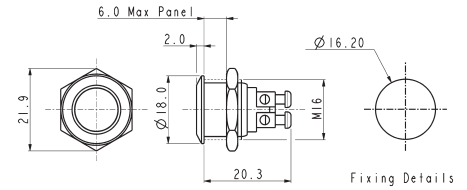
Specifications	MP0013, MP0033	MP0013/2, MP0033/2
Terminations:	Screw Terminals	Screw Terminals
Switching:	S.P. Push to make Slow momentary action	S.P. Push to make Slow momentary action
Max. Rating:	1A, 50Vac/dc	1A, 50Vac/dc
Contact Resistance:	<15mΩ	<15mΩ
Insulation Resistance:	>10 <sup>4</sup> MΩ	>10 <sup>4</sup> MΩ
Dielectric Strength:	>2.5kVac	>2.5kVac
Operating Temp. Range:	-20°C to +85°C	-20°C to +85°C
Sealing (Front of panel only):	MP0033 only - internally sealed against ingress of water and dust. (IP68 Internal Testing)	MP0033/2 only - internally sealed against ingress of water and dust. (IP68 Internal Testing)
Materials		
Mouldings:	Glass Filled Nylon	Glass Filled Nylon
Tags/Terminations:	Brass, Silver Plated	Brass, Silver Plated
Switch Body & Button:	Body: Brass, Chrome Plated Button: Stainless Steel	Body: Brass, Chrome Plated Button: Stainless Steel
Contacts:	Copper, Silver Plated	Copper, Silver Plated
Thread Size:	0.747" x 26TPI	0.747" x 26TPI
<b>RoHS</b>	Compliant	Compliant

Flush Profile



MP0042/1

- 18mm bezel diameter
- 16mm panel hole
- S.P. Push to make
- Polished finish
- 2A, 36Vdc

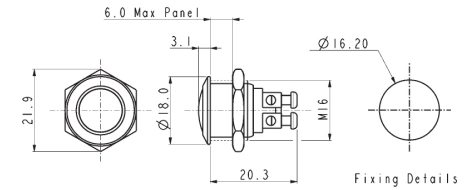


Domed Profile



MP0042/2

- 18mm bezel diameter
- 16mm panel hole
- S.P. Push to make
- Polished finish
- 2A, 36Vdc

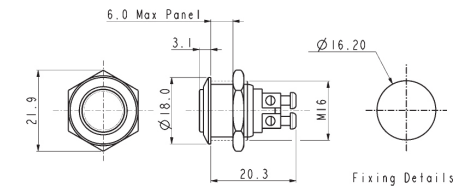


Prominent Button



MP0042/3

- 18mm bezel diameter
- 16mm panel hole
- S.P. Push to make
- Polished finish
- 2A, 36Vdc



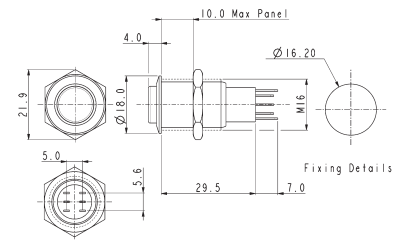
Specifications	MP0042/1	MP0042/2	MP0042/3
Terminations:	Screw Terminals	Screw Terminals	Screw Terminals
Switching:	S.P. Push to make	S.P. Push to make	S.P. Push to make
Max. Rating:	2A, 36Vdc	2A, 36Vdc	2A, 36Vdc
Contact Resistance:	50mΩ at 1A, 2V	50mΩ at 1A, 2V	50mΩ at 1A, 2V
Insulation Resistance:	>10 <sup>9</sup> MΩ @ 500Vdc	>10 <sup>9</sup> MΩ @ 500Vdc	>10 <sup>9</sup> MΩ @ 500Vdc
Dielectric Strength:	>2.0kVac	>2.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +55°C	-20°C to +55°C	-20°C to +55°C
Operations			
Mechanical:	1,000,000 (min)	1,000,000 (min)	1,000,000 (min)
Electrical:	100,000 (min)	100,000 (min)	100,000 (min)
Rear Nut Fixing Torque:	12Nm	12Nm	12Nm
Materials			
Mouldings:	Nylon	Nylon	Nylon
Tags/Terminations:	Brass, Silver Plated	Brass, Silver Plated	Brass, Silver Plated
Switch Body & Button:	Stainless Steel (Polished)	Stainless Steel (Polished)	Stainless Steel (Polished)
Contacts:	Silver	Silver	Silver
Thread size:	Gold Plated Brass version available	Gold Plated Brass version available	Gold Plated Brass version available
Sealing:	IP65	IP65	IP65
Impact Rating:	IK08	IK08	IK08
<b>RoHS</b>	Compliant	Compliant	Compliant

Low Profile



MP0045/1D

- 18mm bezel diameter
- 16mm fixing hole diameter
- D.P.C.O
- 1A, 110Vac & 0.5A, 220Vac
- 1A, 12Vdc & 1A, 24Vdc

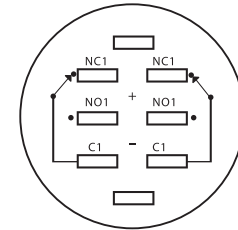
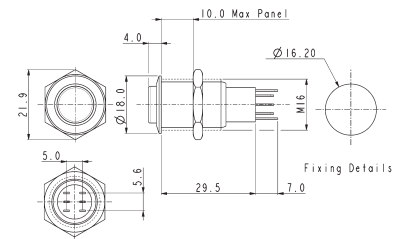


Prominent Button



MP0045/3D

- 18mm bezel diameter
- 16mm fixing hole diameter
- D.P.C.O
- 1A, 110Vac & 0.5A, 220Vac
- 1A, 12Vdc & 1A, 24Vdc



Contact Layout

Specifications	MP0045/1D0NN000/Sealing	MP0045/3D0NN000/Sealing
Terminations:	Solder tags	Solder tags
Switching:	D.P.C.O Momentary Action	D.P.C.O Momentary Action
Sealing:	IP67 IP40	IP67 IP40
Part No.	/S BLANK	/S BLANK
Max. Rating:	1A, 110Vac & 0.5A, 220Vac 1A, 12Vdc & 1A, 24Vdc	1A, 110Vac & 0.5A, 220Vac 1A, 12Vdc & 1A, 24Vdc
Contact Resistance:	50mΩ max. @ 1A, 2V	50mΩ max. @ 1A, 2V
Insulation Resistance:	>10 <sup>3</sup> MΩ @ 500Vdc	>10 <sup>3</sup> MΩ @ 500Vdc
Dielectric Strength:	> 2.0kVac	> 2.0kVac
Operating Temp. Range:	-20°C to +55°C	-20°C to +55°C
Operations		
Mechanical:	200,000 (min)	200,000 (min)
Electrical:	30,000 (min)	30,000 (min)
Rear Nut Fixing Torque:	12Nm	12Nm
Materials		
Mouldings:	Nylon	Nylon
Tags/Terminations:	Brass, Silver Plated	Brass, Silver Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Silver	Silver
Variants:	Nickel Plated Brass version available Details on request	Nickel Plated Brass version available Details on request
RoHS	Compliant	Compliant

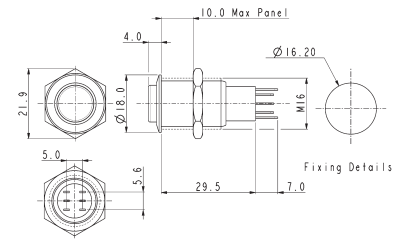


Low Profile



MP0045/1E

- 18mm bezel diameter
- 16mm fixing hole diameter
- D.P.C.O.
- 1A, 110Vac & 0.5A, 220Vac
- 1A, 12Vdc & 1A, 24Vdc

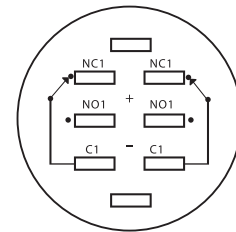
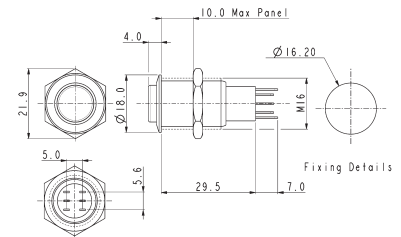


Prominent Button



MP0045/3E

- 18mm bezel diameter
- 16mm fixing hole diameter
- D.P.C.O.
- 1A, 110Vac & 0.5A, 220Vac
- 1A, 12Vdc & 1A, 24Vdc



Contact Layout

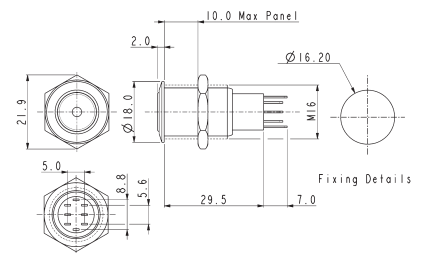
Specifications	MP0045/1E0NN000/Sealing	MP0045/3E0NN000/Sealing
Terminations:	Solder Tags	Solder Tags
Switching:	D.P.C.O. - Latching Action	D.P.C.O. - Latching Action
Sealing:	IP67 IP40	IP67 IP40
Part No.	/S BLANK	/S BLANK
Max. Rating:	1A, 110Vac & 0.5A, 220Vac 1A, 12Vdc & 1A, 24Vdc	1A, 110Vac & 0.5A, 220Vac 1A, 12Vdc & 1A, 24Vdc
Contact Resistance:	50mΩ max. @ 1A, 2V	50mΩ max. @ 1A, 2V
Insulation Resistance:	>10 <sup>9</sup> MΩ @ 500Vdc	>10 <sup>9</sup> MΩ @ 500Vdc
Dielectric Strength:	>2.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +55°C	-20°C to +55°C
Operations		
Mechanical:	200,000 (min)	200,000 (min)
Electrical:	30,000 (min)	30,000 (min)
Rear Nut Fixing Torque:	12Nm	12Nm
Materials		
Mouldings:	Nylon	Nylon
Tags/Terminations:	Brass, Tin Plated	Brass, Tin Plated
Switch Body & Button:	Stainless Steel (Polished)	Stainless Steel (Polished)
Contacts:	Silver	Silver
Thread size:	Nickel Plated Brass version Details on request	Nickel Plated Brass version Details on request
RoHS	Compliant	Compliant

## Front Panel Mounting



MP0045/1D1

- Dot Illuminated
- 18mm bezel diameter
- D.P.C.O.
- 1A, 110Vac & 0.5A, 220Vac
- 1A, 12Vdc & 1A, 24Vdc
- Red, Green, Amber or Blue Illumination
- Separate LED Terminals

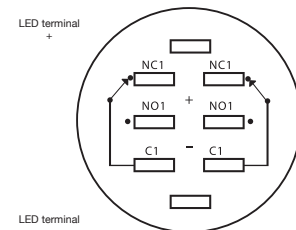
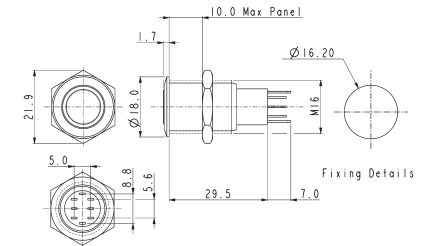


## Front Panel Mounting



MP0045/1D2

- Ring Illuminated
- 18mm bezel diameter
- D.P.C.O.
- 1A, 110Vac & 0.5A, 220Vac
- 1A, 12Vdc & 1A, 24Vdc
- Red, Green, Amber or Blue Illumination
- Separate LED Terminals



Contact Layout

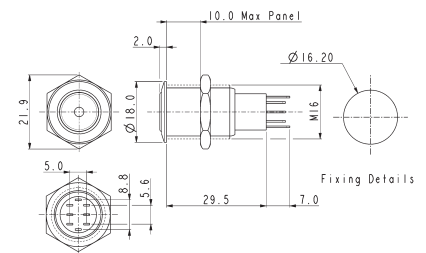
Specifications	MP0045/1D1/Colour/Voltage/Sealing	MP0045/1D2/Colour/Voltage/Sealing
Terminations:	Solder Tags	Solder Tags
Illumination:	Dot	Ring
Switching:	D.P.C.O. Momentary Action	D.P.C.O. Momentary Action
Sealing:	IP67 IP40	IP67 IP40
Part No.	/S BLANK	/S BLANK
Max. Switch Rating:	1A, 110Vac & 0.5A, 220Vac 1A, 12Vdc & 1A, 24Vdc	1A, 110Vac & 0.5A, 220Vac 1A, 12Vdc & 1A, 24Vdc
LEDs		
Colours	Red Green Amber Blue	Red Green Amber Blue
Part No.	/RD /GN /AM /BL	/RD /GN /AM /BL
Voltage	12Vdc 220Vdc	12Vdc 220Vdc
Part No.	/012 /220	/012 /220
Contact Resistance:	50mΩ max. @ 1A, 2Vdc	50mΩ max. @ 1A, 2Vdc
Insulation Resistance:	>10 <sup>3</sup> MΩ @ 500Vac	>10 <sup>3</sup> MΩ @ 500Vac
Dielectric Strength:	>2.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +55°C	-20°C to +55°C
Operations		
Mechanical:	200,000 (min)	200,000 (min)
Electrical:	30,000 (min)	30,000 (min)
Rear Nut Fixing Torque:	12Nm	12Nm
Materials		
Mouldings:	Nylon	Nylon
Tags:	Brass, Silver Plated	Brass, Silver Plated
Switch Body & Button:	Stainless Steel (Polished)	Stainless Steel (Polished)
Variants	Prominent Button, details on request	Prominent Button, details on request
RoHS	Compliant	Compliant

## Front Panel Mounting



MP0045/1E1

- Dot Illuminated
- 18mm bezel diameter
- D.P.C.O.
- 1A, 110Vac & 0.5A, 220Vac
- 1A, 12Vdc & 1A, 24Vdc
- Red, Green, Amber or Blue Illumination
- Separate LED Terminals

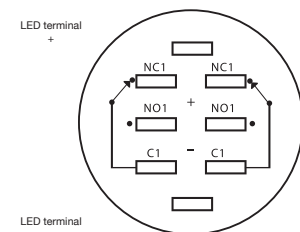
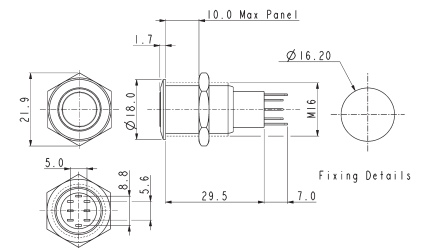


## Front Panel Mounting



MP0045/1E2

- Ring Illuminated
- 18mm bezel diameter
- D.P.C.O.
- 1A, 110Vac & 0.5A, 220Vac
- 1A, 12Vdc & 1A, 24Vdc
- Red, Green, Amber or Blue Illumination
- Separate LED Terminals



Contact Layout

Specifications	MP0045/1E1/Colour/Voltage/Sealing	MP0045/1E2/Colour/Voltage/Sealing
Terminations:	Solder Tags	Solder Tags
Illumination:	Dot	Ring
Switching:	D.P.C.O. Latching Action	D.P.C.O. Latching Action
Sealing:	IP67 IP40	IP67 IP40
Part No.	/S BLANK	/S BLANK
Max. Switch Rating:	1A, 110Vac & 0.5A, 220Vac 1A, 12Vdc & 1A, 24Vdc	1A, 110Vac & 0.5A, 220Vac 1A, 12Vdc & 1A, 24Vdc
LEDs		
Colours	Red Green Amber Blue	Red Green Amber Blue
Part No.	/RD /GN /AM /BL	/RD /GN /AM /BL
Voltage	12Vdc 220Vdc	12Vdc 220Vdc
Part No.	/012 /220	/012 /220
Contact Resistance:	50mΩ max. @ 1A, 2Vdc	50mΩ max. @ 1A, 2Vdc
Insulation Resistance:	>10 <sup>3</sup> MΩ @ 500Vac	>10 <sup>3</sup> MΩ @ 500Vac
Dielectric Strength:	>2.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +55°C	-20°C to +55°C
Operations		
Mechanical:	200,000 (min)	200,000 (min)
Electrical:	30,000 (min)	30,000 (min)
Rear Nut Fixing Torque:	12Nm	12Nm
Materials		
Mouldings:	Nylon	Nylon
Tags:	Brass, Silver Plated	Brass, Silver Plated
Switch Body & Button:	Stainless Steel (Polished)	Stainless Steel (Polished)
Variants	Prominent Button, details on request	Prominent Button, details on request
RoHS	Compliant	Compliant

Manufactured from Stainless Steel, Bulgin's extensive range of **vandal resistant security switches** are designed with a **high resistance** to wear and tear, corrosion and harsh use in potentially **hostile environments** such as access control applications.

- Front and rear panel mounted versions
- Vandal switches available in prominent, domed and low profile
- Various switching options such as latching, push on - push off, action.
- IP66, 68 front panel sealing options
- Dot and ring LED illuminated versions
- Illumination voltages 6, 12 and 24V sources,
- Variety of illumination colours and are now available with front and rear of panel sealing options.



# Switches 8300 Vandal Resistant Switches

Designed to IP66



H8300RP - - -

## Key Features

- Momentary or latching action
- Ratings up to 12(12) @ 250Vac
- Single and double pole
- Stainless steel button & bezel
- Vandal resistant construction
- Choice of body styles
- 19.2mm or 22.5mm mounting holes
- Front panel sealed to IP66
- Raised, flat or domed actuator options

## Approvals and specifications

16(4)A 250Vac T85, 1E4 (10,000 Operations)  
 12(12)A 250Vac T105, 1E4 (10,000 Operations)  
 8(8)A 250Vac T105, 5E4 (50,000 Operations)  
 6(6)A 250Vac T125, 5E4 (50,000 Operations)

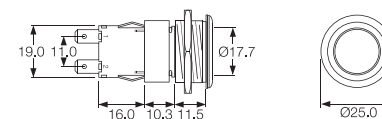
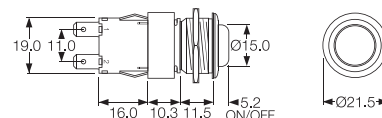
12A 250Vac DP, 13A 250Vac SP  
 250Vac 1hp, 125Vac 1/2hp  
 UL 85°C, file E45221, CSA file LR10990

In house test:  
10(10)A 250Vac—Indicative rating only

3mm contact gap.  
Technical data on pages 4 & 5 (switches),  
6 (indicators).

## Dimensions

8300RP (H terminals shown)



Terminal	Function	Actuator	Body Code
<b>C</b>  <b>H</b> 	<b>8300</b> (alternate) Single pole ON - OFF 	<b>R</b> (for P body only) Raised top (stainless steel) 	
<b>K</b>  <b>T</b> 	<b>8301</b> (momentary ON) Single pole ON - OFF 		
<b>V</b>  <b>X</b> 	<b>8350</b> (alternate) Double pole ON - OFF   <b>8351</b> (momentary ON) Double pole ON - OFF 	<b>V</b> Flat top (stainless steel) 	<b>P</b> (for R actuator only) Stainless steel, Soft profile bezel   <b>M</b> Stainless steel 

Switches  
**0911 Vandal Resistant Switches**

Designed to IP66



C0911VA - - -

**Key Features**

- Snap action switches
- Ratings up to 16A, 250Vac
- Round and rectangular buttons
- Single Pole C/O Switch

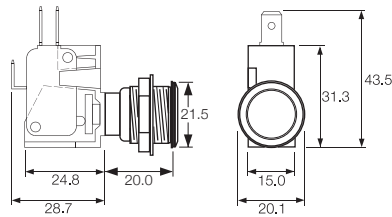
**Approvals and specifications**

- ⚡ 16(4)A 250Vac 5E4 T85
- UL Ⓢ 16A 125/250Vac 3/4hp T85 50E3  
 125V 1/2 HP, 250V 3/4 HP, 0.4A 125Vdc, 0.2A 250Vdc

Approvals apply to switch mechanism only.  
 μ contact gap.

**Dimensions**

C0911VA



Terminal	Function	Actuator	Body Code
	<p><b>0911</b>                      (momentary)                      ON - ON</p>	<p><b>V</b> Flat top (stainless steel)</p>	<p><b>A</b></p> <p>Stainless steel                      Chamfer profile bezel</p> <p>Panel cut-out                      Panel thickness up to 8.0mm</p>

Bulgin's broad line of pushbutton switches are available in various sizes and configurations. This includes a variety of illumination and terminal options as well as several with high inductive power ratings suitable for motor driven applications. These switches can be found in many markets including home appliances, commercial, medical, audio and security.

- Miniature, round and rectangular push button switches available
- Ratings up to 16A, 250V ac  
12(12)A 250V ac rating also available
- Latching and momentary actions
- Choice of actuators  
(custom option also available)
- Square and Round Mounting Styles

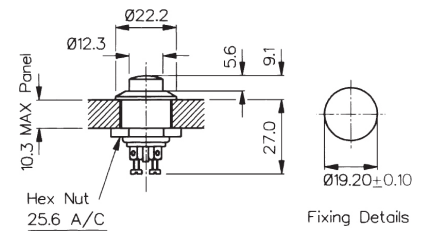


Front Panel Mounting



MP0012/Col

- 22mm diameter
- Prominent Button
- S.P. Push to Make
- Screw Terminals
- Brass, Chrome Plated Body, Glass Filled Nylon Button

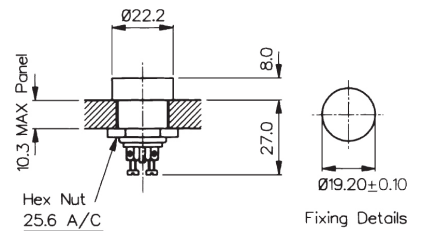


Front Panel Mounting



MP0012/1/Col

- 22mm diameter
- Recessed Button
- S.P. Push to Make
- Screw Terminals
- Brass, Chrome Plated Body, Glass Filled Nylon Button

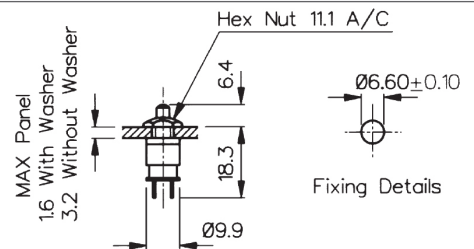


Rear Panel Mounting



MP0016

- S.P. Push to Make
- Solder Tags
- 1A, 28Vac/dc
- Brass Nickel Plated Body, Glass Filled Nylon Button



Specifications	MP0012/Colour	MP0012/1/Colour	MP0016/Colour
Terminations:	Screw Terminals	Screw Terminals	Solder Tags
Switching:	S.P. Push to Make Slow Momentary Action	S.P. Push to Make Slow Momentary Action	S.P. Push to Make Slow Momentary Action
Max. Rating:	0.25A. 250Vac, 1A. 110Vac, 2A. 12Vac/dc	0.25A. 250Vac, 1A. 110Vac, 2A. 12Vac/dc	1A 28Vac/dc (non-inductive)
Contact Resistance:	<15mΩ	<15mΩ	<15mΩ
Insulation Resistance:	>10 <sup>4</sup> MΩ	>10 <sup>4</sup> MΩ	>10 <sup>4</sup> MΩ
Dielectric Strength:	>2.5kVac	>2.5kVac	>2.0kVac
Operating Temp. Range:	-20°C to +85°C	-20°C to +85°C	-20°C to +85°C
Operation Pressure (typ):	9.18 newtons	9.18 newtons	6.22 newtons
Materials			
Moulding:	Glass Filled Nylon Brass,	Glass Filled Nylon Brass,	Glass Filled Nylon Brass,
Body:	Brass, Chrome Plated	Brass, Chrome Plated	Brass, Chrome Plated
Contacts/Terms:	Brass, Silver Plated	Brass, Silver Plated	Brass, Silver Plated
Variant	Button Colour: Standard - Black, /RD (Red)	Button Colour: Standard - Black, /RD (Red)	Button Colour: Standard - Black, /RD (Red)
<b>RoHS</b>	Compliant	Compliant	Compliant



# 8300 Series Push Button

8(8)A 250Vac & 12(12)A 250Vac



## Key Features

- Miniature push button
- 8A Inductive current rating
- Ratings up to 12(12)A, 250V ac (H suffix)
- Illuminated and nonilluminated
- Single and double pole
- Latching and momentary
- Slotted actuator for custom buttons
- Industry standard panel cutout
- Panel cut out: 19.3 x 12.9

## Approvals and specifications

16(4)A 250Vac T85, 1E4 (10,000 Operations)  
 12(12)A 250Vac T105, 1E4 (10,000 Operations)  
 8(8)A 250Vac T105, 5E4 (50,000 Operations)  
 6(6)A 250Vac T125, 5E4 (50,000 Operations)

8350, 8351, 8353, 8354  
 12A 250Vac DR, 250Vac 1hp, 125Vac 1/2hp

8300, 8301, 8303, 8304  
 13A 250Vac SP, 250Vac 1hp, 125Vac 1/2hp

UL 85°C, file E45221, CSA file LR10990

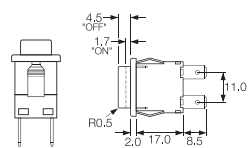
In house test:  
10(10)A 250Vac—Indicative rating only

3mm contact gap.

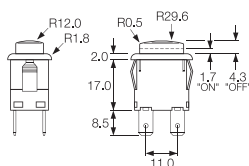
Terminal	Function	Actuator	Body Code	Body Colour								
<p><b>C</b></p>	<p>Approvals &amp; ratings vary with function Single pole switches use terminals 1 &amp; 2 (&amp; 3)</p>		Panel cut-out ** Bezel									
	<p><b>8300</b> Single Pole ON - OFF</p>	<p><b>A</b> Standard actuator</p>	<p><b>B</b> Standard body</p>	<p><b>B</b> Black</p>								
	<p><b>8301</b> Single Pole ON - OFF (momentary ON)</p>	<p><b>H</b> Slotted for custom caps</p>		<p><b>W</b> White</p>								
<p><b>H</b></p>		<p>Slots for snap-in buttons</p>	<p><b>E</b> Softline style body with radiused bezel</p>									
<p><b>A</b></p>	<p><b>8303</b> Single Pole ON - OFF With Light</p>	<p><b>C</b> Square actuator</p>	<p>Cut-outs must be punched in the direction of insertion</p>									
	<p><b>8304</b> Single Pole ON - OFF (momentary ON) with light</p>	<p><b>E</b> Radiused actuator</p>	<p><b>Dimensions for snap-in fixing</b></p> <table border="1"> <thead> <tr> <th>Panel thickness</th> <th>Dimension X</th> </tr> </thead> <tbody> <tr> <td>0.75-1.24</td> <td>19.1/19.2</td> </tr> <tr> <td>1.25-1.99</td> <td>19.3/19.4</td> </tr> <tr> <td>2.00-3.00</td> <td>19.7/19.8</td> </tr> </tbody> </table>	Panel thickness	Dimension X	0.75-1.24	19.1/19.2	1.25-1.99	19.3/19.4	2.00-3.00	19.7/19.8	
Panel thickness	Dimension X											
0.75-1.24	19.1/19.2											
1.25-1.99	19.3/19.4											
2.00-3.00	19.7/19.8											
	<p><b>8350</b> Double pole ON - OFF</p>	<p><b>F</b> Small round actuator</p>	<p>X and V PCB terminals. Additional dummy terminals may be supplied for extra support.</p>									
<p><b>K</b></p>	<p><b>8351</b> Double pole ON - OFF (momentary ON)</p>	<p><b>J</b> Smooth curved actuator</p>										
	<p><b>8353</b> Double pole ON - OFF With light</p>	<p><b>M</b></p>										
<p><b>T</b></p>	<p><b>8354</b> Double pole ON - OFF (momentary ON) with light</p>	<p><b>D</b> Large round actuator</p>										
	<p><b>8355</b> Single pole ON - OFF Isolated light - switched C, E &amp; M actuators only</p>	<p>All actuators except H available lit</p>										
<p><b>X</b></p>	<p><b>8356</b> Single pole ON - OFF Isolated light - unswitched C, E &amp; M actuators only</p>											
<p><b>V</b></p>												

## Dimensions

Actuator A  
Body B



Actuator J  
Body E



## Examples



H8350AB ---  
T8350AB ---




H8353JE ---  
T8353JE ---



H8353EB ---  
T8353EB ---

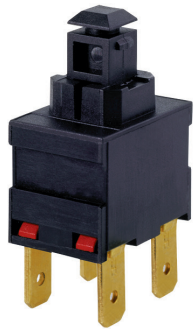


H8353CB ---  
T8353CB ---

Actuator Colour	Lamp Voltage	Legend	Legend Colour	Options
LIT				
<b>A</b> Amber	— None			<p><b>H</b> 12(12)A 250Vac switch rating</p> <p><b>Finish</b> Matt finish standard except on J and D actuators which are gloss</p> <p><b>Colour</b> Call sales for custom colours A full range is available for large orders</p> <p><b>Legend printing</b> Select from the examples or call sales for custom legends.</p> <p><b>Special buttons</b> Some of the many options are shown Call sales for the full range</p> <p><b>L167 Protective cover</b></p>  <p>Snaps on to switch bodies fitted with "A" or "J" style actuators, this reduces panel thickness by 0.8mm</p> <p><b>BioCote Antimicrobial Additive</b> Moulded components have antimicrobial properties using BioCote silver ion technology.</p>
<b>C</b> Clear	<b>2</b> 125V Neon			
<b>G</b> Green	<b>3</b> 250V Neon			
<b>R</b> Red	<b>7</b> 12V Filament			
UNLIT	<b>8</b> 24V Filament			
<b>B</b> Black				
<b>R</b> Red				
<b>W</b> White				

# 8200 Series Push Button

8(8)A 250Vac & 12(12)A 250Vac



## Key Features

- Miniature push button
- 8A Inductive current rating
- Ratings up to 12(12)A, 250V ac (H suffix)
- Without button
- Sub panel mount
- Push on, solder or PCB terminals
- Latching and momentary

## Approvals and specifications

- ⚡ 16(4)A 250Vac T85, 1E4 (10,000 Operations)
- 12(12)A 250Vac T105, 1E4 (10,000 Operations)
- 8(8)A 250Vac T105, 5E4 (50,000 Operations)
- 6(6)A 250Vac T125, 5E4 (50,000 Operations)

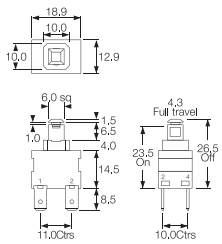
12A 250Vac  
250Vac 1hp, 125Vac 1/2hp  
UL 85°C, file E45221, CSA file LR10990

3mm contact gap.

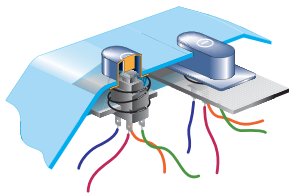
Terminal	Function	Actuator	Body Code
<p><b>C</b></p> <p>6.3 x 0.8 10.1</p>	<p>1 2 3 4</p> <p>Approvals &amp; ratings vary with function Single pole switches use terminals 1 &amp; 2 (&amp; 3)</p> <p><b>8200</b> Single Pole ON - OFF</p>	<p><b>A</b></p> <p>Standard actuator for snap-on custom adaptors</p> <p>8.0</p> <p><b>B</b></p> <p>Flat top actuator</p> <p>5.5</p> <p><b>C</b></p> <p>Curved top actuator</p> <p>8.0</p> <p>Examples of possible actuation methods Using a Snap on adaptor</p> <p>Using a Hinged Actuator</p>	<p><b>A</b></p> <p>Standard body</p> <p>See dimensioned drawings for details</p> <p><b>C</b></p> <p>As standard body but with side support peg for use with M PCB terminals</p> <p>X and V PCB terminals. Additional dummy terminals may be supplied for extra support.</p>
<p><b>H</b></p> <p>4.8 x 0.8 8.5</p> <p><b>A</b></p> <p>7.6 7.6</p> <p>As "H" but right angle 4.8 x 0.8</p>	<p><b>8201</b> Single Pole ON - OFF (momentary ON)</p>	<p><b>C</b></p> <p>Curved top actuator</p> <p>8.0</p> <p>Examples of possible actuation methods Using a Snap on adaptor</p> <p>Using a Hinged Actuator</p>	<p><b>C</b></p> <p>As standard body but with side support peg for use with M PCB terminals</p> <p>X and V PCB terminals. Additional dummy terminals may be supplied for extra support.</p>
<p><b>K</b></p> <p>2.8 x 0.8 8.5 2.6 1.5</p>	<p><b>8250</b> Double Pole ON - OFF</p>	<p>Examples of possible actuation methods Using a Snap on adaptor</p> <p>Using a Hinged Actuator</p>	<p><b>C</b></p> <p>As standard body but with side support peg for use with M PCB terminals</p> <p>X and V PCB terminals. Additional dummy terminals may be supplied for extra support.</p>
<p><b>T</b></p> <p>2.6 7.0 1.5</p> <p>Solder</p> <p><b>V</b></p> <p>3.7 Ctrs 4.3</p> <p>Dual pin PCB (Call sales for mounting dims)</p>	<p><b>8251</b> Double Pole ON - OFF (momentary ON)</p>	<p>Examples of possible actuation methods Using a Snap on adaptor</p> <p>Using a Hinged Actuator</p>	<p><b>C</b></p> <p>As standard body but with side support peg for use with M PCB terminals</p> <p>X and V PCB terminals. Additional dummy terminals may be supplied for extra support.</p>
<p><b>X</b></p> <p>4.5 7.0 PCB 0.8 Sq</p>	<p><b>8251</b> Double Pole ON - OFF (momentary ON)</p>	<p>Examples of possible actuation methods Using a Snap on adaptor</p> <p>Using a Hinged Actuator</p>	<p><b>C</b></p> <p>As standard body but with side support peg for use with M PCB terminals</p> <p>X and V PCB terminals. Additional dummy terminals may be supplied for extra support.</p>

## Dimensions

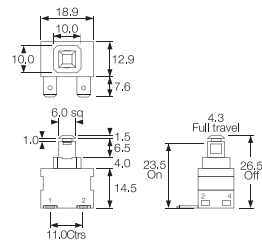
'A' body with 'H' 4.8 terminals



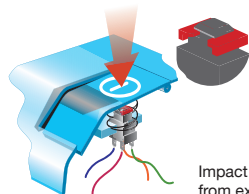
Example of possible mounting styles



'A' body with 'A' right angle 4.8 terminals

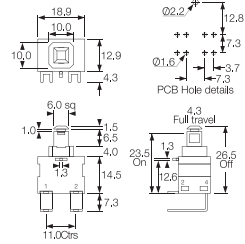


Alternative Actuator



Impact washer resists damage from excessive operator force

'C' body with 'M' right angle PCB terminals



## Examples



C8250AA ---  
with impact  
washer M1226



X8201AA ---



K8200AA ---



A8200AA ---



M8200AC ---



Example of M8200AC

# 7000 Series Push Button

16A 250Vac




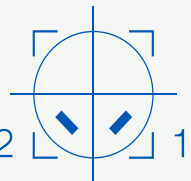

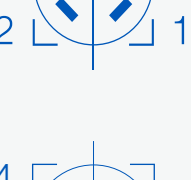
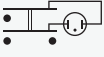
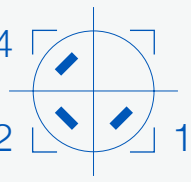
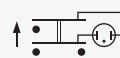


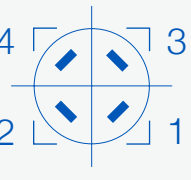

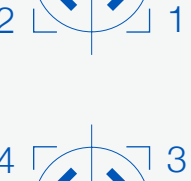
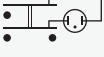
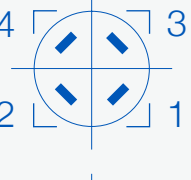

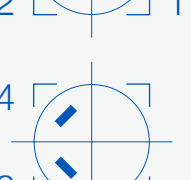
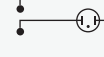
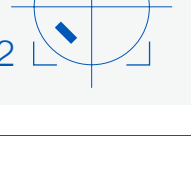
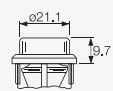

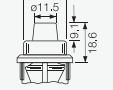
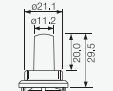
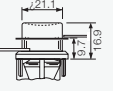


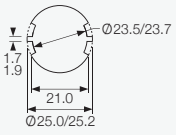
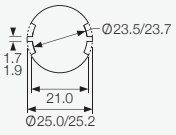
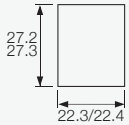


## Key Features

- Round and rectangular push button switches
- Ratings up to 16A, 250V ac
- Latching and momentary
- Illuminated & non-illuminated
- Matching indicators
- Low profile version
- Panel cut outs: 25.0 dia 27.2 x 22.3

## Approvals and specifications

- CE 16(4)A 250Vac T125  
8(8)A 250Vac T85
- UL CSA 16A Non Ind, 250Vac 1hp, 125Vac 1/2hp  
UL 65°C, file no. E45221, CSA file no. LR10990  
3mm contact gap.

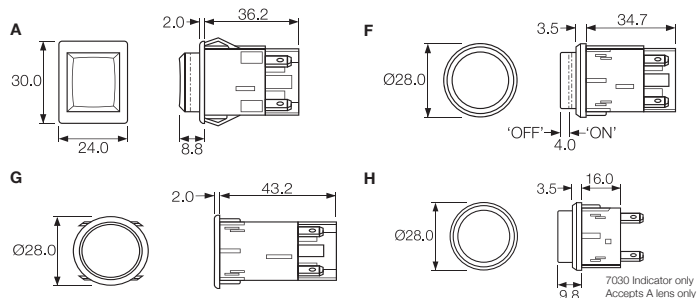
Terminal	Function	Actuator	Body Code
<p><b>C</b></p>  <p>6.3 x 0.8</p> <p><b>H</b></p>  <p>4.8 x 0.8</p>	<p>1 2 3 4 Approvals &amp; ratings vary with function Single pole switches use terminals 1 &amp; 2 (&amp; 3)</p> <p><b>7000</b> Single Pole ON - OFF</p>   <p><b>7001</b> Single Pole (momentary) ON - OFF</p>   <p><b>7003</b> Single Pole (with light) ON - OFF</p>   <p><b>7004</b> Single Pole (momentary) with light ON - OFF</p>   <p><b>7050</b> Double Pole ON - OFF</p>   <p><b>7051</b> Double Pole with light ON - OFF</p>   <p><b>7053</b> Double pole with light ON - OFF</p>   <p><b>7054</b> Double pole (momentary ON) with light ON - OFF</p>   <p><b>7030</b> Indicator UL E63363 CSA LR29381</p>  	<p><b>A</b> Round actuator shown in F body</p>  <p><b>A</b> Round actuator shown in G body</p>  <p><b>B</b> Round actuator - medium shown in F body</p>  <p><b>C</b> Round actuator - long shown in F body</p>  <p><b>D</b> Round actuator - sub panel mount</p>  <p><b>S</b> Rectangular actuator Shown in "A" body N/A for 7030</p> 	<p>Panel cut-outs</p> <p><b>F H G</b></p> <p>Body types fit either cut-out</p>    <p><b>A</b></p>  <p>27.2 27.3 22.3/22.4</p> <p>Cut-outs must be punched in the direction of insertion</p>

## Dimensions

Panel thickness:

A - 0.8 - 2.5mm

F, G, H - 0.8 - 5.0mm



## Examples



C7000AF ---



C7003AF ---



C7050SA ---



C7053AG ---

Body Colour	Actuator Colour	Lamp Voltage	Legend	Legend Colour	Options
<b>B</b> Black	<b>A</b> Amber	— None			<p><b>Finish</b> Matt finish is standard on bodies. Gloss finish is standard on actuators.</p> <p><b>Colour</b> Call sales for custom colours. A full range is available for large orders.</p> <p><b>Legend printing</b> A wide range is available or call sales for custom legends.</p> <p><b>Lamp voltage</b> Call sales for details of available voltages.</p> <p><b>Weatherproof housing (E)</b> Additional housing which fits round body switches with an oversize housing with a clear silicone cover designed to IP65. Mounting hole dia: 38.0mm</p>
<b>W</b> White	<b>C</b> Clear	<b>2</b> 125V Neon			
	<b>G</b> Green	<b>3</b> 250V Neon			
	<b>R</b> Red	<b>7</b> 12V Filament			
		<b>8</b> 24V Filament			
	<b>B</b> Black	UNLIT			
	<b>R</b> Red				
	<b>W</b> White				

# 0911 Push Button Switches

0.5A 250Vac



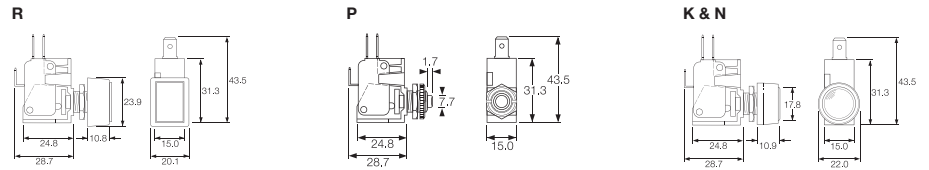
## Key Features

- Snap action switches
- Ratings up to 16A, 250Vac
- Round and rectangular buttons

## Approvals and specifications

- ⚡ 16(4)A 250Vac 5E4 T85
  - ⚡ 16A 125/250Vac 3/4hp T85 50E3  
125V 1/2 HP, 250V 3/4 HP, 0.4A 125Vdc, 0.2A 250Vdc
- Approvals apply to switch mechanism only.  
μ contact gap.

## Dimensions



Terminal	Function	Actuator	Body Code	Options
	<p><b>0911</b> (momentary) ON - ON</p>	<p><b>R</b> Rectangular bezel</p> <p><b>P</b> Short</p> <p><b>K</b> with satin chrome bezel</p> <p><b>N</b> with nylon bezel</p>	<p>Panel Cut-out</p> <p>Panel thickness Both nuts 2.5mm No backnut 4.0mm</p>	<p>Call factory for custom colours</p>



### Key Features

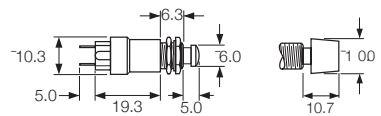
- Self wiping contacts
- Slow make & break
- Momentary action
- Choice of switch circuits
- Choice of actuators

### Approvals and specifications

In house test:  
0.5A 250Vac T85 – Indicative rating only

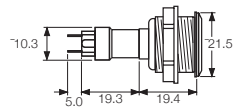
### Dimensions

Dimensions (mm) Nylon S and L actuators



Neck thread - 40 TPI Whit. Actuator travel - 2.5 max

Stainless steel V actuator (IP66)



Neck thread - 26 TPI Whit. Actuator travel - 2.5 max

Terminal	Function	Actuator	Body Code	Options
<p><b>T</b></p>	<p><b>0916</b></p> <p>Black base SP ON - OFF (momentary)</p>	<p><b>S</b> Small Actuator</p>	<p>7.1</p>	<p>Finish</p> <p>Gloss finish for L and S actuators.</p>
	<p><b>0917</b> 50V only</p> <p>Brown base SP ON - OFF (momentary 1 side)</p>	<p><b>L</b> Large Actuator</p>	<p>Panel Cut-out (L &amp; S Actuators)</p> <p>Panel thickness Both nuts - 2.5mm No Backnut - 4.0</p>	<p>Colour</p> <p>Call sales for custom colours. A full range is available for large orders.</p>
	<p><b>0918</b></p> <p>White base SP ON - OFF (momentary OFF)</p>	<p><b>V</b> Vandal Resistant IP66 Flattop Stainless Steel</p>	<p>19.2</p>	<p>Panel Cut-out (Stainless Steel V Actuator) Panel thickness - 8.0mm</p>
	<p><b>0919</b></p> <p>Black base DP ON - OFF (momentary 1 side)</p>	<p><b>S</b></p>	<p>Panel Cut-out (L &amp; S Actuators)</p> <p>Panel thickness Both nuts - 2.5mm No Backnut - 4.0</p>	<p>Colour</p> <p>Call sales for custom colours. A full range is available for large orders.</p>
	<p><b>0920</b></p> <p>White base DP ON - OFF (momentary ON)</p>	<p><b>L</b></p>	<p>Panel Cut-out (L &amp; S Actuators)</p> <p>Panel thickness Both nuts - 2.5mm No Backnut - 4.0</p>	<p>Colour</p> <p>Call sales for custom colours. A full range is available for large orders.</p>

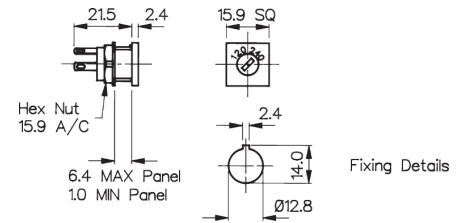


120/140V Voltage Selector



VS0001

- 2.8 series tabs/solder tags
- Square Front Bezel
- 6.3A
- CSA & VDE approvals

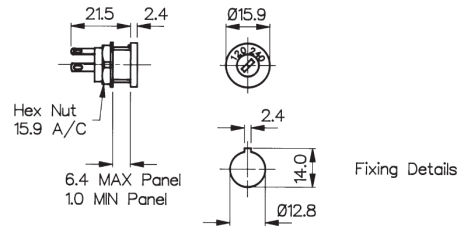


120/140V Voltage Selector

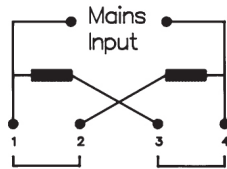


VS0002

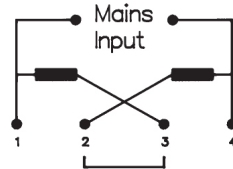
- 2.8 series tabs/Solder tags
- Round Front Bezel
- 6.3A
- CSA & VDE approvals



Connection Parallel 120V



Connection Series 240V



Specifications	VS0001	VS0002
Max. Rating:	6.3A, 120 / 240	6.3A, 120 / 240
Insulation Resistance:	>106 MΩ	>106 MΩ
Termination:	2.8 series tabs/solder tags	2.8 series tabs/solder tags
Temperature Range:	-20°C to +85°C	-20°C to +85°C
Materials:		
Mouldings:	Glass Filled Nylon UL94V-1	Glass Filled Nylon UL94V-1
Tags:	Brass, Silver Plated	Brass, Silver Plated
Contacts:	Copper Silver Alloy	Copper Silver Alloy
Approvals:		
Variants:	Other markings, details on request	Other markings, details on request
	<b>RoHS</b>	Compliant

Activated by the touch of a finger, our **Capacitive Switches** are ideal for many repetitive applications requiring a **rugged sealed** and **easy** to use switch solution.



- ⊕ Sealed to IP68 and IP69K
- ⊕ Momentary or latching functions
- ⊕ Large or thin ring illumination options
- ⊕ Long life operation – 50 million of cycles
- ⊕ 16, 19, 22 or 25mm diameter options
- ⊕ Easy to use and clean
- ⊕ Extremely robust and durable – IK10 rated
- ⊕ No operating force required – ideal for repetitive applications
- ⊕ Activated by the touch of a finger – even with surgeon gloves
- ⊕ Natural, black and red anodised options as well as 316L stainless steels

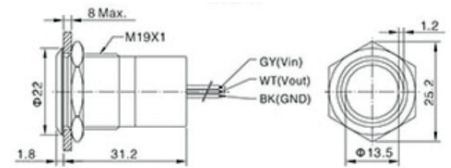


19mm Illuminated



MC19

- Illuminated
- 300 mm lead

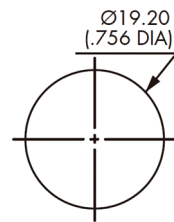


### Specification

### MC19

Type	Momentary / Latching
Materials	Case: Aluminium, Anodised and Stainless Steel  Multi-wire leads section 0.22mm <sup>2</sup> (length 300mm)
Maximum Current / Voltage Rating:	500mA at 12V or 24VDC
Supply Voltage	12 VDC
Contact Resistance	20mΩ
LED state for output image option	1 LED: The LED is ON when output is closed.  2 LEDs: First colour is ON when the output is open. Second colour is ON when the output is closed.
Actuating force, typically	Zero Newton's (Touch Sensitive)
Life cycle	>50 Million

### Panel Cutout Dimensions



Panel cutout: Ø19.20 (.756 DIA)

### Environmental Specification

Sealing	IP68 (2m depth for >30mins) IP69K
Operating temperature	-25°C to +55°C
<b>RoHS</b>	Compliant

### Circuit Specification

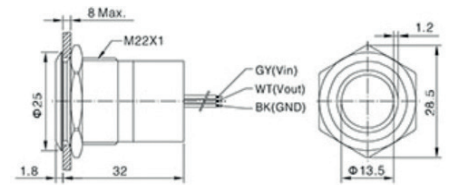
See wiring diagrams on Part No System page

22mm Illuminated



MC22

- Illuminated
- 300 mm lead

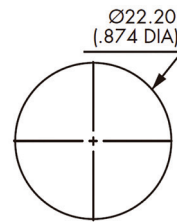


**Specification**

**MC22**

Type	Momentary / Latching
Materials	Case: Aluminium, Anodised and Stainless Steel  Multi-wire leads section 0.22mm <sup>2</sup> (length 300mm)
Maximum Current / Voltage Rating:	500mA at 12V or 24VDC
Supply Voltage	12 VDC
Contact Resistance	20mΩ
LED state for output image option	1 LED: The LED is ON when output is closed.  2 LEDs: First colour is ON when the output is open. Second colour is ON when the output is closed.
Actuating force, typically	Zero Newton's (Touch Sensitive)
Life cycle	>50 Million

**Panel Cutout Dimensions**



Panel cutout: Ø22.20 (.874 DIA)

**Environmental Specification**

Sealing	IP68 (2m depth for >30mins) IP69K
Operating temperature	-25°C to +55°C
<b>RoHS</b>	Compliant

**Circuit Specification**

See wiring diagrams on Part No System page



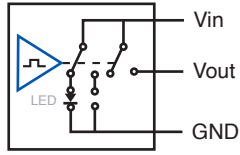
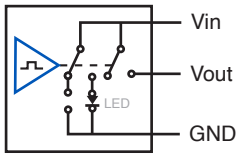
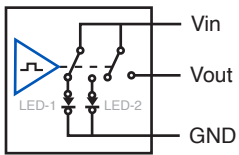
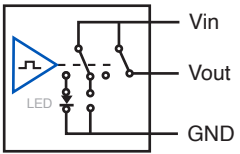
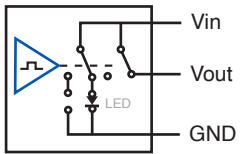
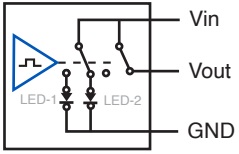
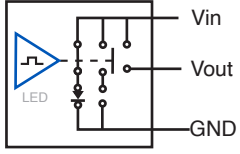
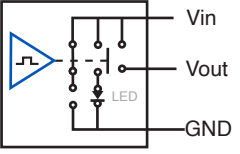
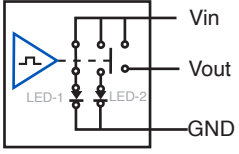
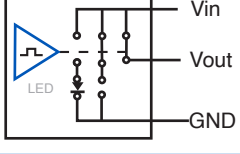
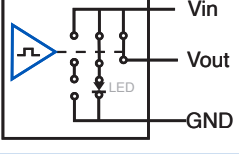
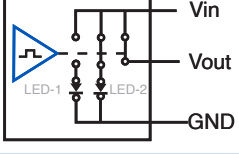
**Part No System**

<b>MC</b>	/	<b>XX</b>	/	<b>X</b>	/	<b>X</b>	/	<b>X</b>	/	<b>X</b>
<b>Series</b> MC-Capacitive Switch		<b>Switch Size</b> 16 = 16mm 19 = 19mm 22 = 22mm 25 = 25mm		<b>Switch Function</b> M = Momentary L = Latching		<b>Switch Status</b> O = Normally Open C = Normally Closed		<b>Colour / Material</b> B = Black Anodised R = Red Anodised S = Stainless Steel		<b>LED Colours</b> GN = GREEN RD = RED AM = AMBER RG = RED + GREEN GR = GREEN + RED Blank = Non-illuminated

**Examples:**

MC16MOSRD = 16mm, Stainless Steel, Momentary Normally Open, Red Illumination  
 MC22LOBRG = 22mm, Black Anodised, Catching Normally Open, Red and Green Illumination

**Circuit Specifications**

Wiring Diagrams				Legend
	1 LED		2 LEDS	
	Output Indicator	Output Indicator	Output Indicator	
<b>OFF-ON (momentary)</b>				Grey Vin Black black GND White Vout  Wire colours may vary. Always refer to the label on the switch.
<b>ON-OFF (momentary)</b>				
<b>OFF-ON (latching)</b>				
<b>ON-OFF (latching)</b>				

Other switches are available upon request\*

Unlike traditional switches Piezo switches have **no moving mechanical parts** making them **extremely durable**, withstanding millions of actuations and requiring little to no maintenance.





Piezo Switches  
**16mm Stainless Steel**

Non Illuminated

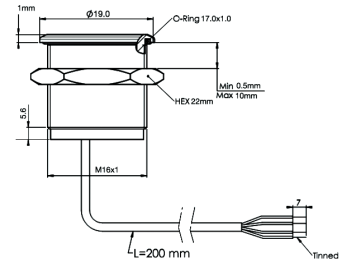


16MM Stainless Steel Non Illuminated



MPZ016

- Non Illuminated
- 20 cm lead
- Flathead or Guided profile



**Specification**

**MPZ016**

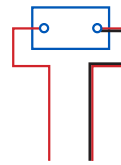
Type	Momentary
Material	Stainless Steel (Aluminium upon request)
Maximum Voltage	24V AC/DC
Switch Resistance "ON"	<1Ω
Switch Resistance "OFF"	5MΩ
Capacitance	100pF
Switching current (momentary)	1A Max
Switching current (prolonged)	300 mA
Switching pulse time (momentary)	up to 0.3 sec
Actuating force, typically	3-5 N
Life cycle	>10 Million

**Environmental Specification**

Sealing	IP68; IP69K
Operating temperature	-40°C to +85°C
Vibration resistance	5-500Hz/9.4m
Shock resistance	75g (g-force)
<b>RoHS</b>	Compliant

**Circuit Specification**

16MM Stainless Steel Non Illuminated



Switch voltage	24V AC/DC
Switch Current	1A Max
Power Supply	24V AC/DC

Piezo Switches  
**19mm Stainless Steel**

Illuminated and Non Illuminated

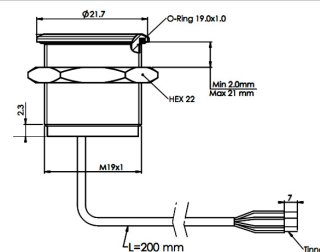


19MM Stainless Steel Illuminated

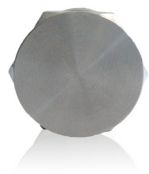


MPZI019

- Blue Illumination
- 20 cm lead
- Flathead

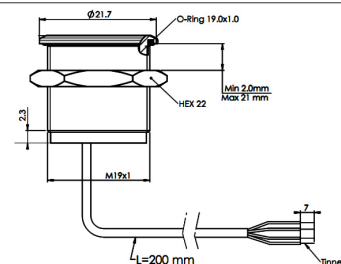


19MM Stainless Steel Non Illuminated



MPZ019

- Non Illumination
- 20 cm lead
- Flathead



**Specification**

**MPZ019, MPZI019**

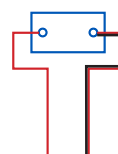
Type	Momentary
Material	Stainless Steel (Aluminium upon request)
Maximum Voltage	24V AC/DC
Switch Resistance "ON"	<1Ω
Switch Resistance "OFF"	5MΩ
Capacitance	100pF
Switching current (momentary)	1A Max
Switching current (prolonged)	300 mA
Switching pulse time (momentary)	up to 0.3 sec
LED Illumination	24V AC/DC
Actuating force, typically	3-5 N
Life cycle	>10 Million

**Environmental Specification**

Sealing	IP68; IP69K
Operating temperature	-40°C to +85°C
Vibration Resistances	5-500Hz/9.4m
Shock resistance	75g (g-force)
<b>RoHS</b>	Compliant

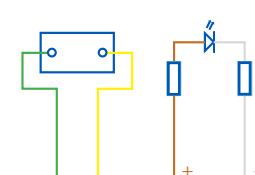
**Circuit Specification**

19MM Stainless Steel Non Illuminated



Switch voltage 24V AC/DC  
 Switch Current 1A Max  
 Power Supply 24V AC/DC

19MM Stainless Steel Illuminated



Switch voltage 24 V AC/DC  
 Switch Current 1A Max  
 Colour\* Illuminated 24V AC/DC  
 Power Supply 24V AC/DC

# Piezo Switches 22mm Stainless Steel

Illuminated and Non Illuminated

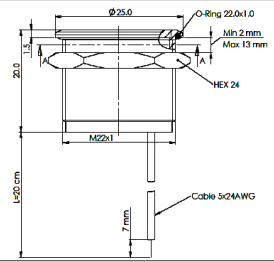


## 22MM Stainless Steel Non Illuminated



MPZ022

- Non Illumination
- 20 cm lead
- Flathead

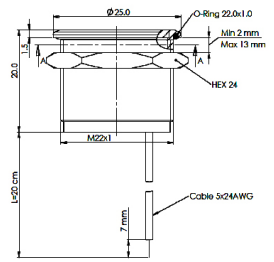


## 22MM Stainless Steel Illuminated



○  
○  
MPZI022

- Red or Green Illumination
- 1 colour
- 20 cm lead
- Flathead

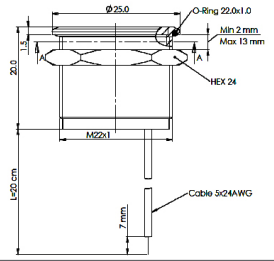


## 22MM Stainless Steel Illuminated



○  
○  
MPZI022

- Red and Green Illumination
- (2 colour)
- 20 cm lead
- Flathead



### Specification

### MPZ022, MPZI022

Type	Momentary
Material	Stainless Steel (Aluminium upon request)
Maximum Voltage	24V AC/DC
Switch Resistance "ON"	<1Ω
Switch Resistance "OFF"	5MΩ
Capacitance	100pF
Switching current (momentary)	1A Max
Switching current (prolonged)	300 mA
Switching pulse time (momentary)	up to 0.3 sec
LED Illumination	24V AC/DC
Actuating force, typically	3-5 N
Life cycle	>10 Million

### Environmental Specification

Sealing	IP68; IP69K
Operating temperature	-40°C to +85°C
Vibration Resistances	5-500Hz/9.4m
Shock resistance	75g (g-force)
<b>RoHS</b>	Compliant

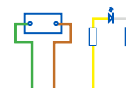
### Circuit Specification

#### 22MM Stainless Steel Non Illuminated



Switch Voltage 24 AC/DC  
Switch Current 1A Max  
Power Supply 24V AC/DC

#### 22MM Stainless Steel Illuminated 1 colour



Switch Voltage 24V AC/DC  
Switch Current 1A Max  
Color\* Illuminated 24V AC/DC  
Power Supply 24 AC/DC

#### 22MM Stainless Steel Illuminated 2 colour



Switch Voltage 24V AC/DC  
Switch Current 1A Max  
Color\* Illuminated 24V AC/DC  
Power Supply 24 AC/DC

Piezo Switches  
**22mm Stainless Steel Flathead**

Illuminated

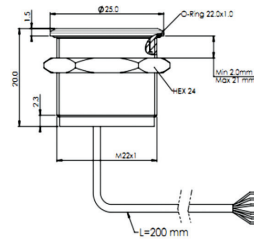


22MM Stainless Steel Illuminated



MPZI022/L

- Blue Illumination
- 1 colour
- 20 cm lead



**Specification**

**MPZI022/L**

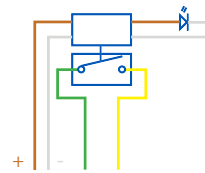
Type	Latching Toggle
Material	Stainless Steel (Aluminium upon request)
Power Supply	24V AC/DC
Switching voltage	48V AC peak/DC
Switch Resistance "ON"	<0.7Ω
Switch Resistance "OFF"	>1000MΩ
Capacitance	<90pF
Switching current	1A Max
LED Illumination	24V AC/DC
Actuating force, typically	3-5 N
Life cycle	>10 Million

**Environmental specification**

Sealing	IP68; IP69K
Operating temperature	-40°C to +85°C°
Vibration Resistances	5-500Hz/9.4m
Shock resistance	75g (g-force)
<b>RoHS</b>	Compliant

**Circuit Specification**

22MM Stainless Steel Latching Toggle Illuminated



Power Supply	24V AC/DC
Switch Voltage	48V AC peak/ DC
Switch Current Max	1A Max
Colour* Illuminated	24V AC/DC

Part No System

<b>MPZ</b>	/	<b>016</b>	/	<b>X</b>	/	<b>XX</b>	/	<b>X</b>	/	<b>X</b>
<b>Series</b>		<b>Body Diameter</b>		<b>Profile</b>		<b>Colour</b>		<b>Led Voltage</b>		<b>Type</b>
MPZ - Non Illuminated MPZI- Illuminated		016 = 16mm 019 = 19mm 022 = 22mm		F = Flat Head G = Guided Profile		BL = Blue RD = Red GN = Green D1 = Red and green		24v		L = Latching Toggle (No Suffix= Momentary)

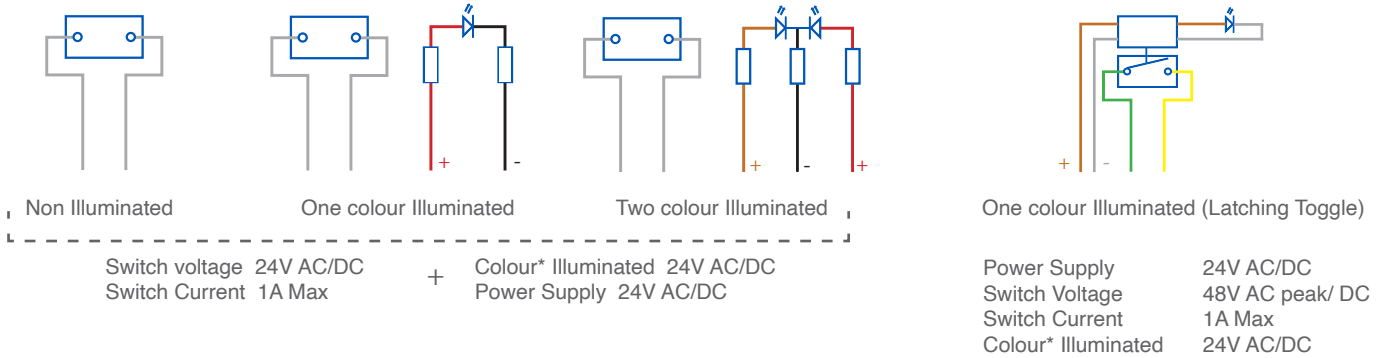
Examples:

MPZ022/F = Non Illuminated Piezo, 22mm, Flathead

MPZI022/F/RD/24 = Illuminated Piezo, 22mm, Flathead, Red Illumination, 24 volt

MPZI022/G/BL/24/L = Illuminated Piezo, 22mm, Guided Profile, Blue Illumination, 24 volt, Latching Toggle

Circuit Specifications



Other switches are available upon request\*

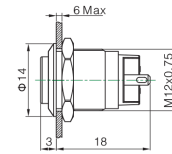
MAV0120



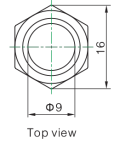
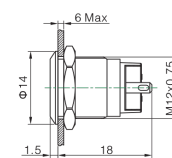
MAV0120

- Prominent and Flush Profile
- 12mm Diameter
- 2A, 36 dc
- IP67 (Front of Panel Only)

Prominent Profile



Flush Profile



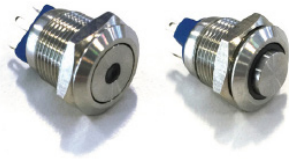
**Specification**

**MAV0120/3**

**MAV0120/1**

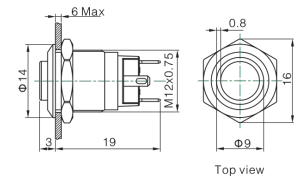
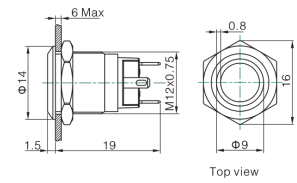
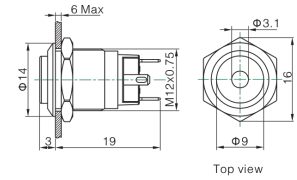
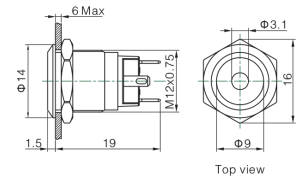
Terminations:	P - Solder Tabs	P - Solder Tabs
Switching:	S.P. Push to make	S.P. Push to make
Max Rating:	2A, 36Vdc	2A, 36Vdc
Contact Resistance:	≥50MΩ	≥50MΩ
Insulation Resistance:	≥1000MΩ	≥1000MΩ
Dielectric Strength:	1500V, AC 50Hz, 5 Secs	1500V, AC 50Hz, 5 Secs
Operating Temp Range:	*-25°C ~ +55°C	*-25°C ~ +55°C
<b>Operations</b>		
Mechanical:	500,000 (min)	500,000 (min)
Electrical:	200,000 (min)	200,000 (min)
Sealing (Front of Panel Only)	IP67	IP67
Shock Resistance	IK08	IK08
Rear Nut Fixing Torque:	0.6Nm	0.6Nm
<b>Materials</b>		
Mouldings:	PA	PA
Tags/Terminations:	Copper, Gold Plated	Copper, Gold Plated
Switch Body & Button:	Stainless Steel	Stainless Steel
Contacts:	Silver Alloy	Silver Alloy
Thread size:	M12x0.75	M12x0.75
RoHS	Compliant	Compliant

MAV0120



MAV0120

- Dot and Ring Illumination
- Prominent and Flush Profile
- 12mm Diameter
- 2A, 36 dc
- Bright daylight LEDs
- IP67 (Front of Panel Only)



### Specification

### MAV0120

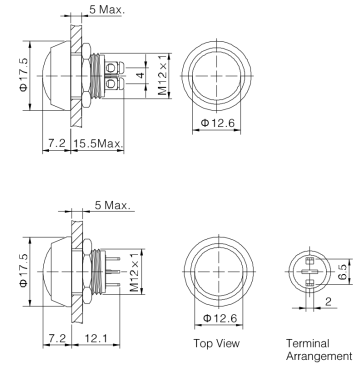
Terminations:	P - Solder Tabs				
Switching:	S.P. Push to make				
Max Rating:	2A, 36Vdc				
Profile:	Prominent /3 Flush /1				
Illumination Type	/1	Dot			
	/2	Ring			
LED Ratings					
Part No.					
Colours	/RD	/GN	/BL	/OR	/AM
Luminous Intensity	Red	Green	Blue	Orange	Yellow
Forward Voltage	1.8V	2.8V	2.8V	1.8V	1.8V
Forward Current					
Moulding Current	15mA	15mA	15mA	15mA	15mA
Illumination Voltage	/no suffix - No resistor fitted. An Appropriate resistor must be series connected by the user. Voltages as above				
	/12	12V			
	/24	24V			
Contact Resistance:	≥50MΩ				
Insulation Resistance:	≥1000MΩ				
Dielectric Strength:	1500V, AC 50Hz, 5 Secs				
Operating Temp. Range:	*-25°C ~ +55°C				
Operations					
Mechanical:	500,000 (min)				
Electrical:	200,000 (min)				
Sealing (Front of Panel Only)	IP67				
Shock Resistance	IK08				
Rear Nut Fixing Torque:	0.6Nm				
Materials					
Mouldings:	PA				
Tags/Terminations:	Copper, Gold Plated				
Switch Body & Button:	Stainless Steel				
Contacts:	Silver Alloy				
Thread size:	M12x0.75				
RoHS	Compliant				

MMP0120



MMP0120

- Raised Domed Profile
- 12mm Diameter
- 2A, 36Vac
- IP65 or IP67 (Front of Panel Only)



**Specification**

**MMP0120/S**

**MMP0120/N**

Terminations:	P - Solder Tabs S - Screw Terminal	P - Solder Tabs S - Screw Terminal
Switching:	S.P. Push to make	S.P. Push to make
Max Rating:	2A, 36Vdc	2A, 36Vdc
Contact Resistance:	$\geq 50M\Omega$	$\geq 50M\Omega$
Insulation Resistance:	$\geq 1000M\Omega$	$\geq 1000M\Omega$
Dielectric Strength:	1500V, AC 50Hz, 5 Secs	1500V, AC 50Hz, 5 Secs
Operating Temp Range:	*-25°C ~ +55°C	*-25°C ~ +55°C
<b>Operations</b>		
Mechanical:	500,000 (min)	500,000 (min)
Electrical:	200,000 (min)	200,000 (min)
Sealing (Front of Panel Only)	IP65 or IP67	IP65 or IP67
Shock Resistance	IK08	IK08
Rear Nut Fixing Torque:	0.3Nm	0.3Nm
<b>Materials</b>		
Mouldings:	PBT	PBT
Tags/Terminations:	Brass, Silver Plated	Brass, Silver Plated
Switch Body & Button:	/SS Stainless Steel	/N - Nickel Plated Brass
Contacts:	Silver Alloy	Silver Alloy
Thread size:	M12x1	M12x1
RoHS	Compliant	Compliant

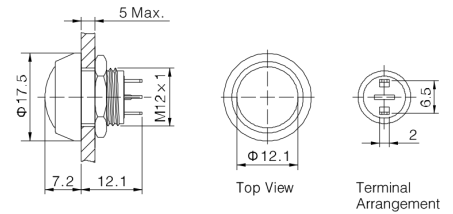
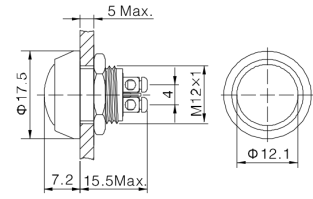


MMP0120/A



MMP0120/A

- Raised Domed Profile
- PBT Material
- 12mm Diameter
- 2A, 36Vac
- IP65 or IP67 (Front of Panel Only)



## Specification

## MMP0120/A

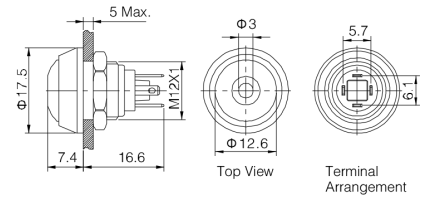
Terminations:	P - Solder Tabs S - Screw Terminal
Switching:	S.P. Push to make
Max Rating:	2A, 36Vdc
Contact Resistance:	≥50MΩ
Insulation Resistance:	≥1000MΩ
Dielectric Strength:	1500V, AC 50Hz, 5 Secs
Operating Temp Range:	*-25°C ~ +55°C
<b>Operations</b>	
Mechanical:	1,000,000 (min)
Electrical:	200,000 (min)
Sealing (Front of Panel Only)	IP65 or IP67
Shock Resistance	IK08
Rear Nut Fixing Torque:	0.3Nm
<b>Materials</b>	
Mouldings:	PBT
Tags/Terminations:	Brass, Silver Plated
Switch Body	/A Black Anodised
Switch Button:	/NB Nickel Plated Brass /RD RED PBT /GN GREEN PBT /BL BLUE PBT /BK BLACK PBT
Contacts:	Silver Alloy
Thread size:	M12x1
RoHS	Compliant

MMPI0120



MMPI0120

- Raised Domed Profile
- Dot Illumination
- Bright daylight LEDs
- 12mm Diameter
- 2A, 36Vac
- IP65 (Front of Panel Only)



## Specification

## MMPI0120

Terminations:	P - Solder Tabs				
Switching:	S.P. Push to make				
Max Rating:	2A, 36Vdc				
LED Ratings					
Part No.	SS-RD	SS-GN	NN-RD	ABK-RD	AG-RD
Colours	Red	Green	Red	Red	Red
Luminous Intensity					
Forward Voltage	1.8V	2.8V	1.8V	1.8V	1.8V
Forward Current					
Moulding Current	15mA	15mA	15mA	15mA	15mA
Illumination Voltage	/no suffix - No resistor fitted. An Appropriate resistor must be series connected by the user. Voltages as above				
	/12				
Contact Resistance:	≥50MΩ				
Insulation Resistance:	≥1000MΩ				
Dielectric Strength:	1500V, AC 50Hz, 5 Secs				
Operating Temp. Range:	*-25°C ~ +55°C				
Operations					
Mechanical:	1,000,000 (min)				
Electrical:	200,000 (min)				
Sealing (Front of Panel Only)	IP65				
Shock Resistance	IK08				
Rear Nut Fixing Torque:	0.3Nm				
Materials					
Mouldings:	PBT				
Tags/Terminations:	Brass, Silver Plated				
Switch Body & Button:	Stainless Steel	Stainless Steel	Nickel Plated Brass	Black Anodized Body, Black PBT Button	Black Anodized Body, Green PBT Button
Contacts:	Silver Alloy				
Thread size:	M12x1				
RoHS	Compliant				

12mm Miniature Vandal Resistant Stainless Steel Switch

<b>MAV0120</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>Series</b> MAV0120	<b>Button</b> 1 = Flush 3 = Prominent	<b>Switching Type</b> D = Momentary	<b>Type of Illumination</b> Blank = None 1 = Dot 2 = Ring	<b>Illumination Colour</b> Blank = None RD = RED GN = GREEN BL = BLUE AM = AMBER/YELLOW OR = ORANGE	<b>Lamp Voltage</b> Blank = None 012 = 12V 024 = 24V

Examples:

MAV0120/3D = 12mm Prominent Actuator, Momentary, Non Illuminated  
 MAV0120/3D1BL024 = 12mm Prominent Actuator, Momentary, Blue Dot Illuminated, 24V  
 MAV0120/3D2GN012 = 12mm Prominent Actuator, Momentary, Green Ring Illuminated, 12V

12mm Miniature Metal/Plastic Domed Pushbutton Switch

<b>MMPXXX</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>Series</b> MMP0120 = Non Illuminated  MMP10120 = Illuminated	<b>Body Material</b> S = Stainless Steel N = Nickel Plated Brass A = Black Anodized	<b>Button Material &amp; Colour</b> SS = Stainless Steel NB = Nickel Plated Brass RD = RED PBT GN = GREEN PBT BL = BLUE PBT BK = BLACK PBT	<b>Sealing</b> Blank = IP65 67 = IP67 IP67 (non-illuminated only)	<b>Illumination Colour</b> Blank = None RD = RED GN = GREEN BL = BLUE AM = AMBER/YELLOW OR = ORANGE	<b>Lamp Voltage</b> Blank = None 012 = 12V 024 = 24V Other voltages require external resistor	<b>Termination</b> S = Screw Terminals P = Solder Terminals (2.0mm x 0.5mm)

Examples:

MMP0120/SSSS = 12mm, Non Illuminated, All Stainless Steel, IP65, Screw Terminals  
 MMP0120/ARD67/S = 12mm, Non Illuminated, Black anodized body, Red PBT button, IP67, screw terminals  
 MMP10120/NNBRD012P = 12mm, Illuminated, All Nickel Plated Brass with 12V Red Dot illumination, IP65, Pin Terminals

Bulgin's range of **high quality rocker switches** includes a huge choice of **single** and **double pole** options available in various sizes, colours, terminations, actuator types and **ratings up to 16A, 250Vac**, allowing for virtually any design configuration.

- Available types: Ultra-thin, Miniature, Twin unit, Miniature round and Standard
- Rating from 10A, 250V ac up to 20A, 277V ac
- Single & double pole variants available
- Push-on, solder & PCB terminals
- Illuminated and non-illuminated options
- High in-rush (ON-OFF types)
- Matching Indicators
- Splash resistant options
- Choice of bezel styles and sizes, panel cut-outs and actuators
- Choice of switching circuits including 3 position



# 8800 Thinline Rocker Switches

10A 250Vac



## Key Features

- Ultra thin rocker switch
- Ratings up to 15A, 250Vac
- Single and twin gang
- Panel cut out:  
Single 19.3 x 6.8  
Twin 19.3 x 13.4

## Approvals and specifications

10(6)A 250Vac T100 1E4 (10,000 Operations)  
6(2)A 250Vac T100 5E4 (50,000 Operations)  
Inrush rating 10/50A 1E4 (10,000 Operations)

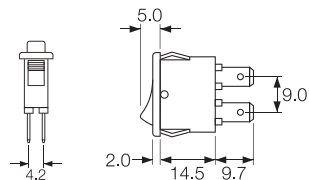
UL CSA 15A 250Vac (Twin unit is 10A 250Vac)  
UL CSA 125Vac 1/2hp  
UL 100°C, file E45221, CSA file LR10990

3mm contact gap.

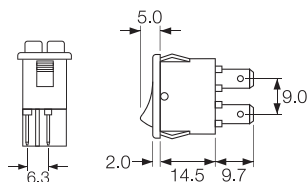
Terminal	Function	Rocker	Body	Body Colour	Rocker Colour
<b>H</b>	 Switches are ON when pressed over terminal 1  <b>8800</b>  ON - OFF Single pole		<b>A. Single pole</b>  *Optional profile for orientation	<b>B</b> Black  <b>R</b> Red	<b>B</b> Black  <b>R</b> Red
<b>T</b>	 Switches are ON when pressed over terminal 1 or 3  <b>8800</b>  ON - OFF Twin pole		<b>B. Single pole - Twin</b>  *Optional profile for orientation	<b>W</b> White	<b>W</b> White
<b>X</b>	 Switches are ON when pressed over terminal 1 or 3  <b>8800</b>  ON - OFF Twin pole		Panel thickness 0.75-1.2 1.25-1.99 2.00-3.00  Dim X 19.1/19.2 19.3/19.4 19.7/19.8  Cut-outs must be punched in the direction of insertion		

## Dimensions

8800VA (H terminals shown)



8800V/8800VA (H terminals shown)



Legend	Legend Colour	Options
Blank	Blank	<p><b>Finish</b> Matt finish only.</p> <p><b>Colour</b> Call sales for custom colours. A full range is available for large orders.</p> <p><b>Legend printing</b> Select from the examples or call sales for custom legends.</p>
<b>132</b>	<b>B</b> Black	
	<b>W</b> White	

## Examples



X8800VA



X8800VA  
T8800VA - - -



X8800VA  
T8800VA - - -



H8800V/H8800VA  
T8800V/T8800VA



H8800V/H8800VA  
T8800V/T8800VA

# 8500 Rocker Switches - Miniature

10A 250Vac Single & Double Pole



## Key Features

- Miniature rocker switch
- Ratings up to 15A, 250Vac
- Single & double pole in same body size
- Illuminated & non-illuminated
- Matching indicators
- Industry standard panel cut-out
- Rotary and push button actuator options
- Panel cut out: 19.3 x 12.9

## Approvals and specifications

10(6)A 250Vac T125 IE4 (non lit types)  
 6(4)A 250Vac T125 5E4 (50,000 Operations)  
 10(6)A 250Vac T100 (lit types)

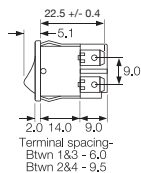
UL CSA 15A Non Ind 250Vac, 14A Ind 250Vac, 10A 277Vac  
 UL CSA 250Vac 1/2hp, 125Vac 1/4hp  
 UL 105°C, (non lit) file E45221, CSA file LR10990

3mm contact gap.

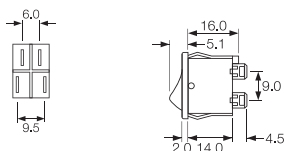
Terminal	Function	Rocker	Body	Body Colour	Rocker Colour								
<p><b>H</b></p> <p>4.8 x 0.8 8.5</p>	<p>ON OFF Switches are ON when pressed over terminal 1</p>	<p><b>H</b> Slotted for custom caps</p>	<p><b>B</b> Standard body with terminal barrier</p>	<p><b>B</b> Black</p>	<p>Un-Lit <b>B</b> Black</p>								
<p><b>K</b></p> <p>2.6 x 0.8 8.5</p>	<p><b>8500</b></p> <p>ON - OFF Single pole (Uses terminals 1a &amp; 2a)</p>	<p><b>R</b> Semi-rotary (not lit)</p>	<p><b>BC</b> Body without terminal barrier</p> <p>Dimensions for snap-in fixing</p> <table border="1"> <thead> <tr> <th>Panel thickness</th> <th>Dim X</th> </tr> </thead> <tbody> <tr> <td>0.75-1.25</td> <td>19.1/19.2</td> </tr> <tr> <td>1.25-2.00</td> <td>19.3/19.4</td> </tr> <tr> <td>2.00-3.00</td> <td>19.7/19.8</td> </tr> </tbody> </table> <p>Cut-outs must be punched in the direction of insertion</p>	Panel thickness	Dim X	0.75-1.25	19.1/19.2	1.25-2.00	19.3/19.4	2.00-3.00	19.7/19.8	<p><b>R</b> Red</p>	<p><b>R</b> Red</p> <p><b>W</b> White</p>
Panel thickness	Dim X												
0.75-1.25	19.1/19.2												
1.25-2.00	19.3/19.4												
2.00-3.00	19.7/19.8												
<p><b>L</b></p> <p>2.8 x 0.8 3.2</p> <p>Right angle version of K terminal available on 8500 only</p>	<p><b>8503</b></p> <p>ON (lit) - OFF Single pole</p>	<p><b>D</b> Paddle lever (not lit)</p>	<p><b>BC</b> Body without terminal barrier</p> <p>Dimensions for snap-in fixing</p> <table border="1"> <thead> <tr> <th>Panel thickness</th> <th>Dim X</th> </tr> </thead> <tbody> <tr> <td>0.75-1.25</td> <td>19.1/19.2</td> </tr> <tr> <td>1.25-2.00</td> <td>19.3/19.4</td> </tr> <tr> <td>2.00-3.00</td> <td>19.7/19.8</td> </tr> </tbody> </table> <p>Cut-outs must be punched in the direction of insertion</p>	Panel thickness	Dim X	0.75-1.25	19.1/19.2	1.25-2.00	19.3/19.4	2.00-3.00	19.7/19.8	<p><b>W</b> White</p>	<p>Lit <b>A</b> Amber</p>
Panel thickness	Dim X												
0.75-1.25	19.1/19.2												
1.25-2.00	19.3/19.4												
2.00-3.00	19.7/19.8												
<p><b>R</b></p> <p>4.8 x 0.8 4.5</p>	<p><b>8553</b></p> <p>ON (lit) - OFF Double pole</p>	<p><b>V</b> Curved (not lit)</p>	<p><b>BC</b> Body without terminal barrier</p> <p>Dimensions for snap-in fixing</p> <table border="1"> <thead> <tr> <th>Panel thickness</th> <th>Dim X</th> </tr> </thead> <tbody> <tr> <td>0.75-1.25</td> <td>19.1/19.2</td> </tr> <tr> <td>1.25-2.00</td> <td>19.3/19.4</td> </tr> <tr> <td>2.00-3.00</td> <td>19.7/19.8</td> </tr> </tbody> </table> <p>Cut-outs must be punched in the direction of insertion</p>	Panel thickness	Dim X	0.75-1.25	19.1/19.2	1.25-2.00	19.3/19.4	2.00-3.00	19.7/19.8	<p><b>R</b> Red</p>	<p><b>G</b> Green</p> <p><b>C</b> Clear</p>
Panel thickness	Dim X												
0.75-1.25	19.1/19.2												
1.25-2.00	19.3/19.4												
2.00-3.00	19.7/19.8												
<p><b>T</b></p> <p>3.5 x 0.8 8.5 +/- 0.4</p> <p>Solder</p>	<p><b>8580</b></p> <p>Available with H terminals only</p> <p>Indicator UL/CSA E63363</p>	<p><b>V</b> Curved (lit)</p>	<p><b>BC</b> Body without terminal barrier</p> <p>Dimensions for snap-in fixing</p> <table border="1"> <thead> <tr> <th>Panel thickness</th> <th>Dim X</th> </tr> </thead> <tbody> <tr> <td>0.75-1.25</td> <td>19.1/19.2</td> </tr> <tr> <td>1.25-2.00</td> <td>19.3/19.4</td> </tr> <tr> <td>2.00-3.00</td> <td>19.7/19.8</td> </tr> </tbody> </table> <p>Cut-outs must be punched in the direction of insertion</p>	Panel thickness	Dim X	0.75-1.25	19.1/19.2	1.25-2.00	19.3/19.4	2.00-3.00	19.7/19.8	<p><b>W</b> White</p>	<p><b>R</b> Red</p>
Panel thickness	Dim X												
0.75-1.25	19.1/19.2												
1.25-2.00	19.3/19.4												
2.00-3.00	19.7/19.8												
		<p><b>X</b> Two colour (not lit)</p>	<p><b>BC</b> Body without terminal barrier</p> <p>Dimensions for snap-in fixing</p> <table border="1"> <thead> <tr> <th>Panel thickness</th> <th>Dim X</th> </tr> </thead> <tbody> <tr> <td>0.75-1.25</td> <td>19.1/19.2</td> </tr> <tr> <td>1.25-2.00</td> <td>19.3/19.4</td> </tr> <tr> <td>2.00-3.00</td> <td>19.7/19.8</td> </tr> </tbody> </table> <p>Cut-outs must be punched in the direction of insertion</p>	Panel thickness	Dim X	0.75-1.25	19.1/19.2	1.25-2.00	19.3/19.4	2.00-3.00	19.7/19.8		
Panel thickness	Dim X												
0.75-1.25	19.1/19.2												
1.25-2.00	19.3/19.4												
2.00-3.00	19.7/19.8												
		<p><b>A</b> Softline lens</p>	<p><b>BC</b> Body without terminal barrier</p> <p>Dimensions for snap-in fixing</p> <table border="1"> <thead> <tr> <th>Panel thickness</th> <th>Dim X</th> </tr> </thead> <tbody> <tr> <td>0.75-1.25</td> <td>19.1/19.2</td> </tr> <tr> <td>1.25-2.00</td> <td>19.3/19.4</td> </tr> <tr> <td>2.00-3.00</td> <td>19.7/19.8</td> </tr> </tbody> </table> <p>Cut-outs must be punched in the direction of insertion</p>	Panel thickness	Dim X	0.75-1.25	19.1/19.2	1.25-2.00	19.3/19.4	2.00-3.00	19.7/19.8		
Panel thickness	Dim X												
0.75-1.25	19.1/19.2												
1.25-2.00	19.3/19.4												
2.00-3.00	19.7/19.8												
		<p><b>P</b> Push button operation (8500 only) See drawing opposite</p>	<p><b>BC</b> Body without terminal barrier</p> <p>Dimensions for snap-in fixing</p> <table border="1"> <thead> <tr> <th>Panel thickness</th> <th>Dim X</th> </tr> </thead> <tbody> <tr> <td>0.75-1.25</td> <td>19.1/19.2</td> </tr> <tr> <td>1.25-2.00</td> <td>19.3/19.4</td> </tr> <tr> <td>2.00-3.00</td> <td>19.7/19.8</td> </tr> </tbody> </table> <p>Cut-outs must be punched in the direction of insertion</p>	Panel thickness	Dim X	0.75-1.25	19.1/19.2	1.25-2.00	19.3/19.4	2.00-3.00	19.7/19.8		
Panel thickness	Dim X												
0.75-1.25	19.1/19.2												
1.25-2.00	19.3/19.4												
2.00-3.00	19.7/19.8												

## Dimensions

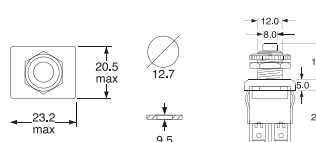
“B” body with barrier for H, T and K terminals




“BC” body w/o barrier primarily for L or R terminals (can be used for all terminals)



‘PO’ Actuator and body - push button function (8500 only)



Insert Colour	Lamp Voltage	Legend	Legend Colour	Options
<b>X</b> Rocker Only	Blank	Blank	Blank	<p><b>Finish</b> Matt finish only.</p> <p><b>Colour</b> Call sales for custom colours. A full range is available for large orders.</p> <p><b>Legend printing</b> Select from the examples or call sales for custom legends.</p> <p><b>Lamp voltage</b> Call sales for details of available voltages.</p> <p><b>Protective cover L167</b> Snaps on to bodies with V or X style rockers and A lens. This reduces panel thickness by 0.8mm.</p> 
<b>R</b> Red	<b>2</b> 125V Neon	<b>076</b>	<b>B</b> Black	
<b>W</b> White	<b>3</b> 250V Neon		<b>W</b> White	
Blank Leave blank for other Rocker types	<b>7</b> 12V Filament			
	<b>8</b> 24V Filament			

## Examples



H8500VB ---  
T8500VB ---



H8550VB ---  
T8550VB ---



H8550HB ---  
T8550HB ---



H8550XB ---  
T8550XB ---



H8550RB Semi-rotary  
A splash proofing option



H8500PO ---  
Pushbutton option



H8553VB ---  
T8553VB ---



H8580AB ---



# 8600 Rocker Switches - Miniature

10A 250Vac Single & Double Pole



## Key Features

- Miniature rocker switch
- Ratings up to 16A, 250Vac
- Single & double pole
- ON/OFF, C/O, biased and centre off switching
- Push on, solder and PCB terminals
- Illuminated and non illuminated
- Matching indicators
- Panel cut out single: 19.3 x 12.9 double: 19.3 x 21.9

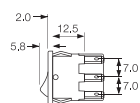
## Approvals and specifications

- 10(4)A 250Vac T90 (unless noted below)
- UL CSA See ratings below  
UL 65°C, file E45221, CSA file LR10990
- 3mm contact gap except where marked  $\mu$ .

Terminal	Function		Rocker	Body	Body Colour																
<p><b>H</b></p> <p>4.8 x 0.8 7.4</p> <p><b>T</b></p> <p>Ø2.2 6.4 3.5 x 0.8 Solder</p> <p><b>X</b></p> <p>3.7 5.3 PCB 0.65sq</p> <p>Double Pole switches with "X" terminals are supplied without terminal barriers</p>	<p>Approvals &amp; ratings vary with function</p>	<p>ON OFF Switches are ON when pressed over terminal 3</p>	<p><b>V</b> Curved</p> <p><b>V</b> Curved (lit)</p> <p><b>F</b> Flat Indicator only (Single pole)</p>	<p><b>B</b> Single pole</p> <p>Panel cut out</p> <p>Bezel</p> <p>Single Pole dimensions for snap-in fixing</p> <table border="1"> <tr> <td>Panel thickness</td> <td>Dim X</td> </tr> <tr> <td>0.75-1.25</td> <td>19.1/19.2</td> </tr> <tr> <td>1.25-1.99</td> <td>19.3/19.4</td> </tr> <tr> <td>2.00-3.00</td> <td>19.7/19.8</td> </tr> </table> <p><b>B</b> (Double Pole) with terminal barrier</p> <p><b>BC</b> (Double Pole) w/o terminal barrier</p> <p>Panel cut out</p> <p>Bezel</p> <p>Double Pole dimensions for snap-in fixing</p> <table border="1"> <tr> <td>Panel thickness</td> <td>Dim X</td> </tr> <tr> <td>0.75-1.24</td> <td>19.1/19.2</td> </tr> <tr> <td>1.25-1.99</td> <td>19.3/19.4</td> </tr> <tr> <td>2.00-3.00</td> <td>19.7/19.8</td> </tr> </table> <p>Cut-outs must be punched in the direction of insertion</p>	Panel thickness	Dim X	0.75-1.25	19.1/19.2	1.25-1.99	19.3/19.4	2.00-3.00	19.7/19.8	Panel thickness	Dim X	0.75-1.24	19.1/19.2	1.25-1.99	19.3/19.4	2.00-3.00	19.7/19.8	<p><b>B</b> Black</p> <p><b>R</b> Red</p> <p><b>W</b> White</p>
	Panel thickness	Dim X																			
	0.75-1.25	19.1/19.2																			
	1.25-1.99	19.3/19.4																			
	2.00-3.00	19.7/19.8																			
	Panel thickness	Dim X																			
	0.75-1.24	19.1/19.2																			
	1.25-1.99	19.3/19.4																			
	2.00-3.00	19.7/19.8																			
	<p><b>8600</b></p> <p>10(4)A 16A 250V, 10A 277V 1/2HP 277V, 1/4HP 125V ON - OFF</p>	<p><b>8650</b></p> <p>10(4)A 10A 277V 1/2HP 277V, 1/4HP 125V ON - OFF</p>	<p><b>8601</b></p> <p>6(1)A 16A 250V, 6A 277V ON - OFF (momentary ON)</p>	<p><b>8651</b></p> <p>6(1)A 6A 277V ON - OFF (momentary ON)</p>	<p><b>8602</b></p> <p>10A 6A 277V ON - OFF (momentary OFF)</p>	<p><b>8652</b></p> <p>10(4)A 6A 277V ON - OFF (momentary OFF)</p>															
<p><b>N/A</b></p> <p>ON - OFF Lit</p>	<p><b>8653</b></p> <p>10(4)A 6A 277V ON - OFF Lit</p>	<p><b>8610</b></p> <p>6(1)A 10A 277V 1/2HP 277V, 1/4HP 125V ON - ON</p>	<p><b>8660</b></p> <p>6(1)A 10A 277V 1/2HP 277V, 1/4HP 125V ON - ON</p>	<p><b>8611</b></p> <p>6A 277V ON - ON (momentary 1 side)</p>	<p><b>8661</b></p> <p>6A 277V ON - ON (momentary 1 side)</p>																
<p><b>8620 <math>\mu</math></b></p> <p>ON - OFF - ON</p>	<p><b>8670 <math>\mu</math></b></p> <p>ON - OFF - ON</p>	<p><b>8630</b></p> <p>6(1)A UL E63363 CSA LR29381 KEMA-KUER</p> <p>Indicators</p>	<p><b>N/A</b></p>																		

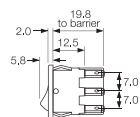
## Dimensions

Single pole




Terminals shown are "H" 4.8 push on type

Double pole



Terminal spacing 10.2 between pole centres

Rocker Colour	Lamp Voltage	Legend	Legend Colour	Options
Un-Lit <b>B</b> Black	Blank	Blank	Blank	<p><b>Finish</b> Matt finish only.</p> <p><b>Colour</b> Call sales for custom colours. A full range is available for large orders.</p> <p><b>Legend printing</b> Select from the examples or call sales for custom legend.</p> <p><b>Lamp voltage</b> Call sales for details of available voltages.</p> <p><b>Blanking plate A8634FB</b> Dummy unit to fill unused panel holes. Single pole size only.</p> <p><b>Protective covers</b> L167 for SP L180 for DP Snap on to bodies with V rocker or F lens. This reduces panel thickness by 2.2mm.</p>  <p><b>Single Pole options</b> Most switches shown can have single pole switching in double pole bodies.</p>
<b>R</b> Red	<b>2</b> 125V Neon	<b>076</b>	<b>B</b> Black	
<b>W</b> White				
Lit <b>A</b> Amber	<b>3</b> 250V Neon		<b>W</b> White	
<b>G</b> Green				
<b>C</b> Clear	<b>7</b> 12V Filament			
<b>R</b> Red	<b>8</b> 24V Filament			

## Examples



H8600VB ---  
T8600VB ---



H8600VB ---  
T8600VB ---



H8630FB ---  
T8630FB ---



H8650VB ---  
T8650VB ---



H8660VB ---  
T8660VB ---



H8653VB ---  
T8653VB ---

# 8620 & 8670 Rocker Switches

3 Positions - 10A 250Vac



## Key Features

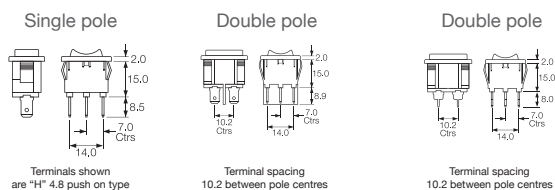
- 3 position miniature rocker switch
- Ratings up to 15A, 250Vac
- Single & double pole
- Centre off switching
- Push on, solder and PCB terminals
- Matching indicators
- Panel cut out: single: 19.3 x 12.9 double: 19.3 x 21.9


## Approvals and specifications

- UL 10(4)A 250Vac T90
- UL CSA 15A 277Vac (Single pole)
- UL CSA 250Vac 1/2hp (Single pole)
- UL CSA 125Vac 1/4hp (Single pole)
- UL CSA 10A 277Vac (Double pole)
- UL CSA 277Vac 1/2hp (Single & Double pole)
- UL 90°C, file E45221, CSA file LR10990
- μ contact gap.

Terminal	Function	Rocker	Body	Body Colour	Rocker Colour
<p><b>H</b></p> <p>4.8 x 0.8</p>	<p><b>8620</b></p> <p>ON - OFF - ON Single pole</p>	<p><b>V</b></p> <p>Curved</p>	<p><b>B</b> Single pole</p> <p>Panel thickness 0.75-1.24 1.25-1.99 2.00-3.00</p> <p>Dim X 19.1/19.2 19.3/19.4 19.7/19.8</p>	<p><b>B</b> Black</p> <p><b>R</b> Red</p> <p><b>W</b> White</p>	<p>Lit (DP)</p> <p><b>A</b> Amber</p> <p><b>C</b> Clear</p> <p><b>G</b> Green</p> <p><b>R</b> Red</p> <p>Lit (DP)</p> <p><b>B</b> Black</p> <p><b>R</b> Red</p> <p><b>W</b> White</p>
<p><b>T</b></p> <p>Ø2.15 Solder</p>	<p><b>8670</b></p> <p>ON - OFF - ON Double pole</p>	<p><b>H</b></p> <p>Slotted for actuator (8620 only)</p>	<p><b>B</b> Single pole - Twin</p> <p>Panel thickness 0.75-1.24 1.25-1.99 2.00-3.00</p> <p>Dim X 19.1/19.2 19.3/19.4 19.7/19.8</p> <p><small>Cut-outs must be punched in the direction of insertion</small></p>		
<p><b>X</b></p> <p>PCB 0.8sq Double pole switches with X terminals are supplied without terminal barriers</p>					

## Dimensions



Lamp Voltage	Legend	Legend Colour	Options
Blank	Blank	Blank	<p><b>Finish</b> Matt finish only.</p> <p><b>Colour</b> Call sales for custom colours. A full range is available for large orders.</p> <p><b>Legend printing</b> Select from the examples or call sales for custom legend.</p> <p><b>Lamp voltage</b> Call sales for details of available voltages.</p> <p><b>Blanking plate A8634FB</b> Dummy unit to fill unused panel holes. Single pole size only.</p> <p><b>Protective covers</b> L167 for SP L180 for DP Snap on to bodies with V rocker or F lens. This reduces panel thickness by 2.2mm.</p>
<b>2</b> 125V Neon	<b>076</b>	<b>B</b> Black	
<b>3</b> 250V Neon		<b>W</b> White	
<b>7</b> 12V Filament			
<b>8</b> 24V Filament			<p><b>Single Pole options</b> Most switches shown can have single pole switching in double pole bodies.</p>

# 1250 Rocker Switches

10A 250Vac

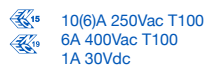


## Key Features

- Standard rocker switch
- Double pole in single pole body
- Snap in or sub panel mount
- Integral terminal barrier
- Push on or PCB terminals
- Panel cut out: 27.2 x 12.4 (snap in) 26.3 x 12.4 (sub panel mount)

Terminal	Function	Rocker	Body	Body Colour	Rocker Colour
<p><b>C</b></p> <p>On when pressed over terminal 1</p> <p><b>1250</b></p> <p>ON - OFF Double pole</p> <p>Poles are 9.0mm between centres.</p> <p>6.3 x 0.8</p>	<p><b>A</b> Curved</p> <p>Shown in N body</p>	<p><b>N</b></p> <p>Panel cut-out</p> <p>Sub-panel: 12.4/12.5, 26.1/26.2</p> <p>Facia: 13.1 nom, 23.8 nom, R3.5</p> <p>Bezel: 13.0, 29.5</p> <p>Panel thickness: 0.75-1.24, 1.25-1.99, 2.00-3.00</p> <p>Dim X: 26.1/26.2, 26.3/26.4, 26.7/26.8</p>	<p><b>B</b> Black</p> <p><b>W</b> White</p>	<p><b>B</b> Black</p> <p><b>W</b> White</p>	
<p><b>X</b></p> <p>On when pressed over terminal 1</p> <p><b>1250SP</b></p> <p>ON - OFF Single pole</p> <p>PCB 0.8sq (N body only)</p> <p>5.2</p> <p>9.0</p>	<p><b>P</b></p> <p>Panel cut-out</p> <p>27.2/27.3, 12.4/12.5</p> <p>Bezel: 29.5, 15.0</p> <p>Panel thickness: 0.75-3.00</p> <p><small>Cut-outs must be punched in the direction of insertion</small></p>	<p><b>G</b> Grey</p>			

## Approvals and specifications



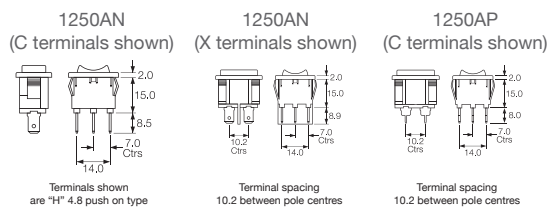
10(6)A 250Vac T100  
6A 400Vac T100  
1A 30Vdc



UL CSA 10A 250Vac  
UL CSA 16A 250Vac Resistive  
UL CSA 125Vac 1/2hp  
UL CSA 1A 30Vdc  
UL 100°C, file E45221, CSA file LR10990

3mm contact gap

## Dimensions



### Legend

Blank

**085**

### Legend Colour

Blank

**B**  
Black

**W**  
White

### Options

**Finish**  
Matt finish only.

**Colour**  
Call sales for custom colours.  
A full range is available for large orders.

**Legend printing**  
Select from the examples or call sales for custom legend.

# 6000 SP Splash Resistant Rocker Switches

16A 250Vac



## Key Features

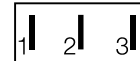
- Ratings up to 20A, 277Vac
- Positive switch action
- Distinctive styling
- Illuminated & nonilluminated
- Single pole
- Panel cut out: 30.1 x 11.1mm

## Approvals and specifications

- European 16(4)A 250Vac T125, 10A 400Vac T125
  - UL = 20A 277Vac, 1 1/2HP 250Vac 1HP 125Vac  
CSA = 20A 277Vac, 1HP 125Vac, 1/2HP 125Vac
- 3mm contact gap with Positive Break switching.  
Call factory for IP details.

## Vary with Function

Approvals & ratings vary with function  
ON OFF Switches - ON when pressed  
over terminals 3.



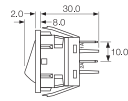
Terminal	Function	Rocker	Body	Body Colour	Rocker Colour	Lamp Voltage
<b>C</b>  6.3 x 0.8 9.7	<b>6000</b>  ON - OFF	<b>A</b> Softline Matt 	<b>L</b> Panel cut-out ** Bezel  30.0/30.1 11.0/11.1 31.5 14.0 R2.0 Cut-outs must be punched in the direction of insertion	<b>B</b> Black   <b>W</b> White	Lit (DP)  <b>A</b> Amber	Blank
	<b>6001</b>  ON - OFF (momentary ON)				<b>C</b> Clear  <b>2</b> 125V Neon	
<b>H</b>  4.8 x 0.8 9.7	<b>6002</b>  ON - OFF (momentary OFF)	<b>A</b> Softline Matt 	<b>L</b> Panel cut-out ** Bezel  30.0/30.1 11.0/11.1 31.5 14.0 R2.0 Cut-outs must be punched in the direction of insertion	<b>B</b> Black   <b>W</b> White	<b>G</b> Green  <b>3</b> 250V Neon	<b>5</b> 12Vdc LED (P Rocker)
	<b>6003</b>  ON - OFF Lit				<b>P</b> Lit window Matt 	<b>R</b> Red  <b>5</b> 12Vdc LED (P Rocker)
<b>S</b>  4.8 x 0.8 9.7 Screw & Clamp N/A for assemblies with 3 terminals	<b>6008</b>  ON - OFF Lit (Unswitched neutral)	<b>P</b> Lit window Matt 	<b>L</b> Panel cut-out ** Bezel  30.0/30.1 11.0/11.1 31.5 14.0 R2.0 Cut-outs must be punched in the direction of insertion	<b>B</b> Black   <b>R</b> Red  <b>W</b> White	Lit (DP)  <b>B</b> Black  <b>6</b> 24Vdc LED (P Rocker)	<b>7</b> 12V Filament
	<b>6009</b>  ON - OFF (momentary ON) Lit (Unswitched neutral)				<b>7</b> 12V Filament	
	<b>6010</b>  ON - ON				<b>8</b> 24Vdc Filament	
	<b>6011</b>  ON - ON (momentary 1 side)					

## Integral Splash Resistance




Current carrying parts are protected from moisture. Droplets which may enter the switch are channelled out through ports in the switch body. For IP65 see options below

## Dimensions



**Panel thickness**  
L 0.75 to 2.5mm  
\*\* For cut-out details on momentary switches call sales

Legend	Legend Colour	Options
Blank	Blank	<p><b>G74</b> Protective Cover</p> <p><b>Finish</b> Matt is standard.</p> <p><b>Colour</b> Call sales for custom colours. A full range is available for large orders.</p> <p><b>Legend printing</b> Select from the examples or call sales for custom legends.</p> <p><b>Lamp voltage</b> Call sales for details.</p> <p><b>Protective cover</b> A snap on cover is available (add G after body code), this reduces panel thickness by 2mm.</p>  <p>Panel sealing washer W46 is available, this reduces panel thickness by 1.2mm.</p> <p>Covers are not suitable for momentary types. For all options call the factory</p>
<b>1223</b>	<p><b>B</b> Black</p> <p><b>W</b> White</p>	

## Examples



☐ C6000AL - - -



☐ C6000AL - - -



☐ C6010AL - - -



☐ C6003AL - - -



☐ C6003PL - - -

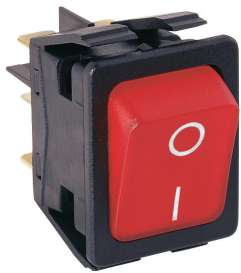


☐ C6030AL - - -



# 6050 DP Splash Resistant Switches

& Twin Switches - 16A 250Vac



## Key Features

- Ratings up to 20A, 277V ac
- Positive switch action
- Distinctive styling
- Illuminated & non-illuminated
- Double pole
- DC LED Illumination Available
- Panel cut out: 30.1 x 22.2mm

## Approvals and specifications

European 16(4)A 250Vac T125, 10A 400Vac T125

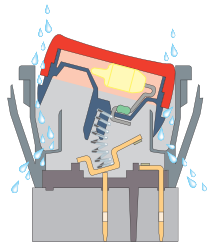
UL CSA (except 6054 & 6055 Switches) 20A 277Vac, 250Vac 11/2hp, 125Vac 1hp

UL 100°C, file E45221, CSA file LR10990

3mm contact gap with Positive Break switching.

Terminal	Function	Rocker	Body	Body Colour	
<b>C</b>  6.3 x 0.8	<b>6050</b>  ON - OFF	<b>A</b> Softline Matt 	<b>L</b> Double Pole Panel cut-out ** Bezel 	Lit (DP)  <b>A</b> Amber  <b>C</b> Clear	
	<b>6051</b>  ON - OFF (momentary ON)				<b>6060</b>  ON - ON
	<b>6052</b>  ON - OFF (momentary OFF)				<b>6061</b>  ON - ON (momentary 1 side)
	<b>6053</b>  ON - OFF Lit				<b>6062</b>  2 Circuit ON - ON (In house tests only)
	<b>6054</b>  ON - OFF (momentary ON) Lit				<b>6066</b>  ON - ON (Single pole) Isolated light
	<b>6055</b>  ON - OFF (Single pole) (momentary ON) Lit				<b>6067</b>  ON - ON Lit
	<b>6056</b>  ON - OFF (Single pole) Isolated light				<b>6068</b>  ON - ON 1 pole ON - OFF Lit 1 pole
	<b>6057</b>  ON - OFF Isolated light				<b>6069</b>  ON - OFF 1 pole ON - OFF Lit 1 pole
	<b>6058</b>  ON - OFF (Single pole) Lit				<b>6090</b>  ON - OFF (momentary ON) Lit
	<b>6059</b>  ON - OFF (Single pole) (momentary ON) Isolated light				<b>6091</b>  ON - OFF (momentary ON) Lit
<b>S</b>  4.8 x 0.8  Screw & Clamp N/A for assemblies with 3 terminals	<b>6092</b>  ON - OFF 1 pole ON - ON 1 pole Lit	<b>P</b> Lit window Matt 	<b>L</b> Twin units Contact sales for information on splash resistance and IP ratings 	Un-Lit (DP)  <b>B</b> Black  <b>R</b> Red  <b>W</b> White	

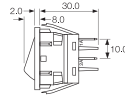
### Integral Splash Resistance



Current carrying parts are protected from moisture. Droplets which may enter the switch are channelled out through ports in the switch body.

For IP65 see options below

### Dimensions

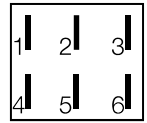


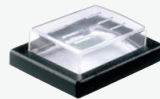
Panel thickness  
L 0.75 to 2.5mm  
\*\* For cut-out details on momentary switches call sales

Terminal spacing - Poles 10.5 between centres

### Vary with Function

Approvals & ratings vary with function  
ON OFF Switches - ON when pressed over terminals 3 & 6.



Rocker Colour	Lamp Voltage	Legend	Legend Colour	Options
<b>B</b> Black	Blank	Blank	Blank	<p><b>G74</b> Protective Cover</p> <p><b>Finish</b> Matt is standard.</p> <p><b>Colour</b> Call sales for custom colours. A full range is available for large orders.</p> <p><b>Legend printing</b> Select from the examples or call sales for custom legends.</p> <p><b>Protective cover</b> The 6050 series is a water through design. For a higher level of sealing, a snap on cover is available (add G after body code). This reduces panel thickness by 1mm.</p>  <p>Panel sealing washer W42 is available. This reduces panel thickness by 1.00mm. Covers are not suitable for momentary types.</p> <p><b>IP Ratings</b> Call the sales for details.</p> <p><b>Terminal Link P1067</b> connects the poles of a double pole switch or twin unit.</p> <p># Mounting orientation may affect IP rating.</p>
<b>R</b> Red	<b>2</b> 125V Neon	<b>1223</b>	<b>B</b> Black	
<b>W</b> White	<b>3</b> 250V Neon		<b>W</b> White	
	<b>5</b> 12Vdc LED (P Rocker)			
	<b>6</b> 24Vdc LED (P Rocker)			
	<b>7</b> 12V Filament			
	<b>8</b> 24Vdc Filament			

### Examples



C6050AL - - -



C6053AL - - -



C6053PL - - -



C6000A/C6000AL



C6003P/C6003PL



C6003P/C6030AL

# 1500 Standard & 1300 High Inrush Switches

150A to EN61058-1 and 16A 250Vac



## Key Features

- Standard rocker switch
- Non-illuminated
- 150A inrush
- Choice of switching circuits including 3 position
- Choice of bezel styles
- Choice of panel cut outs
- Matching indicator
- Single pole
- Splash resistant option
- DC LED Illumination Available for "P" Rocker
- Panel cut out 'A' style: 27.3 x 12.3mm

## Approvals and specifications

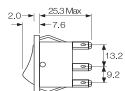
- UL 1500 Series 16(4)A 250Vac T125
- UL CSA 16A Non Ind 250Vac, (2 posn) 250Vac 1hp, 125Vac 1/2hp, (3 posn) 250Vac 1/2hp, 125Vac 1/4hp
- 1330 36Vdc 14A
- 1350 72 Vdc 7A
- 1500 & 1510 14 Vdc 10A
- UL 85°C, file E45221, CSA file LR10990

**In house test:**  
10A 24Vdc— Indicative rating only

1300 series 16(6)A 250Vac T125 5E4 (50,000 Ops.)  
150A Inrush to EN61058-1

Terminal	Function	Rocker	Body	Finish	Body Colour
<p><b>C</b></p> <p>6.3 x 0.8</p>	<p><b>Standard 1500</b> ON - OFF</p> <p><b>1501</b> HP rating N/A ON - OFF (momentary ON)</p> <p><b>1502</b> HP rating N/A ON - OFF (momentary OFF)</p>	<p><b>A</b></p> <p>Softline Matt</p>	<p>Panel cut-out      Bezel</p> <p>Cut-outs must be punched in the direction of insertion</p> <p>12.2/12.3      27.2/27.3      14.0      30.2</p> <p>Gloss or Matt</p>	<p><b>M</b> Matt</p>	<p><b>B</b> Black</p>
<p><b>H</b></p> <p>4.8 x 0.8*</p>	<p><b>1510 μ</b> HP rating N/A ON - ON</p> <p><b>1511 μ</b> HP rating N/A ON - ON (momentary 1 side)</p>	<p><b>B</b></p> <p>Splash resistant (with Arcshield) Matt</p>	<p>11.0/11.1      30.0/30.1      R3.5      33.4      14.0</p> <p>Matt only</p>	<p><b>G</b> Gloss</p> <p>Applies to both Rocker &amp; Body</p>	<p><b>R</b> Red</p>
<p><b>K</b></p> <p>2.8 x 0.8*</p>	<p><b>1520 μ</b> 125V &amp; 250V 1/2 HP H terminal rated T100 only ON - OFF - ON</p> <p><b>1521 μ</b> HP rating N/A H terminal rated T100 only ON - OFF - ON (momentary 1 side)</p>	<p><b>H</b></p> <p>Slotted (for custom Adaptors) not momentary</p>	<p>11.0/11.1      30.0/30.1      R1.0      32.0      14.0</p> <p>Matt only</p>		
<p><b>T</b></p> <p>2.8 x 0.8*</p>	<p><b>1522 μ</b> HP rating N/A H terminal rated T100 only ON - OFF - ON (momentary 2 sides)</p>	<p><b>V</b></p> <p>Curved Matt or gloss</p>	<p>11.5/11.6      28.2/28.3      R1.6      30.2      14.0</p> <p>Gloss or matt</p>		
<p><b>U</b></p> <p>Right angle "T" solder terminal</p>	<p><b>0430</b> HP rating N/A H terminal rated T100 only</p>	<p><b>W</b></p> <p>Splash resistant (with Arcshield) Matt</p>	<p>14.0/14.1      28.5/28.6      R1.0      31.5      17.0</p> <p>Matt only</p>		
<p><b>X</b></p> <p>PCB 0.8Sq* *N/A for 1300 series</p>	<p><b>1484</b> In-house tested to 10(3)A 250Vac 3 position selective</p> <p><b>1487</b> In-house tested to 10(3)A 250Vac 3 position selective</p> <p><b>High Inrush 1300</b> ON - OFF</p>	<p><b>X</b></p> <p>Two colour Matt ON - OFF only (not momentary)</p>	<p>14.0/14.1      28.5/28.6      R1.0      31.5      17.0</p> <p>Matt only</p>		
		<p><b>F</b></p> <p>Flat lens Gloss (0430 only)</p>	<p>11.5/11.6      28.2/28.3      R1.6      30.2      14.0</p> <p>Matt only</p>		
		<p><b>A</b></p> <p>Softline lens Matt (0430 only) as F but with raised profile</p>			

### Dimensions



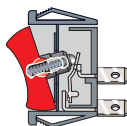
**Panel thickness**  
 A, Q 0.75 to 3.3mm  
 L, B, T 0.75 to 2.5mm  
 R 0.75 to 3.0mm

\* For cut-out details on momentary switches call sales

### Splash Resistance

#### 1500 W and B splash resistant options

Feather edge seals and a close fitting collar protect current carrying parts from moisture. B option has Hytrel collar/seals for enhanced protection.



#### 1300 High inrush, positive break switching

The 1300 series mechanism ensures contact welds formed at switch-on are positively separated by the plunger tube acting directly on the step in the moving contact.

UL CSA 20A 250Vac 1hp, 125Vac 1/2hp  
 UL 85°C, file E45221, CSA file LR10990

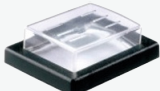
#### In house test:

20A 24Vdc— Indicative rating only

The 1500 & 1300 switch range are capable of reaching in excess of 300K cycles

BioCote antimicrobial additive. Independently verified to ISO22196:2007.

3mm contact gap except if marked  $\mu$ .

Rocker Colour	Lamp Voltage	Insert Colour	Legend	Legend Colour	Options
Un-Lit	Blank	Blank	Blank	Blank	Finish Matt is standard.
<b>B</b> Black	<b>2</b> 125V Neon	<b>R</b> Red	<b>602A</b>	<b>B</b> Black	Colour Call sales for custom colours. A full range is available for large orders.
<b>R</b> Red	<b>3</b> 250V Neon	<b>W</b> White		<b>W</b> White	Legend printing Select from the examples or call sales for custom legends.
<b>W</b> White	<b>7</b> 12V Filament				Lamp voltage Call sales for details.
Lit	<b>8</b> 24Vdc Filament				Blanking plates A0434 - - Dummy units to fill unused panel holes.
<b>A</b> Amber					Protective cover Snaps on to A, L, Q or T bodies (add G after body code in cat no.), this reduces panel thickness by 1mm.
<b>C</b> Clear					 Panel sealing washer W46 is available for the same body sizes, this reduces panel thickness by a further 0.8mm. Covers are not suitable for momentary types.
<b>G</b> Green					For all options call sales.
<b>R</b> Red					

### Examples



C1500AR ---  
T1500AR ---



C1500AL ---  
T1500AL ---



C1500XL ---  
T1500XL ---



C1510AL ---  
T1510AL ---



C1520AL ---  
T1520AL ---



C0430AL ---  
T0430AL ---

# 5500 Lit Rocker Series

10A 250Vac



## Key Features

- Standard rocker switch
- Single pole
- Illuminated
- Splash resistant option
- Choice of switching circuits
- Panel cut out 'A' style:
- Choice of bezel styles
- Choice of panel cut outs
- Matching indicator

## Approvals and specifications

16(4)A 250Vac T85  
10(3)A 250Vac T100, (12A 250Vac T125 for P rocker only)

UL CSA 15A 250Vac, CSA 16A Non Ind 250Vac  
UL CSA 250Vac 1hp, 125Vac 1/2hp  
UL 85°C, file E45221, CSA file LR10990

μ contact gap.

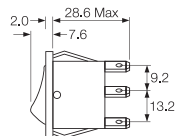
For Twin units repeat the order details for both the left and right sides.

Terminal	Function	Rocker	Body	Body Colour	Rocker Colour
<b>C</b>  6.3 x 0.8	Approvals & ratings vary with function ON OFF Switches - ON when pressed over terminal 3 	<b>A</b> Softline (Matt only) 	<b>A</b> Panel Cut - outs  <b>Bezel</b> 	<b>B</b> Black	Un-Lit <b>B</b> Black
<b>H</b>  4.8 x 0.8	<b>5500 μ</b>  ON - OFF Single pole	<b>P</b> Lit window (Matt only) 	<b>B</b>  <b>Bezel</b> 	<b>W</b> White	<b>R</b> Red  <b>W</b> White
<b>T</b>  Solder	<b>5503 μ</b>  ON - OFF Lit Switched neutral		<b>L</b>  <b>Bezel</b> 		Lit
	<b>5508 μ</b>  ON - OFF Lit Unswitched neutral		<b>Q</b>  <b>Bezel</b> 		<b>A</b> Amber  <b>C</b> Clear
			<b>R</b>  <b>Bezel</b> 		<b>G</b> Green
			<b>T</b>  <b>Bezel</b> 		<b>R</b> Red

## Dimensions

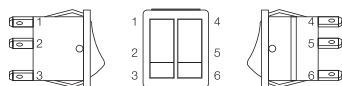
### Panel thickness

A,Q 0.75 to 3.3mm  
L,B,T 0.75 to 2.5mm  
R 0.75 to 3.0mm




### Twin units

Two single switches or a switch and an indicator light can be assembled side by side in one double pole body.  
For 5500 range panel cut-out details (L, B and T) call sales.



Terminal spacing -  
Poles 10.8 between centres (twin units)

For twin units the first set of order format details refer to the left hand unit, when looking at the front of the assembly.  
(This has terminal numbers 1, 2 & 3)

Lamp Voltage	Legend	Legend Colour	Options
Blank	Blank	Blank	<p><b>Finish</b> Matt is standard.</p> <p><b>Colour</b> Call factory for custom colours. A full range is available for large orders.</p> <p><b>Legend printing</b> Select from the examples or call factory for custom legends.</p> <p><b>Lamp voltage</b> Call factory for details.</p> <p><b>Blanking plate A0434 - - (SP) A0494 - - (DP)</b> Dummy units to fill unused panel holes.</p> <p><b>Protective cover</b> Snaps on to A, L, Q or T bodies (add G after body in cat no.), this reduces panel thickness by 1.00mm.</p>  <p>Panel sealing washers W46 (Single Pole) and W42 (Double Pole) are available for these body types, this reduces panel thickness by 2mm.</p> <p>For all options call the factory.</p>
<b>2</b> 125V Neon	<b>602A</b>	<b>B</b> Black	
<b>3</b> 250V Neon		<b>W</b> White	
<b>5</b> 12Vdc LED (P Rocker) IF = 20-30mA			
<b>6</b> 24Vdc LED (P Rocker) IF = 20-30mA			
<b>7</b> 12V Filament			
<b>8</b> 24Vdc Filament			

## Examples



C5503AL - - -



C5500AL - - -



C5503PL - - -



C5503A/C5430AL



C5503A/C5503AL



C5503P/C5503PL

# 1500 Twin Units Switches and Indicators

16A 250Vac



## Key Features

- Twin unit rocker switch
- Choice of switching circuits including 3 position
- Push-on, solder and PCB terminals
- Choice of bezel styles
- Choice of panel cut outs
- Matching indicator
- Single pole switches
- Splash resistant option
- Panel cut out 'A' style: 27.2 x 22.3mm

## Approvals and Specifications

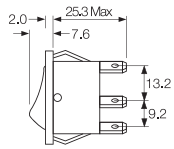
- 16(4)A 250Vac T125
- UL CSA 16A 250Vac
- UL CSA (2 posn) 250Vac 1hp, 125Vac
- 1/2hp, (3 posn) 250 Vac
- 1/2hp, 125Vac 1/4hp
- UL 85°C, file E45221, CSA file LR10990

For versions with High Inrush or for 50,000 operations,  
3mm contact gap except where marked  $\mu$ .

Terminal	Function	Rocker	Body	Finish	Body Colour	Rocker Colour
<p><b>C</b></p> <p>6.3 x 0.8</p>	<p>Approvals &amp; ratings vary with function ON OFF Switches - ON when pressed over terminal 1 or 4</p>	<p><b>A</b></p> <p>Softline (Matt only)</p>	<p>Panel Cut - outs      Bezel</p> <p><b>A</b></p> <p>27.2 27.3 22.3/22.4</p> <p>Gloss or Matt</p> <p><b>B</b></p> <p>30.0 30.1 22.1/22.2</p> <p>Matt only</p> <p><b>L</b></p> <p>30.0 30.1 22.1/22.2</p> <p>Matt only</p> <p><b>Q</b></p> <p>28.2 28.3 22.3/22.4</p> <p>Gloss or matt</p> <p><b>R</b></p> <p>28.4 28.5 23.0/25.4</p> <p>Matt only</p> <p><b>T</b></p> <p>28.2 28.3 22.3/22.4</p> <p>Matt only</p>	<p><b>M</b></p> <p>Matt</p> <p><b>G</b></p> <p>Gloss</p> <p>Applies to both Rocker &amp; Body</p>	<p><b>B</b></p> <p>Black</p> <p><b>W</b></p> <p>White</p>	<p>Un-Lit</p> <p><b>B</b></p> <p>Black</p> <p><b>R</b></p> <p>Red</p> <p><b>W</b></p> <p>White</p> <p>Lit</p> <p><b>A</b></p> <p>Amber</p> <p><b>C</b></p> <p>Clear</p> <p><b>G</b></p> <p>Green</p> <p><b>R</b></p> <p>Red</p>
<p><b>H</b></p> <p>4.8 x 0.8</p>	<p><b>1500</b></p> <p>ON - OFF</p> <p><b>1510 <math>\mu</math></b></p>	<p><b>B</b></p> <p>Softline (Matt only)</p> <p><b>W</b></p> <p>Softline (Matt only)</p> <p><b>X</b></p> <p>Softline (Matt only)</p>	<p><b>B</b></p> <p>30.0 30.1 22.1/22.2</p> <p>Matt only</p> <p><b>L</b></p> <p>30.0 30.1 22.1/22.2</p> <p>Matt only</p> <p><b>Q</b></p> <p>28.2 28.3 22.3/22.4</p> <p>Gloss or matt</p> <p><b>R</b></p> <p>28.4 28.5 23.0/25.4</p> <p>Matt only</p> <p><b>T</b></p> <p>28.2 28.3 22.3/22.4</p> <p>Matt only</p>	<p><b>M</b></p> <p>Matt</p> <p><b>G</b></p> <p>Gloss</p> <p>Applies to both Rocker &amp; Body</p>	<p><b>B</b></p> <p>Black</p> <p><b>W</b></p> <p>White</p>	<p>Un-Lit</p> <p><b>B</b></p> <p>Black</p> <p><b>R</b></p> <p>Red</p> <p><b>W</b></p> <p>White</p> <p>Lit</p> <p><b>A</b></p> <p>Amber</p> <p><b>C</b></p> <p>Clear</p> <p><b>G</b></p> <p>Green</p> <p><b>R</b></p> <p>Red</p>
<p><b>T</b></p> <p>02.1 Solder</p>	<p><b>1520 <math>\mu</math></b></p> <p>ON - ON</p> <p><b>1520 <math>\mu</math></b></p> <p>ON - OFF - ON</p>	<p><b>W</b></p> <p>Softline (Matt only)</p> <p><b>X</b></p> <p>Softline (Matt only)</p>	<p><b>L</b></p> <p>30.0 30.1 22.1/22.2</p> <p>Matt only</p> <p><b>Q</b></p> <p>28.2 28.3 22.3/22.4</p> <p>Gloss or matt</p> <p><b>R</b></p> <p>28.4 28.5 23.0/25.4</p> <p>Matt only</p> <p><b>T</b></p> <p>28.2 28.3 22.3/22.4</p> <p>Matt only</p>	<p><b>M</b></p> <p>Matt</p> <p><b>G</b></p> <p>Gloss</p> <p>Applies to both Rocker &amp; Body</p>	<p><b>B</b></p> <p>Black</p> <p><b>W</b></p> <p>White</p>	<p>Un-Lit</p> <p><b>B</b></p> <p>Black</p> <p><b>R</b></p> <p>Red</p> <p><b>W</b></p> <p>White</p> <p>Lit</p> <p><b>A</b></p> <p>Amber</p> <p><b>C</b></p> <p>Clear</p> <p><b>G</b></p> <p>Green</p> <p><b>R</b></p> <p>Red</p>
<p><b>K</b></p> <p>2.0 1.2</p>	<p><b>0430</b></p> <p>Indicator</p>	<p><b>A</b></p> <p>Softline (Matt only)</p>	<p><b>Q</b></p> <p>28.2 28.3 22.3/22.4</p> <p>Gloss or matt</p> <p><b>R</b></p> <p>28.4 28.5 23.0/25.4</p> <p>Matt only</p> <p><b>T</b></p> <p>28.2 28.3 22.3/22.4</p> <p>Matt only</p>	<p><b>M</b></p> <p>Matt</p> <p><b>G</b></p> <p>Gloss</p> <p>Applies to both Rocker &amp; Body</p>	<p><b>B</b></p> <p>Black</p> <p><b>W</b></p> <p>White</p>	<p>Un-Lit</p> <p><b>B</b></p> <p>Black</p> <p><b>R</b></p> <p>Red</p> <p><b>W</b></p> <p>White</p> <p>Lit</p> <p><b>A</b></p> <p>Amber</p> <p><b>C</b></p> <p>Clear</p> <p><b>G</b></p> <p>Green</p> <p><b>R</b></p> <p>Red</p>
<p><b>X</b></p> <p>4.0</p>		<p><b>A</b></p> <p>Softline (Matt only)</p>	<p><b>Q</b></p> <p>28.2 28.3 22.3/22.4</p> <p>Gloss or matt</p> <p><b>R</b></p> <p>28.4 28.5 23.0/25.4</p> <p>Matt only</p> <p><b>T</b></p> <p>28.2 28.3 22.3/22.4</p> <p>Matt only</p>	<p><b>M</b></p> <p>Matt</p> <p><b>G</b></p> <p>Gloss</p> <p>Applies to both Rocker &amp; Body</p>	<p><b>B</b></p> <p>Black</p> <p><b>W</b></p> <p>White</p>	<p>Un-Lit</p> <p><b>B</b></p> <p>Black</p> <p><b>R</b></p> <p>Red</p> <p><b>W</b></p> <p>White</p> <p>Lit</p> <p><b>A</b></p> <p>Amber</p> <p><b>C</b></p> <p>Clear</p> <p><b>G</b></p> <p>Green</p> <p><b>R</b></p> <p>Red</p>

## Dimensions

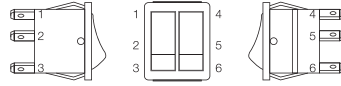
**Panel thickness**  
**A,Q** 0.75 to 3.3mm  
**L,B,T** 0.75 to 2.5mm  
**R** 0.75 to 3.0mm



Call sales for terminal spacing details

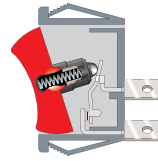
## Twin units

Two single switches or a switch and an indicator light can be assembled side by side in one double pole body.



For twin units the first set of order format details refer to the left hand unit, when looking at the front of the assembly.  
 (This has terminal numbers 1, 2 & 3)

## Splash Resistant



Feather edge seals and a close fitting collar protect current carrying parts from moisture.

B option has Hytrel collar/seals for enhanced protection.

Insert Colour	Lamp Voltage	Legend	Legend Colour	Options
Blank	Blank	Blank	Blank	<p><b>Finish</b> Matt is standard.</p> <p><b>Colour</b> Call factory for custom colours. A full range is available for large orders.</p> <p><b>Legend printing</b> Select from the examples or call factory for custom legends.</p> <p><b>Lamp voltage</b> Call factory for details.</p>
<b>R</b> Red	<b>2</b> 125V Neon	<b>602A</b>	<b>B</b> Black	
<b>W</b> White	<b>3</b> 250V Neon		<b>W</b> White	
	<b>5</b> 12Vdc LED (P Rocker)			
	<b>6</b> 24Vdc LED (P Rocker)			
	<b>7</b> 12V Filament			
	<b>8</b> 24Vdc Filament			

## Examples



☐ C1500A/C1500AL



☐ C1500A/C0430AL



☐ C1500X/C1500XL



☐ C1520A/C1510AL



☐ C1500A/C1520AL



☐ C0430A/C0430AL



# 1550 Standard and 1350 High Inrush

150A to EN61058-1 and 16A 250Vac



## Key Features

- Standard rocker switch
- 1350/53 high inrush
- Choice of switching circuits including 3 position
- Push-on, solder and PCB terminals
- Choice of bezel styles
- Choice of panel cut outs
- Matching indicator
- Double pole
- Splash resistant option
- Panel cut out 'A' style: 27.2 x 22.3mm

## Approvals and specifications

1550 Series 16(4)A 250Vac T125

UL CSA 16A 250Vac, (2 posn) 250Vac 1hp, 125Vac 1/2hp, 1350 72 Vdc 7A (3 posn) 250 Vac 1/2hp, 125Vac 1/4hp. UL 85°C, file E45221, CSA file LR10990.

### In house test:

10A 24Vdc—Indicative rating only. NB Types fitted with Neon will not illuminate for low DC voltage applications.

1350 series 16(4)A 250Vac T85 1E4 (10,000 Ops.)  
1330 series 16(6)A 250Vac T125 5E4 (50,000 Ops.)  
150A Inrush to EN61058-1.

Terminal	Function	Rocker	Body
<p><b>C</b></p> <p>6.3 x 0.8</p>	<p><b>Standard 1550</b></p> <p>ON - OFF</p> <p><b>1551</b> HP rating N/A</p> <p>ON - OFF (momentary ON)</p>	<p><b>A</b></p> <p>Softline Matt</p> <p><b>B</b></p> <p>Splash resistant Softline</p>	<p>Panel cut-out Bezel</p> <p>Cut-outs must be punched in the direction of insertion</p> <p><b>A</b></p> <p>27.2 22.3/22.4</p> <p>Gloss or Matt</p> <p>30.2 25.0</p>
<p><b>H</b></p> <p>4.8 x 0.8*</p>	<p><b>1552</b> HP rating N/A</p> <p>ON - OFF (momentary OFF)</p> <p><b>1553</b> Not W, X or B rocker</p> <p>ON - OFF Lit</p>	<p><b>V</b></p> <p>Curved</p> <p>Matt or Gloss</p> <p>Gloss only Lit (not momentary)</p>	<p><b>B</b></p> <p>30.0 30.1</p> <p>22.1/22.2</p> <p>Matt only</p> <p>R3.5</p> <p>33.4</p> <p>25.0</p>
<p><b>K</b></p> <p>2.8 x 0.8*</p>	<p><b>1560 μ</b></p> <p>ON - ON</p> <p><b>1561 μ</b> HP rating N/A</p> <p>ON - ON (Momentary 1 Side)</p>	<p><b>W</b></p> <p>Splash resistant Curved</p>	<p><b>L</b></p> <p>30.0 30.1</p> <p>22.1/22.2</p> <p>Matt only</p> <p>R1.0</p> <p>32.0</p> <p>25.0</p>
<p><b>T</b></p> <p>Ø2.1</p> <p>Solder</p>	<p><b>1562 μ</b> In house tests only</p> <p>2 Circuit ON - ON</p>	<p><b>P</b></p> <p>Lit window Matt</p> <p>Lit (not momentary)</p>	<p><b>Q</b></p> <p>28.2 28.3</p> <p>22.3/22.4</p> <p>Gloss or matt</p> <p>R1.6</p> <p>30.2</p> <p>25.0</p>
<p><b>U</b></p> <p>Ø2.1</p> <p>Right angle "T" solder terminal</p>	<p><b>1570 μ</b> 125V &amp; 250V 1/2 HP H terminal rated T100 only H terminal rated T100 only</p> <p>ON - OFF - ON</p>	<p><b>R</b></p> <p>Round</p>	<p><b>R</b></p> <p>28.4 28.5</p> <p>23.0/25.4</p> <p>Matt only</p> <p>33.2</p> <p>28.9</p>
<p><b>X</b></p> <p>Ø2.1</p> <p>PCB 0.8Sq*</p>	<p><b>1571 μ</b> HP rating N/A H terminal rated T100 only</p> <p>ON - OFF - ON (momentary 1 side)</p> <p><b>1572 μ</b> HP rating N/A H terminal rated T100 only</p> <p>ON - OFF - ON (momentary 2 sides)</p>	<p><b>F</b></p> <p>Flat Lens Gloss (0480)</p> <p><b>A</b></p> <p>Softline lens Matt (0480 only) as F but with raised profile</p>	<p><b>T</b></p> <p>28.2 28.3</p> <p>22.3/22.4</p> <p>Matt only</p> <p>R1.6</p> <p>30.2</p> <p>25.0</p>

## Approvals and specifications (continued)

**UL CSA 20A 250Vac 1hp, 125Vac 1/2hp.**  
**UL 72Vdc 7A, 36Vdc 14A.**  
**UL 85°C, file E45221, CSA file LR10990.**

### In house test:

20A 24Vdc—Indicative rating only

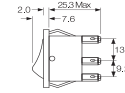
3mm contact gap except if marked  $\mu$ .

## Splash Resistance



**1300 High inrush, positive break switching**  
 The 1300 series mechanism ensures contact welds formed at switch-on are positively separated by the plunger tube acting directly on the step in the moving contact.

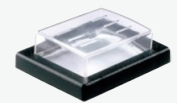
## Dimensions



**Panel thickness**  
 A.Q 0.75 to 3.3mm  
 L.B.T 0.75 to 2.5mm  
 R 0.75 to 3.0mm

\* For cut-out details on momentary switches call sales

Finish	Body Colour	Rocker Colour	Insert Colour	Lamp Voltage	Legend	Legend Colour	Options
<b>M</b> Matt	<b>B</b> Black	Un-Lit	Blank	Blank	Blank	Blank	<p><b>Finish</b> Matt is standard.</p> <p><b>Colour</b> Call sales for custom colours. A full range is available for large orders.</p> <p><b>Legend printing</b> Select from the examples or call sales for custom legends.</p> <p><b>Lamp voltage</b> Call sales for details.</p> <p><b>Blanking plates A0494</b> Dummy units to fill unused panel holes.</p> <p><b>Protective cover</b> Snaps on to A, L, Q or T bodies (add G after body in cat no). This reduces panel thickness by 1mm.</p>
		<b>B</b> Black		<b>2</b> 125V Neon			
<b>G</b> Gloss	<b>W</b> White	<b>R</b> Red	<b>R</b> Red	<b>3</b> 250V Neon	<b>602A</b>	<b>B</b> Black	
		<b>W</b> White	<b>W</b> White	<b>5</b> 12Vdc LED (P Rocker)			
Applies to both Rocker & Body		Lit		<b>6</b> 24Vdc LED (P Rocker)		<b>W</b> White	
		<b>A</b> Amber		<b>7</b> 12V Filament			
		<b>G</b> Green		<b>8</b> 24Vdc Filament			
		<b>C</b> Clear					
		<b>R</b> Red					



Panel sealing washer W42 is available for the above body sizes. This reduces panel thickness by a further 1.00mm. Covers are not suitable for momentary types.

For all options call sales.

## Examples



☐ C1350AL ---



☐ C1550XL ---



☐ C1553PL ---



☐ C1553RA ---  
Shown with M614  
bezel cover



Optional snap-in  
M441 barrier



C1553AA with M616  
guard Cut-out  
22.0/22.1 x 29.4/29.5  
Guard accepts "A"  
body only



☐ C0480RA ---  
Shown with  
M614 bezel  
cover



☐ C0480AL ---

# 1550 Standard & 1350 High Inrush Switches

150A to EN61058-1 and 16A 250Vac/250Vdc



## Key Features

- Standard rocker switch
- 1350/53 high inrush
- Choice of switching circuits including 3 position
- Push-on, solder and PCB terminals
- Choice of bezel styles
- Choice of panel cut outs
- Matching indicator
- Double pole
- Option with guard & cover
- DC LED Illumination Available for "P" Rocker
- Bezel size 'G' style 32.0 x 25.0

## Approvals and specifications

- UL 1550 Series 16(4)A 250Vac T125
- UL CSA 16A 250Vac, (2 posn) 250Vac 1hp, 125Vac 1/2hp, (3 posn) 250 Vac 1/2hp, 125Vac 1/4hp. UL 85°C, file E45221, CSA file LR10990.
- In house test:**  
10A 24Vdc— Indicative rating only
- 1350 Series
- UL CSA 20A 250Vac 1hp, 125Vac 1/2hp. UL 72Vdc 7A, 36Vdc 14A, UL 85°C, file E45221, CSA file LR10990.

Terminal	Function	Rocker	Body	Finish	Body Colour	Rocker Colour	
<b>C</b>  6.3 x 0.8	<b>Standard 1550</b> <b>1551</b> HP rating N/A	 ON - OFF	<b>A</b> Softline Matt 	Panel cut-out Cut-outs must be punched in the direction of insertion <b>B</b>  Matt only	<b>M</b> Matt	<b>B</b> Black	Un-Lit <b>B</b> Black
<b>H</b>  4.8 x 0.8*	<b>1552</b> HP rating N/A	 ON - OFF (momentary OFF)			<b>G</b> Gloss	<b>W</b> White	<b>R</b> Red
<b>K</b>  2.8 x 0.8*	<b>1553</b> Not W, X or B rocker	 ON - OFF Lit	<b>V</b> Curved Matt or Gloss  Gloss only Lit (not momentary)	<b>L</b>  Matt only	Applies to both Rocker & Body		Lit <b>A</b> Amber
<b>T</b>  2.0 x 1.2	<b>1560 μ</b> <b>1561 μ</b> HP rating N/A	 ON - ON					<b>G</b> Green
<b>U</b>  2.8 x 0.8*	<b>1562 μ</b> In house tests only	 ON - ON (Momentary 1 Side)					<b>C</b> Clear
<b>X</b>  2.8 x 0.8*	<b>1570 μ</b> 125V & 250V 1/2 HP H terminal rated T100 only H terminal rated T100 only	 ON - ON (Momentary 2 Sides)	<b>P</b> Lit window Matt  Lit (not momentary)				<b>R</b> Red
<b>Right angle T Solder (Not DP)</b>	<b>1571 μ</b> HP rating N/A H terminal rated T100 only	 ON - OFF - ON					
<b>PCB 0.8Sq* *Contact sales for details on 1350 series</b>	<b>1572 μ</b> HP rating N/A H terminal rated T100 only	 ON - OFF - ON (momentary 2 sides)					
	<b>High Inrush 1350</b> Not W, X or B rocker	 ON - OFF					
	<b>1353</b> Not W, X or B rocker	 ON - OFF Lit					

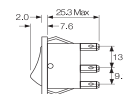
### Splash Resistance

**In house test:**  
20A 24Vdc— Indicative rating only  
  
3mm contact gap except if marked  $\mu$ .



**1350 High inrush, positive break switching**  
The 1350 series mechanism ensures contact welds formed at switch-on are positively separated by the plunger tube acting directly on the step in the moving contact.

### Dimensions



**Panel thickness**  
G, H 0.75 to 2.5mm

Terminal spacing - Poles 10.2 between centres

\* For cut-out details on momentary switches call sales

Insert Colour	Lamp Voltage	Legend	Legend Colour	Options
Blank	Blank	Blank	Blank	<p><b>Finish</b> Matt is standard.</p> <p><b>Colour</b> Call sales for custom colours. A full range is available for large orders.</p> <p><b>Legend printing</b> Select from the examples or call sales for custom legends.</p> <p><b>Lamp voltage</b> Call sales for details.</p>
<b>R</b> Red	<b>2</b> 125V Neon	<b>602A</b>	<b>B</b> Black	
<b>W</b> White	<b>3</b> 250V Neon		<b>W</b> White	
	<b>5</b> 12Vdc LED (P Rocker)			
	<b>6</b> 24Vdc LED (P Rocker)			
	<b>7</b> 12V Filament			
	<b>8</b> 24Vdc Filament			

### Examples



C1553AH - - -



C1550AH - - -

# R13 Round Rocker Switches

10A 250Vac



## Key Features

- Miniature round rocker switch
- Ratings up to 10A, 250Vac
- Single & double pole
- Illuminated & nonilluminated, neon and LED
- Choice of actuators
- Matching indicator
- Panel cut out: 20.2 dia.

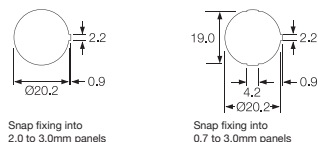
## Approvals and specifications

- ⚡ SP 10(4)A 250Vac T85 1E4
- ⚡ DP 10(4)A 250Vac T85 1E4
- UL CSA SP 16A 125Vac & 10A 250Vac  
UL CSA DP 16A 125Vac, 10A 250Vac, 10A 28Vdc  
UL 85°C, file E67774(S), CSA file LR45128

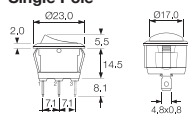
**RoHS compliant**  
Single pole has  $\mu$  contact gap.

**Special products**  
Are made to order and can be supplied with a range of body and rocker / lens colours, print & lamp voltage.

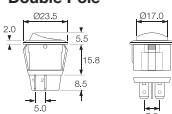
## Dimensions



### Single Pole



### Double Pole



### Protective cover L188



## Examples




**R13 / 112 / A / B / B / 3 / 2 / 602A / W / L188**


Series    Type    Function    Body Colour    Rocker Colour    Insert Colour    Lamp Voltage    Legend    Legend Colour    Legend Colour

## Product details



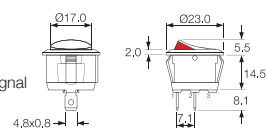
  
 SP ON - OFF μ  
**Cat no.**  
**R13 112A AAA**



  
 SP ON - OFF μ  
 Lit 230V  
**Cat no.**  
**R13 112B NAC**




  
 SP ON - OFF μ  
 Bright colour ON signal  
**Cat no.**  
**R13 112A2 - -**



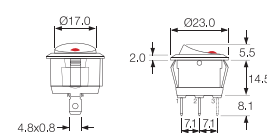
  
 SP ON - OFF μ  
**Cat no.**  
**R13 112A AAB**



  
 SP ON - ON μ  
**Cat no.**  
**R13 112C AAA**




  
 SP ON - OFF μ  
 Lit Window  
**Cat no.**  
**R13 112B2 - -**



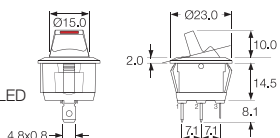
  
 SP ON - OFF μ  
 Lit 230V  
**Cat no.**  
**R13 112B NAA**



  
 SP ON - OFF - ON μ  
**Cat no.**  
**R13 112D AAA**



  
 SP ON - OFF μ  
 Paddle tip has red LED  
**Cat no.**  
**R13 112LP - -**




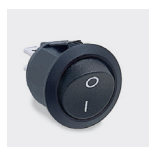
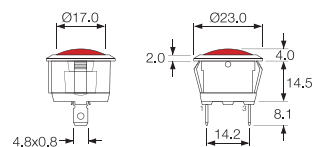
  
 SP ON - OFF μ  
 Lit 230V  
**Cat no.**  
**R13 112B NAB**



SP ON - OFF μ  
 (Momentary ON)  
**Cat no.**  
**R13 208F AAA\***



  
 Indicator light  
**Cat no.**  
**R9 92B - - -**



  
 DP ON - OFF  
**Cat no.**  
**R13 244A AAA**



DP ON - OFF  
 Lit 230V  
**Cat no.**  
**R13 244B NAA**

Well known for their quality and reliability, **Bulgin's toggle switches** are **cost effective** solutions to many existing applications. These switches offer features at an attractive price point often well below that of the existing competition.

- Nylon and Metal switch variants
- Multiple Lever Options
- Ratings up to 20A, 250V ac - 277V ac
- IP67 panel seal versions, supplied complete with gaskets (3900 Series – All Variants)
- Single and double pole
- Choice of circuit options including 3 position and momentary
- Mounting hole: 12.2mm diameter.
- Sealing accessories available
- Quick Connect, Solder, Screw and PCB Termination Options



# 3900 Metal Toggle Switches

16A 250Vac - IP67 Sealed Versions



## Key Features

- Metal toggle switches
- Ratings up to 20A, 277V ac
- Single and double pole
- Choice of circuits including 3 position and momentary
- Sealed version supplied complete with gaskets
- Panel seal version to IP67
- 6.3mm terminals
- Guard option



Terminal	Function	Actuator	Body	Options
<p><b>C</b></p> <p>6.3 x 0.8 10.5</p>	<p>Single Pole</p> <p><b>3900</b> ON - OFF</p> <p><b>3901</b> ON - OFF (momentary ON)</p> <p><b>3902</b> ON - OFF (momentary OFF)</p>	<p><b>A</b></p> <p>10.0 Metal toggle finish is nickel plate</p> <p><b>B</b></p> <p>17.5 Metal toggle finish is nickel plate</p> <p><b>D</b></p> <p>25.4 Metal toggle finish is nickel plate</p> <p><b>E</b></p> <p>38.1 Metal toggle finish is nickel plate</p> <p><b>F</b></p> <p>17.5 Metal toggle finish is nickel plate</p>	<p><b>A</b> Single pole Thread: 15/32" x 32TPI Keyway 17.5 10.5 17.0</p> <p><b>E</b> Panel sealed, single pole Thread: 15/32" x 32TPI Keyway Panel Seal 17.5 10.5 17.0</p> <p><b>A</b> Double pole, without barrier Thread: 15/32" x 32TPI Keyway 17.5 10.0 30.6</p> <p><b>B</b> Double pole, with barrier Thread: 15/32" x 32TPI Keyway 17.5 10.0 30.6</p> <p><b>F</b> Panel sealed, double pole, with terminal barrier Thread: 15/32" x 32TPI Keyway Panel Seal 17.5 10.0 31.1</p> <p><b>G</b> Panel sealed, double pole, without terminal barrier Thread: 15/32" x 32TPI Keyway Panel Seal 17.5 10.0 31.1</p>	<p>Neck Seal M539 Actuator is visible</p> <p>Cover M1080</p> <p>Covers have internal nylon nuts</p> <p>M1080-2</p> <p>Covers have internal metal hex nuts</p> <p>Fixing nuts Nickel plated brass are supplied</p> <p>Knurled Front nut Panel thickness 4.0 with backnut</p> <p>Plate P236 Plate SP or DP</p>
<p><b>S</b></p> <p>10.5 Screw &amp; Clamp</p>	<p>Double Pole</p> <p><b>3950</b> ON - OFF</p> <p><b>3951</b> ON - OFF (momentary ON)</p> <p><b>3952</b> ON - OFF (momentary OFF)</p> <p><b>3960</b> ON - ON</p> <p><b>3961</b> ON - ON (momentary 1 side)</p> <p><b>3970</b> ON - OFF - ON μ</p> <p><b>3971</b> ON - OFF - ON μ (momentary 1 side)</p> <p><b>3972</b> ON - OFF - ON μ (momentary 2 sides)</p>	<p><b>T</b></p> <p>10.5 0.31 Solder</p>		



## Approvals and specifications

UL/CSA Ratings 3901, 3902, 3920, 3921, 3922  
16A, 277Vac  
1 HP, 250Vac

7A, 72Vdc  
14A, 36Vdc

3910, 3901, 3952, 3960, 3961, 3970, 3971, 3972  
16A, 277Vac  
1 HP, 250Vac  
1/2 HP, 125Vac  
7A, 72Vdc  
14A, 36Vdc

3900, 3950  
20A, 277Vac  
1 HP, 250Vac  
1/2 HP, 125Vac  
7A, 72Vdc  
14A, 36Vdc

ENEC Ratings  
3900, 3901, 3902, 3950, 3952, 3960, 3961  
16(4)A 250Vac

3910, 3911, 3920, 3921, 3922, 3951, 3970, 3972  
10 4)A 250Vac

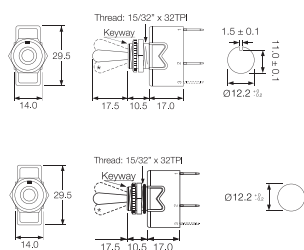
Approvals and ratings vary with function.  
3mm contact gap except where marked  $\mu$ .

\* CSA approval for A and B bodies only

## Dimensions mm \* Indicates ON position (for ON - OFF switches)

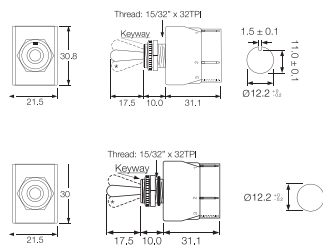
### Single pole

(C terminals shown)



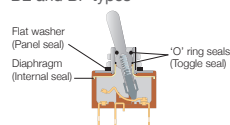
### Double pole

(C terminals shown with barrier)



### Toggle Switch - sealed version

BE and BF types



### Guard TG1-RED



## Examples



C3900BE ---



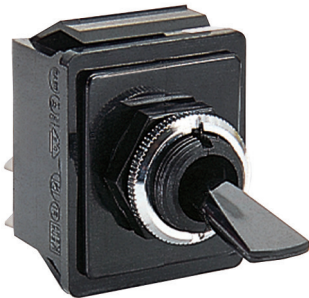
C3920BA ---



C3950BF ---



C3972BB ---



### Key Features

- Nylon toggle switches
- Ratings up to 20A, 250V ac
- Single and double pole
- Wide choice of terminals
- Choice of circuit options including 3 position
- Flat & round actuator options

### Approvals and specifications

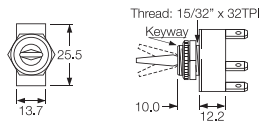
- ☑ 16(4)A 250Vac T85
  - ☑ UL 20A 250Vac Non Ind (Single pole)
  - ☑ UL 16A 250Vac Non Ind (Double pole)
  - ☑ UL CSA (2 pos types) 250Vac 1hp, 125Vac 1/2hp
  - ☑ UL CSA (3 pos types) 250Vac 1/2hp, 125Vac 1/4hp
  - ☑ CSA 16A 250Vac Non Ind
  - ☑ UL 85°C, file E45221, CSA file LR10990
  - ☑ UL and CSA N/A on momentary types
- Selective "A, B, C" and "OFF, A, A+B" circuits at 5 amp also available.  
3mm contact gap except where marked  $\mu$ .

Terminal	Function	Actuator	Body	Options
<p><b>C</b></p>	<p>Single Pole</p> <p><b>1700</b> ON - OFF</p>	<p>Double Pole</p> <p><b>1750</b> ON - OFF</p>	<p><b>H</b></p>	<p>Neck Seal M539</p> <p>Material - Nitrile (H &amp; R Actuators) Actuator visible</p>
<p><b>H</b></p>	<p><b>1710 <math>\mu</math></b> ON - ON</p>	<p><b>1760 <math>\mu</math></b> ON - ON</p>	<p><b>O Single pole</b></p> <p>Thread: 15/32" x 32TPI</p>	<p>Cover M1080</p> <p>Material - EPDM (R Actuator only)</p>
<p><b>K</b></p>	<p><b>1720 <math>\mu</math></b> ON - OFF - ON</p>	<p><b>1770 <math>\mu</math></b> ON - OFF - ON</p>	<p><b>O Double Pole</b></p> <p>Thread: 15/32" x 32TPI</p>	<p>Cover M531</p> <p>Material - PVC (R Actuator only)</p> <p>Covers have internal nylon nuts</p>
<p><b>T</b></p>	<p><b>1721 <math>\mu</math></b> ON - OFF - ON <math>\mu</math> (momentary 1 side)</p>	<p><b>R</b></p>	<p>Panel hole (all types)</p> <p>Panel thickness (Max) Both nuts - 3.5mm Less backnut - 6.5mm</p>	<p>Fixing nuts (Standard is M506 &amp; T92)</p> <p>T5 Hex brass</p> <p>M506 Hex nylon</p>
<p><b>X</b></p>	<p><b>1722</b> ON - OFF - ON <math>\mu</math> (momentary 2 sides)</p>	<p>The switch is on between centre terminals (2 &amp; 5) and the terminals over which the lever is positioned.</p>	<p>T92 Knurled brass - slotted</p>	<p>M279 Knurled nylon</p>
				<p>Plate P236 Plate SP or DP</p>

## Dimensions mm) \* Indicates ON position (for ON - OFF switches)

### Single pole

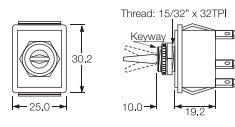
(C terminals shown)



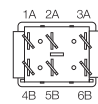
Optional  
F00232PAAA  
plate SP or DP

### Double pole

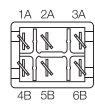
(C terminals shown)



Without barrier



With barrier



## Examples



C1700R --



C1700H --



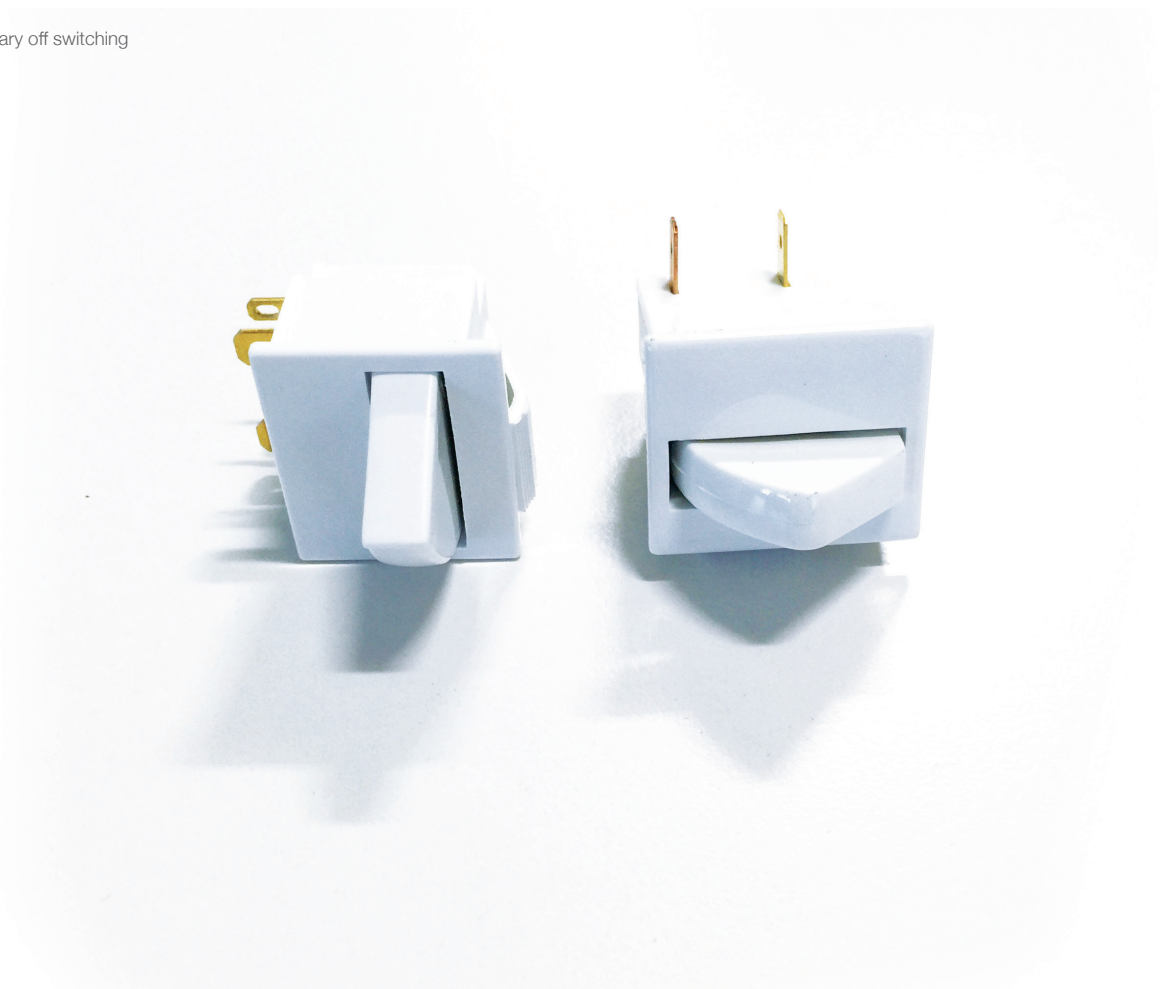
C1760R --



C1750H --

Long recognised as a leader in refrigerator door switches, Bulgin's wide range of types and configurations will suit almost any need. With both double pole and single pole options, our switches are not only ideal for traditional refrigerator and freezer applications but can and have been used in a variety of door applications as well.

- Door switches
- Switch rating from 0.2A, 250V ac up to 5A, 250Vac
- Splash resistant variants
- Choice of actuators
- Momentary on and momentary off switching





### Key Features

- Ratings up to 0.2A, 250V ac
- High temperature rating up to 125°C
- Long overtravel
- Choice of terminal orientation

### Approvals and specifications

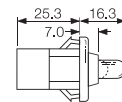
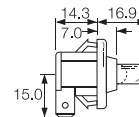
☑ 0055 & 0056  
0.2(0.2)A 250Vac 25T125 5E4  
(50,000 operations)

μ contact gap

### Dimensions and Properties

C0055RB

C0056RB



Terminal	Function	Actuator	Body	Options				
<p><b>C</b></p> <p>6.3x0.8</p>	<p><b>0055</b></p> <p>ON - OFF (momentary OFF) 90° terminals</p>	<p><b>R</b></p>	<p><b>B</b></p> <p>Panel cut - out</p> <p>Panel thickness</p> <table border="1"> <tr> <td>0055</td> <td>1.0 - 1.6</td> </tr> <tr> <td>0056</td> <td>1.0 - 2.6</td> </tr> </table> <p>Flange</p>	0055	1.0 - 1.6	0056	1.0 - 2.6	<p><b>Finish</b> Gloss finish only</p> <p><b>Colour</b> White or black Call sales for custom colours.</p>
0055	1.0 - 1.6							
0056	1.0 - 2.6							
<p><b>H</b></p> <p>4.8x0.8</p>	<p><b>0056</b></p> <p>ON - OFF (momentary OFF) straight terminals</p>							

# 3005 Refrigerator Door Switches

Splash Resistant



C3005BL - - -

C3005CB - - -

## Key Features

- Door switches
- Momentary on and momentary off switching
- Splash resistant
- Choice of terminal orientation
- Choice of actuators

## Approvals and specifications

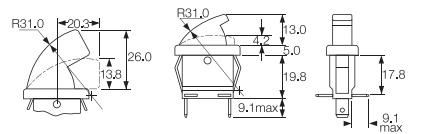
3005 25W 25T85 5E4 (50,000 Operations) 250Vac  
 3006 65W 25T85 5E4 (50,000 Operations) 250Vac

UL 0.3A 250Vac (Black Versions Only)  
 UL 0.2A 125Vac (Black Versions Only)

μ contact gap

## Dimensions and Properties

3005



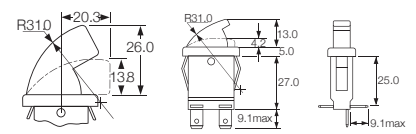
Panel thickness 1.0 - 2.5mm

B Actuator

C Actuator

R, L & B terminals

3006



Panel thickness 1.0 - 2.5mm

B Actuator

C Actuator

R, L & B terminals

Terminal	Function	Actuator	Body	Options
<p><b>C</b></p> <p>6.3x0.8</p>	<p><b>3005</b></p> <p>ON - OFF (momentary OFF) 1mm max travel to OFF position</p>	<p><b>B</b></p> <p>26.0</p>	<p><b>R L B</b></p> <p>Terminal direction (viewed from hinge end)</p> <p>Panel cut - out    Bezel    Bezel Profile</p> <p>12.1/12.2    25.4/25.5    30.2    14.0    5.0</p>	<p><b>Finish</b> Gloss finish only</p> <p><b>Colour</b> White or black Call sales for custom colours. A full range is available for large orders.</p>
<p><b>H</b></p> <p>4.8x0.8</p>	<p><b>3006</b></p> <p>ON - OFF (momentary ON) 3mm min travel to ON position</p>	<p><b>C</b></p> <p>13.0</p>	<p><b>R L B</b></p> <p>Terminal direction (viewed from hinge end)</p> <p>Panel cut - out    Bezel    Bezel Profile</p> <p>12.1/12.2    25.4/25.5    30.2    14.0    5.0</p>	<p><b>Finish</b> Gloss finish only</p> <p><b>Colour</b> White or black Call sales for custom colours. A full range is available for large orders.</p>

# 3100 Refrigerator Door Switches

Splash resistant



E3111BA ---



E3102AA ---

## Key Features

- Door switches
- Ratings up to 5A, 250V ac
- Splash resistant
- Changeover, momentary ON and momentary OFF
- Choice of actuators

## Approvals and specifications

5A 250Vac 25T85 5E4 (50,000 Operations)

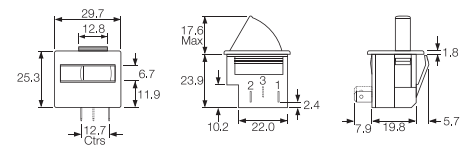
UL CSA 5A 250Vac  
UL 85°C, file E45221, CSA file LR10990

μ contact gap.  
Sealed terminals option available.

## Dimensions and Properties

3101 uses terminals 1,2  
3102 uses terminals 1,2  
3111 uses terminals 1,2,3

For details of actuator travel and switching angles call sales.



Terminal	Function	Actuator	Body	Colour	Options	
<b>E</b>  4.8x0.5 QC 7.9	 <b>3101</b>  ON - OFF (momentary CLOSED)	<b>A</b>  17.6 max	<b>A</b> 	<b>W</b> White	Finish Gloss finish only  Colour White or black Call sales for custom colours. A full range is available for large orders.	
	<b>3102</b>  ON - OFF (momentary OFF)	<b>B</b>  15.6 max				<b>B</b> Black
	<b>3111</b>  ON - ON (momentary 1 side)	<b>C</b>  23.0 max				
		<b>D</b>  17.1 max				

# 3140 Refrigerator Door Switches

Splash resistant



HK3141AA - - -



H3145AA - - -

## Key Features

- Door switches
- Ratings up to 5A, 250V ac
- Splash resistant
- Momentary action
- Choice of actuators
- 2 circuit switch

## Approvals and specifications

5A 250Vac 25T85 5E4 (50,000 Operations)

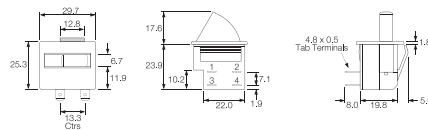
UL CSA 5A 250Vac  
UL 85°C, file E45221, CSA file LR10990

3141,  $\mu$  contact gap.  
3145 and 3146, 3mm contact gap.

Sealed terminals option available.

## Dimensions and Properties

3141 uses terminals 1,2,3,4  
3145 uses terminals 3,4  
3146 uses terminals 1,2

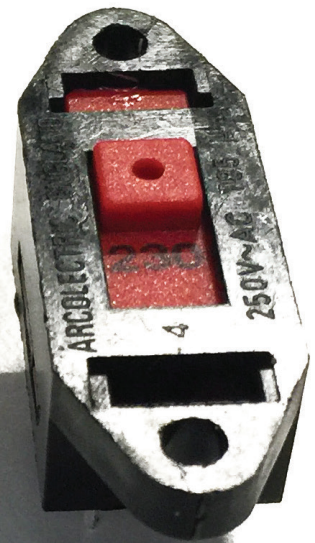
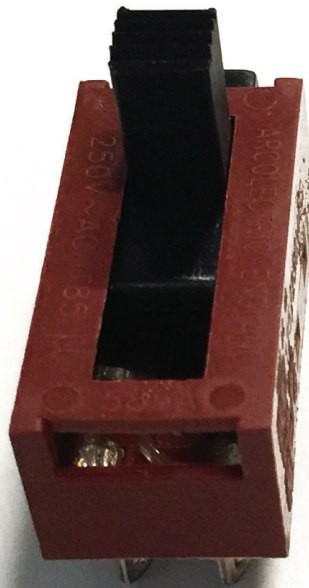


Terminal	Function	Actuator	Body	Colour	Options
<p><b>H</b></p> <p>4.8x0.8</p>	<p><b>3141</b></p> <p>ON - ON (momentary)</p>	<p><b>A</b></p> <p><b>B</b></p> <p><b>C</b></p> <p><b>D</b></p>	<p><b>A</b></p> <p>Optional cut-out for orientation</p>	<p><b>W</b></p> <p>White</p> <p><b>B</b></p> <p>Black</p> <p><b>PW</b></p> <p>Polar White</p>	<p><b>Finish</b> Gloss finish only</p> <p><b>Colour</b> White or black Call sales for custom colours. A full range is available for large orders.</p> <p><b>Order as:</b> 3151 (3141 type) 3155 (3145 type) 3156 (3146 type)</p>
<p><b>K</b></p> <p>2.8x0.8</p>	<p><b>3145</b></p> <p>ON - OFF (momentary OFF)</p>				
<p>Standard format is H terminals in positions 1 &amp; 2 and K terminals in positions 3 &amp; 4 For sealed terminals call sales</p>	<p><b>3146</b></p> <p>ON - OFF (momentary ON)</p>				



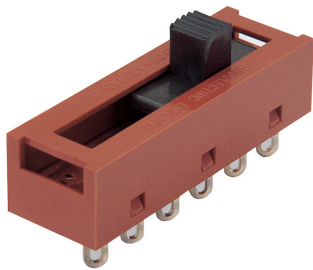
With up to 5 switching positions as well as multiple terminal, circuit and slider options, Bulgin's board mounted power slide switches can be configured to suit your needs. We also offer a wide range of voltage selector types that can be either snapped into a panel or flange mounted.

- Ratings up to 16A, 250V ac
- PCB and solder terminals
- Voltage Selector Models
- Snap in and flange mounting
- 2, 3, 4 and 5 position
- Choice of circuits
- Choice of actuators



# 2000 Slide Switches - up to 5 position

10A 250Vac



## Key Features

- Slide switches
- Ratings up to 16A, 250V ac
- PCB and solder terminals
- 2, 3, 4 and 5 position
- Choice of circuits
- Choice of actuators

## Approvals and specifications

- ☑ 10A 250Vac T85  
6(3)A 250Vac T85
  - ☑ UL CSA 16A 250Vac Non Inductive  
UL CSA 4A 300Vac  
UL 65°C, file no. E45221, CSA file no. LR10990
- μ contact gap  
Please specify: Standard action (SP116) or Light action (SP118).  
2000 series lubrication is inorganic and does not degrade plastics.

Terminal	Series	Position	Circuit	Slider
<p><b>K</b></p> <p>2.8 x 0.8</p> <p><b>R</b></p> <p>2.8 x 0.8</p> <p><b>T</b></p> <p>Solder</p> <p><b>X</b></p> <p>PCB 0.8 Sq.</p> <p><b>Y</b></p> <p>PCB 0.8 Sq.</p> <p>For mounting stability switches have extra "support" terminals</p> <p>* Nominal - Dimension varies with body type. For exact figure call sales</p>	<p><b>2</b></p>	<p><b>2</b></p> <p>Switching positions</p>	<p><b>10</b></p> <p><b>20</b></p> <p><b>30</b></p> <p><b>40</b></p> <p><b>3</b></p> <p>Switching positions</p> <p><b>10</b></p> <p><b>20</b></p> <p><b>30</b></p> <p><b>40</b></p> <p><b>4</b></p> <p>Switching positions</p> <p><b>10</b></p> <p><b>20</b></p> <p><b>30</b></p> <p><b>40</b></p> <p><b>5</b></p> <p>Switching positions</p> <p><b>10</b></p> <p><b>20</b></p> <p><b>30</b></p> <p><b>40</b></p>	<p><b>0</b></p> <p><b>1</b></p> <p><b>2</b></p> <p><b>3</b></p> <p><b>4</b></p> <p><b>5</b></p> <p><b>6</b></p> <p><b>7</b></p> <p><b>9</b></p> <p><b>A</b></p> <p><b>B</b></p> <p><b>C</b></p> <p><b>D</b></p> <p><b>E</b></p> <p><b>G</b></p> <p><b>H</b></p> <p><b>J</b></p> <p><b>K</b></p> <p><b>L</b></p> <p><b>N</b></p> <p><b>P</b></p> <p><b>R</b></p> <p><b>S</b></p> <p><b>T</b></p>

## Examples



X22205C ---



T2220EC ---



T23206A ---



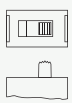

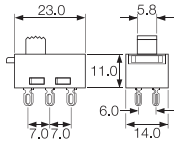
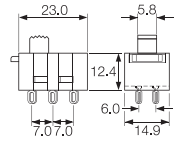
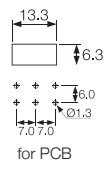
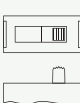
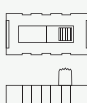
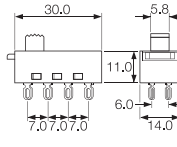
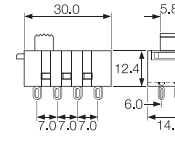
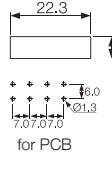
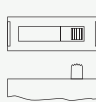
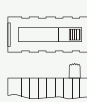
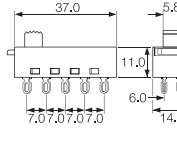
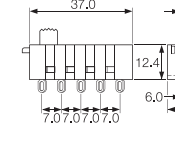
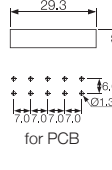
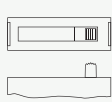
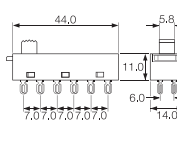
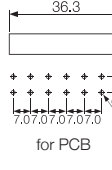
T24306A ---



T25302A ---

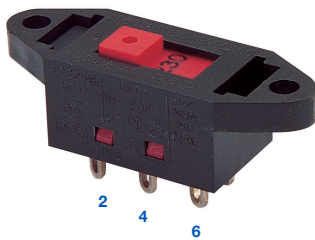


T25100A ---

Body		Options	Dimensions		
<p><b>C</b> 2 positions</p>  <p><b>H</b> 2 positions</p> 	<p><b>Colour</b> Call sales for custom colours. A full range is available for large orders.</p> <p><b>Legend printing</b> A wide range is available. For all options call sales</p>	<p><b>C</b> 2 positions</p> 	<p><b>H</b> 2 positions</p> 	<p><b>Cut-out / PCB Matrix</b></p> 	
<p><b>A</b> 3 positions</p>  <p><b>H</b> 3 positions</p> 		<p><b>A</b> 3 positions</p> 	<p><b>H</b> 3 positions</p> 	<p><b>Cut-out / PCB Matrix</b></p> 	
<p><b>A</b> 4 positions</p>  <p><b>H</b> 4 positions</p> 		<p><b>A</b> 4 positions</p> 	<p><b>H</b> 4 positions</p> 	<p><b>Cut-out / PCB Matrix</b></p> 	
<p><b>A</b> 5 positions</p> 		<p><b>A</b> 5 positions</p> 	<p><b>Cut-out / PCB Matrix</b></p> 		

# 2000 Slide Switches - Snap fit and panel mount

10A 250Vac



115/230 is preferred legend

## Key Features

- 2 way 'voltage selector'
- Ratings up to 16A, 250V ac
- Snap fit and panel mount
- PCB & solder terminals
- 2 and 3 position
- Choice of circuits
- Choice of actuators

## Approvals and specifications

10A 250Vac T85  
6(3)A 250Vac T85

UL CSA 16A 250Vac Non Inductive  
UL CSA 4A 300Vac  
UL 65°C, file no. E45221, CSA file no. LR10990

μ contact gap

Please specify: Standard action (SP116) or Light action (SP118).

2000 series lubrication is inorganic and does not degrade plastics.

Terminal	Series	Position	Circuit	Slider		
<b>K</b>  2.8 x 0.8	<b>2</b>	<b>2</b> Switching positions	<b>10</b> 	<b>0</b>  <b>6</b>  <b>C</b>  <b>L</b> 		
			<b>20</b> 		<b>2</b>  <b>7</b>  <b>D</b> 	
			<b>30</b> 		<b>3</b>  <b>8</b>  <b>E</b> 	
			<b>40</b> 		<b>4</b>  <b>9</b>  <b>H</b>  <b>P</b> 	
<b>R</b>  2.8 x 0.8	<b>2</b>	<b>2</b> Switching positions	<b>10</b> 	<b>5</b>  <b>A</b>  <b>K</b> 		
			<b>20</b> 		<b>S</b>  <b>T</b> 	
			<b>30</b> 		<b>10</b> 	<b>R</b> 
			<b>40</b> 		<b>20</b> 	<b>30</b> 
<b>T</b>  Solder	<b>2</b>	<b>2</b> Switching positions	<b>10</b> 	<b>6</b>  <b>7</b>  <b>C</b>  <b>L</b> 		
			<b>20</b> 		<b>2</b>  <b>7</b>  <b>D</b> 	
			<b>30</b> 		<b>3</b>  <b>8</b>  <b>E</b> 	
			<b>40</b> 		<b>4</b>  <b>9</b>  <b>H</b>  <b>P</b> 	
<b>X</b>  PCB 0.8 Sq. For mounting stability switches have extra "support" terminals * Nominal - Dimension varies with body type. For exact figure call sales	<b>2</b>	<b>3</b> Switching positions	<b>10</b> 	<b>6</b>  <b>7</b>  <b>C</b>  <b>L</b> 		
			<b>20</b> 		<b>2</b>  <b>7</b>  <b>D</b> 	
			<b>30</b> 		<b>3</b>  <b>8</b>  <b>E</b> 	
			<b>40</b> 		<b>4</b>  <b>9</b>  <b>H</b>  <b>P</b> 	

## Examples



T22208E ---



T22308E ---



T2230MF ---



T22205B ---



T22305B ---



T23204B ---

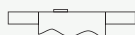
### Body

### Options

### Dimensions

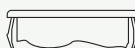
#### B

With mounting holes



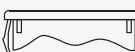
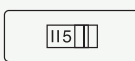
#### E

Snap fit



#### F

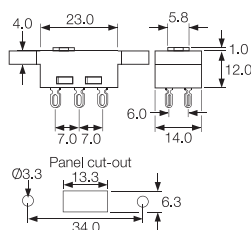
Snap fit  
(single pole ON OFF only)



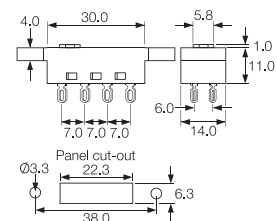
#### Colour

Call sales for custom colours.  
A full range is available for large orders.  
Standard body colour is black.

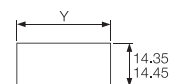
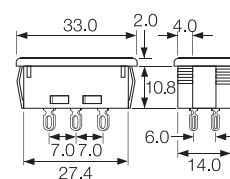
#### 2 Pos B



#### 3 Pos B

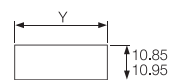
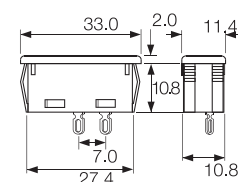


#### 2 Pos E



Panel thickness	Dim. Y
0.8-1.2	29.75/29.85
1.63	30.15/30.25
2.0	30.35/30.45
2.5	30.55/30.65

#### 2 Pos F



Panel thickness	Dim. Y
0.8-1.2	29.75/29.85
1.63	30.15/30.25
2.0	30.35/30.45
2.5	30.55/30.65

Manufactured from quality moulding and metal components to ensure a secure and reliable connection, Bulgin's battery holder range caters for battery sizes AAA(R03), AA(R6), C(R14), D(R20) and PP3(6R61), accommodating 1, 2, 3 or 4 cells.



There's a choice of fixing styles including screw and flange panel fixing, PCB and base mounting versions.

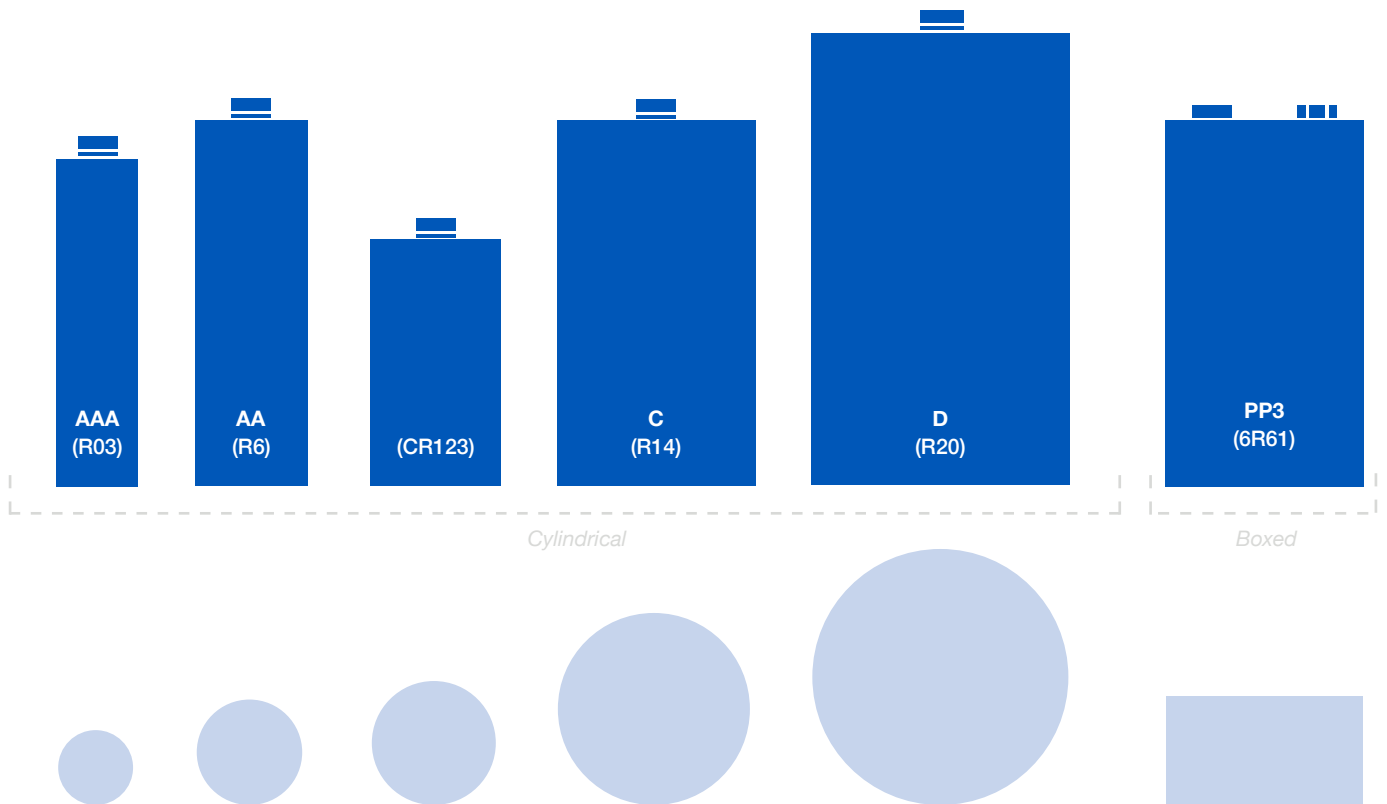
The panel mounting versions are now available in two styles; standard fixing and front panel sealed to IP67, extending the applications into harsher external environments where dust or water would inhibit equipment operation.

The open frame styles are designed to be either PCB or base mounted and most have an interlocking facility to join adjacent holders together.


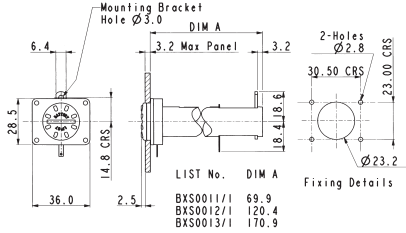

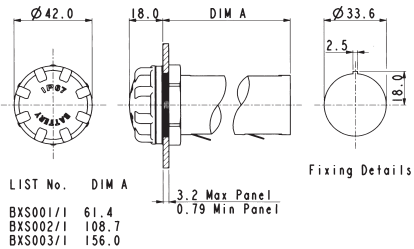

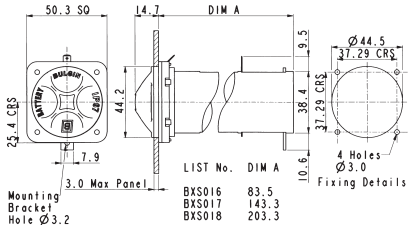
Principle applications include portable equipment and memory back-up.

Front panel sealed to IP67	295
Panel Mounting	296
PCB/Base Mounting	298

Battery size	Battery Dimensions	No. of Cells	Mounting	Part No.
AAA (R03)	Ø10.5 x 44.5	1	PCB/Base	BX0034
AA (R6)	Ø14.5 x 50.5	1	PCB/Base	BX0035
		1	Panel	BX0011/1
		2	Panel	BX0012/1
		3	Panel	BX0013/1
		4	Panel	BX0027
		1	Panel Sealed	BXS011/1
		2	Panel Sealed Panel	BXS012/1
3	Sealed	BXS013/1		
CR123	Ø17.0 x 34.5	1	PCB/Base	BX0123
C (R14)	Ø26.2 x 50	1	PCB/Base	BX0036
		1	Panel	BX0001/1
		2	Panel	BX0002/1
		3	Panel	BX0003/1
		1	Panel Sealed	BXS001/1
		2	Panel Sealed	BXS002/1
D (R20)	Ø34.2 x 61.5	3	Panel Sealed	BXS003/1
		1	PCB/Base	BX0037
		1	Panel	BX0016
		2	Panel	BX0017
		3	Panel	BX0018
		1	Panel Sealed	BXS016
		2	Panel Sealed	BXS017
		3	Panel Sealed	BXS018
		PP3 (6R61)	W26.5 x D17.5 x H48.5	1
1	Panel			BX0023
1	Panel			BX0023/GY
2	Panel			BX0026
2	Panel			BX0026


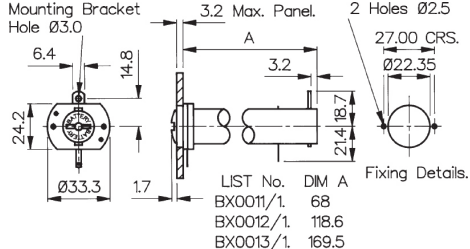

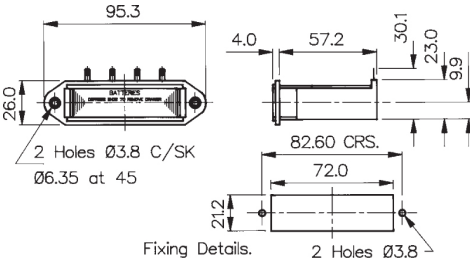

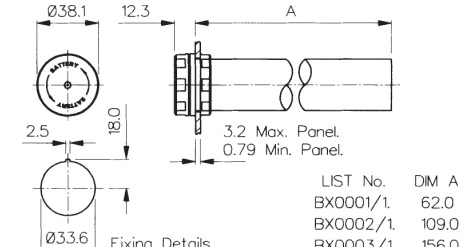


As batteries from different manufacturers may vary slightly in size, Dimensions & Drawings are approximate only.  
All Bulgin Battery Holders have polarity clearly marked.


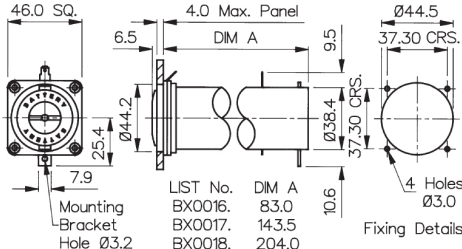

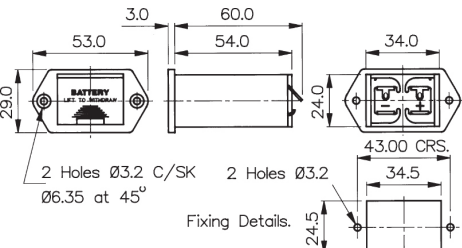

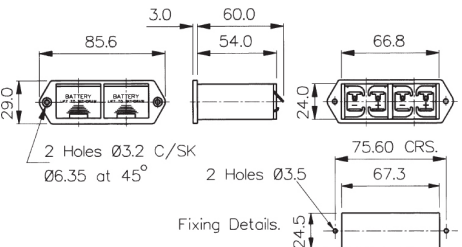
<p>AA SIZE BATTERY HOLDER</p>  <p>BXS011/1</p>	<ul style="list-style-type: none"> <li>○ 1, 2 or 3 Cells</li> <li>○ Flanged Panel Mount</li> <li>○ Bayonet with finger/coin slot release</li> <li>○ Supplied with gasket and sealing grommets for screws</li> </ul>	 <p>LIST No. DIM A</p> <p>BXS0011/1 69.9 BXS0012/1 120.4 BXS0013/1 170.9</p>
<p>C SIZE BATTERY HOLDER</p>  <p>BXS001/1</p>	<ul style="list-style-type: none"> <li>○ 1, 2 or 3 Cells</li> <li>○ Panel Mount</li> <li>○ Screw Cap/Hand release</li> <li>○ Supplied with gasket</li> </ul>	 <p>LIST No. DIM A</p> <p>BXS001/1 61.4 BXS002/1 108.7 BXS003/1 156.0</p>
<p>D SIZE BATTERY HOLDER</p>  <p>BXS016</p>	<ul style="list-style-type: none"> <li>○ 1, 2 or 3 Cells</li> <li>○ Flanged Panel Mount</li> <li>○ Bayonet/finger release</li> <li>○ Supplied with flange gasket and sealing grommets for screws</li> </ul>	 <p>LIST No. DIM A</p> <p>BXS016 83.5 BXS017 143.3 BXS018 203.3</p>

Specification	BXS011/1, BXS012/1, BXS013/1	BXS001/1, BXS002/1, BXS003/1	BXS016, BXS017, BXS018
Battery/Cell Type:	AA (R6)	C (R14)	D (R20)
No. Cells:	BXS011/1 - 1 cell BXS012/1 - 2 cells BXS013/1 - 3 cells	BXS001/1 - 1 cell BXS002/1 - 2 cells BXS003/1 - 3 cells	BXS016 - 1 cell BXS017 - 2 cells BXS018 - 3 cells
Terminations:	2.8 series tabs/solder tags	2.8 series tabs/solder tags	4.8 series tabs/solder tags
Operating Temperature:	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C
Mouldings:	Nylon Glass filled Polyester Polycarbonate	Nylon Glass filled Polyester	Nylon Glass filled Polyester
Flammability Rating:	UL94V-0	UL94V-0	UL94V-0
Contacts:	Brass, Tin Plated - rear contact Nickel Silver, clean - front contact and cap contact plate	Brass, Tin Plated - front and rear contacts Nickel Silver, clean - cap contact plate	Brass, Nickel Plated - front and rear contacts and cap contact plate
Features:	Bayonet cap with finger grip and coin slot Rear support bracket	Screw on cap with finger grip Recommended torque for panel ring 1.13-1.7Nm (10-15lbf.in)	Bayonet cap with finger grip Rear support bracket
Sealing (front of panel):	Protection classification IP67, EN60529:1992+A2:2013	Protection classification IP67, EN60529:1992+A2:2013	Protection classification IP67, EN60529:1992+A2:2013
Notes:	Recommend 2 & 3 cell versions are supported by rear bracket		Recommend 2 & 3 cell versions are supported by rear bracket
RoHS	Compliant	Compliant	Compliant



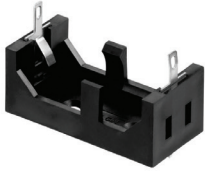
<p>AA SIZE BATTERY HOLDER</p>  <p>BX0011/1</p>	<ul style="list-style-type: none"> <li>○ 1, 2 or 3 Cells</li> <li>○ Flanged Panel Mount</li> <li>○ Bayonet/Screwdriver release</li> </ul>	 <p>Mounting Bracket Hole <math>\varnothing 3.0</math></p> <p>3.2 Max. Panel</p> <p>2 Holes <math>\varnothing 2.5</math></p> <p>27.00 CRS.</p> <p><math>\varnothing 22.35</math></p> <p>6.4</p> <p>14.8</p> <p>A</p> <p>3.2</p> <p>21.4</p> <p>18.7</p> <p>1.7</p> <p><math>\varnothing 33.3</math></p> <p>LIST No. DIM A</p> <p>BX0011/1. 68</p> <p>BX0012/1. 118.6</p> <p>BX0013/1. 169.5</p> <p>Fixing Details.</p>
<p>AA SIZE BATTERY HOLDER</p>  <p>BX0027</p>	<ul style="list-style-type: none"> <li>○ 4 Cells</li> <li>○ Flanged Panel Mount</li> <li>○ Drawer function</li> </ul>	 <p>95.3</p> <p>4.0</p> <p>57.2</p> <p>30.1</p> <p>23.0</p> <p>9.9</p> <p>26.0</p> <p>2 Holes <math>\varnothing 3.8</math> C/SK</p> <p><math>\varnothing 6.35</math> at 45</p> <p>82.60 CRS.</p> <p>72.0</p> <p>21.2</p> <p>Fixing Details.</p> <p>2 Holes <math>\varnothing 3.8</math></p>
<p>C SIZE BATTERY HOLDER</p>  <p>BX0001/1</p>	<ul style="list-style-type: none"> <li>○ 1, 2 or 3 Cells</li> <li>○ Panel Mount</li> <li>○ Screw Cap/Hand release</li> </ul>	 <p><math>\varnothing 38.1</math></p> <p>12.3</p> <p>A</p> <p>2.5</p> <p>18.0</p> <p>3.2 Max. Panel</p> <p>0.79 Min. Panel.</p> <p>LIST No. DIM A</p> <p>BX0001/1. 62.0</p> <p>BX0002/1. 109.0</p> <p>BX0003/1. 156.0</p> <p>Fixing Details.</p>

Specification	BX0011/1, BX0012/1, BX0013/1	BX0027	BX0001/1, BX0002/1, BX0003/1
Battery/Cell Type:	AA (R6)	AA (R6)	C (R14)
No. Cells:	BX0011/1 - 1 cell BX0012/1 - 2 cells BX0013/1 - 3 cells	4 cells	BX0001/1 - 1 cell BX0002/1 - 2 cells BX0003/1 - 3 cells
Terminations:	2.8 series tabs/solder tags	4 solder tags (can be wired in series or in pairs)	2.8 series tabs/solder tags
Operating Temperature:	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C
Flammability Rating:	UL94V-0	UL94HB	UL94V-0
Mouldings:	Glass Filled Nylon & Polyester	Glass Filled Nylon	Nylon & Glass Filled Nylon
Contacts:	Brass, Tin Plated Nickel Silver, clean	Phosphor Bronze, Tin Plated Nickel Silver, clean	Nickel Silver, clean Brass, Tin Plated
Features:	Bayonet cap with coin slot Rear support bracket	Removable loading/latching drawer	Screw on cap. Recommended torque for panel ring 1.13-1.7Nm (10-15lb.in)
Notes:	Recommend 2 & 3 cell versions are supported by rear bracket		
RoHS	Compliant	Compliant	Compliant

<p>D SIZE BATTERY HOLDER</p>  <p>BX0016</p>	<ul style="list-style-type: none"> <li>○ 1, 2 or 3 Cells</li> <li>○ Flanged Panel Mount</li> <li>○ Bayonet/Screwdriver release</li> </ul>	
<p>PP3 SIZE BATTERY HOLDER</p>  <p>BX0023 BX0023/GY</p>	<ul style="list-style-type: none"> <li>○ 1 Cell</li> <li>○ Flanged Panel Mount</li> <li>○ Drawer function</li> <li>○ Grey version available (BX0023/GY)</li> </ul>	
<p>PP3 SIZE BATTERY HOLDER</p>  <p>BX0026</p>	<ul style="list-style-type: none"> <li>○ 2 Cell</li> <li>○ Panel Mount</li> <li>○ Screw Cap/Hand release</li> </ul>	

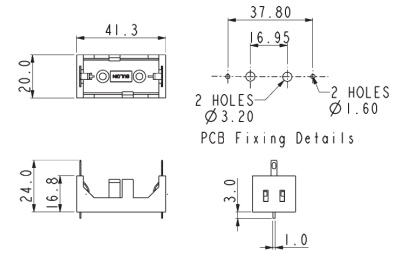
Specification	BX0016, BX0017, BX0018	BX0023, BX0023/GY	BX0026
Battery/Cell Type:	D (R20)	PP3 (6R61)	PP3 (6R61)
No. Cells:	BX0016 - 1 cell BX0017 - 2 cells BX0018 - 3 cells	BX0023 - 1 cell BX0023/GY - 1 cell (grey version)	2 cells
Terminations:	4.8 series tabs/solder tags	Solder tag	Solder tags
Operating Temperature:	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C
Flammability Rating:	UL94V-0	UL94HB	UL94HB
Mouldings:	Nylon & Polycarbonate	Glass Filled Nylon	Glass Filled Nylon
Contacts:	Brass, Nickel Plated	Phosphor Bronze, Tin Plated	Phosphor Bronze, Tin Plated
Features:	Bayonet cap with coin slot Rear support bracket	Removable loading drawer	Removable loading drawer
Notes:	Recommend 2 & 3 cell versions are supported by rear bracket		
RoHS	Compliant	Compliant	Compliant

CR123 SIZE BATTERY HOLDER



BX0123

- 1 Cell
- PCB/Base Mount
- Open style

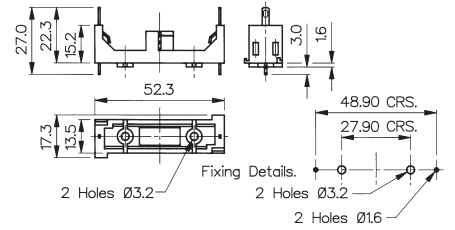


AAA SIZE BATTERY HOLDER

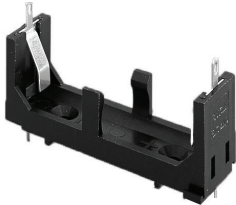


BX0034

- 1 Cell
- PCB/Base Mount
- Open style

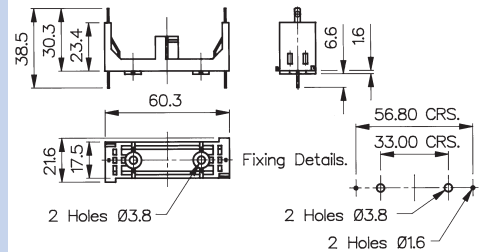


AA SIZE BATTERY HOLDER



BX0035

- 1 Cell
- PCB/Base Mount
- Open style



Specification

BX0123

BX0034

BX0035

Battery/Cell Type:

CR123

AAA (R03)

AA (R6)

No. Cells:

1 cell

1 cell

1 cell

Terminations:

Dual connections, PCB spills & 2.8 series tabs/solder tags. (PCB spills may be removed if required)

Dual connections, PCB spills & 2.8 series tabs/solder tags. (PCB spills may be removed if required)

Dual connections, PCB spills & 2.8 series tabs/solder tags. (PCB spills may be removed if required)

Operating Temperature:

-30°C to +70°C

-30°C to +70°C

-30°C to +70°C

Flammability Rating:

UL94HB

UL94HB

UL94HB

Mouldings:

Glass Filled Nylon

Glass Filled Nylon

Nylon & Glass Filled Nylon

Contacts:

Nickel Silver, clean

Nickel Silver, clean

Nickel Silver, clean

Features:

Interlocking for multiple assemblies

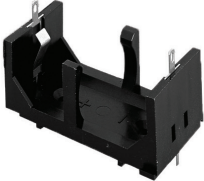
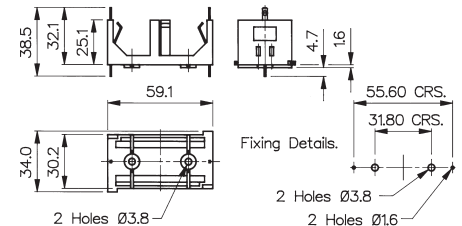

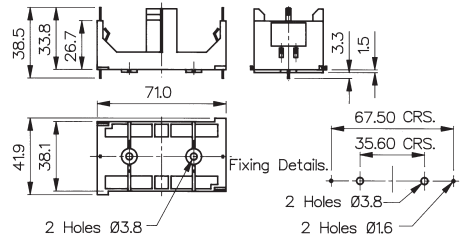

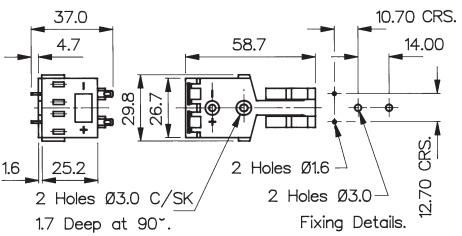
Interlocking for multiple assemblies

RoHS

Compliant

Compliant

Compliant

<p>C SIZE BATTERY HOLDER</p>  <p style="text-align: right;"><b>BX0036</b></p>	<ul style="list-style-type: none"> <li>○ 1 Cell</li> <li>○ PCB/Base Mount</li> <li>○ Open style</li> </ul>	
<p>D SIZE BATTERY HOLDER</p>  <p style="text-align: right;"><b>BX0037</b></p>	<ul style="list-style-type: none"> <li>○ 1 Cell</li> <li>○ PCB/Base Mount</li> <li>○ Open style</li> </ul>	
<p>PP3 SIZE BATTERY HOLDER</p>  <p style="text-align: right;"><b>BX0033</b></p>	<ul style="list-style-type: none"> <li>○ 1 Cell</li> <li>○ PCB/Base Mount</li> <li>○ Open style</li> </ul>	

Specification	BX0036	BX0037	BX0033
Battery/Cell Type:	C (R14)	D (R20)	PP3 (6R61)
No. Cells:	1 cell	1 cell	1 cell
Terminations:	Dual connections, PCB spills & 2.8 series tabs/solder tags. (PCB spills may be removed if required)	Dual connections, PCB spills & 2.8 series tabs/solder tags. (PCB spills may be removed if required)	Dual connections, PCB spills & 2.8 series tabs/solder tags. (PCB spills may be removed if required)
Operating Temperature:	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C
Flammability Rating:	UL94HB	UL94HB	UL94HB
Mouldings:	Glass Filled Nylon	Glass Filled Nylon	Nylon & Glass Filled Nylon
Contacts:	Nickel Silver, clean	Nickel Silver, clean	Nickel Silver, clean
Features:	Interlocking for multiple assemblies	Interlocking for multiple assemblies	
<b>RoHS</b>	Compliant	Compliant	Compliant

A full range of **quality** mains rated **inlets, outlets** and **connectors** conforming to **IEC** and EN 60320 specifications carrying **UL, CSA, VDE** and other approvals.

With electrical ratings up to 20A, 250V (UL) these connector ranges offer solutions to most mains powered equipment and cable applications.

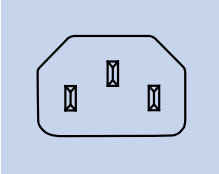
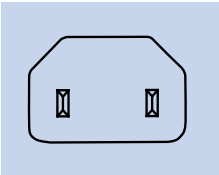
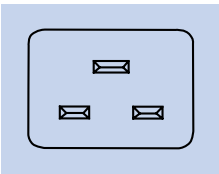
The combinations of mounting styles and terminations include: flange fixing, snap to panel and PCB mounting versions together with 2.8/ solder tabs, 4.8 and 6.3 fast on tabs, screw terminal and PC spill versions.

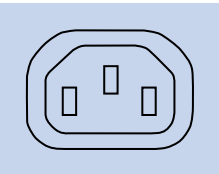
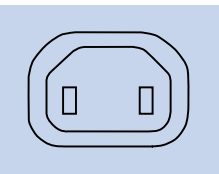
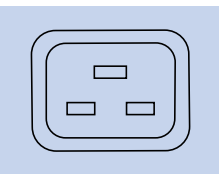
Completing the range are insulating boots, retaining and safety covers

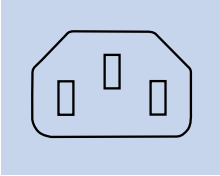
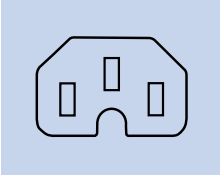
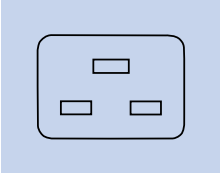
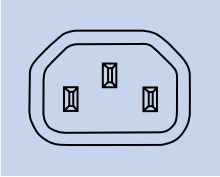
In addition to the standard black moulding, most styles are also available in either white or grey and special colours to match OEM equipment can also be supplied. (Subject to product approval requirements)



IEC60320 Main Inlets and Outlets	301
IEC Distribution Units	326
Power Entry Modules	331
Mains Filters	354

IEC60 320-1	Sheet No:	No Pins	Current Rating	Flange Fixing	Snap fit	Fused Flange	Fused Snap fit	Filtered	Fuse Filtered
	C14	3	10A, 250V a.c.	PX0579 PX0580 PX0580/PC PX0580/PC/12132 PX0580/PC/7 PX0580/PC/7LC	PX0575 PX0575/PC	PF0001 PF0001/PC PF0002 PF0030 PF0030/PC	PF0011 PF0011/PC	PS00 PS01	PS20 PS21 PS25 PS26
	C16	3	10A, 250V a.c.	PX0590	PX0595				
	C18	2	10A, 250V a.c.	PX0690	PX0691 PX0691/PC	PF0006 PF0007	PF0016		
	C20	3	3 16A, 250V a.c.	PX0596	PX0598				

IEC60 320-2-2	Sheet No:	No Pins	Current Rating	Flange Fixing	Snap fit	Fused Flange	Fused Snap fit	Filtered	Fuse Filtered
	F	3	10A, 250V a.c.	PX0675 PX0675/PC PX0675/PC/12599 PX0793 (Shuttered) PX0793/1(Shuttered)	PX0695 PX0695/PC PX0783 (Shuttered) PX0716 PX0717 PX0718				
	H	2	10A, 250V a.c.	PX0705	PX0725				
	J	3	16A, 250V a.c.	PX0591	PX0592				

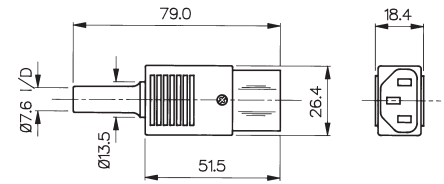
IEC60 320-1	Sheet No:	No Pins	Current Rating	Rewirable	Side Entry Rewirable
	C13	3	10A, 250V a.c.	PX0587 PX0588	PX0587/SE
	C15	3	10A, 250V a.c.	PX0597	
	C19	3	16A, 250V a.c.	PX0599	
IEC60 320-2-2	Sheet No:	No Pins	Current Rating	Rewirable	Side Entry Rewirable
	E	3	10A, 250V a.c.	PX0686	PX0685 PX0686/SE

## Straight Female Connector



PX0587

- Cable Mounting
- Rewirable
- Screw Terminals
- 10A, 250V a.c.

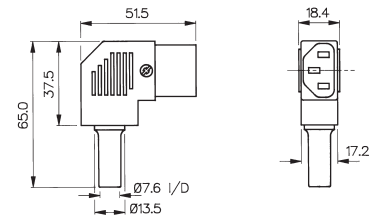


## Side Entry Female Connector



PX0587/SE

- Cable Mounting
- Rewirable
- Screw Terminals
- 10A, 250V a.c.

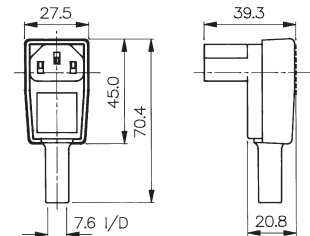





## Angled Female Connector



PX0588

- Cable Mounting
- Rewirable
- Screw Terminals
- 10A, 250V a.c.



Specifications	PX0587/Col	PX0587/SE/Col	PX0588
Terminations:	Screw Terminals	Screw Terminals	Screw Terminals
Colours:	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)	-
Max. Rating:	10A, 250V a.c.	10A, 250V a.c.	10A, 250V a.c.
Contact Resistance:	<10mΩ	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>3</sup> MΩ	>10 <sup>3</sup> MΩ	>10 <sup>3</sup> MΩ
A.C. Breakdown:	Pole-Pole 4.5kV. (Poles-Accessible) Parts 4kV	Pole-Pole 4.5kV. (Poles-Accessible) Parts 4kV	Pole-Pole 5kV. (Poles-Accessible) Parts 3.5kV
Operating Temp.	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Withdrawal Force:	10N (Min.) 50N (Max.)	10N (Min.) 50N (Max.)	10N (Min.) 50N (Max.)
Mouldings:	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0
Contacts	Brass, Clean	Brass, Clean	Brass, Clean
Approvals:			
Accessories / Notes:	VDE and ENEC approval for black and white versions only.	VDE and ENEC approval for black and white versions only.	
Mating Inlets:	PX0575, PX0579, PX0580, PF0001, PF0011, PF0030, PF0033	PX0575, PX0579, PX0580, PF0001, PF0011, PF0030, PF0033	PX0575, PX0579, PX0580, PF0001, PF0011, PF0030, PF0033
<b>RoHS</b>	Compliant	Compliant	Compliant

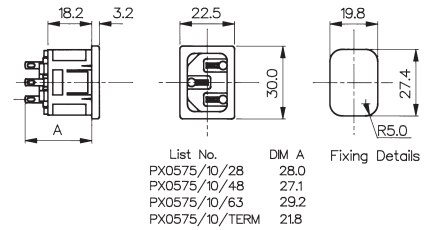


## Snap Fit to Panel Inlet



PX0575/10/28

- Fits Panel Sizes 1, 1.5, 2.0 or 3.0mm
- 2.8, 4.8, 6.3mm Tabs or Screw Terminals
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)

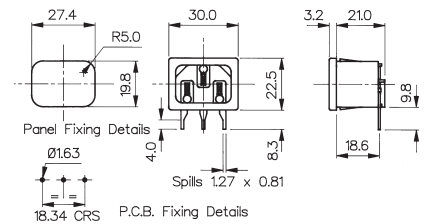


## PC Snap Fit to Panel Inlet



PX0575/10/PC

- Fits Panel Sizes 1, 1.5, 2.0 or 3.0mm
- PC Spills
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)



## Specifications

## PX0575/Panel/Term/Col

## PX0575/Panel/PC/Col

Fixing(Panel):	Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)
Terminations:	/28 (2.8mm solder), /48 (4.8mm tab)
Colours:	No suffix (Black), /WH (White), /GY (Grey)
Max. Rating:	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)
Contact Resistance:	<10mΩ
Insulation Resistance:	>10 <sup>3</sup> MΩ
A.C. Breakdown:	Pole-Pole 5kV. Poles-Panel 5.4kV
Operating Temp. Range:	-40°C to +70°C
Max. Pin Temp.:	+70°C
Mouldings:	Nylon, Flammability Rating UL94V-0
Contacts:	Brass: Pins, Nickel Plated. Tabs, Tin Plated, Screw Terms, Nickel Plated

Fixing(Panel):	Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)
Terminations:	P.C. Spills
Colours:	No suffix (Black), /WH (White), /GY (Grey)
Max. Rating:	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)
Contact Resistance:	<10mΩ
Insulation Resistance:	>10 <sup>3</sup> MΩ
A.C. Breakdown:	Pole-Pole 5kV. Poles-Panel 5.4kV
Operating Temp. Range:	-40°C to +70°C
Max. Pin Temp.:	+70°C
Mouldings:	Nylon, Flammability Rating UL94V-0
Contacts:	Brass: Pins, Nickel Plated. Spills, Tin Plated

## Approvals:



## Accessories / Notes:

P.No. 11328 (See Page 152)  
VDE and ENEC approval for black versions only.

Standard without cover.  
With cover add /C to P.No.  
PX0587, PX0587/SE, PX0588  
VDE and ENEC approval for black versions only.

## Mating Connectors:

PX0587, PX0587/SE, PX0588

PX0587, PX0587/SE, PX0588

## RoHS

Compliant

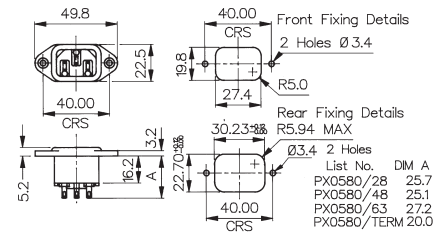
Compliant

## Flange Mount Inlet



PX0580/28

- 2.8, 4.8, 6.3mm Tabs or Screw Terminals
- 10A, 250V a.c. (15A, 250V a.c. UL & CSA)

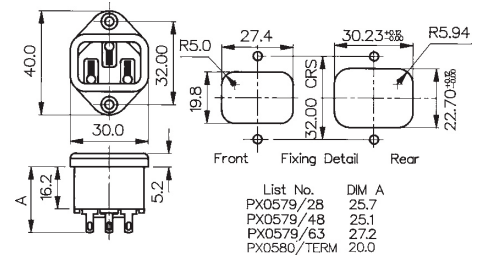




## Vertical Flange Mount Inlet



PX0579/28

- 2.8, 4.8, 6.3mm Tabs or Screw Terminals
- 10A, 250V a.c. (15A, 250V a.c. UL & CSA)



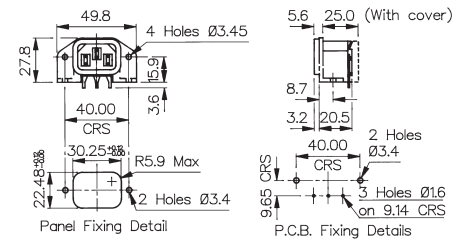
Specifications	PX0580/Term/Col	PX0579/Term/Col
Fixing:	Flange	Flange
Terminations:	/28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab), /TERM (screw)	/28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab)
Colours:	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)
Max. Rating:	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)
Contact Resistance:	<10m $\Omega$	<10m $\Omega$
Insulation Resistance:	>10 <sup>3</sup> M $\Omega$	>10 <sup>3</sup> M $\Omega$
A.C. Breakdown:	Pole-Pole 5kV. Poles-Panel 10kV	Pole-Pole 5kV. Poles-Panel 10kV
Operating Temp.:	-40°C to +70°C	-40°C to +70°C
Max. Pin Temp.:	+70°C	+70°C
Mouldings:	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0
Contacts:	Brass: Pins, Nickel Plated. Tabs, Tin Plated, Screw Terms, Nickel Plated	Brass: Pins, Nickel Plated. Tabs, Tin Plated
Approvals:		
Accessories / Notes:	P.No. 11328, KT0006 (PX0587 only) (See Pages 150 and 152) VDE and ENEC approval for black versions only.	P.No. 11328 (See Page 152)
Mating Connectors:	PX0587, PX0587/SE, PX0588	PX0587, PX0587/SE, PX0588
<b>RoHS</b>	Compliant	Compliant

## PC Flange Rear Mount Inlet



PX0580/PC

- With or Without Rear Cover
- PC Spills
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)

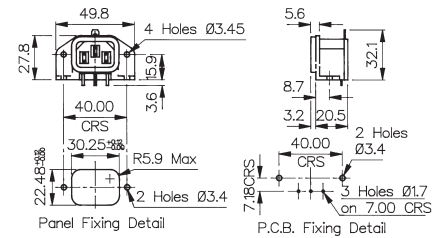


## PC Flange Rear Mount Inlet



PX0580/PC/7

- With or Without Cover
- PC Spills
- 4.8mm Top Tab (earth)
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)



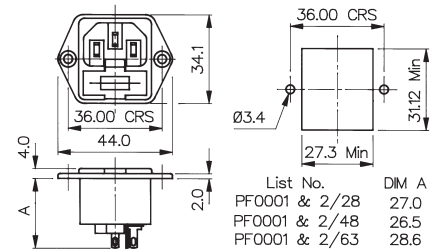
Specifications	PX0580/PC/Col	PX0580/PC/7/Col
Fixing:	P.C.B./Flange	P.C.B./Flange
Terminations:	P.C. Spills	P.C. Spills
Colours:	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)
Max. Rating:	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>9</sup> MΩ	>10 <sup>9</sup> MΩ
A.C. Breakdown:	Pole-Pole 5.4kV. Poles-Panel 10kV	Pole-Pole 5.4kV. Poles-Panel 10kV
Operating Temp. Range:	-40°C to +70°C	-40°C to +70°C
Max. Pin Temp :	+70°C	+70°C
Mouldings:	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0
Contacts:	Brass: Pins, Nickel Plated. Spills, Tin Plated	Brass: Pins, Nickel Plated. Spills, Tin Plated
Approvals:		
Accessories / Notes:	Standard without cover. With cover add /12132 to P.No VDE approvals for black version only	Standard without cover. With cover add /12132 to P.No. VDE approvals for black version only
Mating Connectors:	PX0587, PX0587/SE, PX0588	PX0587, PX0587/SE, PX0588
<b>RoHS</b>	Compliant	Compliant

## Flanged Mount Fused Inlet



PF0001/48 (P.F.1/187) PF0002/28

- Single Fuse 5 x 20mm
- Spare Fuse Facility
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.
- Fuse Contacts Isolated (PF0002)

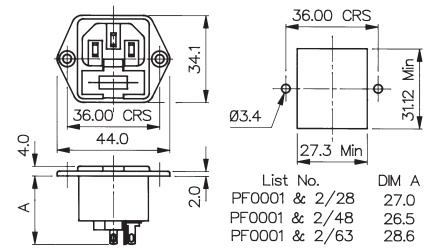





## PC Flanged Mount Fused Inlet



PF0001/PC

- Single Fuse 5 x 20mm
- Spare Fuse Facility
- PC Spills - Horizontal
- 10A, 250V a.c.



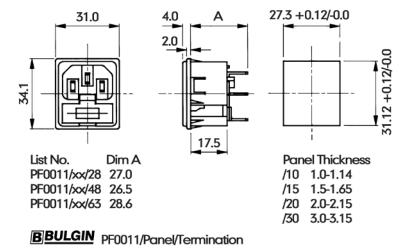
Specifications	PF0001/Term/Col	PF0001/PC/Col	PF0002/Term/Col
Fixing(Panel):	Flange	P.C.B./Flange	Flange
Terminations:	/28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab)	P.C. Spills	/28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab)
Colours:	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)
Max. Rating:	10A, 250V a.c.	10A, 250V a.c.	10A, 250V a.c.
Max. Fuse Rating:	2.5W/10A, 250V a.c.	2.5W/10A, 250V a.c.	2.5W/10A, 250V a.c.
Contact Resistance:	<10mΩ (<15mΩ including Fuseholder)	<10mΩ (<15mΩ including Fuseholder)	<10mΩ
Insulation Resistance:	>10 <sup>3</sup> MΩ	>10 <sup>3</sup> MΩ	>10 <sup>3</sup> MΩ
A.C. Breakdown:	Pole-Pole 5.5kV. Poles-Panel 4kV	Pole-Pole 5.5kV. Poles-Panel 4kV	Pole-Pole 5.5kV. Poles-Panel 4kV
Operating Temp.:	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Max. Pin Temp.:	+70°C	+70°C	+70°C
Mouldings:	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0
Contacts:	Brass: Pins, Nickel Plated. Tabs, Tin Plated	Brass: Pins, Nickel Plated. Tabs, Tin Plated	Brass: Pins, Nickel Plated. Tabs, Tin Plated
Approvals:			
Accessories / Notes:	P.No. 11987, KT0009 See Pages 150 & 152) VDE and ENEC approval for black versions only.	KT0009 (front of panel mounting only) (See Page 150) VDE and ENEC approval for black versions only.	P.No. 11987, KT0009 (See Pages 150 & 152) (Note: Fuse contact isolated) VDE and ENEC approval for black versions only.
Mating Connectors:	PX0587, PX0587/SE, PX0588	PX0587, PX0587/SE, PX0588	PX0587, PX0587/SE, PX0588
<b>RoHS</b>	Compliant	Compliant	Compliant

## Snap Fit to Panel Fused Inlet



PF0011/10/28

- Single Fuse 5 x 20mm
- Spare Fuse Facility
- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.

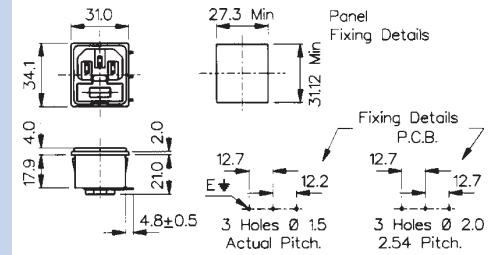




## PC Snap Fit to Panel Fused Inlet



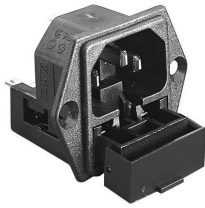
PF0011/10/PC

- Single Fuse 5 x 20mm
- Spare Fuse Facility
- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- PC Spills
- 10A, 250V a.c.



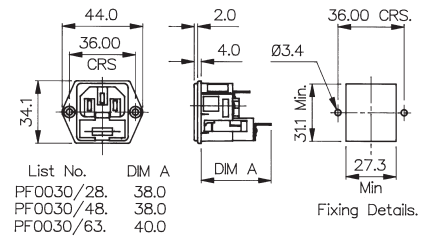
Specifications	PF0011/Panel/Term/Col	PF0011/Panel/PC/Col
Fixing:	Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)	Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)
Terminations:	/28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab)	P.C. Spills
Colours:	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)
Max. Rating:	10A, 250V a.c.	10A, 250V a.c.
Max. Fuse Rating	2.5W/10A, 250V a.c	2.5W/10A, 250V a.c
Contact Resistance:	<10mΩ (<15mΩ including Fuseholder)	<10mΩ (<15mΩ including Fuseholder)
Insulation Resistance:	>10 <sup>9</sup> MΩ	>10 <sup>9</sup> MΩ
A.C. Breakdown:	Pole-Pole 5.5kV. Poles-Panel 4kV	Pole-Pole 5.5kV. Poles-Panel 4kV
Operating Temp.	-40°C to +70°C	-40°C to +70°C
Max. Pin Temp.:	+70°C	+70°C
Mouldings:	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0
Contacts:	Brass: Pins, Nickel Plated. Tabs, Tin Plated	Brass: Pins, Nickel Plated. Spills, Tin Plated
Approvals:		
Accessories / Notes:	P.No. 11987 (See Page 152) VDE and ENEC approval for black versions only.	VDE and ENEC approval for black versions only.
Mating Connectors:	PX0587, PX0587/SE, PX0588	PX0587, PX0587/SE, PX0588
<b>RoHS</b>	Compliant	Compliant

## Flanged Mount Fused Inlet



PF0030/28

- Twin Fused 5 x 20mm
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.

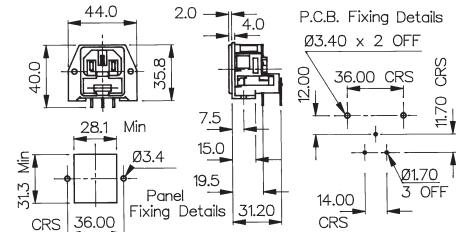


## PC Flanged Mount Fused Inlet



PF0030/PC

- Twin Fused 5 x 20mm
- PC Spills
- 10A, 250V a.c.

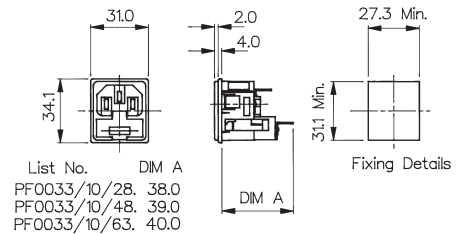





## Snap Fit to Panel Fused Inlet



PF0033/10/28

- Twin Fused 5 x 20mm
- Fits Panel Sizes 1.0, 1.5, 2.0 or 3.0mm
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.



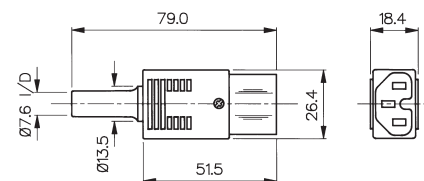
Specifications	PF0030/Termination	PF0030/PC	PF0033/Panel/Termination
Fixing(Panel):	Flange	P.C.B./Flange	Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)
Terminations:	/28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab)	P.C. Spills	/28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab)
Max. Rating:	10A, 250V a.c.	10A, 250V a.c.	10A, 250V a.c.
Contact Resistance:	<15mΩ (per pole)	<15mΩ (per pole)	<15mΩ (per pole)
Insulation Resistance:	>10 <sup>4</sup> MΩ	>10 <sup>4</sup> MΩ	>10 <sup>4</sup> MΩ
A.C. Breakdown:	Pole-Pole 6kV. Poles-Panel 5kV	Pole-Pole 6kV. Poles-Panel 5kV	Pole-Pole 6kV. Poles-Panel 5kV
Max. Dissipation Per Fuse:	2.5W	2.5W	2.5W
Operating Temp.:	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
Max. Pin Temp.:	+70°C	+70°C	+70°C
Mouldings:	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0
Contacts:	Brass: Pins, Nickel Plated. Tabs, Tin Plated	Brass: Pins, Nickel Plated. Tabs, Tin Plated	Brass: Pins, Nickel Plated. Tabs, Tin Plated
Approvals:			
Accessories / Notes:	KT0009 (See Page 150)		
Mating Connectors:	PX0587, PX0587/SE, PX0588	PX0587, PX0587/SE, PX0588	PX0587, PX0587/SE, PX0588
<b>RoHS</b>	Compliant	Compliant	Compliant

## Straight Female Connector



PX0597

- Cable Mounting
- Hot Condition
- Mates with PX0590 and PX0595
- Screw Terminals
- 10A, 250V a.c.

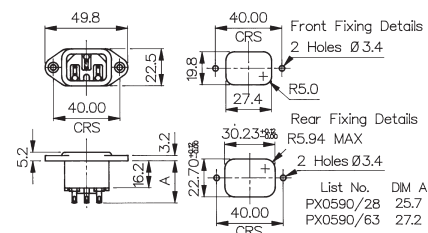


## Flange Mount Inlet



PX0590/28

- Hot Condition
- 2.8 or 6.3mm Tabs
- 10A, 250V a.c. (15A, 250V a.c. UL & CSA)

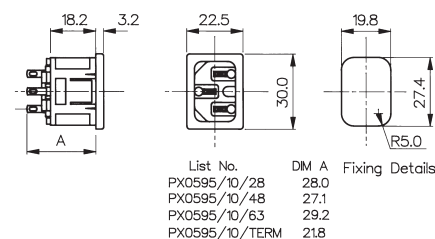





## Snap Fit to Panel Inlet



PX0595/10/28

- Hot Condition
- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- 2.8, 4.8, 6.3mm Tabs or Screw Terminals
- 10A, 250V a.c. (15A, 250V a.c. UL & CSA)



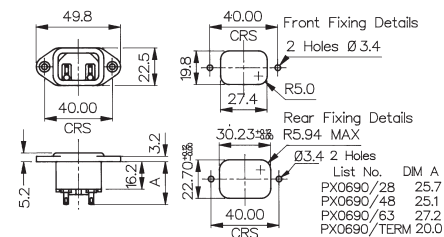
Specifications	PX0597/Col	PX0590/Term/Col	PX0595/Panel/Term/Col
Fixing(Panel):		Flange	Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)
Terminations:	Screw Terminals	/28 (2.8mm solder), /63 (6.3mm tab)	/28 (2.8mm solder), /48 (4.8mm tab), /63 (6.3mm tab), /TERM (screw)
Colours:	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)
Max. Rating:	10A, 250V a.c.	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)
Contact Resistance:	<10mΩ	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>3</sup> MΩ	>10 <sup>3</sup> MΩ	>10 <sup>3</sup> MΩ
A.C. Breakdown:	Pole-Pole 4.5kV. Poles-Accessible Parts 4kV	Pole-Pole 5kV. Poles-Panel 10kV	Pole-Pole 5kV. Poles-Panel 5.4kV
Operating Temp.:	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Max. Pin Temp.:		+120°C	+120°C
Withdrawal Force:	10N (Min.) 50N (Max.)		
Mouldings:	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0
Contacts:	Brass, Clean	Brass, Pins Nickel Plated. Tabs, Tin Plated	Brass, Pins Nickel Plated. Tabs, Tin Plated
Approvals:			
Accessories / Notes:	VDE and ENEC approval for black and white versions only.	P.No. 11328, KT0006 (See Pages 150 & 152) VDE and ENEC approval for black versions only.	P.No. 11328 (See Page 152) VDE and ENEC approval for black versions only.
Mating Connectors:	PX0590, PX0595	PX0597	PX0597
<b>RoHS</b>	Compliant	Compliant	Compliant

## Flanged Mount Inlet



PX0690/28

- Two Pin Class II (No Earth Pin)
- 2.8, 4.8, 6.3mm Tabs or Screw Terminals
- 10A, 250V a.c. (15A, 250V a.c. UL & CSA)

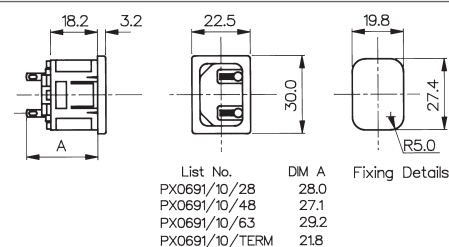


## Snap Fit to Panel Inlet



PX0691/10/28

- Two Pin Class II (No Earth Pin)
- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- 2.8, 4.8, 6.3mm Tabs or Screw Terminals
- 10A, 250V a.c. (15A, 250V a.c. UL & CSA)

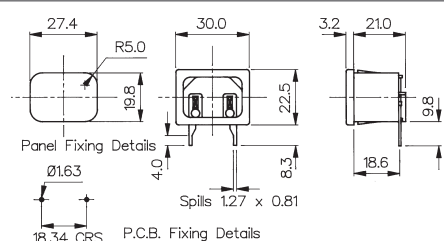


## PC Snap Fit to Panel Inlet



PX0691/10/PC

- Two Pin Class II (No Earth Pin)
- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- PC Spills
- 10A, 250V a.c. (15A, 250V a.c. UL & CSA)



Specifications	PX0690/Term/Col	PX0691/Panel/Term/Col	PX0691/Panel/PC/Col
Fixing(Panel):	Flange	Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)	Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)
Terminations:	/28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab), /TERM (screw)	/28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab), /TERM (screw)	P.C. Spills
Colours:	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)
Max. Rating:	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)
Contact Resistance:	<10mΩ	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>3</sup> MΩ	>10 <sup>3</sup> MΩ	>10 <sup>3</sup> MΩ
A.C. Breakdown:	Pole-Pole 5kV. Poles-Panel 10kV	Pole-Pole 5kV. Poles-Panel 5.4kV	Pole-Pole 5kV. Poles-Panel 5.4kV
Operating Temp. Max. Pin Temp.:	-40°C to +70°C +70°C	-40°C to +70°C +70°C	-40°C to +70°C +70°C
Mouldings:	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0
Contacts:	Brass: Pins, Nickel Plated. Tabs, Tin Plated, Screw Terms, Nickel Plated	Brass: Pins, Nickel Plated. Tabs, Tin Plated, Screw Terms, Nickel Plated	Brass: Pins, Nickel Plated. Spills, Tin Plated
Approvals:			
Accessories / Notes:	P.No. 11328 (See Page 152) VDE and ENEC approval for black versions only.	P.No. 11328 (See Page 152) VDE and ENEC approval for black versions only.	Standard without cover. With cover add /C to P.No. VDE and ENEC approval for black versions only.
Mating Connectors:	PX0587, PX0587/SE, PX0588	PX0587, PX0587/SE, PX0588	PX0587, PX0587/SE, PX0588
RoHS	Compliant	Compliant	Compliant

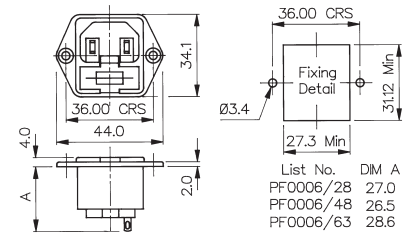


## Flanged Mount Fused Inlet



PF0006/28

- Single Fuse 5 x 20mm
- Two Pin Class II (No Earth Pin)
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.

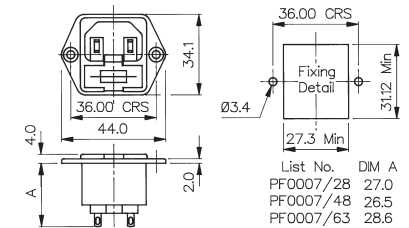


## Flanged Mount Fused Inlet



PF0007/28

- Single Fuse 5 x 20mm (Fuse Contacts Isolated)
- Two Pin Class II (No Earth Pin)
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.

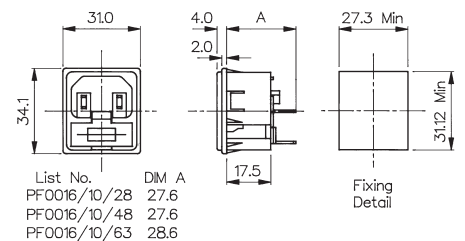





## Snap Fit to Panel Fused Inlet



PF0016/10/28

- Single Fuse 5 x 20mm
- Two Pin Class II (No Earth Pin)
- Fits Panel Sizes 1.0, 1.5, 2.0 or 3.0mm
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.



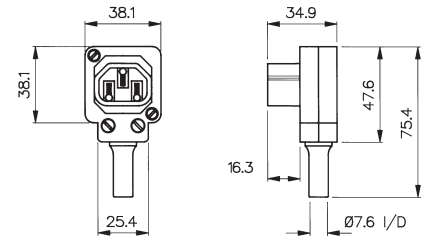
Specifications	PF0006/Term/Col	PF0007/Term/Col	PF0016/Panel/Term/Col
Fixing(Panel):	Flange	Flange	Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)
Terminations:	/28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab)	/28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab)	/28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab)
Colours:	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)
Max. Rating:	10A, 250V a.c.	10A, 250V a.c.	10A, 250V a.c.
Contact Resistance:	<10mΩ (<15mΩ including Fuseholder)	<10mΩ	<10mΩ (<15mΩ including Fuseholder)
Insulation Resistance:	>10 <sup>9</sup> MΩ	>10 <sup>9</sup> MΩ	>10 <sup>9</sup> MΩ
A.C. Breakdown:	Pole-Pole 5.5kV. Poles-Panel 4kV	Pole-Pole 5.5kV. Poles-Panel 4kV	Pole-Pole 5.5kV. Poles-Panel 4kV
Operating Temp. Max. Pin Temp.:	-40°C to +70°C +70°C	-40°C to +70°C +70°C	-40°C to +70°C +70°C
Mouldings:	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0
Contacts:	Brass: Pins, Nickel Plated. Tabs, Tin Plated	Brass: Pins, Nickel Plated. Tabs, Tin Plated	Brass: Pins, Nickel Plated. Tabs, Tin Plated
Approvals:			
Accessories / Notes:	P.No. 11987 (See Page 152) VDE and ENEC approval for black versions only.	P.No. 11987 (See Page 152) (Note: Fuse contacts isolated) VDE and ENEC approval for black versions only.	P.No. 11987 (See Page 152) VDE and ENEC approval for black versions only.
Mating Connectors:	PX0587, PX0587/SE, PX0588	PX0587, PX0587/SE, PX0588	PX0587, PX0587/SE, PX0588
<b>RoHS</b>	Compliant	Compliant	Compliant

Angled Male Connector



PX0685

- Cable Mounting
- Four Position Cable Entry
- Rewirable
- Screw Terminals
- 10A, 250V a.c.

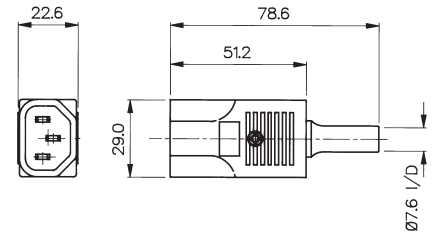


Straight Male Connector



PX0686

- Cable Mounting
- Rewirable
- Screw Terminals
- 10A, 250V a.c.

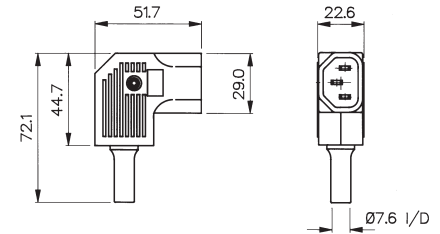


Side Entry Male Connector



PX0686/SE

- Cable Mounting
- Rewirable
- Screw Terminals
- 10A, 250V a.c.



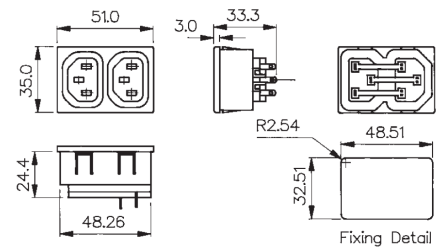
Specifications	PX0685/Col	PX0686/Col	PX0686/SE/Col
Fixing(Panel):	Screw Terminals	Screw Terminals	Screw Terminals
Max. Rating:	10A, 250V a.c.	10A, 250V a.c.	10A, 250V a.c.
Colours:	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)
Contact Resistance:	<10mΩ	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>4</sup> MΩ	>10 <sup>4</sup> MΩ	>10 <sup>4</sup> MΩ
A.C. Breakdown:	Pole-Pole 5.2kV. Poles-Accessible Parts 6kV	Pole-Pole 5kV. Poles-Accessible Parts 5kV	Pole-Pole 5kV. Poles-Accessible Parts 5kV
Operating Temp.	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Withdrawal Force:	10N (Min.) 50N (Max.)	10N (Min.) 50N (Max.)	10N (Min.) 50N (Max.)
Mouldings:	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0
Contacts:	Brass, Nickel Plated.	Brass, Nickel Plated.	Brass, Nickel Plated.
Approvals:			
Accessories / Notes:	Unique octagon module allows choice of 4 cable positions	VDE and ENEC approval for black and white versions only.	VDE and ENEC approval for black and white versions only.
Mating Outlets:	PX0675, PX0695, PX0578, PX0783, PX0793, PX0793/1	PX0675, PX0695, PX0578, PX0783, PX0793, PX0793/1, PX0716, PX0717 & PX0718	PX0675, PX0695, PX0578, PX0783, PX0793, PX0793/1, PX0716, PX0717 & PX0718
<b>RoHS</b>	Compliant	Compliant	Compliant

## Snap Fit To Panel Two Way Outlet



PX0714/2/15/28

- Panel Size 1.5mm
- 2.8mm Solder Tabs
- 10A, 250V a.c.
- (15A, 250V a.c. UL)
- All Terminals Linked

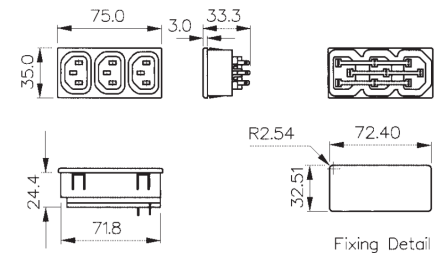


## Snap Fit To Panel Three Way Outlet



PX0714/3/15/28

- Panel Size 1.5mm
- 2.8mm Solder Tabs
- 10A, 250V a.c.
- (15A, 250V a.c. UL)
- All Terminals Linked

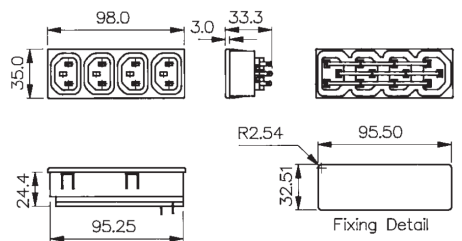





## Snap Fit To Panel Four Way Outlet



PX0714/4/15/28

- Panel Size 1.5mm
- 2.8mm Solder Tabs
- 10A, 250V a.c.
- (15A, 250V a.c. UL)
- All Terminals Linked



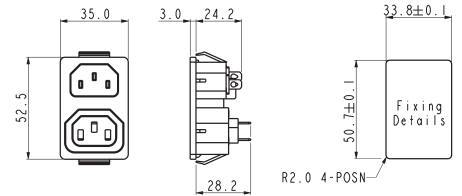
Specifications	PX0714/2/15/28	PX0714/3/15/28	PX0714/4/15/28
Fixing(Panel):	Snap fit /15 (1.5mm)	Snap fit /15 (1.5mm)	Snap fit /15 (1.5mm)
Max. Rating:	10A, 250V a.c. 15A, 250V a.c UL	10A, 250V a.c. 15A, 250V a.c UL	10A, 250V a.c. 15A, 250V a.c UL
Colours:	No suffix (Black)	No suffix (Black)	No suffix (Black)
Operating Temp.	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
Withdrawal Force:	10N (Min.) 50N (Max.)	10N (Min.) 50N (Max.)	10N (Min.) 50N (Max.)
Mouldings:	Glass filled Thermoplastic, UL94V-0	Glass filled Thermoplastic, UL94V-0	Glass filled Thermoplastic, UL94V-0
Contacts:	Plated Copper Alloy	Plated Copper Alloy	Plated Copper Alloy
Approvals:			
Mating Outlets:	PX0686, PX0686/SE, PZ0500, PZ0600	PX0686, PX0686/SE, PZ0500, PZ0600	PX0686, PX0686/SE, PZ0500, PZ0600
RoHS	Compliant	Compliant	Compliant

## Snap Fit to Panel Inlet/ Outlet



PX0716/48

- Inlet/Outlet combination
- Panel Size 1.2mm
- 4.8mm tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)

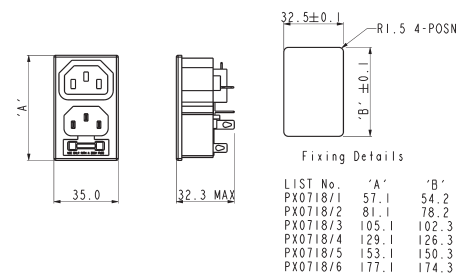




## Snap Fit to Fused Inlet/ Outlet



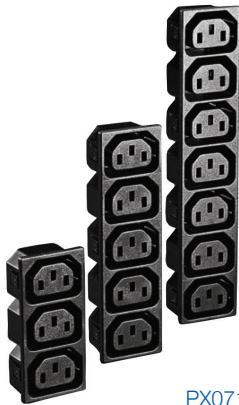
PX0718/x/xx/ST

- Fused Inlet/Outlet combination
- 1-6 outlet versions
- Panel Size 1.5mm
- Terminals:  
inlet: 4.8mm tabs  
outlet: solder tags
- 10A, 250V a.c.  
(15A, 250V a.c. UL)
- All outlet terminals linked,  
common earth throughout.



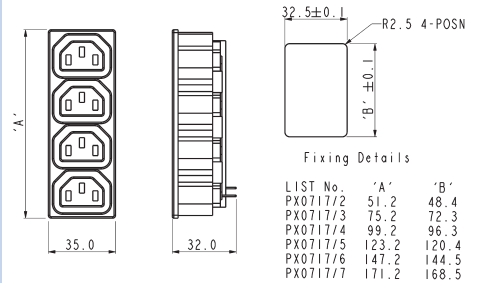
Specifications	PX0716/Termination	PX0718/x/15/Termination
Fixing:	Snap fit 1.2mm accommodation	Snap fit 1.5mm accommodation
Terminations:	/48 (4.8mm tab)	/ST (outlet solder tag, inlet 4.8mm tab)
Max. Rating:	10A, 250V a.c. (UL 15A, 125V a.c.)	10A, 250V a.c. (UL 15A, 250V a.c.)
Insulation Resistance:	>100MΩ (500V d.c., 1 min.)	>100MΩ (500V d.c., 1 min.)
Dielectric Strength:	2kV (50Hz, 1 min.)	2kV (50Hz, 1 min.)
Operating Temp.	-20°C to +70°C	-20°C to +70°C
Max. Pin Temp:	+70°C	+70°C
Mouldings:	Nylon 66, Flammability Rating UL94V-0	Glass filled Thermoplastic, UL94V-0
Contacts:	Brass, Tin Plated	Brass, Tin Plated
Approvals:		
Accessories / Notes:		
Mating With:	PX0587, PX0587/SE, PX0588, PX0686, PX0686/SE	PX0587, PX0587/SE, PX0588, PX0686, PX0686/SE
<b>RoHS</b>	Compliant	Compliant

## Snap Fit to Panel Outlet



PX0717/x/xx/ST

- Snap Fit to Panel
- Panel Size 1.5mm
- Solder Tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL)
- All Terminals Linked

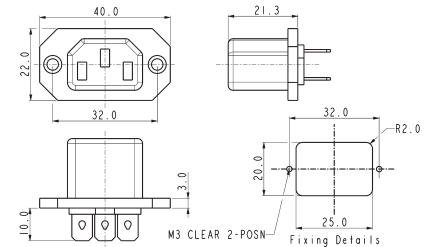




## Flange Mount Outlet



PX0578/63

- Front of Panel Mount
- 6.3mm tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL)



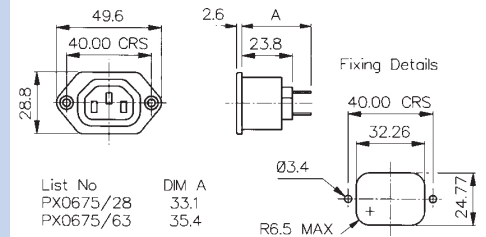
Specifications	PX0717/x/15/Termination	PX0578/Termination
Fixing:	Snap fit 1.5mm accommodation	Flange
Terminations:	/ST (solder)	/63 (6.3mm tab)
Max. Rating:	10A, 250V a.c. (UL 15A, 250V a.c.)	10A, 250V a.c. (UL 15A, 250V a.c.)
Insulation Resistance:	>100MΩ (500V d.c., 1 min.)	>100MΩ (500V d.c., 1 min.)
Dielectric Strength:	2kV (50Hz, 1 min.)	2kV (50Hz, 1 min.)
Operating Temp.	-20°C to +70°C	-20°C to +70°C
Max. Pin Temp:		
Mouldings:	Glass filled Thermoplastic, UL94V-0	Glass filled Thermoplastic, UL94V-0
Contacts:	Brass, Tin plated	Brass, Tin plated
Approvals:		
Accessories / Notes:		
Mating With:	PX0686, PX0686/SE	PX0686, PX0686/SE
<b>RoHS</b>	Compliant	Compliant

## Flange Mount Outlet



PX0675/28

- 2.8mm or 6.3mm Tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA).

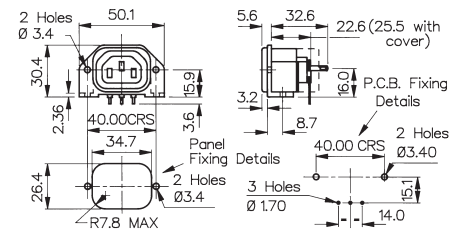




## PC Flange Rear Mount Outlet



PX0675/PC

- PC Spills
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)



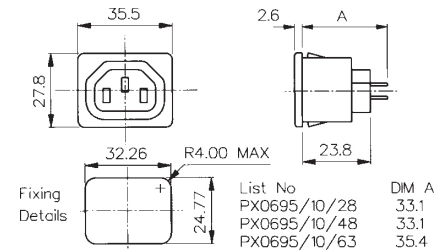
Specifications	PX0675/Term/Col	PX0675/PC/Col
Fixing:	Flange	P.C.B./Flange
Terminations:	/28 (2.8mm solder), /48 (4.8mm tab), /63 (6.3mm tab)	P.C. Spills
Colours:	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)
Max. Rating:	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>4</sup> MΩ	>10 <sup>4</sup> MΩ
A.C. Breakdown:	Pole-Pole 7kV. Poles-Panel 9kV	Pole-Pole 4kV. Poles-Panel 9kV
Operating Temp.	-40°C to +70°C	-40°C to +70°C
Mouldings:	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0
Contacts:	Brass, Tin Plated	Brass, Tin Plated
Approvals:	 <small>UL approvals does not cover 4.8mm tab option</small>	
Accessories / Notes:	P.No. 12075, KT0006, 14228 (See Pages 150-152) VDE and ENEC approval for black versions only.	Standard without cover. With cover add /12599 to P.No., 14228 (see page 151) VDE and ENEC approval for black versions only.
Mates with:	PX0685, PX0686, PX0686/SE	PX0685, PX0686, PX0686/SE
<b>RoHS</b>	Compliant	Compliant

## Snap Fit to Panel Outlet



PX0695/10/28

- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- 2.8 or 6.3mm Tabs
- 10A, 250V a.c. (15A, 250V a.c. UL & CSA)

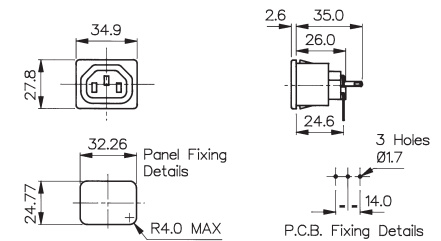


## PC Snap Fit to Panel Outlet



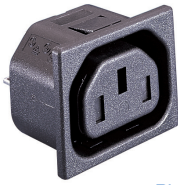
PX0695/10/PC

- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- PC Spills
- 10A, 250V a.c. (15A, 250V a.c. UL & CSA)



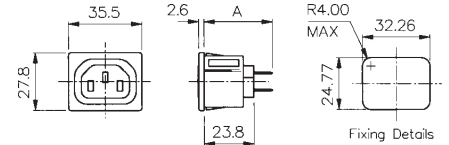
Specifications	PX0695/Panel/Term/Col	PX0695/Panel/PC/Col
Fixing:	Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)	Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)
Terminations:	/28 (2.8mm solder), /63 (6.3mm tab)	P.C. Spills
Colours:	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)
Max. Rating:	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>4</sup> MΩ	>10 <sup>4</sup> MΩ
A.C. Breakdown:	Pole-Pole 7kV. Poles-Panel 9kV	Pole-Pole 4kV. Poles-Panel 9kV
Operating Temp.	-40°C to +70°C	-40°C to +70°C
Mouldings:	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0
Contacts:	Brass, Tin Plated	Brass, Tin Plated
Approvals:		
Accessories / Notes:	P.No. 12075, 14228 (See Page 151-152) VDE and ENEC approval for black versions only.	P.No. 14228 (see page 151) VDE and ENEC approval for black versions only.
Mates with:	PX0685, PX0686, PX0686/SE,	PX0685, PX0686, PX0686/SE,
<b>RoHS</b>	Compliant	Compliant

## Snap Fit to Panel Outlet



PX0783/10/28

- Shuttered
- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)



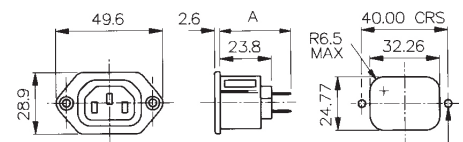
List No	DIM A
PX0783/10/ST	28.2
PX0783/10/28	33.1
PX0783/10/48	33.1
PX0783/10/63	35.4

## Flange Mount Outlet



PX0793/28

- Shuttered
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)



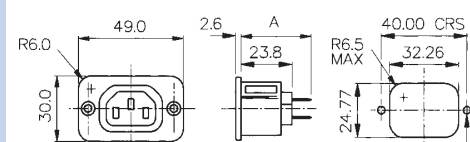
List No	DIM A
PX0793/ST	28.2
PX0793/28	33.1
PX0793/48	33.1
PX0793/63	35.4

## PC Snap Fit to Panel Outlet






PX0793/1/Termination

- Shuttered
- Rectangular Flange Mount Outlet
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)



List No	DIM A
PX0793/1/ST	28.2
PX0793/1/28	33.1
PX0793/1/48	33.1
PX0793/1/63	35.4

Specifications	PX0783/Panel/Term/Col	PX0793/Panel/PC/Col	PX0793/1/Term/Col
Fixing:	Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)	Flange	Rectangular Flange
Terminations:	/28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab), /ST (solder)	/28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab), /ST (solder)	/28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab), /ST (solder)
Colours:	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)
Max. Rating:	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)
Contact Resistance:	<10mΩ	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>4</sup> MΩ	>10 <sup>4</sup> MΩ	>10 <sup>4</sup> MΩ
A.C. Breakdown:	Pole-Pole 7kV. Poles-Panel 9kV	Pole-Pole 7kV. Poles-Panel 9kV	Pole-Pole 7kV. Poles-Panel 9kV
Operating Temp.	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Mouldings:	Nylon, Flammability Rating UL 94V-0	Nylon, Flammability Rating UL 94V-0	Nylon, Flammability Rating UL 94V-0
Contacts:	Brass, Tin Plated	Brass, Tin Plated	Brass, Tin Plated
Approvals:	 UR approvals does not cover 4.8mm tab option	 UR approvals does not cover 4.8mm tab option	 US approvals only covers /ST versions
Accessories / Notes:	P.No. 12075, 14228 (See Page 151-152) VDE and ENEC approval for black versions only.	P.No. 12075, KT0006, 14228 (See Pages 150-152) VDE and ENEC approval for black versions only.	P.No. 12075, KT0006, 14228 (See Pages 150-152) VDE and ENEC approval for black versions only.
Mates with:	PX0685, PX0686, PX0686/SE	PX0685, PX0686, PX0686/SE	PX0685, PX0686, PX0686/SE
RoHS	Compliant	Compliant	Compliant

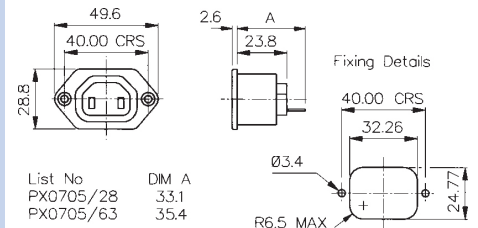


## Flange Mount Outlet



PX0705/28

- Two Pin Class II (No Earth Pin)
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)

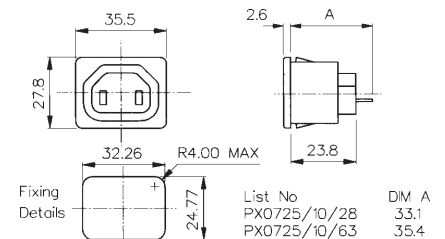




## Snap Fit to Panel Outlet



PX0725/10/28

- Two Pin Class II (No Earth Pin)
- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)



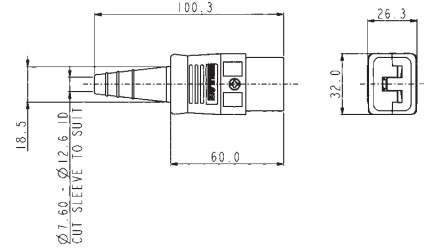
Specifications	PX0705/Term/Col	PX0725/Panel/Term/Col
Fixing:	Flange	Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)
Terminations:	/28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab)	/28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab)
Colours:	No suffix (Black), /WH (White), /GY (Grey)	No suffix (Black), /WH (White), /GY (Grey)
Max. Rating:	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)	10A, 250V a.c. (UL & CSA 15A, 250V a.c.)
Contact Resistance:	<10mΩ	<10mΩ
Insulation Resistance:	>10 <sup>4</sup> MΩ	>10 <sup>4</sup> MΩ
A.C. Breakdown:	Pole-Pole 4kV. Poles-Panel 9kV	Pole-Pole 7kV. Poles-Panel 9kV
Operating Temp.	-40°C to +70°C	-40°C to +70°C
Mouldings:	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0
Contacts:	Brass, Tin Plated	Brass, Tin Plated
Approvals:	 UR approvals does not cover 4.8mm tab option	 UR approvals does not cover 4.8mm tab option
Accessories / Notes:	P.No. 12075 (See Page 152) VDE and ENEC approval for black versions only.	P.No. 12075 (See Page 152) VDE and ENEC approval for black versions only.
RoHS	Compliant	Compliant

## C19 Straight Female Cable Connector



PX0599

- Rewirable Screw Terminals
- 16A, 250V a.c.  
(20A, 250V a.c. UL and CSA)
- Wire Sizes (max);  
3 x 2.5mm<sup>2</sup>, 3 x 12AWG
- Overall cable diameter up to  
12mm

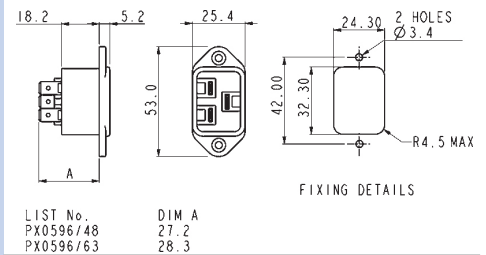


## C20 Flange Mount Inlet



PX0596

- 6.3mm or 4.8mm Tabs
- 16A, 250V a.c.  
(20A, 250V a.c. UL and CSA)

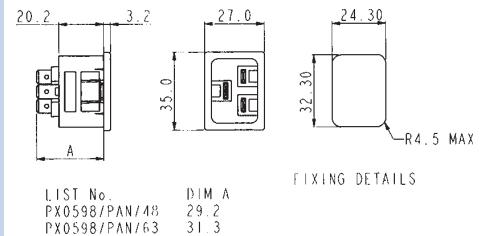





## C20 Snap Fit to Panel Inlet



PX0598

- Fits panel sizes 1, 1.5, 2.0  
or 3.0mm
- 6.3mm or 4.8mm Tabs
- 16A, 250V a.c.  
(20A, 250V a.c. UL and CSA)



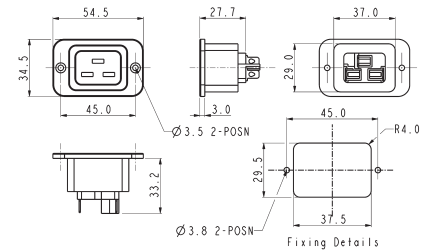
Specifications	PX0599	PX0596/Termination	PX0598/Panel/Termination
Fixing (Panel):		Flange	Snap Fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)
Terminations:	Screw Terminals	/63 (6.3mm tab), /48 (4.8mm tab)	/63 (6.3mm tab), /48 (4.8mm tab)
Max. Rating:	16A, 250V ac 20A, 250V ac UL and CSA	16A, 250V ac 20A, 250V ac UL and CSA	16A, 250V ac 20A, 250V ac UL and CSA
Insulation Resistance:	>5MΩ	>10 <sup>6</sup> MΩ	>10 <sup>6</sup> MΩ
Dielectric Strength Between contacts:	1.5kV ac	1.5kV ac	1.5kV ac
Between contacts & accessible surfaces:	3kV ac	3kV ac	3kV ac
Operating Temp. Range:	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Max. Pin Temp.:		70°C	70°C
Withdrawal Force:	15N Min, 60N Max.		
Mouldings:	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0	Nylon, Flammability Rating UL 94V-0
Contacts:	Brass, Clean	Pins: Brass, Nickel Plated Tabs: Brass, Tin Plate	Pins: Brass, Nickel Plated Tabs: Brass, Tin Plated
Approvals:			
Mating Connectors:	C20 Inlets; PX0596 Flange and PX0598 Snapfit	PX0599 Rewirable Connector	PX0599 Rewirable Connector
Accessories:		KT0012, P.No. 14064 (see Pages 150 & 152)	P.No. 14064 (see Page 152)
RoHS	Compliant	Compliant	Compliant

## Flange Mount Outlet



PX0591/63

- Flange Mounting
- 6.3mm Tabs
- 16A, 250V a.c.  
(20A, 250V a.c., UL & CSA)

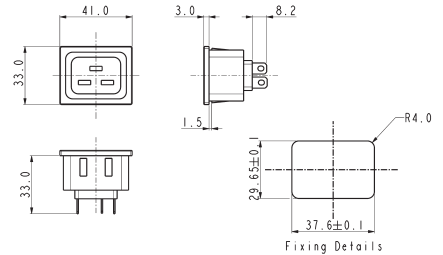




## Snap Fit to Panel Outlet



PX0592/15/63

- Snap Fit to Panel
- Panel Size 1.5mm
- 6.3mm Tabs
- 16A, 250V a.c.  
(20A, 250V a.c., UL & CSA)



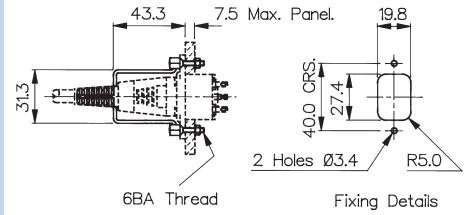
Specifications	PX0591/Termination	PX0592/15/Termination
Fixing (Panel):	Flange	Snap fit, 1.5mm accommodation
Terminations:	/63 (6.3mm tab)	/63 (6.3mm tab)
Max. Rating:	16A, 250V a.c. (UL & CSA 20A, 250V a.c.)	16A, 250V a.c. (UL & CSA 20A, 250V a.c.)
Insulation Resistance:	>100MΩ (250V, 1 min.)	>100MΩ (250V, 1 min.)
Dielectric Strength		
Between contacts:	1.5kV ac	1.5kV ac
Between contacts & accessible surfaces:	3kV ac	3kV ac
Operating Temp. Range:	-40°C to +70°C	-40°C to +70°C
Max. Pin Temp.:		
Withdrawal Force:		
Mouldings:	P.B.T., Flammability Rating UL94V-0	Nylon, Flammability Rating UL94V-0
Contacts:	Brass, Tin Plated	Brass, Tin Plated
Approvals:		
Accessories:		
<b>RoHS</b>	Compliant	Compliant

Retaining Clip

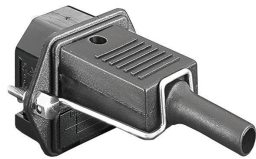


KT0006  
(Shown with PX0580 & PX0587)

- Prevents Accidental Removal
- Fits flanged inlets

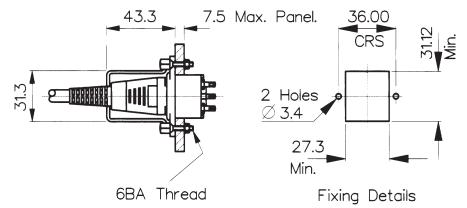


Retaining Clip



KT0009  
(Shown with PF0001 & PX0587)

- Prevents Accidental Removal
- Fits fused flanged inlets

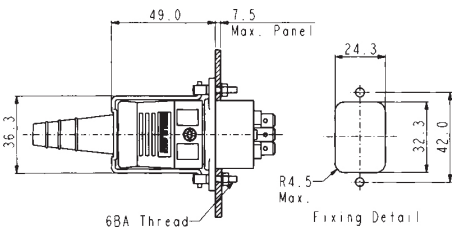


Retaining Clip



KT0012  
(Shown with PX0596 & PX0599)

- Prevents Accidental Removal
- For use with PX0596 flanged inlet and PX0599 connector



Specifications

KT0006

Retaining Clip to prevent accidental removal of connector.

Fits: PX0580 + PX0587 PX0590 + PX0597  
PX0690 + PX0587  
PX0675 + PX0686  
PX0793 + PX0686  
PX0793/1 + PX0686

KT0009

Retaining Clip to prevent accidental removal of connector.

Fits: PF0001+ PX0587  
PF0001/PC +PX0587  
PF0002 + PX0587  
PF0030 + PX0587

KT0012

Retaining Clip to prevent accidental removal of connector.

Fits: PX0596 + PX0599

Material:

Clip: Stainless Steel, other parts Brass, Nickel Plated

Clip: Stainless Steel, other parts Brass, Nickel Plated

Clip: Stainless Steel, other parts Brass, Nickel Plated

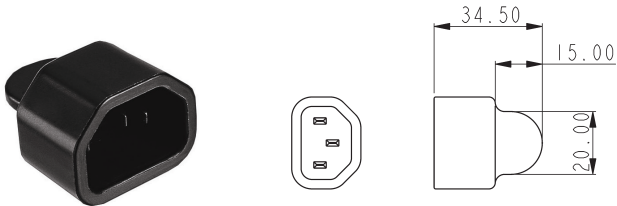
RoHS

Compliant

Compliant

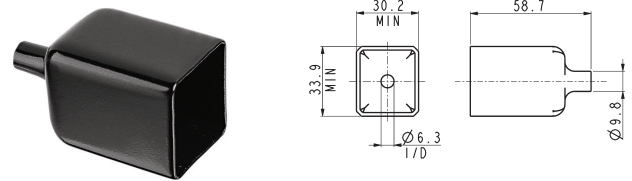
Compliant

Blanking Cover



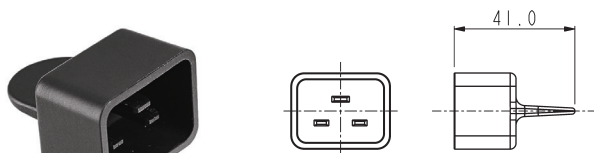
PNo 14228

Insulation Boot



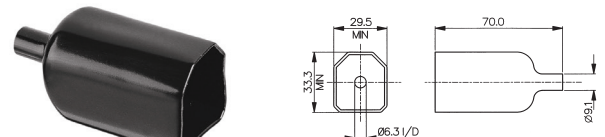
PNo 14340

Blanking Cover



PNo 14277

Insulation Boot



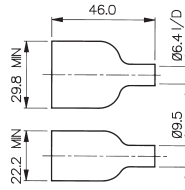
PNo 14317

- Blanking covers
- Protects Front of Outlet Connector
- Protects Against Accidental Electric Shock

- PVC Insulation Boots
- Protects Rear of Connector
- Protects Against Accidental Electric Shock

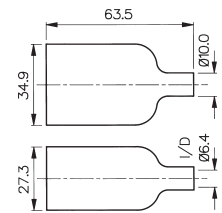
Specifications	P.No. 14228	P.No. 14277	P.No. 14340	P.No. 14317
	Blanking cover for PX0578, PX0675, PX0695, PX0783, PX0793, PX0716, PX0717, PX0718	Blanking cover for PX0591, PX0592,	Insulation boot for PS20, PS21, PS25, PS25,	Insulation boot for PF0030, PF0033 (except /PC versions)
Operating Temp:	-40°C to +70°C	-40°C to +70°C	-20°C to +60°C	-20°C to +60°C
Max. Working Voltage:	250V a.c.	250V a.c.	250V a.c.	250V a.c.
Flash Tested:	2kV a.c.	2kV a.c.	2kV a.c.	2kV a.c.
Material:	Nylon	Nylon	P.V.C.	P.V.C.
Flammability Rating:	UL94V-0	UL94V-0	UL94V-0	UL94V-0
<b>RoHS</b>	Compliant	Compliant	Compliant	Compliant

Insulation Boot



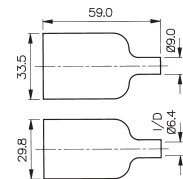
PNo 11328

Insulation Boot



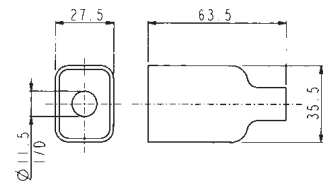
PNo 12075

Insulation Boot



PNo 11987

Insulation Boot



PNo 14064

- PVC Insulation Boots
- Protects Rear of Connector
- Protects Against Accidental Electric Shock

Specifications	P.No. 11328	P.No. 11987	P.No. 12075	P.No. 14064
	Insulation boot for PX0575, PX0579, PX0580 PX0590, PX0595	Insulation boot for PF range PF0001, PF0002, PF0006, PF0007, PF0011, PF0016 (Except /PC versions)	Insulation boot for PX0675, PX0695, PX0705, PX0725, PX0783, PX0793, PX0793/1 (Except /PC versions)	Insulation boot for PX0596, PX0598
Operating Temp:	-20°C to +60°C	-20°C to +60°C	-20°C to +60°C	-20°C to +60°C
Max. Working Voltage:	250V a.c.	250V a.c.	250V a.c.	250V a.c.
Flash Tested:	2kV a.c.	2kV a.c.	2kV a.c.	2kV a.c.
Material:	P.V.C.	P.V.C.	P.V.C.	P.V.C.
Flammability Rating:	UL94V-0	UL94V-0	UL94V-0	UL94V-0
<b>RoHS</b>	Compliant	Compliant	Compliant	Compliant

Distribution Units have combinations of **four, five or six outlets** together with **neon indicator**, fuse and switch options. The **three sizes** are available in various combinations and, other than the compact version, all have shuttered outlets. The larger enclosed versions are also available with **EMI filtering**.

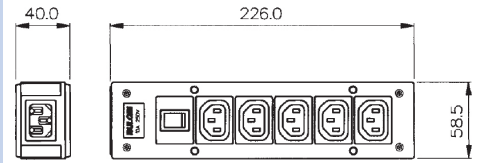


IEC Distribution Units



PXD301/050/01/1

- Five Shuttered Outlets
- 5 x 20mm Fuseholder
- Neon Indicator
- Filtered or Non-filtered
- EN60320 Inlet
- 10A, 250V a.c.

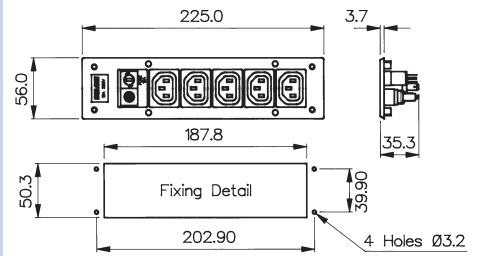


IEC Panel Mount Distribution Unit



PXD100/050/01/1

- Five Shuttered Outlets
- 5 x 20mm Fuseholder
- Neon Indicator
- Screw Fit to Panel
- 10A, 250V a.c.

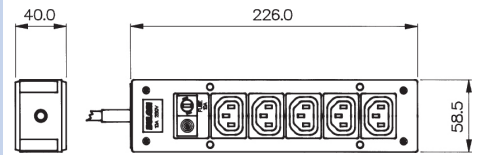


IEC Distribution Unit



PXD303/050/01/1  
 PXD306/050/01/1

- Five Shuttered Outlets
- 5 x 20mm Fuseholder
- Neon Indicator
- Filtered or Non-filtered
- 2 Metre Cable with BS1363 Plug
- 10A, 250V a.c.



Part No.	Inlet	Outlet	EMI Filter	Neon Indicator	Fuse	Illuminated Switch	Approvals
Panel Style:							
PXD100/050/01/1		5 Shuttered		1	1		Ⓢ
Box Style:							
PXD301/050/01/1	1	5 Shuttered		1	1		
PXD301/050/07/1	1	5 Shuttered				Red	
PXD301/050/08/1	1	5 Shuttered				Green	
PXD301/550/01/1	1	5 Shuttered	●	1	1		
PXD301/550/07/1	1	5 Shuttered	●			Red	
PXD301/550/08/1	1	5 Shuttered	●			Green	
PXD303/050/01/1	2m cable with BS1363 plug	5 Shuttered		1	1		
PXD303/050/07/1	2m cable with BS1363 plug	5 Shuttered				Red	
PXD303/050/08/1	2m cable with BS1363 plug	5 Shuttered				Green	
PXD303/550/01/1	2m cable with BS1363 plug	5 Shuttered	●	1	1		
PXD303/550/07/1	2m cable with BS1363 plug	5 Shuttered	●			Red	
PXD303/550/08/1	2m cable with BS1363 plug	5 Shuttered	●			Green	
PXD306/050/01/1	2m cable with CEE7 Sheet VII plug	5 Shuttered		1	1		Ⓢ

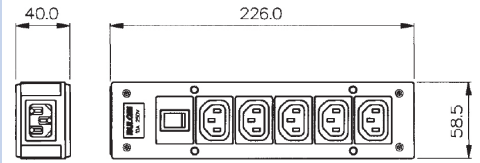


IEC Distribution Unit



PXD301/050/07/1

- Five Shuttered Outlets
- Illuminated Switch
- Filtered or Non-Filtered
- EN60320 Inlet
- 10A, 250V a.c.

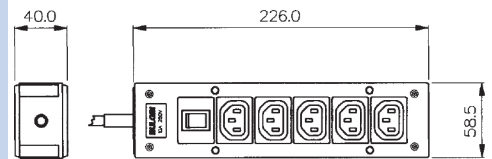


IEC Distribution Unit



PXD303/050/08/1

- Five Shuttered Outlets
- Illuminated Switch
- Filtered or Non-Filtered
- 2m Cable and BS1363 plug
- 10A, 250V a.c.



**Specifications**

Mouldings:	Thermoplastic
Housing:	ABS
Connectors:	Nylon
Contacts:	Outlets: Brass, Tin Plated Inlets: Brass, Nickel Plated
Voltage Rating:	250V a.c. 50/60Hz
Current Rating:	10A
Proof Voltage:	2kV
Temp. Range:	-5°C to +60°C
Mating Connectors:	PX0686, PX0686/SE
<b>RoHS</b>	Compliant

**Filter**

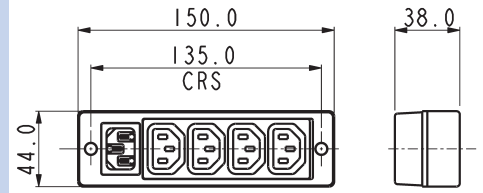
Max. Earth Leakage: Current:	<0.35mA (at 250V, 50Hz)
Capacitor	2 x 2.2nF (Y), 1 x 15nF (X)
Inductance:	2 x 0.35mH
Fuse:	5 x 20mm, 10A (ceramic HRC type, IEC 127)

Compact Distribution Unit



PXD200

- Four Outlets
- EN60320 Inlet
- 10A, 250V ac
- cULus Approval

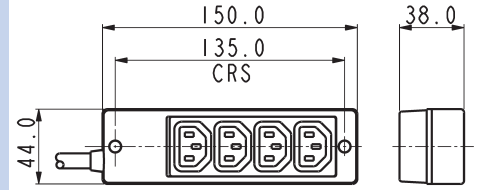


Compact Distribution Unit



PXD201

- Four Outlets
- 2m Cable with BS1363 connector, Schuko connector (CEE7) or NEMA 5/15 connector
- 10A, 250V a.c.



**Specifications**

Mouldings:	Thermoplastic
Housing:	ABS, UL94V-0
Connectors:	BS1363, CEE7, NEMA 5/15
Contacts:	Outlets: Brass, Tin Plated Inlets: Brass, Nickel Plated
Voltage Rating:	250V a.c. 50/60Hz
Current Rating:	10A
Proof Voltage:	2kV
Temp. Range:	-5°C to +60°C
Approvals	cULus Listed (PXD200)
<b>RoHS</b>	Compliant

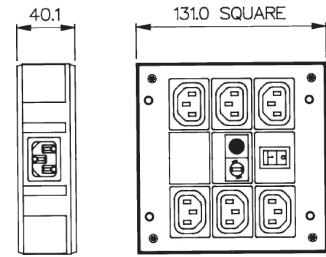
Part No.	Inlet	Outlet
PXD200	1	4
PXD201	2m cable with BS 1363 plug	4
PXD201/1	2m cable with Schuko plug	4
PXD201/2	2m cable with NEMA 5/15	4

Compact Distribution Unit



PXD701/061/10/1

- Six Shuttered Outlets
- 5 x 20mm Fuseholder
- Filtered or Non Filtered
- Switch, Fuse, Neon Indicator
- With IEC Inlet
- 10A, 250V a.c.

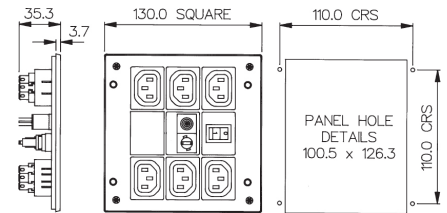


IEC Mount Distribution Unit



PXD500/061/10/1

- Six Shuttered Outlets
- 5 x 20mm Fuseholder
- Switch, Fuse, Neon Indicator
- Screw Fit to Panel
- 10A, 250V

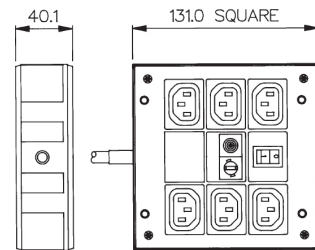


Compact Distribution Unit



PXD703/061/10/1  
 PXD706/061/10/1

- Six Shuttered Outlets
- 5 x 20mm Fuseholder
- Filtered or Non Filtered
- Switch, Fuse, Neon Indicator
- 2 Metre Cable with BS1363 or CEE7 Plug
- 10A, 250V



Specifications		Part No.	Inlet	Outlet	EMI Filter	Switch	Fuse	Neon Indicator
Mouldings:	Thermoplastic	Panel Style: PXD500/061/10/1		6 Shuttered		1	1	1
Housing:	ABS	Box Style: PXD701/061/10/1	1	6 Shuttered		1	1	1
Connectors:	Nylon	PXD701/561/10/1	1	6 Shuttered	●	1	1	1
Contacts:	Outlets: Brass, Tin Plated Inlets: Brass, Nickel Plated	PXD703/061/10/1	2m cable with BS 1363 plug	6 Shuttered		1	1	1
Voltage Rating:	250V a.c. 50/60Hz	PXD703/561/10/1	2m cable with BS 1363 plug	6 Shuttered	●	1	1	1
Current Rating:	10A	PXD706/061/10/1	2m cable with CEE7 Sheet VII plug	6 Shuttered		1	1	1
Proof Voltage:	2kV							
Temp. Range:	-5°C to +60°C							
<b>RoHS</b>	Compliant							

**Filter**

Max. Earth Leakage Current:	<0.35mA (at 250V, 50Hz)
Capacitor	2 x 2.2nF (Y), 1 x 15nF (X)
Inductance:	2 x 0.35mH
Fuse:	5 x 20mm, 10A (ceramic HRC type, IEC 127)



With over 26,000 combinations Bulgin's mains power entry modules offer a very adaptable and flexible solution to panel design. Power entry modules allow combinations of mains inlets and outlets, filtered inlets, switches, fuseholders, voltage selectors and indicators mounted in either horizontal or vertical format bezels ready for quick snap-fit assembly. The compact design occupies the minimum of panel area and a single rectangular mounting hole, offering easy installation for this mains power entry module.

Our range offers a flange fixing alternative for designers who prefer the security of screw fixing. All types and variations are available through Bulgin's extensive distribution network.

### Components used in Power Entry Modules.

**Note: Components are Approved Individually (where applicable). Please see individual component pages for full specifications.**

### IEC Connectors Fuseholders and Voltage Selectors

Type	Description	Rating	Approvals
DX0928	Neon Indicator	110V or 250V a.c./d.c. working	
FX0359	5 x 20mm Fuseholder	Max. rating 10A. 250V See Page 192	
PF0011	C14 Power Inlet with Integral 5 x 20mm Fuseholder	Max. rating 10A. 250V a.c. See Page 136	
PF0033	C14 Power Inlet with Integral twin 5 x 20mm Fuseholder	Max. rating 10A. 250V a.c. See Page 137	
PX0575	C14 Power Inlet, Cold condition	Max. rating 10A. 250V a.c. See Page 132	
PX0595	C16 Power Inlet, Hot Condition	Max. rating 10A. 250V a.c. See Page 138	
PX0695	Sheet F Power Outlet	Max. rating 10A. 250V a.c. See Page 145	
PX0783	Sheet F Shuttered Power Outlet	Max. rating 10A. 250V a.c. See Page 146	
PX0598	C20 Power Inlet	Max. rating 16A, 250V a.c. See Page 148	
VS0001	Voltage Selector marked 120/240V	Max. rating 6.3A. 120/240V a.c. See Page 114	



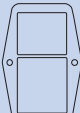
\*Filtered options for 6.3mm tag versions only

### Switches and Indicators

No Poles	Illumination	Current Ratings	Circuit	Approvals
Single Pole	Non-illuminated	Max. rating 16A Resistive, 4A Inductive, 250Vac.		
	High Inrush	Max. rating 16A Resistive, 4A Inductive, 250Vac. Inrush current, 150A to IEC65.		
	Illuminated	Max. rating 16A Resistive, 4A Inductive, 250Vac.		
Double Pole	Non-illuminated	Max. rating 16A Resistive, 4A Inductive, 250Vac.		
	High Inrush	Max. rating 16A Resistive, 4A Inductive, 250Vac. Inrush current, 150A to IEC65.		
	Illuminated	Max. rating 16A Resistive, 4A Inductive, 250Vac. 250Vac Neon.		
For Mini Bezel: Single Pole	Non-illuminated	Max. rating 10A Resistive, 4A Inductive, 250Vac.		
	Illuminated	Max. rating 10A Resistive, 4A Inductive, 250Vac. 250Vac Neon.		
Double Pole	Non-illuminated	Max. rating 10A Resistive, 4A Inductive, 250Vac.		
	High Inrush	Max. rating 10A Resistive, 4A Inductive, 250Vac. Inrush current, 85A to EN61058-1.		
	Illuminated	Max. rating 10A Resistive, 4A Inductive, 250Vac. 250Vac Neon.		
Indicator		250Vac neon lamp connected internally to terminals.		

**RoHS** Power Entry Module range and all components are compliant

## Overview of Power Entry Modules

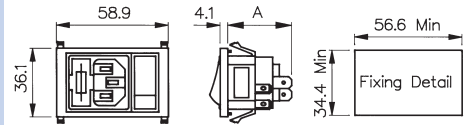
Style	Inlets				Outlets Sheet F	Inlet/ Outlet Combinations	
	C14	C14 Fused	C16	C20		C14	C14 Fused
Snap to Panel Vertical  	With Single Pole switch Page 163  With other components Pages 164, 165, 166	With Single Pole switch Page 161  With Double Pole Switch Page 162	With Single Pole switch Page 163  With other components Pages 164, 165, 166	With Single Pole switch Page 167	With Single Pole switch Page 169	With other components Page 168	
Snap to Panel Horizontal  	Mini Bezel With Single Pole Switch Page 175  Mini Bezel With Double Pole Switch Page 175	With Single Pole switch Page 170  With Double Pole Switch Page 171				With Single Pole switch Page 177	With Double Pole switch Page 173  No additional components Page 174
Flange Mount - Vertical  		With Single Pole switch Page 176  With Double Pole switch Page 177					

Vertical Module Arrangement



BZV01/Z0000/01

- Fused Inlet with 2.8mm or 6.3mm tags
- Single Pole Switch Variations
- Filtered Inlet Option
- Options of I/O marked switches



BZV01/\*\*\*\*\*/\*\* } A = 59.7 With Filter  
 BZV02/\*\*\*\*\*/\*\* } A = 27.4 Without Filter  
 BZV15/\*\*\*\*\*/\*\* } A = 59.7 With Filter  
 BZV16/\*\*\*\*\*/\*\* } A = 37.9 Without Filter  
 Panel Thickness. 1.0, 1.5, 2.0, 3.0mm.

How to order -



**Type of Inlet / Outlet**

Single Fused C14 Power Inlet (cold condition),  
6.3 or 2.8mm tabs:  
01 = PF0011/63  
02 = PF0011/28

Twin Fused C14 Power Inlet (cold condition),  
6.3 or 2.8mm tabs:  
15 = PF0033/63  
16 = PF0033/28

**Filtered or Non Filtered Inlet**

Z0000 = Non Filtered  
Axxxx = Standard

For Filtered inlet use 6th to 9th characters from filter ordering code see pages 179 -180  
E.g. BZV01/A0620/01

**Filtered or Non Filtered Inlet**

Single Pole Switch:  
01 = S.P. Switch

Single Pole Neon Switch:  
02 = S.P. Red Neon Switch  
08 = S.P. Green Neon Switch

Neon Indicator:  
03 = Red Neon Indicator

Single Pole High Inrush Switch:  
46 = S.P. High Inrush Switch

Single Pole Switch Marked I/O:  
69 = S.P. Switch (I/O)

Single Pole Neon Switch Marked (I/O):  
71 = S.P. Red Neon Switch (I/O)  
74 = S.P. Green Neon Switch (I/O)

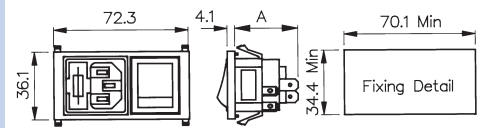
Single Pole High Inrush Switch Marked (I/O):  
98 = S.P. High Inrush Switch (I/O)

## Vertical Module Arrangement



BZV01/Z0000/10

- Fused Inlet with 2.8mm or 6.3mm tabs
- Double Pole Switch or Indicator Variations
- Filtered Inlet Option
- Options of I/O marked switches



BZV01/\*\*\*\*\*/\*\* } A = 59.7 With Filter  
 BZV02/\*\*\*\*\*/\*\* } A = 27.4 Without Filter  
 BZV15/\*\*\*\*\*/\*\* } A = 59.7 With Filter  
 BZV16/\*\*\*\*\*/\*\* } A = 37.9 Without Filter  
 Panel Thickness: 1.0, 1.5, 2.0, 3.0mm.

## How to order -

**BZV XX****XXXXX****XX****Type of Inlet / Outlet**

Single Fused C14 Power Inlet (cold condition),  
6.3 or 2.8mm tabs:  
01 = PF0011/63  
02 = PF0011/28

Twin Fused C14 Power Inlet (cold condition),  
6.3 or 2.8mm tabs:  
15 = PF0033/63  
16 = PF0033/28

**Filtered or Non Filtered Inlet**

Z0000 = Non Filtered

Axxxx = Standard

For Filtered inlet use 6th to 9th characters from filter  
ordering code see pages 179-180  
E.g. BZV01/A0620/10

**Combination of Other Components**

Neon Indicator:  
D3 = Red Neon Indicator

Double Pole Switch:  
10 = D.P. Switch

Double Pole Neon Switch:  
11 = D.P. Red Neon Switch  
12 = D.P. Green Neon Switch

Double Pole High Inrush Switch:  
13 = D.P. High Inrush Switch

Double Pole Switch Marked I/O:  
70 = D.P. Switch (I/O)

Double Pole Neon Switch Marked (I/O):  
76 = D.P. Red Neon Switch (I/O)  
77 = D.P. Green Neon Switch (I/O)

Double Pole High Inrush Switch Marked  
(I/O):

78 = D.P. High Inrush Switch (I/O)  
B1 = D.P. High Inrush Green Neon Switch  
(I/O)

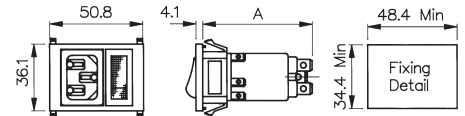


## Vertical Module Arrangement



BZV03/Z0000/02

- Inlet with 2.8mm or 6.3mm tags
- Single Pole Switch or Neon Indicator Variations
- Filtered Inlet Option
- Options of I/O marked switches
- Non Fused



BZV03, BZV04/\*\*\*\*/\*\* A = 62.5 With Filter  
28.1 Without Filter

BZV05, BZV06/\*\*\*\*/\*\* A = 28.1

Panel Thickness. 1.0, 1.5, 2.0, 3.0mm.

## How to order -

**BZV XX****XXXXX****XX****Type of Inlet / Outlet**

C14 Power Inlet (cold condition), 6.3 or 2.8mm tabs:

03 = PX0575/63

04 = PX0575/28

C16 Power Inlet (hot condition), 6.3 or 2.8mm tabs:

05 = PX0595/63

06 = PX0595/28

Please note type 05 and 06 are not available in filtered version

**Filtered or Non Filtered Inlet**

Z0000 = Non Filtered

Axxxx = Standard

For Filtered inlet use 6th to 9th characters from filter ordering code see page 178  
E.g. BZV03/A0120/02

**Combination of Other Components**

Single Pole Switch:  
01 = S.P. Switch

Single Pole Neon Switch:  
02 = S.P. Red Neon Switch  
08 = S.P. Green Neon Switch

Neon Indicator:  
03 = Red Neon Indicator  
Single Pole High Inrush Switch:  
46 = S.P. High Inrush Switch

Single Pole Switch Marked I/O:  
69 = S.P. Switch (I/O)

Single Pole Neon Switch Marked (I/O):  
71 = S.P. Red Neon Switch (I/O)  
74 = S.P. Green Neon Switch (I/O)

Single Pole High Inrush Switch Marked (I/O):

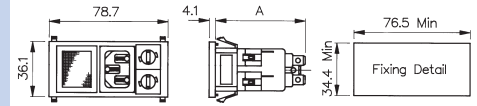
98 = S.P. High Inrush Switch (I/O)

## Vertical Module Arrangement



BZV03/Z0000/07

- ⬡ Inlet with 2.8mm or 6.3mm tags
- ⬡ Double Pole Switch/  
Fuseholder/Indicator/  
Voltage Selectors/  
Blanking Plate
- ⬡ Filtered Inlet Option
- ⬡ Options of I/O marked switches



Panel Thickness: 1.0, 1.5, 2.0, 3.0mm.

BZV03, BZV04/\*\*\*\*/\*\* A = 62.5 With Filter  
39.0 Without Filter

BZV05, BZV06/\*\*\*\*/\*\* A = 39.0

## How to order -

BZV XX

/ XXXXX

/ XX

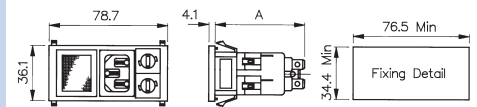
Type of Inlet / Outlet	Filtered or Non Filtered Inlet	Combination of Other Components	
C14 Power Inlet (cold condition), 6.3 or 2.8mm tabs:	Z0000 = Non Filtered Axxxx = Standard	Twin Fuseholder and Double Pole Switch: 05 = 2 x FX0359 + D.P. Switch	Voltage Selector, Neon Indicator and Double Pole Switch 25 = 1 x VS0001 + 1 x DX0928/110V/Red + D.P. Switch
03 = PX0575/63 04 = PX0575/28	For Filtered inlet use 6th to 9th characters from filter ordering code see page 178 E.g. BZV03/A0120/07	Twin Fuseholder and Double Pole Neon Switch: 06 = 2 x FX0359 + D.P. Red Neon Switch 09 = 2 x FX0359 + D.P. Green Neon Switch 19 = 2 x FX0359 + D.P. Red Neon Switch 125V	26 = 1 x VS0001 + 1 x DX0928/110V/Green + D.P. Switch 27 = 1 x VS0001 + 1 x DX0928/250V/Red + D.P. Switch 28 = 1 x VS0001 + 1 x DX0928/250V/Green + D.P. Switch
C16 Power Inlet (hot condition), 6.3 or 2.8mm tabs:		Twin Fuseholder and Neon Indicator: 07 = 2 x FX0359 + Red Neon Indicator	Voltage Selector, Neon Indicator and Double Pole High Inrush Switch: 29 = 1 x VS0001 + 1 x DX0928/250V/Red + D.P. High Inrush Switch 30 = 1 x VS0001 + 1 x DX0928/250V/Green + D.P. High Inrush Switch
05 = PX0595/63 06 = PX0595/28		Voltage Selector, Fuseholder and Double Pole Switch: 15 = 1 x VS0001 + 1 x FX0359 + Double Pole switch	Fuseholder, Neon Indicator and Double Pole Switch 31 = 1 x FX0359 + 1 x DX0928/110V/Red + D.P. Switch 32 = 1 x FX0359 + 1 x DX0928/110V/Green + D.P. Switch 33 = 1 x FX0359 + 1 x DX0928/250V/Red + D.P. Switch 34 = 1 x Fx0359 + 1 x DX0928/250V/Green + D.P. Switch
Please note type 05 and 06 are not available in filtered version		Voltage Selector, Fuseholder and Double Pole Neon Switch: 16 = 1 x VS0001 + 1 x FX0359 + D.P. Red Neon Switch 18 = 1 x VS0001 + 1 x FX0359 + D.P. Green Neon Switch	Fuseholder, Neon Indicator and Double Pole High Inrush Switch: 35 = 1 x FX0359 + 1 x DX0928/250V/Red + D.P. High Inrush Switch 36 = 1 x FX0359 + 1 x DX0928/250V/Green + D.P. High Inrush Switch
		Voltage Selector, Fuseholder and Neon Indicator: 17 = 1 x VS0001 + 1 x FX0359 + Red Neon Indicator	Fuseholder, Blanking Plate and Double Pole High Inrush Neon Switch: 47 = 1 x FX0359 + 1 x Blanking Plate (Right) + D.P. High Inrush Green Neon Switch
		Twin Fuseholder and Double Pole High Inrush Switch: 20 = 2 x FX0359 + D.P. High Inrush Switch	Fuseholder, Blanking Plate and Double Pole Switch: 48 = 1 x FX0359 + 1 x Blanking Plate (Right) + D.P. Switch
		Twin Fuseholder and Double Pole High Inrush Neon Switch: 21 = 2 x FX0359 + 1 x D.P. High Inrush Green Neon Switch 22 = 2 x FX0359 + 1 x D.P. High Inrush Red Neon Switch	

## Vertical Module Arrangement



BZV03/Z0000/07

- Inlet with 2.8mm or 6.3mm tags
- Double Pole Switch/
- Fuseholder/Indicator/
- Voltage Selectors/
- Blanking Plate
- Filtered Inlet Option
- Options of I/O marked switches



Panel Thickness: 1.0, 1.5, 2.0, 3.0mm.

BZV03, BZV04/\*\*\*\*\*/\*\* A = 62.5 With Filter  
39.0 Without Filter

BZV05, BZV06/\*\*\*\*\*/\*\* A = 39.0

## How to order -

BZV XX

/ XXXXX

/ XX

## Type of Inlet / Outlet

C14 Power Inlet (cold condition), 6.3 or 2.8mm tabs:

03 = PX0575/63  
04 = PX0575/28

C16 Power Inlet (hot condition), 6.3 or 2.8mm tabs:

05 = PX0595/63  
06 = PX0595/28

Please note type 05 and 06 are not available in filtered version

## Filtered or Non Filtered Inlet

Z0000 = Non Filtered

Axxxx = Standard

For Filtered inlet use 6th to 9th characters from filter ordering code see page 178  
E.g. BZV03/A0120/07

## Combination of Other Components

Twin Fuseholder and Double Pole Switch Marked (I/O):  
72 = 2 x FX0359 + D.P. Switch (I/O)Twin Fuseholder and Double Pole Neon Switch Marked (I/O):  
73 = 2 x FX0359 + D.P. Red Neon Switch (I/O)  
75 = 2 x FX0359 + D.P. Green Neon Switch (I/O)  
82 = 2 x FX0359 + D.P. Red Neon Switch 125V(I/O)Voltage Selector, Fuseholder and Double Pole Switch Marked (I/O):  
79 = 1 x VS0001 + 1 x FX0359 + Double Pole switch (I/O)Voltage Selector, Fuseholder and Double Pole Neon Switch Marked (I/O):  
80 = 1 x VS0001 + 1 x FX0359 + D.P. Red Neon Switch (I/O)  
81 = 1 x VS0001 + 1 x FX0359 + D.P. Green Neon Switch (I/O)Twin Fuseholder and Double Pole High Inrush Switch Marked (I/O):  
83 = 2 x FX0359 + D.P. High Inrush Switch (I/O)Twin Fuseholder and Double Pole High Inrush Neon Switch Marked (I/O):  
84 = 2 x FX0359 + 1 x D.P. High Inrush Green Neon Switch (I/O)  
85 = 2 x FX0359 + 1 x D.P. High Inrush Red Neon Switch (I/O)Voltage Selector, Neon Indicator and Double Pole Switch Marked (I/O):  
86 = 1 x VS0001 + 1 x DX0928/110V/Red + D.P. Switch (I/O)  
87 = 1 x VS0001 + 1 x DX0928/110V/Green + D.P. Switch (I/O)  
88 = 1 x VS0001 + 1 x DX0928/250V/Red + D.P. Switch (I/O)  
89 = 1 x VS0001 + 1 x DX0928/250V/Green + D.P. Switch (I/O)

Voltage Selector, Neon Indicator and Double Pole High Inrush Switch Marked (I/O):

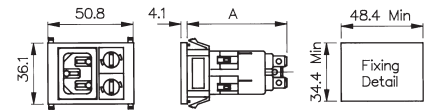
90 = 1 x VS0001 + 1 x DX0928/250V/Red + D.P. High Inrush Switch (I/O)  
91 = 1 x VS0001 + 1 x DX0928/250V/Green + D.P. High Inrush Switch (I/O)Fuseholder, Neon Indicator and Double Pole Switch Marked (I/O):  
92 = 1 x FX0359 + 1 x DX0928/110V/Red + D.P. Switch (I/O)  
93 = 1 x FX0359 + 1 x DX0928/110V/Green + D.P. Switch (I/O)  
94 = 1 x FX0359 + 1 x DX0928/250V/Red + D.P. Switch (I/O)  
95 = 1 x FX0359 + 1 x DX0928/250V/Green + D.P. Switch (I/O)Fuseholder, Neon Indicator and Double Pole High Inrush Switch Marked (I/O):  
96 = 1 x FX0359 + 1 x DX0928/250V/Red + D.P. High Inrush Switch (I/O)  
97 = 1 x FX0359 + 1 x DX0928/250V/Green + D.P. High Inrush Switch (I/O)Fuseholder, Blanking Plate and Double Pole High Inrush Neon Switch Marked (I/O):  
99 = 1 x FX0359 + 1 x Blanking Plate (Right) + D.P. High Inrush Green Neon Switch (I/O)Fuseholder, Blanking Plate and Double Pole Switch Marked (I/O):  
A0 = 1 x FX0359 + 1 x Blanking Plate (Right) + D.P. Switch (I/O)  
B2 = 1 x VS0002 + 1 x Blanking Plate  
B3 = 1 x FX0359 + 1 x Blanking Plate + D.P. High Inrush Switch (I/O)  
B5 = 1 x VS0001 + 1 x Blanking Plate + D.P. Switch (I/O)

## Vertical Module Arrangement



BZV04/Z0000/04

- Inlet with 2.8mm or 6.3mm tags
- Fuseholder/Voltage Selector/Indicator options/Blanking plate



BZV03, BZV04/\*\*\*\*/\*\* A = 62.5 With Filter,  
39.0 Without Filter.  
BZV05, BZV06/\*\*\*\*/\*\* A = 39.0.  
Panel Thickness: 1.0, 1.5, 2.0, 3.0mm.

## How to order -

**BZV XX****XXXXX****XX****Type of Inlet / Outlet**

C14 Power Inlet (cold condition), 6.3 or 2.8mm tabs:  
03 = PX0575/63  
04 = PX0575/28

C16 Power Inlet (hot condition), 6.3 or 2.8mm tabs:  
05 = PX0595/63  
06 = PX0595/28

Please note type 05 and 06 are not available in filtered version

**Filtered or Non Filtered Inlet**

Z0000 = Non Filtered

Axxxx = Standard

For Filtered inlet use 6th to 9th characters from filter ordering code see page 178  
E.g. BZV03/A0120/04

**Combination of Other Components**

Twin Fuseholder:  
04 = 2 x FX0359

Voltage Selector and Fuseholder:  
14 = 1 x VS0001 + 1 x FX0359

Voltage selector and Neon:  
37 = 1 x VS0001 + DX0928/110V/Red  
38 = 1 x VS0001 + DX0928/110V/Green  
39 = 1 x VS0001 + DX0928/250V/Red  
40 = 1 x VS0001 + DX0928/250V/Green

Fuseholder and Neon:  
41 = 1 x FX0359 + DX0928/110V/Red  
42 = 1 x FX0359 + DX0928/110V/Green  
43 = 1 x FX0359 + DX0928/250V/Red  
44 = 1 x FX0359 + DX0928/250V/Green

Fuseholder and Blanking Plate:  
45 = 1 x FX0359 + Blanking Plate

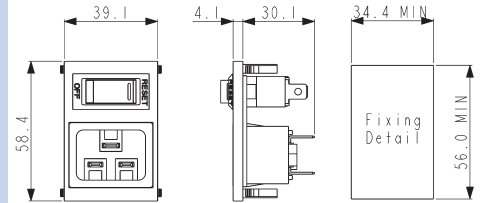
Voltage Selector and Blanking Plate:  
B2 = 1 x VS0001 + Blanking Plate

## Vertical Module Arrangement



BZV49/Z0000/69

- Inlet with 4.8mm or 6.3mm tags
- Single Pole Switch marked I/O
- Illuminated, red or green, switches
- High inrush non-illuminated switch



## How to order -

**BZV XX****XXXXX****XX****Type of Inlet / Outlet**

C20 Power Inlet (cold condition), 4.8 or 6.3mm tabs:

49 = PX0598/63  
50 = PX0598/48

**Filtered or Non Filtered Inlet**

Z0000 = Non Filtered

**Combination of Other Components**

Single Pole Switch:  
01 = S.P. Switch

Single Pole Switch Marked (I/O):  
69 = S.P. Switch (I/O)

Single Pole Illuminated Switch:  
02 = S.P. Illuminated Red  
08 = S.P. Illuminated Green

Single Pole Non-illuminated High Inrush  
Switch Marked I/O:

98 = S.P. High Inrush Switch (I/O)  
Single Pole Illuminated (Red or Green 250v  
Neon) Switch Marked I/O:

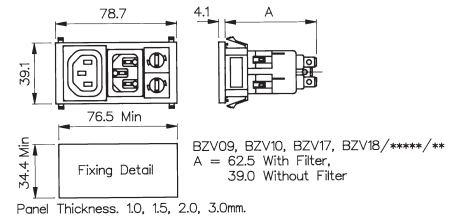
71 = S.P. Switch Illuminated Red (I/O)  
74 = S.P. Switch Illuminated Green (I/O)

## Vertical Module Arrangement



BZV09/Z0000/04

- Inlet/Outlet Combination
- 2.8mm or 6.3mm tabs
- Filtered Inlet and Blanking Plate options
- Shuttered or Non-shuttered Outlet
- Fused



## How to order -

**BZV XX****XXXXX****XX****Type of Inlet / Outlet**

C14 Power Inlet (cold condition) and Sheet F  
Non-shuttered Power Outlet, 2.8 or 6.3mm tabs:

09 = PX0575/63 + PX0695/63  
10 = PX0575/28 + PX0695/28

C14 Power Inlet (cold condition) and Sheet F  
Shuttered Power Outlet, 2.8 or 6.3mm tabs:

17 = PX0575/63 + PX0783/63  
18 = PX0575/28 + PX0783/28

**Filtered or Non Filtered Inlet**

Z0000 = Non Filtered

Axxxx = Standard

For Filtered inlet use 6th to 9th characters from  
filter ordering code see page 178  
E.g. BZV09/A0120/04

**Combination of Other Components**

Twin Fuseholder:  
04 = 2 x FX0359

Voltage Selector and Fuseholder:  
14 = 1 x VS0001 + 1 x FX0359

Voltage selector and Neon:  
37 = 1 x VS0001 + DX0928/110V/Red  
38 = 1 x VS0001 + DX0928/110V/Green  
39 = 1 x VS0001 + DX0928/250V/Red  
40 = 1 x VS0001 + DX0928/250V/Green

Fuseholder and Neon:  
41 = 1 x FX0359 + DX0928/110V/Red  
42 = 1 x FX0359 + DX0928/110V/Green  
43 = 1 x FX0359 + DX0928/250V/Red  
44 = 1 x FX0359 + DX0928/250V/Green

Fuseholder and Blanking Plate:  
45 = 1 x FX0359 + Blanking Plate

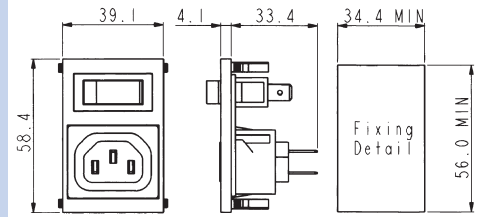
Voltage Selector and Blanking Plate:  
B2 = 1 x VS0001 + Blanking Plate

Vertical Module Arrangement



BZV45/Z0000/02

- Outlet with 2.8mm or 6.3mm tags
- Shuttered or Non-Shuttered
- Single Pole Switch or Neon Indicator
- I/O Marking Options



**How to order -**

<b>BZV XX</b>	<b>/</b>	<b>XXXXX</b>	<b>/</b>	<b>XX</b>
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**Type of Inlet / Outlet**

Sheet F Power Outlet (non shuttered), 6.3 or 2.8mm tabs:

45 = PX0695/63  
 46 = PX0695/28

Sheet F Power Outlet (shuttered), 6.3 or 2.8mm tabs:

47 = PX0783/63  
 48 = PX0783/28

**Filtered or Non Filtered Inlet**

Z0000 = Non Filtered

**Combination of Other Components**

Single Pole Switch:  
 01 = S.P. Switch

Single Pole Neon Switch:  
 02 = S.P. Red Neon Switch  
 08 = S.P. Green Neon Switch

Neon Indicator:  
 03 = Red Neon Indicator

Single Pole High Inrush Switch:  
 46 = S.P. High Inrush Switch

Single Pole Switch Marked I/O:  
 69 = S.P. Switch (I/O)

Single Pole Neon Switch Marked (I/O):  
 71 = S.P. Red Neon Switch (I/O)  
 74 = S.P. Green Neon Switch (I/O)

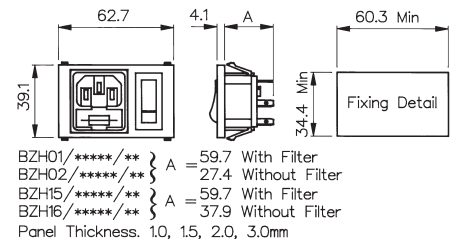
Single Pole High Inrush Switch Marked (I/O):  
 98 = S.P. High Inrush Switch (I/O)

## Horizontal Module Arrangement



BZH01/Z0000/01

- Fused Inlet with 2.8mm or 6.3mm tags
- Single Pole Switch Variations
- Filtered Inlet Option
- Options of I/O marked switches



## How to order -

BZH XX	/ XXXXX	/ XX
<b>Type of Inlet / Outlet</b>  Single Fused C14 Power Inlet (cold condition), 2.8 or 6.3mm tabs:  01 = PF0011/63 02 = PF0011/28  Twin Fused C14 Power Inlet (cold condition), 2.8 or 6.3mm tabs:  15 = PF0033/63 16 = PF0033/28	<b>Filtered or Non Filtered Inlet</b>  Z0000 = Non Filtered  Axxxx = Standard  For Filtered inlet use 6th to 9th characters from filter ordering code see pages 179-180 E.g. BZH01/A0620/01	<b>Combination of Other Components</b>  Single Pole Switch: 01 = S.P. Switch  Single Pole Neon Switch: 02 = S.P. Red Neon Switch 08 = S.P. Green Neon Switch  Neon Indicator: 03 = Red Neon Indicator  Single Pole High Inrush Switch: 46 = S.P. High Inrush Switch  Single Pole Switch Marked I/O: 69 = S.P. Switch (I/O)  Single Pole Neon Switch Marked (I/O): 71 = S.P. Red Neon Switch (I/O) 74 = S.P. Green Neon Switch (I/O)  Single Pole High Inrush Switch Marked (I/O): 98 = S.P. High Inrush Switch (I/O)

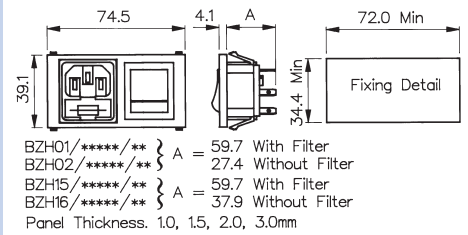


## Horizontal Module Arrangement



BZH01/Z0000/10

- Fused Inlet with 2.8mm or 6.3mm tabs
- Double Pole Switch Variations
- Filtered Inlet Option
- Options of I/O marked switches



## How to order -

**BZH XX****XXXXX****XX****Type of Inlet / Outlet**

Single Fused C14 Power Inlet (cold condition),  
2.8 or 6.3mm tabs:

01 = PF0011/63  
02 = PF0011/28

Twin Fused C14 Power Inlet (cold condition),  
2.8 or 6.3mm tabs:

15 = PF0033/63  
16 = PF0033/28

**Filtered or Non Filtered Inlet**

Z0000 = Non Filtered

Axxxx = Standard

For Filtered inlet use 6th to 9th characters from  
filter ordering code see pages 179-180  
E.g. BZH01/A0620/10

**Combination of Other Components**

Neon Indicator:  
03 = Red Neon Indicator

Double Pole Switch:  
10 = D.P. Switch

Double Pole Neon Switch:  
11 = D.P. Red Neon Switch  
12 = D.P. Green Neon Switch

Double Pole High Inrush Switch:  
13 = D.P. High Inrush Switch

Double Pole Switch marked I/O:  
70 = D.P. Switch (I/O)

Double Pole Neon Switch Marked (I/O):  
76 = D.P. Red Neon Switch (I/O)  
77 = D.P. Green Neon Switch (I/O)

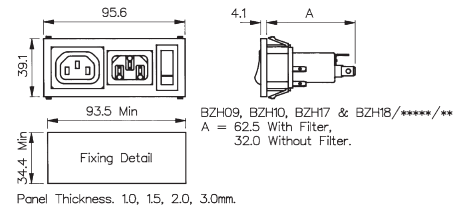
Double Pole High Inrush Switch Marked  
(I/O):  
78 = D.P. High Inrush Switch (I/O)  
B1 = D.P. High Inrush Green Neon Switch  
(I/O)

## Horizontal Module Arrangement



BZH09/Z0000/01

- Inlet/Outlet Combination with 2.8mm or 6.3mm tags
- Shuttered or Non-Shuttered Outlet
- Single Pole Switch Variations
- Filtered Inlet Option
- Options of I/O marked switches



## How to order -

**BZH XX****XXXXX****XX****Type of Inlet / Outlet**

C14 Power Inlet (cold condition) and Sheet F  
 Non-shuttered Power Outlet, 2.8 or 6.3mm tabs:

09 = PX0575/63 + PX0695/63  
 10 = PX0575/28 + PX0695/28

C14 Power Inlet (cold condition) and Sheet F  
 Shuttered Power Outlet, 2.8 or 6.3mm tabs:

17 = PX0575/63 + PX0783/63  
 18 = PX0575/28 + PX0783/28

**Filtered or Non Filtered Inlet**

Z0000 = Non Filtered

Axxxx = Standard

For Filtered inlet use 6th to 9th characters from  
 filter ordering code see page 178  
 E.g. BZH09/A0120/01

**Combination of Other Components**

Single Pole Switch:  
 01 = S.P. Switch

Single Pole Neon Switch:  
 02 = S.P. Red Neon Switch  
 08 = S.P. Green Neon Switch

Neon Indicator:  
 03 = Red Neon Indicator

Single Pole High Inrush Switch:  
 46 = S.P. High Inrush Switch

Single Pole Switch Marked I/O:  
 69 = S.P. Switch (I/O)

Single Pole Neon Switch Marked (I/O):  
 71 = S.P. Red Neon Switch (I/O)  
 74 = S.P. Green Neon Switch (I/O)

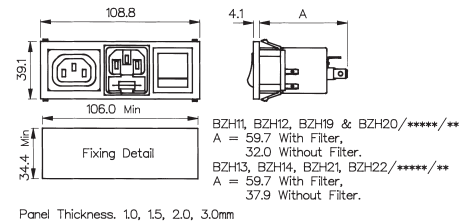
Single Pole High Inrush Switch Marked (I/O):  
 98 = S.P. High Inrush Switch (I/O)

## Horizontal Module Arrangement



BZH11/Z0000/10

- Inlet/Outlet Combination with 2.8mm or 6.3mm tags
- Single or Twin Fused Inlet
- Shuttered or Non-Shuttered Outlet
- Double Pole Switch Variations
- Filtered Inlet Option
- Options of I/O marked switches



## How to order -

**BZH XX****XXXXX****XX****Type of Inlet / Outlet**

Single Fused C14 Power Inlet (cold condition) and Sheet F Power Outlet, 2.8 or 6.3mm tabs:

11 = PF0011/63 + PX0695/63  
 12 = PF0011/28 + PX0695/28

Twin Fused C14 Power Inlet (cold condition) and Sheet F Power Outlet, 2.8 or 6.3mm tabs:

13 = PF0033/63 + PX0695/63  
 14 = PF0033/28 + PX0695/28

Single Fused C14 Power Inlet (cold condition) and Sheet F Shuttered Power Outlet, 2.8 or 6.3mm tabs:

19 = PF0011/63 + PX0783/63  
 20 = PF0011/28 + PX0783/28

Twin Fused C14 Power Inlet (cold condition) and Sheet F Shuttered Power Outlet, 2.8 or 6.3mm tabs:

21 = PF0033/63 + PX0783/63  
 22 = PF0033/28 + PX0783/28

**Filtered or Non Filtered Inlet**

Z0000 = Non Filtered

Axxxx = Standard

For Filtered inlet use 6th to 9th characters from filter ordering code see pages 179-180  
 E.g. BZH11/A0620/10

**Combination of Other Components**

Neon Indicator:  
 D3 = Red Neon Indicator

Double Pole Switch:  
 10 = D.P. Switch

Double Pole Neon Switch:  
 11 = D.P. Red Neon Switch  
 12 = D.P. Green Neon Switch

Double Pole High Inrush Switch:  
 13 = D.P. High Inrush Switch

Double Pole Switch Marked I/O:  
 70 = D.P. Switch (I/O)

Double Pole Neon Switch Marked (I/O):  
 76 = D.P. Red Neon Switch (I/O)  
 77 = D.P. Green Neon Switch (I/O)

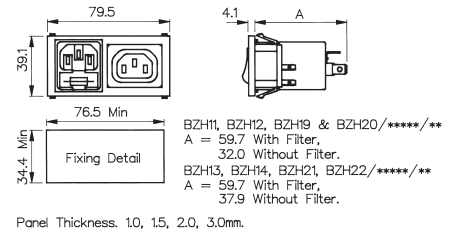
Double Pole High Inrush Switch Marked (I/O):  
 78 = D.P. High Inrush Switch (I/O)  
 B1 = D.P. High Inrush Green Neon Switch (I/O)

## Horizontal Module Arrangement



BZH11/Z0000/00

- Fused Inlet/Outlet
- Combination with 2.8mm or 6.3mm tabs
- Filtered Inlet Option
- Single or Twin Fused



## How to order -

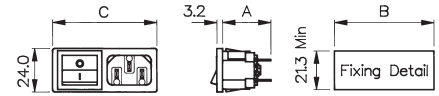
BZH XX	/ XXXXX	/ XX
<p><b>Type of Inlet / Outlet</b></p> <p>Single Fused C14 Power Inlet (cold condition) and Sheet F Non-shuttered Power Outlet, 2.8 or 6.3mm tabs:</p> <p>11 = PF0011/63 + PX0695/63            12 = PF0011/28 + PX0695/28</p> <p>Twin Fused C14 Power Inlet (cold condition) and Sheet F Non-shuttered Power Outlet, 2.8 or 6.3mm tabs:</p> <p>13 = PF0033/63 + PX0695/63            14 = PF0033/28 + PX0695/28</p> <p>Single Fused C14 Power Inlet (cold condition) and Sheet F Shuttered Power Outlet, 2.8 or 6.3mm tabs:</p> <p>19 = PF0011/63 + PX0783/63            20 = PF0011/28 + PX0783/28</p> <p>Twin Fused C14 Power Inlet (cold condition) and Sheet F Shuttered Power Outlet, 2.8 or 6.3mm tabs:</p> <p>21 = PF0033/63 + PX0783/63            22 = PF0033/28 + PX0783/28</p>	<p><b>Filtered or Non Filtered Inlet</b></p> <p>Z0000 = Non Filtered</p> <p>Axxxx = Standard</p> <p>For Filtered inlet use 6th to 9th characters from filter ordering code see pages 179-180            E.g. BZH11/A0620/00</p>	<p><b>Combination of Other Components</b></p> <p>None</p> <p>00 = None</p>

## Minimum Combined Bezel Size



BZM27/Z0000/57B

- Inlet with 2.8, 4.8 or 6.3mm tags
- Horizontal Module Arrangement
- Single and Double Pole Switch Variations
- Filtered Inlet Option



Panel Thickness 1.0, 1.5, 2.0, 3.0mm

 BZM27/\*\*\*\*\*/\*\*\* } A = 63.5 With Filter.  
 BZM28/\*\*\*\*\*/\*\*\* } A = 29.1 Without Filter.

 B = 54.9 With D.P. Switch. 45.9 With S.P. Switch.  
 C = 57.5 With D.P. Switch. 48.5 With S.P. Switch.

## How to order -

**BZM XX****/ XXXXX****/ XX****/ X****Type of Inlet / Outlet**

C14 Power Inlet (cold condition), 6.3, 4.8 & 2.8mm tabs:

27 = PX0575/63  
 42 = PX0575/48  
 28 = PX0575/28

**Filtered or Non Filtered Inlet**

Z0000 = Non Filtered

Axxxx = Standard

For Filtered inlet use 6th to 9th characters from filter ordering code see page 178  
 E.g. BZM27/A0120/57B

**Switch Variation**

Single Pole Switch, 4.8mm or solder tab, marked I/O:  
 53 = S.P. Switch, 4.8mm tab (I/O)  
 54 = S.P. Switch, solder tab (I/O)

Single Pole Illuminated Switch, 4.8mm or solder tab:  
 55 = S.P. Switch Illum. Red, 4.8mm tab  
 61 = S.P. Switch Illum. Green, 4.8mm tab  
 56 = S.P. Switch Illum. Red, solder tab  
 62 = S.P. Switch Illum. Green, solder tab

Double Pole Switch, 4.8mm or solder tab, marked I/O:  
 57 = D.P. Switch, 4.8mm tab (I/O)  
 58 = D.P. Switch, solder tab (I/O)

Double Pole Illuminated Switch, 4.8mm or solder tab:  
 59 = D.P. Switch Illum. Red, 4.8mm tab  
 63 = D.P. Switch Illum. Green, 4.8mm tab  
 60 = D.P. Switch Illum. Red, solder tab  
 64 = D.P. Switch Illum. Green, solder tab

Double Pole High Inrush, 4.8mm tabs:  
 65 = D.P. High Inrush Switch, 4.8mm tabs (S.P. format)

Double Pole High Inrush, 4.8mm tabs, marked I/O:  
 68 = D.P. High Inrush Switch, 4.8mm tabs, I/O (S.P. format)

Single Pole Illuminated Switch, 4.8mm or solder tab, Marked I/O:  
 A1 = S.P. Switch Illum. Red, 4.8mm tab (I/O)  
 A5 = S.P. Switch Illum. Green, 4.8mm tab (I/O)  
 A2 = S.P. Switch Illum. Red, solder tab (I/O)  
 A6 = S.P. Switch Illum. Green, solder tab (I/O)

Double Pole Illuminated Switch, 4.8mm or solder tab, Marked I/O:  
 A3 = D.P. Switch Illum. Red, 4.8mm tab  
 A7 = D.P. Switch Illum. Green, 4.8mm tab  
 A4 = D.P. Switch Illum. Red, solder tab  
 A8 = D.P. Switch Illum. Green, solder tab

**Panel Thickness**

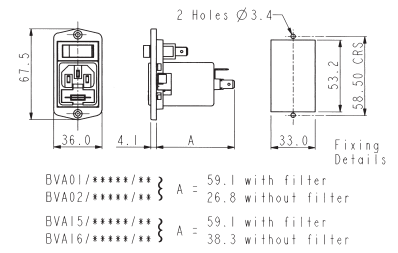
1.0mm = A  
 1.5mm = B  
 2.0mm = C  
 3.0mm = D

Vertical Module Arrangement



BVA01/Z0000/02

- Fused Inlet with 2.8mm or 6.3mm tags
- Screw Fixing to Panel
- Single Pole Switch Variations
- Filtered Inlet Option
- Options of I/O marked switches

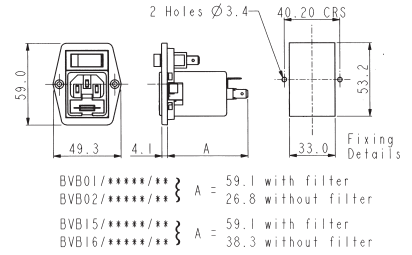


Vertical Module Arrangement



BVB01/Z0000/01

- Fused Inlet with 2.8mm or 6.3mm tags
- Screw Fixing to Panel
- Single Pole Switch Variations
- Filtered Inlet Option
- Options of I/O marked switches



How to order -

BV X	XX	/	XXXXX	/	XX
<p><b>Flange Type</b></p> <p>A = Top fixing B = Side fixing</p>	<p><b>Type of Inlet / Outlet</b></p> <p>Single Fused C14 Power Inlet (cold condition), 6.3 or 2.8mm tabs:  01 = PF0011/63 02 = PF0011/28  Twin Fused C14 Power Inlet (cold condition), 6.3 or 2.8mm tabs:  15 = PF0033/63 16 = PF0033/28</p>	<p><b>Filtered or Non Filtered Inlet</b></p> <p>Z0000 = Non Filtered  Axxxx = Standard  For Filtered inlet use 6th to 9th characters from filter ordering code see pages 179-180 E.g. BVA01/A0620/01</p>	<p><b>Combination of Other Components</b></p> <p>Single Pole Switch: 01 = S.P. Switch  Single Pole Neon Switch: 02 = S.P. Red Neon Switch 08 = S.P. Green Neon Switch  Neon Indicator: 03 = Red Neon Indicator  Single Pole High Inrush Switch: 46 = S.P. High Inrush Switch  Single Pole Switch Marked I/O: 69 = S.P. Switch (I/O)  Single Pole Neon Switch Marked (I/O): 71 = S.P. Red Neon Switch (I/O) 74 = S.P. Green Neon Switch (I/O)  Single Pole High Inrush Switch Marked (I/O): 98 = S.P. High Inrush Switch (I/O)</p>		

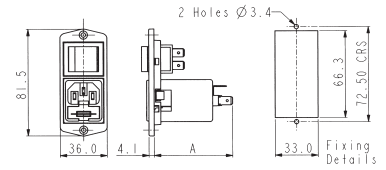


Vertical Module Arrangement



BVA01/Z0000/10

- Fused Inlet with 2.8mm or 6.3mm tags
- Screw Fixing to Panel
- Double Pole Switch Variations
- Filtered Inlet Option
- Options of I/O marked switches



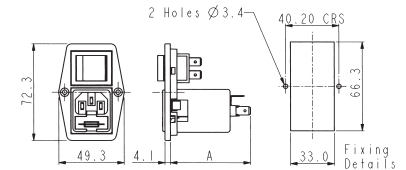
BVA01/\*\*\*\*\*/\*\* } A = 60.9 with filter  
 BVA02/\*\*\*\*\*/\*\* } A = 26.8 without filter  
 BVA15/\*\*\*\*\*/\*\* } A = 60.9 with filter  
 BVA16/\*\*\*\*\*/\*\* } A = 38.3 without filter

Vertical Module Arrangement



BVB01/Z0000/11

- Fused Inlet with 2.8mm or 6.3mm tags
- Screw Fixing to Panel
- Double Pole Switch Variations
- Filtered Inlet Option
- Options of I/O marked switches



BVB01/\*\*\*\*\*/\*\* } A = 60.9 with filter  
 BVB02/\*\*\*\*\*/\*\* } A = 26.8 without filter  
 BVB15/\*\*\*\*\*/\*\* } A = 60.9 with filter  
 BVB16/\*\*\*\*\*/\*\* } A = 38.3 without filter

How to order -

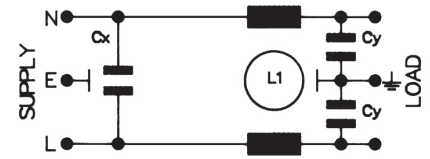
BV X	XX	/	XXXXX	/	XX
<b>Flange Type</b>	<b>Type of Inlet / Outlet</b>		<b>Filtered or Non Filtered Inlet</b>		<b>Combination of Other Components</b>
A = Top fixing B = Side fixing	Fused C14 Power Inlet (cold condition), 6.3 or 2.8mm tabs:  01 = PF0011/63 02 = PF0011/28  Twin Fused C14 Power Inlet (cold condition), 6.3 or 2.8mm tabs:  15 = PF0033/63 16 = PF0033/28		Z0000 = Non Filtered  Axxxx = Standard  For Filtered inlet use 6th to 9th characters from filter ordering code see pages 179-180 E.g. BVA01/A0620/10		Neon Indicator: D3 = Red Neon Indicator  Double Pole Switch: 10 = D.P. Switch  Double Pole Neon Switch: 11 = D.P. Red Neon Switch 12 = D.P. Green Neon Switch  Double Pole High Inrush Switch: 13 = D.P. High Inrush Switch  Double Pole Switch Marked I/O: 70 = D.P. Switch (I/O)  Double Pole Neon Switch Marked (I/O): 76 = D.P. Red Neon Switch (I/O) 77 = D.P. Green Neon Switch (I/O)  Double Pole High Inrush Switch Marked (I/O): 78 = D.P. High Inrush Switch (I/O) B1 = D.P. High Inrush Green Neon Switch (I/O)

EMI Filter Options



BVA01/Z0000/10

- For Polysnap modules BZV03, BZV04, BZV09, BZV10, BZV17, BZV18, BZH09, BZH10, BZH17, BZH18, BZM27, BZM28
- PX0575 style IEC inlet
- Using PS01/A style filter
- Standard Attenuation Filter



How to order -

B XXXX / A XX X X / XX

Polysnap Part No.	Filter Type	Rating	L/C Circuit	Additional Components	Polysnap Part No.
From Polysnap Selection	A = Standard	01 = 1A 03 = 3A 06 = 6A 10 = 10A	1 = Version 1 2 = Version 2 3 = Version 3	0 = None	From Polysnap Selection

Rating	Version	L1	Cx	Cy
1 AMP	1	2 x 2.8mH	1 x 15nF	2 x 2.2nF
"	2	2 x 10mH	1 x 15nF	2 x 2.2nF
"	3	2 x 10mH	1 x 47nF	2 x 2.2nF
3 AMP	1	2 x 0.75mH	1 x 15nF	2 x 2.2nF
"	2	2 x 1.8mH	1 x 15nF	2 x 2.2nF
"	3	2 x 1.8mH	1 x 47nF	2 x 2.2nF
6 AMP	1	2 x 0.3mH	1 x 15nF	2 x 2.2nF
"	2	2 x 0.7mH	1 x 15nF	2 x 2.2nF
"	3	2 x 0.7mH	1 x 47nF	2 x 2.2nF
10 AMP	1	2 x 0.17mH	1 x 15nF	2 x 2.2nF
"	2	2 x 0.35mH	1 x 15nF	2 x 2.2nF
"	3	2 x 0.17mH	1 x 47nF	2 x 2.2nF

Part No. Example

[BZV03/A0120/02](#)

BZV style Polysnap module with PX0575 IEC power inlet, filter rated at 1 amp, L/C circuit version 2 (L1 = 2 x 10mH, Cx = 1 x 15nF, Cy = 2 x 2.2nF) 6.3mm tabs and single pole red neon switch.

Filter Specification

<b>Max. Working Voltage:</b>	250V a.c. 50-400Hz
<b>Earth Leakage Current:</b>	<0.35mA (250V, 50Hz)
<b>Temperature Range:</b>	-25°C to +85°C
<b>Max. Ambient Temp.: (@ Full Load)</b>	40°C (derate linearly to 0A @ 85°C)
<b>Test Voltage:</b>	2700V d.c. 2 secs. Lines to Earth 1100V d.c. 2 secs. Live to Neutral

Approvals:

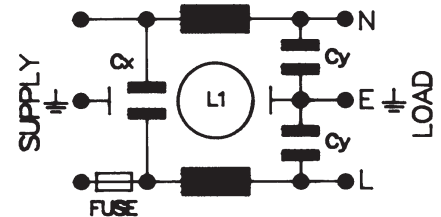
Attenuation Curves: See PS01/A filter, page 183



## EMI Filter Options



- For Polysnap modules BZV01, BZV02, BZH01, BZH02, BZH11, BZH12, BZH19, BZH20, BVA01, BVA02, BVB01, BVB02
- PF0011 style single fuse IEC inlet
- Using PS21/A style filter
- Standard Attenuation Filter



## How to order -

B XXXX	/	A	XX	X	X	/	XX
<b>Polysnap Part No.</b>		<b>Filter Type</b>	<b>Rating</b>	<b>L/C Circuit</b>	<b>Additional Components</b>		<b>Polysnap Part No.</b>
From Polysnap Selection		A = Standard	01 = 1A 03 = 3A 06 = 6A	2 = Version 2 3 = Version 3	0 = None		From Polysnap Selection

Rating	Version	L1	Cx	Cy
1 AMP	1			
"	2			
"	3	2 x 12mH	1 x 47nF	2 x 2.2nF
3 AMP	1			
"	2	2 x 1.8mH	1 x 15nF	2 x 2.2nF
"	3	2 x 6.5mH	1 x 47nF	2 x 2.2nF
6 AMP	1			
"	2	2 x 0.7mH	1 x 15nF	2 x 2.2nF
"	3	2 x 2mH	1 x 47nF	2 x 2.2nF
10 AMP	1			
"	2			
"	3			

## Part No. Example

BZV01/A0630/01

BZV style Polysnap module with PF0011 single fused (5 x 20mm) IEC power inlet, filter rated at 6 amp, L/C circuit version 3 (L1 = 2 x 2.0mH, Cx = 1 x 47nF, Cy = 2 x 2.2nF), 6.3mm tabs and single pole switch.

## Filter Specification

<b>Max. Working Voltage:</b>	250V a.c. 50-400Hz
<b>Earth Leakage Current:</b>	<0.35mA (250V, 50Hz)
<b>Temperature Range:</b>	-25°C to +85°C
<b>Max. Ambient Temp.:</b>	40°C (derate linearly to 0A @ 85°C)
<b>(@ Full Load)</b>	
<b>Test Voltage:</b>	2700V d.c. 2 secs. Lines to Earth 1100V d.c. 2 secs. Live to Neutral

## Approvals:



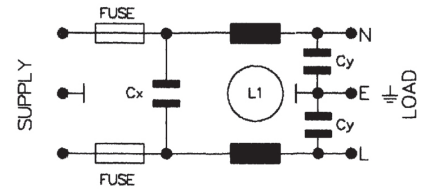
## Attenuation Curves:

See PS21/A filter, page 187

EMI Filter Option



- For Polysnap modules BZV15, BZV16, BZH13, BZH14, BZH15, BZH16, BZH21, BZH22, BVA15, BVA16, BVB15, BVB16
- PF0033 style twin fuse IEC inlet
- Using PS26/A filter
- Standard Attenuation Filter



How to order -

<b>B XXXX</b>	<b>/</b>	<b>A</b>	<b>XX</b>	<b>X</b>	<b>X</b>	<b>/</b>	<b>XX</b>
<b>Polysnap Part No.</b>		<b>Filter Type</b>	<b>Rating</b>	<b>L/C Circuit</b>	<b>Additional Components</b>		<b>Polysnap Part No.</b>
From Polysnap Selection		A = Standard	02 = 2A 04 = 4A	2 = Version 2	0 = None		From Polysnap Selection

Rating	Version	L1	Cx	Cy	Part No. Example
1 AMP	1				<b>BZH13/A0420/00</b>  BZH style Polysnap module with PF0033 twin fused (5 x 20mm) IEC power inlet, filter rated at 4 amps, L/C circuit version 2 (L1 = 2 x 0.7mH, Cx = 1 x 15nF, Cy = 2 x 2.2nF) 6.3mm tabs and no additional components.
"	2				
"	3	2 x 1.8mH	1 x 15nF	2 x 2.2nF	
4 AMP	1				
"	2	2 x 0.7mH	1 x 15nF	2 x 2.2nF	
"	3				

Filter Specification

<b>Max. Working Voltage:</b>	250V a.c. 50-400Hz
<b>Earth Leakage Current:</b>	<0.35mA (250V, 50Hz)
<b>Temperature Range:</b>	-25°C to +85°C
<b>Max. Ambient Temp.: (@ Full Load)</b>	40°C (derate linearly to 0A @ 85°C)
<b>Test Voltage:</b>	2700V d.c. 2 secs. Lines to Earth 1100V d.c. 2 secs. Live to Neutral

Approvals:

Attenuation Curves: See PS26/A filter, page 189



Designed to reduce conducted mains borne EMI, this extensive range provides many solutions to EMI problems. To meet individual design requirements the filters are available with two attenuation options – standard and medical. Current ratings are from 1 to 10 amps with single or twin fused types also available.

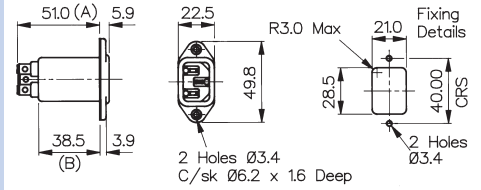
The choice of mounting options will suit most applications with flange, snap to panel or base/bulkhead.

Panel Mounting



Flange PS00/A

- 1, 3, 6 or 10 Amp Current Rating
- 3 Alternative Circuits
- No additional components
- 6.3mm tabs



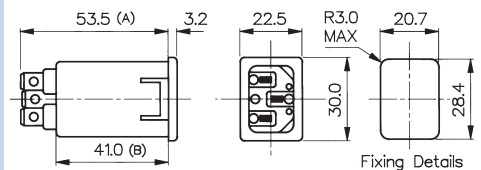
WHEN 10A VERSION 2 or SURGE PROTECTION (ALL RATINGS) REQUIRED A = 60.2 B = 47.7

Snap Fit



Snap Fit PS01/A

- 1, 3, 6 or 10 Amp Current Rating
- 3 Alternative Circuits
- No additional components
- 6.3mm tabs
- 1, 1.5, 2 or 3mm panels



WHEN 10A VERSION 2 or SURGE PROTECTION (ALL VERSIONS) REQUIRED A = 62.7 B = 50.2

How to order -

PS00/A or PS01/A	XX	X	0	/	63	XX	
<b>Series</b>	<b>Rating</b>	<b>L/C Circuit</b>	<b>Additional Components</b>		<b>Tag Type and Configuration</b>	<b>Panel Thickness</b>	<b>Circuit Board Diagram</b>
PS00/A	01 = 1A	1 = Version 1	0 = None		63 = 6.3mm tabs	00 = Flange	
PS01/A	03 = 3A	2 = Version 2				10 = 1.0mm	
	06 = 6A	3 = Version 3				15 = 1.5mm	
	10 = 10A					20 = 2.0mm	
						30 = 3.0mm	

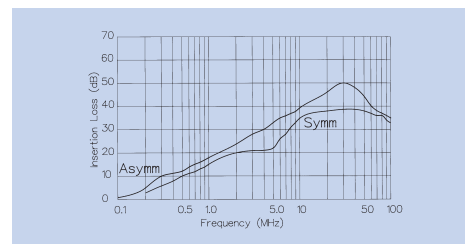
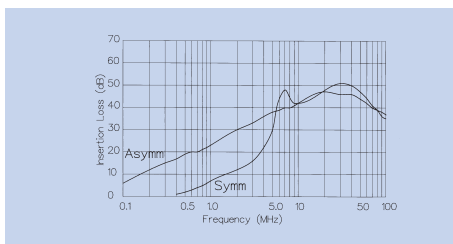
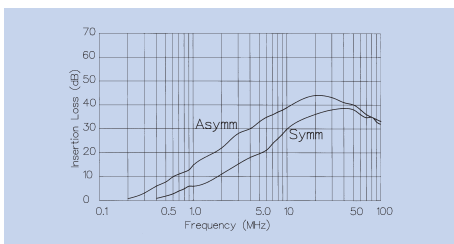
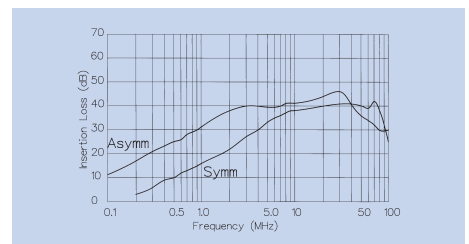
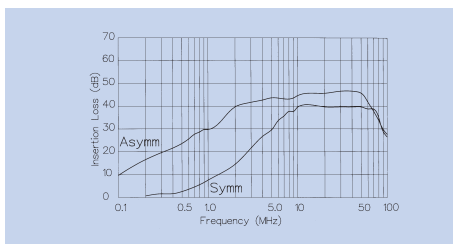
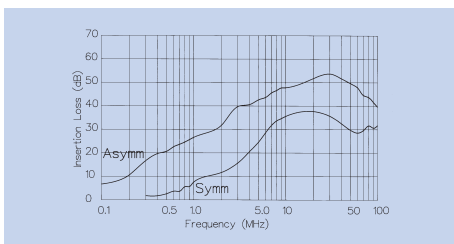
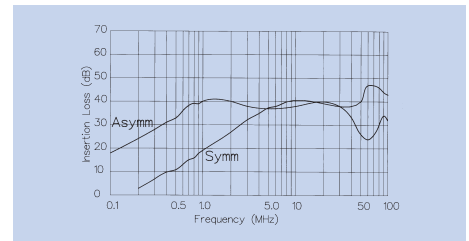
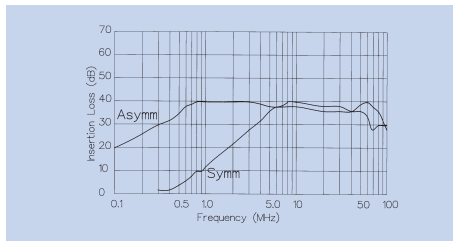
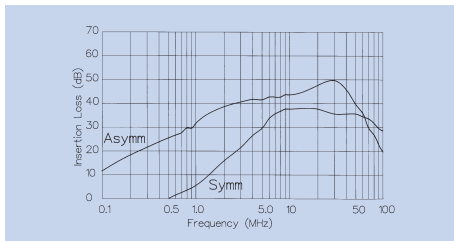
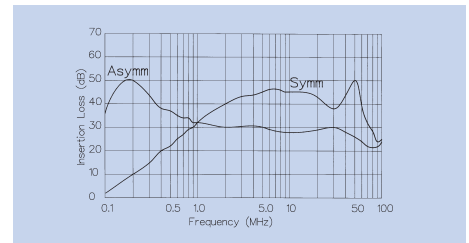
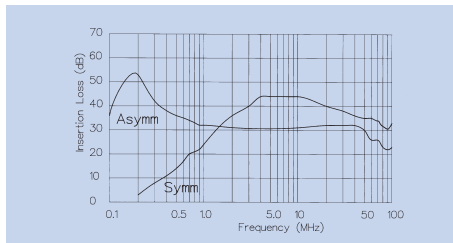
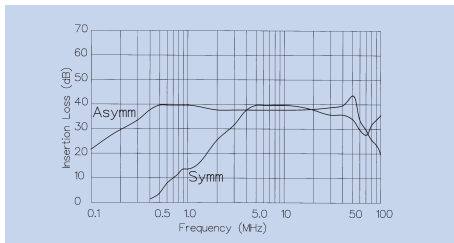
Specification	PS00/Axxxx/xx00	PS01/Axxxx/xxxx	Part No. Example
Max. Working Voltage:	250V a.c. 50-400Hz	250V a.c. 50-400Hz	<b>PS00/A0120/6300</b>
Earth Leakage Current:	<0.35mA (250V, 50Hz)	<0.35mA (250V, 50Hz)	PS00 series, flange fitting, standard filtered IEC power inlet, rated at 1 ampere. L/C circuit version 2, i.e. L1 = 2 x 10mH, Cx = 15nF, Cy = 2 x 2.2nF. 6.3mm tabs.
Temperature Range:	-25°C to +85°C	-25°C to +85°C	
Max. Ambient Temp: (@ Full Load)	40°C (derate linearly to 0A @ 85°C)	40°C (derate linearly to 0A @ 85°C)	
Test Voltage:	2700V d.c. 2 secs. Lines to Earth 1100V d.c. 2 secs. Live to Neutral	2700V d.c. 2 secs. Lines to Earth 1100V d.c. 2 secs. Live to Neutral	
Approvals:			
Mating Connectors:	PX0587, PX0587/SE, PX0588	PX0587, PX0587/SE, PX0588	
<b>RoHS</b>	Compliant	Compliant	

Rating	Version	L1	Cx	Cy
1 AMP	1	2 x 2.8mH	1 x 15nF	2 x 2.2nF
"	2	2 x 10mH	1 x 15nF	2 x 2.2nF
"	3	2 x 10mH	1 x 47nF	2 x 2.2nF
3 AMP	1	2 x 0.75mH	1 x 15nF	2 x 2.2nF
"	2	2 x 1.8mH	1 x 15nF	2 x 2.2nF
"	3	2 x 1.8mH	1 x 47nF	2 x 2.2nF
6 AMP	1	2 x 0.3mH	1 x 15nF	2 x 2.2nF
"	2	2 x 0.7mH	1 x 15nF	2 x 2.2nF
"	3	2 x 0.7mH	1 x 47nF	2 x 2.2nF
10 AMP	1	2 x 0.17mH	1 x 15nF	2 x 2.2nF
"	2	2 x 0.35mH	1 x 15nF	2 x 2.2nF
"	3	2 x 0.17mH	1 x 47nF	2 x 2.2nF

### Version 1

### Version 2

### Version 3

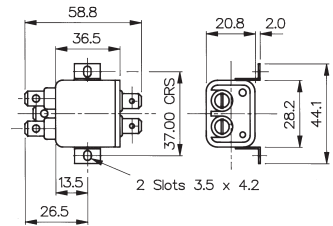


Base Mounting



Base Mounting PS02/A

- 1, 3, 6 or 10 Amp Current Rating
- 3 Alternative Circuits
- No additional components
- 6.3mm tabs

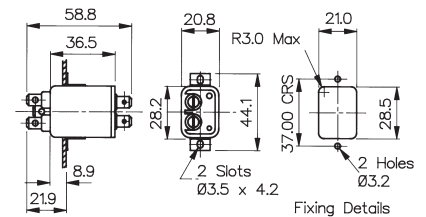


Bulkhead Mounting



Bulkhead Mounting PS03/A

- 1, 3, 6 or 10 Amp Current Rating
- 3 Alternative Circuits
- No additional components
- 6.3mm tabs



How to order -

PS02/A or PS03/A	<b>XX</b>	<b>X</b>	<b>0</b>	<b>/</b>	<b>63</b>	
<b>Series</b>	<b>Rating</b>	<b>L/C Circuit</b>	<b>Additional Components</b>		<b>Tag Type and Configuration</b>	<b>Circuit Board Diagram</b>
PS02/A	01 = 1A	1 = Version 1	0 = None		63 = 6.3mm tabs	
PS03/A	03 = 3A	2 = Version 2				
	06 = 6A	3 = Version 3				
	10 = 10A					

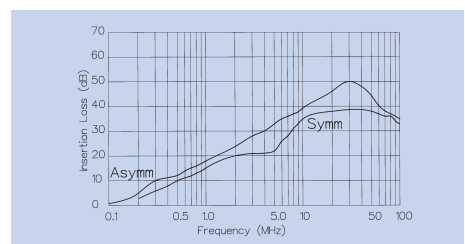
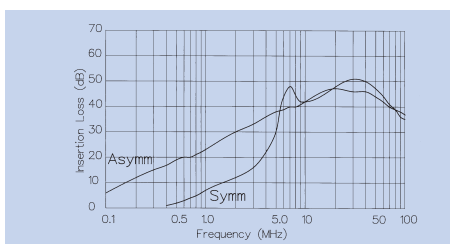
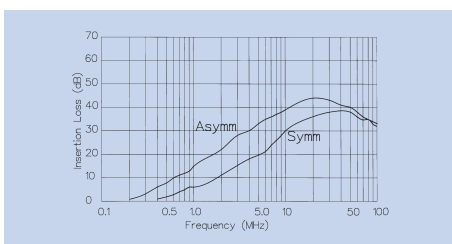
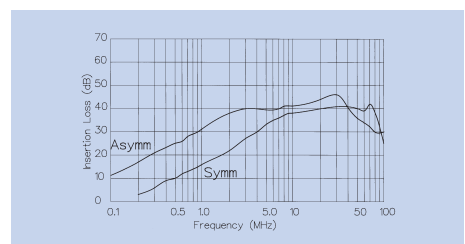
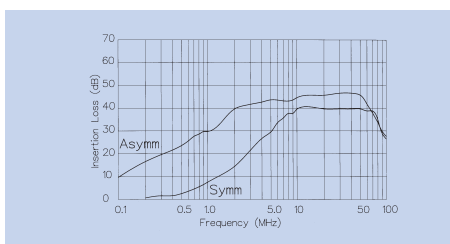
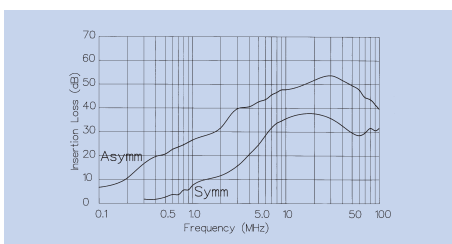
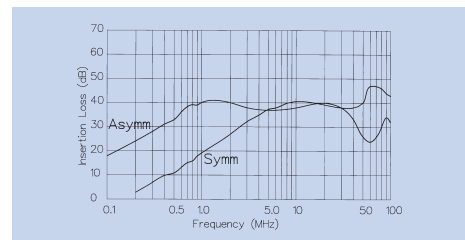
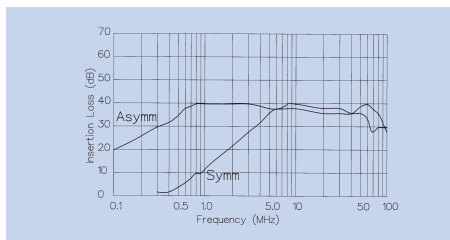
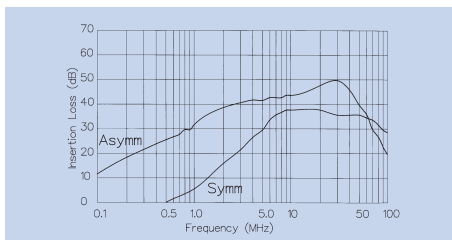
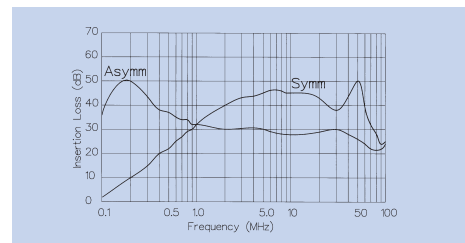
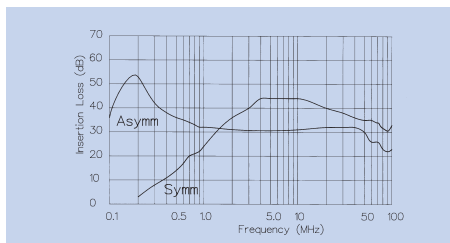
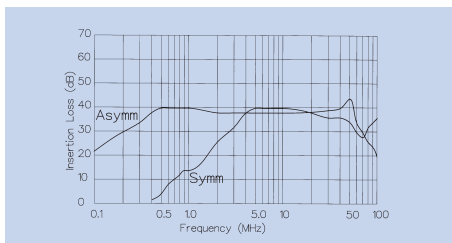
Specification	PS02/Axxxx/xx	PS03/Axxxx/xx	Part No. Example
Max. Working Voltage:	250V a.c. 50-400Hz	250V a.c. 50-400Hz	PS02/A0120/63
Earth Leakage Current:	<0.35mA (250V, 50Hz)	<0.35mA (250V, 50Hz)	PS02 series, standard base mounting filter, rated at 3 amperes. L/C circuit version 1, i.e. L1 = 2 x 0.75mH, Cx = 15nF, Cy = 2 x 2.2nF with 2.8mm tabs.
Temperature Range:	-25°C to +85°C	-25°C to +85°C	
Max. Ambient Temp: (@ Full Load)	40°C (derate linearly to 0A @ 85°C)	40°C (derate linearly to 0A @ 85°C)	
Test Voltage:	2700V d.c. 2 secs. Lines to Earth 1100V d.c. 2 secs. Live to Neutral	2700V d.c. 2 secs. Lines to Earth 1100V d.c. 2 secs. Live to Neutral	
Approvals:			
<b>RoHS</b>	Compliant	Compliant	

Rating	Version	L1	Cx	Cy
1 AMP	1	2 x 2.8mH	1 x 15nF	2 x 2.2nF
"	2	2 x 10mH	1 x 15nF	2 x 2.2nF
"	3	2 x 10mH	1 x 47nF	2 x 2.2nF
3 AMP	1	2 x 0.75mH	1 x 15nF	2 x 2.2nF
"	2	2 x 1.8mH	1 x 15nF	2 x 2.2nF
"	3	2 x 1.8mH	1 x 47nF	2 x 2.2nF
6 AMP	1	2 x 0.3mH	1 x 15nF	2 x 2.2nF
"	2	2 x 0.7mH	1 x 15nF	2 x 2.2nF
"	3	2 x 0.7mH	1 x 47nF	2 x 2.2nF
10 AMP	1	2 x 0.17mH	1 x 15nF	2 x 2.2nF
"	2	2 x 0.35mH	1 x 15nF	2 x 2.2nF
"	3	2 x 0.17mH	1 x 47nF	2 x 2.2nF

### Version 1

### Version 2

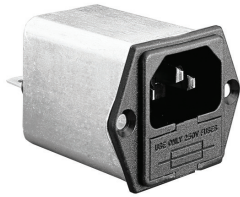
### Version 3



Mains Filters  
IEC Power Inlets (Single Fused)

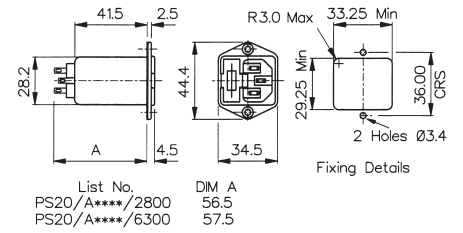


Panel Mounting

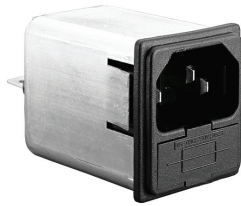


PS20/A

- 1, 3, or 6 Amp Current Rating
- Single Fused
- 2 Alternative Circuits
- 6.3mm tabs

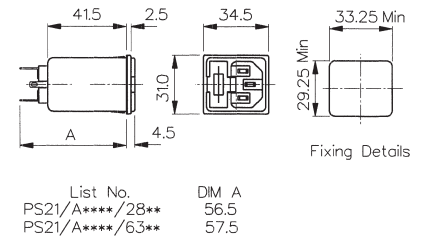


Snap Fit



PS21/A

- 1, 3, or 6 Amp Current Rating
- Single Fused
- 2 Alternative Circuits
- 6.3mm tabs
- 1, 1.5, 2 or 3mm panels



How to order -

PS02/A or PS03/A	<b>XX</b>	<b>X</b>	<b>0</b>	/	<b>63</b>	/	<b>XX</b>	
<b>Series</b>	<b>Rating</b>	<b>L/C Circuit</b>	<b>Additional Components</b>		<b>Tag Type and Configuration</b>		<b>Panel Thickness</b>	<b>Circuit Board Diagram</b>
PS00/A	01 = 1A	2 = Version 2	0 = None		63 = 6.3mm tabs		00 = Flange	
PS01/A	03 = 3A	3 = Version 3					10 = 1.0mm	
	06 = 6A						15 = 1.5mm	
							20 = 2.0mm	
							30 = 3.0mm	

Specification	PS20/Axxx0/xx00	PS21/Axxx0/xxxx	Part No. Example
Max. Working Voltage:	250V a.c. 50-400Hz	250V a.c. 50-400Hz	PS20/A0620/63
Earth Leakage Current:	<0.35mA (250V, 50Hz)	<0.35mA (250V, 50Hz)	PS20 series, flange fitting, standard filtered IEC power inlet, single fused, rated at 6 amperes.
Temperature Range:	-25°C to +85°C	-25°C to +85°C	L/C circuit version 2, i.e L1 = 2 x 0.7mH, Cx = 1 x 15nF, Cy = 2 x 2.2nF. 6.3mm tabs.
Max. Ambient Temp: (@ Full Load)	40°C (derate linearly to 0A @ 85°C)	40°C (derate linearly to 0A @ 85°C)	
Test Voltage:	2700V d.c. 2 secs. Lines to Earth 1100V d.c. 2 secs. Live to Neutral	2700V d.c. 2 secs. Lines to Earth 1100V d.c. 2 secs. Live to Neutral	
Approvals:			

RoHS

Compliant

Compliant



Mains Filters  
**PS20/Axxx0/xx00 & PS21/Axxx0/xxxx**

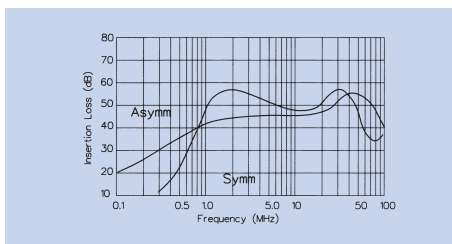
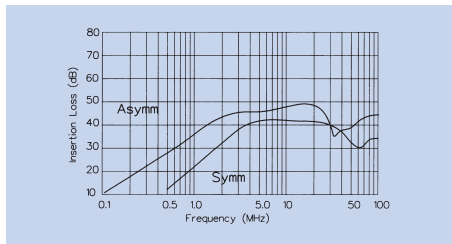
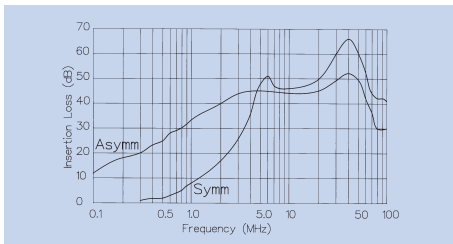
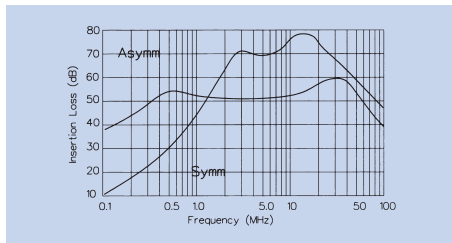
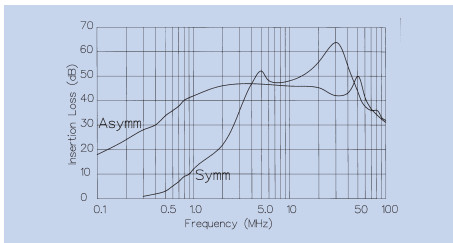
Rating & Version Table



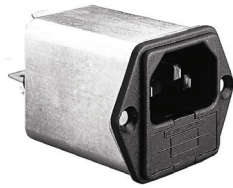
Rating	Version	L1	Cx	Cy
1 AMP	1			
"	2			
"	3	2 x 10mH	1 x 47nF	2 x 2.2nF
3 AMP	1			
"	2	2 x 1.8mH	1 x 15nF	2 x 2.2nF
"	3	2 x 6.5mH	1 x 47nF	2 x 2.2nF
6 AMP	1			
"	2	2 x 0.7mH	1 x 15nF	2 x 2.2nF
"	3	2 x 2mH	1 x 47nF	2 x 2.2nF

**Version 2**

**Version 3**

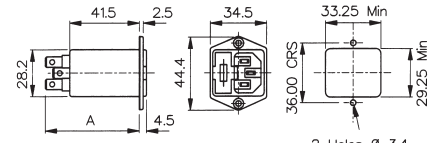


### Base Mounting



PS25/A

- 2 or 4 Amp Current Rating
- Twin Fused
- No additional components
- 6.3mm tabs



LIST No	DIM A
PS25/*****/2800	56.5
PS25/*****/6300	57.5

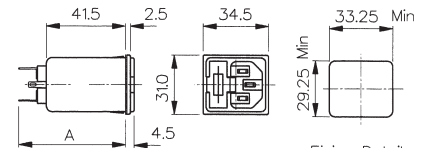
2 Holes Ø 3.4  
Fixing Details

### Snap Fit



PS26/A

- 2 or 4 Amp Current Rating
- Twin Fused
- No additional components
- 6.3mm tabs
- 1, 1.5, 2 or 3mm panels



List No	DIM A
PS23/A*****/28**	56.5
PS23/A*****/63**	57.5

Fixing Details

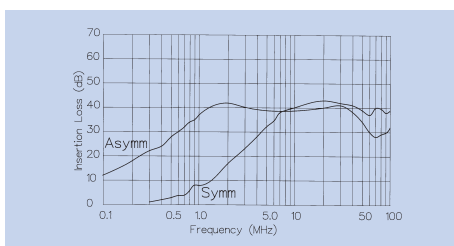
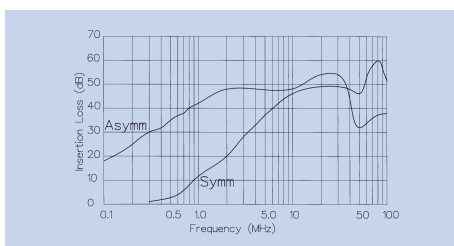
### How to order -

PS25/A or PS26/A	<b>X</b>	<b>2</b>	<b>0</b>	<b>/</b>	<b>63</b>	<b>/</b>	<b>XX</b>
<b>Series</b>	<b>Rating</b>	<b>L/C Circuit</b>	<b>Additional Components</b>		<b>Tag Type and Configuration</b>		<b>Panel Thickness</b>
PS25/A	02 = 2A	2 = Version 2	0 = None		63 = 6.3mm tabs		00 = Flange
PS26/A	04 = 4A						10 = 1.0mm
							15 = 1.5mm
							20 = 2.0mm
							30 = 3.0mm
							<b>Circuit Board Diagram</b>

Specification	PS25/Axx2x/xx00	PS26/Axx2x/xxxx	Part No. Example
Max. Working Voltage:	250V a.c. 50-400Hz	250V a.c. 50-400Hz	PS20/A0620/63
Earth Leakage Current:	2.5W per fuse	2.5W per fuse	PS20 series, flange fitting, standard filtered IEC power inlet, single fused, rated at 6 amperes. L/C circuit version 2, i.e L1 = 2 x 0.7mH, Cx = 1 x 15nF, Cy = 2 x 2.2nF. 6.3mm tabs.
Temperature Range:	<0.35mA (250V, 50Hz)	<0.35mA (250V, 50Hz)	
Max. Ambient Temp: (@ Full Load)	40°C (derate linearly to 0A @ 85°C)	40°C (derate linearly to 0A @ 85°C)	
Test Voltage:	2700V d.c. 2 secs. Lines to Earth 1100V d.c. 2 secs. Live to Neutral	2700V d.c. 2 secs. Lines to Earth 1100V d.c. 2 secs. Live to Neutral	
Approvals:			
Mating Connectors	PX0587, PX0587/SE, PX0588	PX0587, PX0587/SE, PX0588	
Accessories	P.No. 14340 (see page 151)	P.No. 14340 (see page 151)	
<b>RoHS</b>	Compliant	Compliant	

Rating	Version	L1	Cx	Cy
1 AMP	1			
"	2	2 x 1.8mH	1 x 15nF	2 x 2.2nF
"	3			
3 AMP	1			
"	2	2 x 0.7mH	1 x 15nF	2 x 2.2nF
"	3			

## Version 2

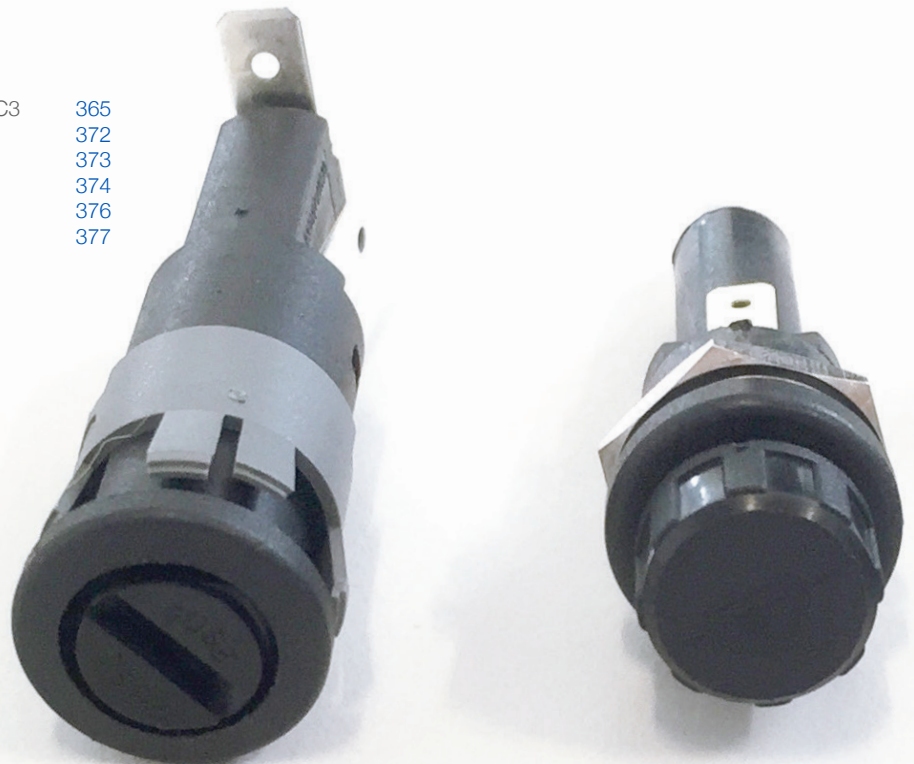


Bulgin's **extensive range** of fuseholders are **designed** to give the degree of **protection** demanded in today's sophisticated electronic equipment. Carrying world-wide safety approvals from **UL**, **VDE**, **CSA** and **IMQ**, all types are manufactured from high grade flame retardant **nylon** and **polyester** materials.

Designed primarily for 5 x 20mm and 6.3 x 32mm size fuses with protection against shock to categories PC1, PC2 and PC3. There's a choice of styles for in-line, PCB mounting and panel mounting (screw or snap fit) with terminal options for solder, 2.8mm, 4.8mm or 6.3mm tabs or PC spills. Dust and waterproof designs provide a front of panel seal to IP68 in both 5 x 20mm and 6.3 x 32mm size fuses.

Fuse carrier styles include captive drawer, screw cap - with screw driver release, bayonet cap - with screw driver release and screw cap - with finger release.

Panel/PC Mounting Captive Carriers Touchproof, PC3	365
Panel Mounting Touchproof, Sealed to IP68, PC2	372
Panel Mounting Touchproof, Sealed to IP66, PC1	373
PC Mounting PC1, PC2 and PC3	374
Base Mounting, PC1	376
In-Line PC1 and In-Line Sealed to IP66, PC1	377



## Category PC1:

No integral protection against electric shock. If required, Designers/Manufacturers must provide additional protection against electric shock on equipment.

## Category PC2:

With integral protection against electric shock. Fuseholders shall have live parts inaccessible to IEC 60529 Standard Test Finger, when fully assembled, without fuse carrier or fuse in place and when fuse carrier, with fuse is being inserted or withdrawn.

## Category PC3:

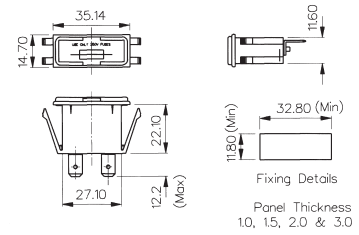
With integral protection against electric shock. Fuseholders shall have live parts inaccessible to IEC 60529 1 mm dia. rigid test wire when fully assembled, without fuse carrier or fuse in place and when fuse carrier, with fuse, is being inserted or withdrawn.

Snap Fit to Panel



FX0430/63

- Protection Category PC3
- Fuse Size 5 x 20mm
- Panel Sizes 1.0, 1.5, 2.0 and 3.0mm
- Captive Drawer
- 10A, 250V (16A, 250V UL)
- 2.8, 4.8 or 6.3 tabs

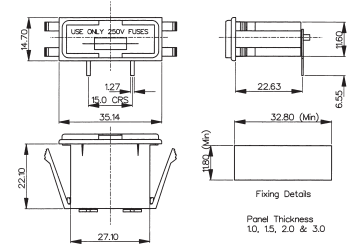


Snap Fit to Panel



FX0430/PC

- Protection Category PC3
- Fuse Size 5 x 20mm
- Panel Sizes 1.0, 1.5, 2.0 and 3.0mm
- Captive Drawer
- 10A, 250V (16A, 250V UL)
- PC spills



Specifications	FX0430/Termination	FX0430/PC
Fuse Size:	5 x 20mm	5 x 20mm
Fuse Carrier:	Captive Drawer	Captive Drawer
Terminations:	/28 (2.8mm solder), /48 (4.8mm tab), /63 (6.3mm tab)	/PC (PC spills)
Max. Rating:	10A, 250V (16A, 250V a.c. UL)	10A, 250V (16A, 250V a.c. UL)
Max. Power Dissipation:	2.5W (@ 23°C)	2.5W (@ 23°C)
Insulation Resistance:	>10MΩ @ 500V d.c.	>10MΩ @ 500V d.c.
A.C. Breakdown:	>2kV	>2kV
Contact Resistance:	<10mΩ	<10mΩ
Operating Temp:	-20°C to +85°C (ambient air temp + fuse temp rise)	-20°C to +85°C (ambient air temp + fuse temp rise)
Mouldings:		
Body/Drawer:	Nylon UL94V-0 rated	Nylon UL94V-0 rated
Cap:		
Nut:		
Contacts:	Contact tags: Brass, Tin Plated Fuse Clips: Phosphor Bronze, Nickel Plated	Contact tags: Brass, Tin Plated Fuse Clips: Phosphor Bronze, Nickel Plated
Approvals:		
Accessories:		
Note:		
<b>RoHS</b>	Compliant	Compliant

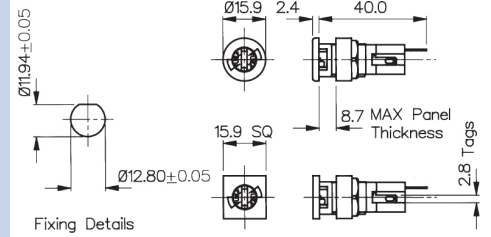
Panel Mount



FX0357

FX0359

- Protection Category PC2
- Fuse Size 5 x 20mm
- Bayonet Cap/Screwdriver Release
- 10A, 250V (16A, 250V UL)



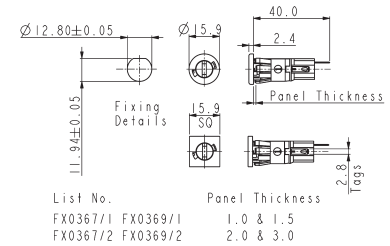
Snap Fit to Panel



FX0367

FX0369

- Protection Category PC2
- Fuse Size 5 x 20mm
- Panel Sizes 1.0 & 1.5 and 2.0 & 3.0mm
- Bayonet Cap/Screwdriver Release
- 10A, 250V (16A, 250V UL)



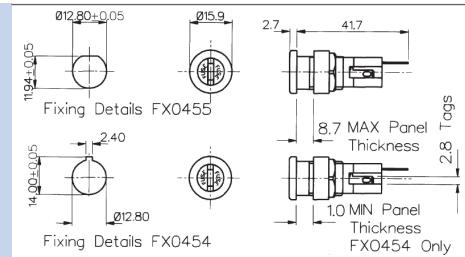
Specifications	FX0357, FX0359	FX0367/Panel, FX0369/Panel
Fuse Size:	5 x 20mm	5 x 20mm
Panel Size:		/1 (1.0-1.5mm panel, black sleeve) /2 (2.0-3.0mm panel, grey sleeve)
Fuse Carrier:	Bayonet cap/Screwdriver release	Bayonet cap/Screwdriver release
Terminations:	Solder tags	Solder tags
Max. Rating:	10A, 250V (16A, 250V a.c. UL)	10A, 250V (16A, 250V a.c. UL)
Max. Power Dissipation:	2.5W (@ 23°C)	2.5W (@ 23°C)
Insulation Resistance:	>10 <sup>2</sup> MΩ @ 500V d.c.	>10 <sup>2</sup> MΩ @ 500V d.c.
A.C. Breakdown:	7kV @ 50Hz	7kV @ 50Hz
Contact Resistance:	<10mΩ	<10mΩ
Operating Temp:	-20°C to +85°C (ambient air temp + fuse temp rise)	-20°C to +85°C (ambient air temp + fuse temp rise)
Mouldings:		
Body:	Polyester UL94V-0 rated	Polyester UL94V-0 rated
Cap:	Nylon UL94V-0 rated	Nylon UL94V-0 rated
Nut:	Glass Filled Nylon UL94V-0 rated	
Contacts:	Brass, Silver Plated	Brass, Silver Plated
Approvals:	*VDE APPROVALS PENDING	
Accessories:	P.No. 11327 (See page 206)	P.No. 11327 (See page 205)
<b>RoHS</b>	Compliant	Compliant

Panel Mount



FX0454, FX0455

- Protection Category PC2
- Fuse Size 5 x 20mm
- Screw Cap/Screwdriver Release
- Keyway Panel Cutout (FX0454)
- D Panel Cutout (FX0455)
- 10A, 250V (16A, 250V UL)

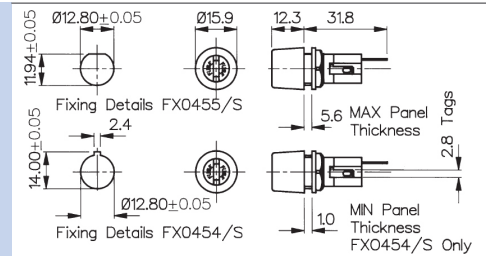


Panel Mount



FX0454/S, FX0455/S

- Protection Category PC2
- Fuse Size 5 x 20mm
- Screw Cap/Screwdriver Release
- High Profile Bezel
- Keyway Panel Cutout (FX0454/S)
- D Panel Cutout (FX0455/S)
- 10A, 250V (16A, 250V UL)

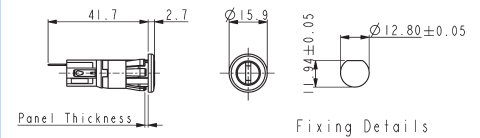


Snap Fit to Panel



FX0458

- Protection Category PC2
- Fuse Size 5 x 20mm
- Panel Sizes 1.0 & 1.5 and 2.0 & 3.0mm
- Screw Cap/Screwdriver Release
- 10A, 250V (16A, 250V UL)



List No.	Panel Thickness
FX0458/1	1.0 & 1.5
FX0458/2	2.0 & 3.0

Specifications	FX0454, FX0455	FX0454/S, FX0455/S	FX0458
Fuse Size:	5 x 20mm	5 x 20mm	5 x 20mm
Panel Size:			/1 (1.0-1.5mm panel, black sleeve) /2 (2.0-3.0mm panel, grey sleeve)
Fuse Carrier:	Screw cap/Screwdriver release	Screw cap/Screwdriver release	Screw cap/Screwdriver release
Terminations:	Solder tags	Solder tags	Solder tags
Max. Rating:	10A, 250V (16A, 250V a.c. UL)	10A, 250V (16A, 250V a.c. UL)	10A, 250V (16A, 250V a.c. UL)
Max. Power Dissipation:	2.5W (@ 23°C)	2.5W (@ 23°C)	2.5W (@ 23°C)
Insulation Resistance:	>10 <sup>9</sup> MΩ @ 500V d.c.	>10 <sup>9</sup> MΩ @ 500V d.c.	>10 <sup>9</sup> MΩ @ 500V d.c.
A.C. Breakdown:	7kV @ 50Hz	7kV @ 50Hz	7kV @ 50Hz
Contact Resistance:	<10mΩ	<10mΩ	<10mΩ
Operating Temp:	-20°C to +85°C (ambient air temp + fuse temp rise)	-20°C to +85°C (ambient air temp + fuse temp rise)	-20°C to +85°C (ambient air temp + fuse temp rise)
Mouldings:			
Body:	Polyester UL94V-0 rated	Polyester UL94V-0 rated	Polyester UL94V-0 rated
Cap:	Nylon UL94V-0 rated	Nylon UL94V-0 rated	Nylon UL94V-0 rated
Nut:	Glass Filled Nylon UL94V-0 rated	Glass Filled Nylon UL94V-0 rated	
Contacts:	Brass, Silver Plated	Brass, Silver Plated	Brass, Silver Plated
Approvals:			
Accessories:	P.Nos. 11327, 12297 & 12298 (See page 206)	P.Nos. 11327, 12297 & 12298 (See page 206)	P.Nos. 11327 (See page 205)
<b>RoHS</b>	Compliant	Compliant	Compliant



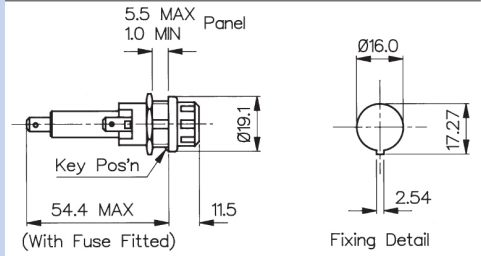
Panel Mount



FX0415,

FX0416

- Protection Category PC2
- Fuse Sizes:  
6.3 x 32mm (FX0415)  
6.3 x 25mm (FX0416)
- Screw Cap/Hand Release
- 13A, 250V (16A, 250V UL)



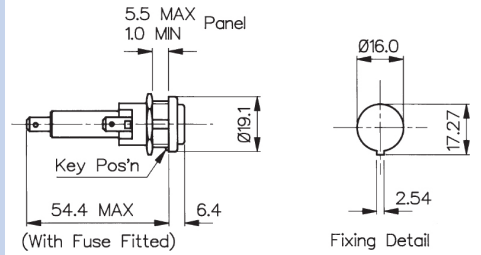
Panel Mount



FX0415/S,

FX0416/S

- Protection Category PC2
- Fuse Sizes:  
6.3 x 32mm (FX0415/S)  
6.3 x 25mm (FX0416/S)
- Screw Cap/Screwdriver Release
- 13A, 250V (16A, 250V UL)



Specifications	FX0415, FX0416	FX0415/S, FX0416/S
Fuse Size:	FX0415 - 6.3 x 32mm FX0416 - 6.3 x 25mm	FX0415/S - 6.3 x 32mm FX0416/S - 6.3 x 25mm
Fuse Carrier:	Screw cap/Screwdriver release	Screw cap/Screwdriver release
Terminations:	4.8 series tabs	4.8 series tabs
Max. Rating:	13A, 250V (16A, 250V UL)	13A, 250V (16A, 250V UL)
Max. Power Dissipation:	4W (@ 23°C)	4W (@ 23°C)
Insulation Resistance:	>10 <sup>5</sup> MΩ @ 500V d.c.	>10 <sup>5</sup> MΩ @ 500V d.c.
A.C. Breakdown:	4kV @ 50Hz	4kV @ 50Hz
Contact Resistance:	<5mΩ	<5mΩ
Operating Temp:	-20°C to +85°C (ambient air temp + fuse temp rise)	-20°C to +85°C (ambient air temp + fuse temp rise)
Mouldings:		
Body:	Glass Filled Nylon UL94V-0 rated	Glass Filled Nylon UL94V-0 rated
Cap:	Nylon UL94V-0 rated	Nylon UL94V-0 rated
Nut:	Polyester UL94V-0 rated	Polyester UL94V-0 rated
Contacts:	Brass, Silver Plated	Brass, Silver Plated
Approvals:		
Accessories:	P.No. 12932 (See page 205)	P.No. 12932 (See page 205)
<b>RoHS</b>	Compliant	Compliant

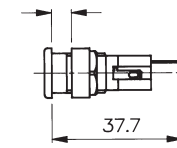
Panel Mount



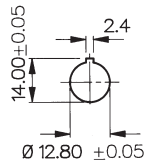
FX0354

- Protection Category PC2
- Low Profile Bezel
- Fuse Size 5 x 20mm
- Screw Cap/Screwdriver Release
- Keyway Panel Cutout
- 6.3A, 250V

6.4 MAX Panel  
0.8 MIN PANEL



Fixing Details



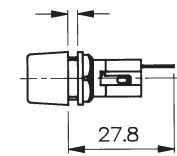
Panel Mount



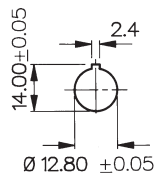
FX0354/S

- Protection Category PC2
- High Profile Bezel
- Fuse Size 5 x 20mm
- Screw Cap/Screwdriver Release
- Keyway Panel Cutout
- 6.3A, 250V

2.4 MAX Panel  
0.8 MIN PANEL



Fixing Details



Specifications	FX0354	FX0354/S
Fuse Size:	5 x 20mm	5 x 20mm
Fuse Carrier:	Screw cap/Screwdriver release	Screw cap/Screwdriver release
Terminations:	Solder tags	Solder tags
Max. Rating:	6.3A, 250V	6.3A, 250V
Max. Power Dissipation:	2.5W (@ 23°C)	2.5W (@ 23°C)
Insulation Resistance:	>10 <sup>2</sup> MΩ @ 500V d.c.	>10 <sup>2</sup> MΩ @ 500V d.c.
A.C. Breakdown:	5kV @ 50Hz	5kV @ 50Hz
Contact Resistance:	<10mΩ	<10mΩ
Operating Temp:	-20°C to +85°C (ambient air temp + fuse temp rise)	-20°C to +85°C (ambient air temp + fuse temp rise)
Mouldings:		
Body:	Polyester UL94V-0 rated	Polyester UL94V-0 rated
Cap:	Nylon UL94V-0 rated	Nylon UL94V-0 rated
Nut:	Glass Filled Nylon UL94V-0 rated	Glass Filled Nylon UL94V-0 rated
Contacts:	Brass, Silver Plated	Brass, Silver Plated
Approvals:		
Accessories:	P.No. 11327 and 12298 (See page 205)	P.No. 11327 and 12298 (See page 205)
RoHS	Compliant	Compliant



### Key Features

- 6.3 x 32mm fuses
- Screwdriver slot knob
- PC2 protection category
- 4.8, 6.3 and solder terminals
- Low profile bezel
- Snap in or threaded bushing mounting options

### Approvals and specifications

10A 250V (max fuse rating\*) T-55 to T+70 (ambient)  
Maximum dissipation wattage: 4W

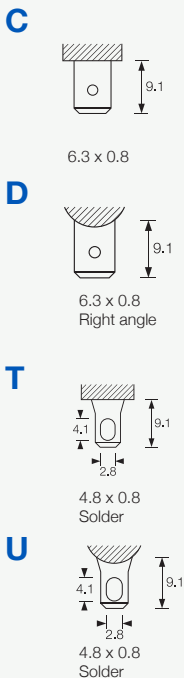
16A UL 250V UL file E92075 CSA file LR44770

These products comply with safety category PC2.  
\*Users should be aware of the de-rating factors published by specialist manufacturers of fuses.

Fuseholders with in-line termination have combination (4.8/6.3) terminals. It has not been possible to show both views here. Units with right angle terminals have user specified end terminals and combination mid-body terminals.



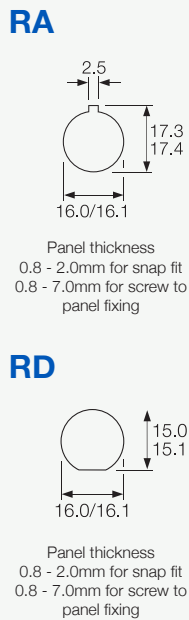
### Terminal



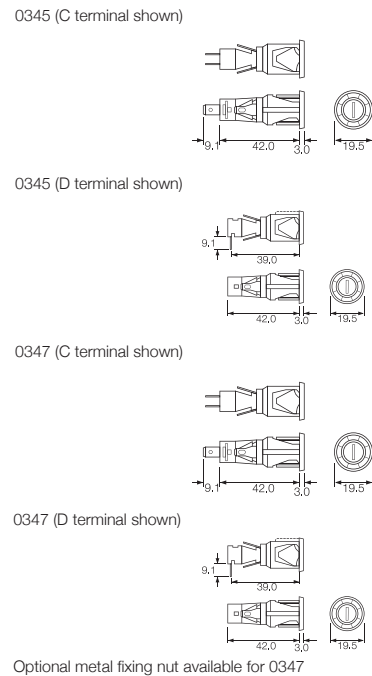
### Body



### Options



### Dimensions



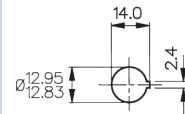
Panel Mount



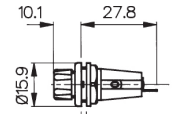
FX0296/S

FX0296

- Protection Category PC1
- Fuse Size 5 x 20mm
- Screw Cap/Hand Release
- 6.3A, 250V



Fixing Details



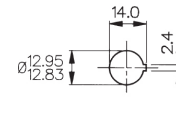
3.2 MAX Panel  
1.0 MIN Panel

Panel Mount

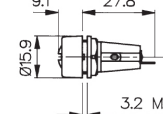
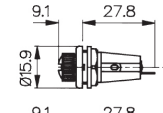


FX0296/1

- Protection Category PC1
- Fuse Size 5 x 20mm
- Screw Cap/Hand Release
- 6.3A, 250V



Fixing Details



3.2 MAX Panel  
1.0 MIN Panel

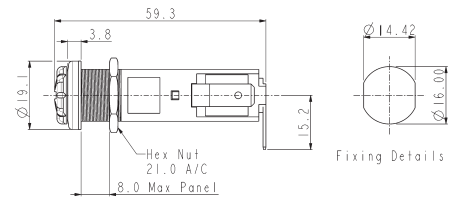
Specifications	FX0296, FX0296/S	FX0296/1
Fuse Size:	5 x 20mm	5 x 20mm
Fuse Carrier:	FX0296 Screw cap/Hand release FX0296/S Screw cap/Screwdriver release	Screw cap/Hand release
Terminations:	Solder tags	Solder tags
Max. Rating:	6.3A, 250V	6.3A, 250V
Max. Power Dissipation:	2.5W (@ 23°C)	2.5W (@ 23°C)
Insulation Resistance:	>10 <sup>5</sup> MΩ @ 500V d.c.	>10 <sup>5</sup> MΩ @ 500V d.c.
A.C. Breakdown:	2.5kV @ 50Hz	2.5kV @ 50Hz
Contact Resistance:	<5mΩ	<5mΩ
Operating Temp:	-20°C to +85°C (ambient air temp + fuse temp rise)	-20°C to +85°C (ambient air temp + fuse temp rise)
Mouldings:		
Body:	Glass Filled Nylon UL94V-0 rated Nylon	Glass Filled Nylon UL94V-0 rated Nylon
Cap:	UL94V-0 rated	UL94V-0 rated
Nut:	Glass Filled Nylon UL94V-0 rated	Glass Filled Nylon UL94V-0 rated
Contacts:	Brass, Silver or Tin Plated	Brass, Silver or Tin Plated
Accessories	P.No. 9820 (See page 205)	P.No. 9820 (See page 205)
<b>RoHS</b>	Compliant	Compliant

Panel Mount



FX0419

- Panel sealed to IP68
- Touchproof Category PC2
- Fuse Size 6.3 x 32mm
- Screw cap/Screwdriver/Hand Release
- 16A. 250V ac

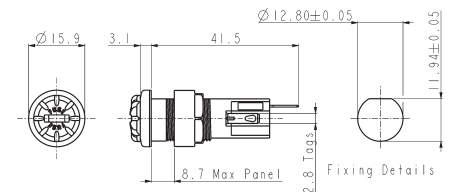


Panel Mount



FX0462

- Panel sealed to IP68
- Touchproof Category PC2
- Fuse Size 5 x 20mm
- Screw cap/Screwdriver/Hand Release
- 10A. 250V ac

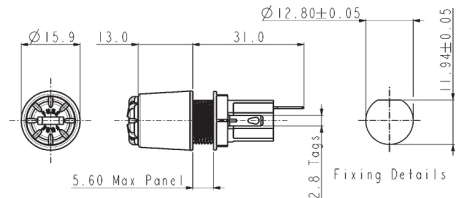


Panel Mount



FX0463

- Panel sealed to IP68
- Touchproof Category PC2
- Fuse Size 5 x 20mm
- High Profile Bezel
- Screw cap/Screwdriver/Hand Release
- 10A. 250V ac



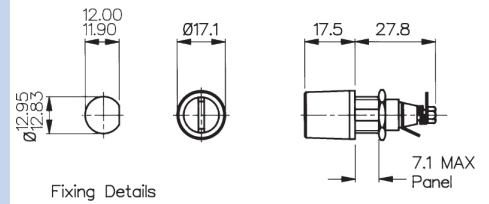
Specifications	FX0419	FX0462	FX0463
Fuse Size:	6.3 x 32mm	5.0 x 20mm	5.0 x 20mm
Fuse Carrier:	Screw cap/Screwdriver/Hand release	Screw cap/Screwdriver/Hand release	Screw cap/Screwdriver/Hand release
Terminations:	6.3 series tabs	Solder tags	Solder tags
Max. Rating:	16A, 250V ac	10A, 250V ac	10A, 250V ac
Max. Power Dissipation:	2.5W (@ 23°C)	2.5W (@ 23°C)	2.5W (@ 23°C)
Insulation Resistance:	>10 <sup>6</sup> MΩ @ 500V d.c.	>10 <sup>6</sup> MΩ @ 500V d.c.	>10 <sup>6</sup> MΩ @ 500V d.c.
A.C. Breakdown:	>2kV @ 50Hz	>7kV @ 50Hz	>7kV @ 50Hz
Contact Resistance:	<10mΩ	<10mΩ	<10mΩ
Operating Temp:	-20°C to +85°C (ambient air temp + fuse temp rise)	-20°C to +85°C (ambient air temp + fuse temp rise)	-20°C to +85°C (ambient air temp + fuse temp rise)
Mouldings:			
Body:	Polyester UL94V-0 rated	Polyester UL94V-0 rated	Polyester UL94V-0 rated
Cap:	Nylon UL94V-0 rated	Nylon UL94V-0 rated	Nylon UL94V-0 rated
Nut:	Glass Filled Nylon UL94V-0 rated	Glass Filled Nylon UL94V-0 rated	Glass Filled Nylon UL94V-0 rated
Contacts:	Brass, Silver Plated	Brass, Silver Plated	Brass, Silver Plated
Tightening Torque:			
Cap:	0.5 - 0.6Nm (4.43-5.3lbf.in.)	0.4 - 0.6Nm (3.54-5.3lbf.in.)	0.4 - 0.6Nm (3.54-5.3lbf.in.)
Panel Nut:	0.5Nm (4.4lbf.in.)	0.5Nm (4.4lbf.in.)	0.5Nm (4.4lbf.in.)
Sealing:	IP68 to EN60529:1992+A2:2013 (10m for 2weeks)	IP68 to EN60529:1992+A2:2013 (10m for 2weeks)	IP68 to EN60529:1992+A2:2013 (10m for 2weeks)
Accessories:		P.nos. 11327 (see page 205)	P.nos. 11327 (see page 205)
Approvals:	*VDE APPROVALS PENDING		
RoHS	Compliant	Compliant	Compliant

High Profile Panel Mount



FX0345

- Sealed to IP66
- Protection Category PC1
- Fuse Size 5 x 20mm
- Screw Cap/Screwdriver Release
- 6.3A, 250V

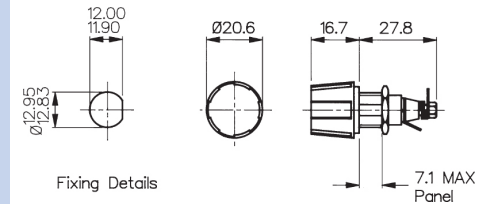


High Profile Panel Mount



FX0365

- Sealed to IP66
- Protection Category PC1
- Fuse Size 5 x 20mm
- Screw Cap/Hand Release
- Large Cap for Easy Grip
- 6.3A, 250V



Specifications	FX0345, FX0345/A	FX0365, FX0365/A
Fuse Size:	5 x 20mm	5 x 20mm
Fuse Carrier:	Screw cap/Screwdriver release	Screw cap/Screwdriver release
Terminations:	Solder tags	Solder tags
Max. Rating:	6.3A, 250V	6.3A, 250V
Max. Power Dissipation:	4W (@ 23°C)	4W (@ 23°C)
Insulation Resistance:	>10 <sup>9</sup> MΩ @ 500V d.c.	>10 <sup>9</sup> MΩ @ 500V d.c.
A.C. Breakdown:	>3.5kV @ 50Hz	>3.5kV @ 50Hz
Contact Resistance:	<10mΩ	<10mΩ
Operating Temp:	-20°C to +85°C (ambient air temp + fuse temp rise)	-20°C to +85°C (ambient air temp + fuse temp rise)
Mouldings:		
Body & Cap:	Glass Filled Nylon UL94V-0 rated	Glass Filled Nylon UL94V-0 rated
Spacer:	Glass Filled Nylon UL94HB rated	Glass Filled Nylon UL94HB rated
Insulating Sleeve:	Nylon UL94V-0 rated	Nylon UL94V-0 rated
Contacts:	Brass, Silver Plated	Brass, Silver Plated
Sealing:	Protection Classification IP66 to EN60529:1992+A2:2013 Retains sealing integrity with cap removed since they are both panel and barrier sealed	
Variants:	/A Silicone 'O' ring, Op. Temp. -55°C to +85°C Compliant	/A Silicone 'O' ring, Op. Temp. -55°C to +85°C Compliant

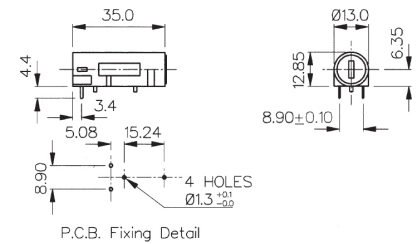
RoHS

PC Horizontal Mount



FX0461

- Protection Category PC3
- Fuse Size 5 x 20mm
- Screw Cap/Screwdriver Release
- Captive Fuse Carrier
- PC Spills
- 10A, 250V (16A, 250V UL)



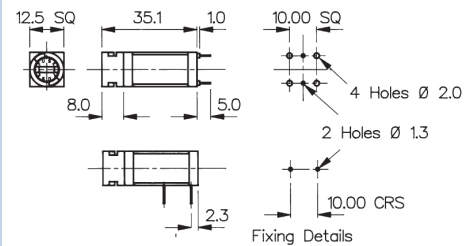
PC Horizontal and Vertical Mount



FX0457

FX0456

- Protection Category PC2
- Fuse Sizes 5 x 20mm
- Bayonet Cap/Screwdriver Release
- 10A, 250V



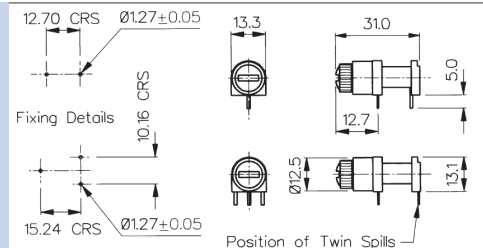
PC Horizontal Mount



FX0330

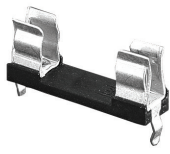
FX0342

- Protection Category PC1
- Fuse Size 5 x 20mm
- Two or Three PC Spills
- Screw Cap/Hand Release
- 6.3A, 250V



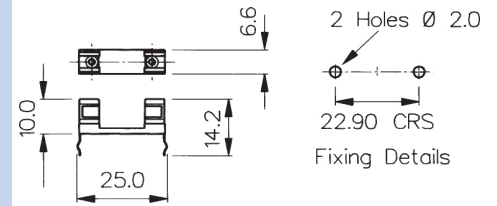
Specifications	FX0461	FX0456 FX0457	FX0330 FX0342
Fuse Size:	5 x 20mm	5 x 20mm	5 x 20mm
Fuse Carrier:	Screw cap/Screwdriver release	Bayonet cap/Screwdriver release	Screw cap/Hand release
Terminations:	PC Spills	PC Spills	FX0330 - 3 PC Spills FX0342 - 2 PC Spills
Max. Rating:	10A, 250V (16A, 250V a.c. UL)	10A, 250V	6.3A, 250V
Max. Power Dissipation:	1.6W (@ 23°C)	2.5W (@ 23°C)	2.5W (@ 23°C)
Insulation Resistance:	>10MΩ @ 500V d.c.	>10 <sup>2</sup> MΩ @ 500V d.c.	>10 <sup>4</sup> MΩ @ 500V d.c.
A.C. Breakdown:	>2kV	4kV @ 50Hz	6kV @ 50Hz
Contact Resistance:	<10mΩ	<10mΩ	<5mΩ
Operating Temp:	-20°C to +85°C (ambient air temp + fuse temp rise)	-20°C to +85°C (ambient air temp + fuse temp rise)	-20°C to +85°C (ambient air temp + fuse temp rise)
Mouldings:			
Body:	Polyester UL94V-0 rated	Polyester UL94V-0 rated	Glass Filled Nylon UL94V-0 rated
Cap:	Nylon UL94V-0 rated	Nylon UL94V-0 rated	Nylon UL94V-0 rated
End Bung:		Polyester UL94V-0 rated	
Contacts:	Brass, Silver Plated	Brass, Silver Plated	Brass, Tin Plated
Approvals:			
<b>RoHS</b>	Compliant	Compliant	Compliant

PC Mount



FX0321

- Protection Category PC1
- Fuse Size 5 x 20mm
- PC Spills
- 6.3A, 250V

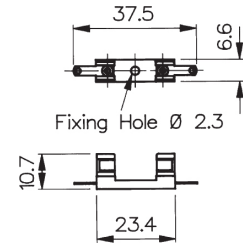


Base Mount



FX0267

- Protection Category PC1
- Fuse Size 5 x 20mm
- Solder Tags
- 6.3A, 250V

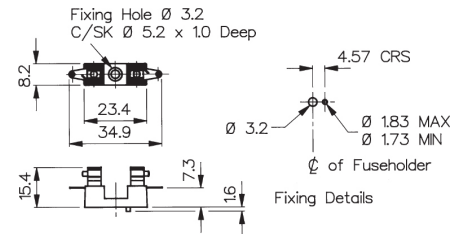


Base Mount



FX0360

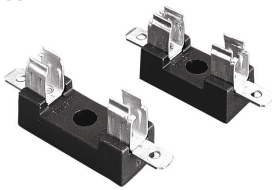
- Protection Category PC1
- Fuse Size 5 x 20mm
- Solder Tags
- 6.3A, 250V



Specifications	FX0321	FX0267	FX0360
Fuse Size:	5 x 20mm	5 x 20mm	5 x 20mm
Terminations:	PC Spills	Solder tags	Solder tags
Max. Rating:	6.3A, 250V	6.3A, 250V	6.3A, 250V
Insulation Resistance:	>10 <sup>5</sup> MΩ @ 500V d.c.	>10 <sup>5</sup> MΩ @ 500V d.c.	>10 <sup>4</sup> MΩ @ 500V d.c.
A.C. Breakdown:	7kV @ 50Hz (Clip to clip)	1.5kV @ 50Hz	2kV @ 50Hz
Contact Resistance:	<10mΩ	<10mΩ	<10mΩ
Operating Temp: (ambient air temp + fuse temp rise)	-20°C to +85°C	-20°C to +85°C	-20°C to +85°C
Base Material:	Glass Filled Nylon UL94V-0 rated	Glass Filled Nylon UL94V-0 rated	Glass Filled Nylon UL94HB rated
Contacts:	Phosphor Bronze, Tin Plated	Phosphor Bronze, Tin Plated	Phosphor Bronze, Tin Plated
Accessories:	P.No. 12760 (See page 205)	P.No. 12760 (See page 205)	
<b>RoHS</b>	Compliant	Compliant	Compliant



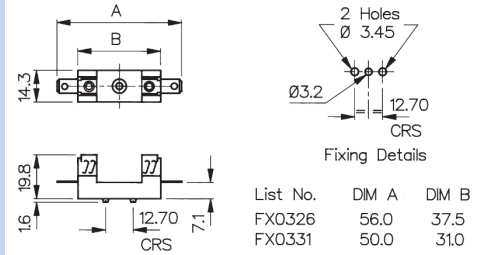
Base Mount



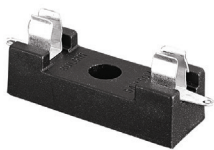
FX0326

FX0331

- Protection Category PC1
- Fuse Sizes:  
6.3 x 32mm (FX0326)  
6.3 x 25mm (FX0331)
- Solder Tags
- 13A, 250V

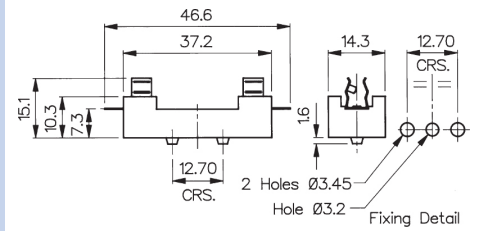


Base Mount


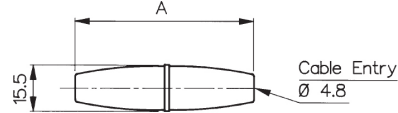


FX0327

- Protection Category PC1
- Fuse Size 6.3 x 32mm
- Solder Tags
- 5A, 250V



Specifications	FX0326, FX0331	FX0327
Fuse Size:	FX0326 - 6.3 x 32mm FX0331 - 6.3 x 25mm	6.3 x 32mm
Terminations:	6.3 series tabs	Solder tags
Max. Rating:	13A, 250V	5A, 250V
Insulation Resistance:	>10 <sup>4</sup> MΩ @ 500V d.c.	>10 <sup>5</sup> MΩ @ 500V d.c.
A.C. Breakdown:	5kV @ 50Hz	5kV @ 50Hz
Contact Resistance:	<5mΩ	<10mΩ
Operating Temp: (ambient air temp + fuse temp rise)	-20°C to +85°C	-20°C to +85°C
Base Material:	Glass Filled Polyester UL94V-0 rated	Glass Filled Polyester UL94V-0 rated
Contacts:	Clips: Phosphor Bronze, Tin Plated Tabs: Brass, Tin Plated	Phosphor Bronze, Tin Plated
<b>RoHS</b>	Compliant	Compliant

<p>In-line</p>  <p style="text-align: center;">FX0180, FX0280, FX0380</p>	<ul style="list-style-type: none"> <li>○ Protection Category PC1</li> <li>○ Fuse Sizes 5 x 20mm, 6.3 x 25mm and 6.3 x 32mm</li> <li>○ Screw Terminal (Solder to order)</li> <li>○ 10A, 50V (250V Inaccessible)</li> <li>○ UL Approved (Black Only)</li> <li>○ Clear or black</li> </ul>	 <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>List No.</th> <th>DIM A</th> </tr> </thead> <tbody> <tr> <td>FX0180</td> <td>60.3</td> </tr> <tr> <td>FX0280</td> <td>54.5</td> </tr> <tr> <td>FX0380</td> <td>48.6</td> </tr> </tbody> </table>	List No.	DIM A	FX0180	60.3	FX0280	54.5	FX0380	48.6
List No.	DIM A									
FX0180	60.3									
FX0280	54.5									
FX0380	48.6									

<p>In-line</p>  <p style="text-align: center;">FX0185, FX0285, FX0385</p>	<ul style="list-style-type: none"> <li>○ Sealed to IP66</li> <li>○ Protection Category PC1</li> <li>○ Fuse Sizes 5 x 20mm, 6.3 x 25mm and 6.3 x 32mm</li> <li>○ Screw Terminal (Solder to order)</li> <li>○ 10A, 50V (250V Inaccessible)</li> <li>○ UL Approved (Black Only)</li> <li>○ Clear or black</li> </ul>	 <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>List No.</th> <th>DIM A</th> </tr> </thead> <tbody> <tr> <td>FX0185</td> <td>91.0</td> </tr> <tr> <td>FX0285</td> <td>85.2</td> </tr> <tr> <td>FX0385</td> <td>78.7 +/- 0.9</td> </tr> </tbody> </table>	List No.	DIM A	FX0185	91.0	FX0285	85.2	FX0385	78.7 +/- 0.9
List No.	DIM A									
FX0185	91.0									
FX0285	85.2									
FX0385	78.7 +/- 0.9									

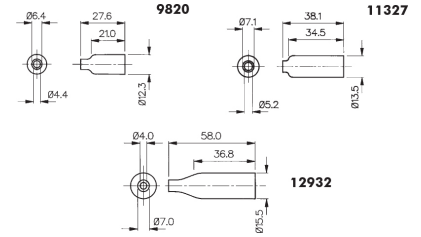
Specifications	FX0180/colour, FX0280.colour, FX0380/Colour	FX0185/Colour, FX0285/colour, FX0385/Colour
Fuse Size:	5 x 20mm FX0380 6.3 x 25mm FX0280 6.3 x 32mm FX0180	5 x 20mm FX0385 6.3 x 25mm FX0285 6.3 x 32mm FX0185
Cable Acceptance:	1mm <sup>2</sup> conductor (max.)	1mm <sup>2</sup> conductor (max.) 1mm to 2.64mm overall diameter Stepped grommet: Stage 1: 1.00mm to 1.40mm Stage 2: 1.50mm to 1.90mm Stage 3: 2.0mm to 2.64mm
Terminations:	Screw terminal (solder to order)	Screw Terminal (solder to order)
Max. Rating:	10A, 50V (250V where inaccessible inside equipment)	10A, 50V (250V where inaccessible inside equipment)
Insulation Resistance:	>10 <sup>5</sup> MΩ @ 500V d.c.	>10 <sup>5</sup> MΩ @ 500V d.c.
High Voltage Proof Test:	2kV (50Hz for 1 minute)	2kV (50Hz for 1 minute)
Contact Resistance:	<10mΩ	<10mΩ
Operating Temp: (ambient air temp + fuse temp rise)	-20°C to +90°C	-20°C to +70°C
Sealing:		Protection Classification IP66 EN60529: 1992+A2:2013
Screw Tightening Torque	0.226Nm (2lb/in)	0.226Nm (2lb/in)
Mouldings:		
Body - Clear:	Polybutene UL94HB rated	Polybutene UL94HB rated
Body - Black:	Nylon 6 UL94V-0 rated	Nylon 6 UL94V-0 rated
Grommet:		PVC
O Ring:		Nitrile
Contacts:		
Terminals:	Brass, Nickel Plated	Brass, Nickel Plated
Grub Screw:	Stainless Steel	Stainless Steel
Approvals:	(Black version only)	(Black version only)
Colour:	Clear - no suffix, /BK - Black	Clear - no suffix, /BK - Black
<b>RoHS</b>	Compliant	Compliant

Insulation Boots

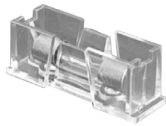


PNo. 11327 PNo. 12932 PNo. 9820

- Provide Insulation against Shock on Rear of Fuseholder
- PVC
- UL94V-0 rated flame retardant material

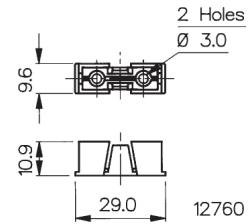


Insulation Cover



PNo. 12760

- Provide Insulation from Live Parts on Fuseholder
- Clear
- Polycarbonate

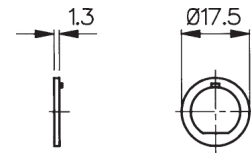


Adaptor



PNo. 12297

- Adaptor to Convert Fixing Holes
- Maintains Anti-Rotation
- Glass Filled Nylon



12297

Accessories

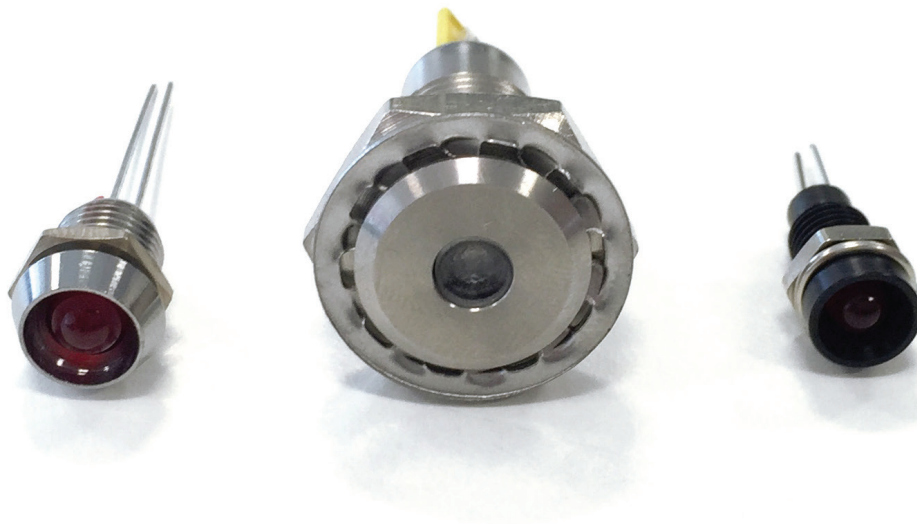
For Use With:

P.No. 9820 (Boot)	FX0296, FX0296/1, FX0296/S
P.No. 11327 (Boot)	FX0354, FX0354/S, FX0357, FX0359, FX0454, FX0454/S, FX0455, FX0455/S, FX0460, FX0458, FX0367, FX0369, FX0462, FX0463
P.No. 12932 (Boot)	FX0415, FX0415/S, FX0416, FX0416/S
P.No. 12760 (Cover)	FX0267, FX0321
Max. Working Voltage:	250V a.c.
Flash Tested to:	2kV a.c.
Material:	P.Nos. 9820, 11327, 12932: PVC - UL94V-0 P.No. 12760: Polycarbonate
P.No. 12297 (Adaptor Washer)	Adapts 'D' fixing to anti-rotation Key Fixing FX0455, FX0455/S
Material:	Glass Filled Nylon
<b>RoHS</b>	Compliant

This range of panel mounting **LED indicators** consists of many different **bezel styles**, types of LED's and colours. The range has developed to meet the different needs of panel design including **IP66 and IP67 environmentally sealed versions** for use where a front panel seal is needed.

The vandal resistant LED indicators are designed to complement the vandal resistant switches (see the Switch Section), they have similar profiles with stainless steel bodies, sealing to IP66 & 68 and are built to withstand harsh environments.

Vandal Resistant LED Indicators	380
5mm LED Indicators	382
Indicator Lights	387
Low Voltage Lampholders	394
LED Lamps and LED Lampholders	396
Indicator Lights - Sealed to IP67	397

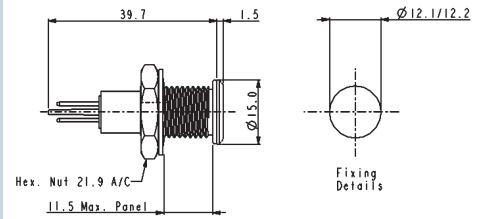


## Proud of Panel Profile

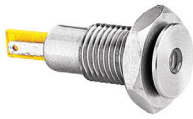


DX0505

- Solder Tag/2.8mm Tag Termination
- Sealed to IP67
- Red, Green, Yellow or Blue LED Options
- Wide Viewing Angle
- Shock and Vibration Resistant
- Stainless Steel body

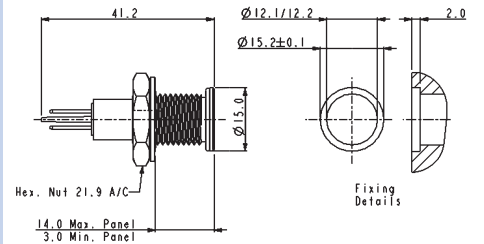


## Flush Panel Profile



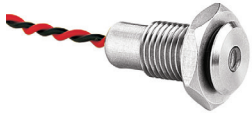
DX0506

- Solder Tag/2.8mm Tag Termination
- Sealed to IP67
- Red, Green, Yellow or Blue LED Options
- Wide Viewing Angle
- Shock and Vibration Resistant
- Stainless Steel body



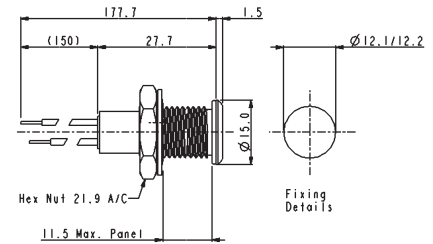
Specifications	DX0505/Col/Voltage	DX0506/Col/Voltage
Terminations:	Solder Tab/2.8mm Tab	Solder Tab/2.8mm Tab
Forward Voltage:	Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V	Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V
Cont. Forward Current: (max)	Red 30mA, Green 25mA, Yellow 30mA, Blue 25mA	Red 30mA, Green 25mA, Yellow 30mA, Blue 25mA
Power Dissipation:	Red 100mW, Green 105mW, Yellow 125mW, Blue 120mW	Red 100mW, Green 105mW, Yellow 125mW, Blue 120mW
Reverse Current: (@Vr = 5V)	Red 10µA max., Green 10µA max., Yellow 10µA max., Blue 50µA max.	Red 10µA max., Green 10µA max., Yellow 10µA max., Blue 50µA max.
LED Luminous Intensity:	Red 2000mcd, Green 100mcd, Yellow 400mcd, Blue 1600mcd (typ)	Red 2000mcd, Green 100mcd, Yellow 400mcd, Blue 1600mcd (typ)
Operating Temp. Range:	-40°C to +80°C	-40°C to +80°C
Storage Temperature:	-40°C to +85°C	-40°C to +85°C
Sealing (Front of panel):	Protection Classification IP67 to EN60529:1992+A2:2013	Protection Classification IP67 to EN60529:1992+A2:2013
Materials		
Body:	Stainless Steel	Stainless Steel
Lens:	Polycarbonate UL94V-0	Polycarbonate UL94V-0
O Ring (external):	Nitrile	Nitrile
(internal):	Silicone	Silicone
Tightening Torque	0.5Nm - 0.9Nm (4.4lbf.in. - 8.0lbf.in.)	0.5Nm - 0.9Nm (4.4lbf.in. - 8.0lbf.in.)
Thread Size:	M12 x 1.25-6g	M12 x 1.25-6g
LED Colours:	/RD (Red), /GN (Green), /YL (Yellow) /BL (Blue), with colour coded insulator	/RD (Red), /GN (Green), /YL (Yellow) /BL (Blue), with colour coded insulator
LED Voltage:	/12 (12V d.c.), /24 (24V d.c.) or /00 (no ballast resistor)	/12 (12V d.c.), /24 (24V d.c.) or /00 (no ballast resistor)
RoHS	Compliant	Compliant

Proud of Panel Profile

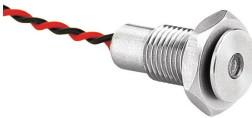


DX0507

- Flying Lead Termination
- Sealed to IP67
- Red, Green, Yellow or Blue LED Options
- Wide Viewing Angle
- Shock and Vibration Resistant
- Stainless Steel body

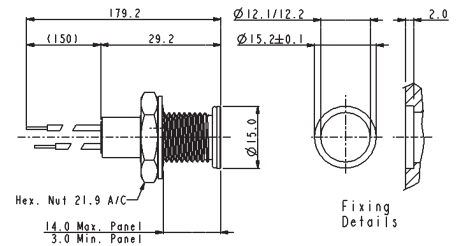


Flush Panel Profile



DX0508

- Flying Lead Termination
- Sealed to IP67
- Red, Green, Yellow or Blue LED Options
- Wide Viewing Angle
- Shock and Vibration Resistant
- Stainless Steel body



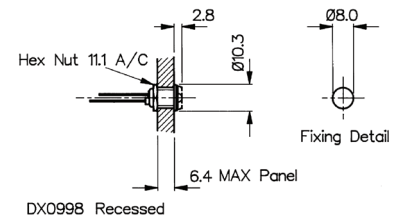
Specifications	DX0507/Col/Voltage	DX0508/Col/Voltage
Terminations:	Flying Leads	Flying Leads
Forward Voltage:	Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V	Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V
Cont. Forward Current: (max)	Red 30mA, Green 25mA, Yellow 30mA, Blue 25mA	Red 30mA, Green 25mA, Yellow 30mA, Blue 25mA
Power Dissipation:	Red 100mW, Green 105mW, Yellow 125mW, Blue 120mW	Red 100mW, Green 105mW, Yellow 125mW, Blue 120mW
Reverse Current: (@Vr = 5V)	Red 10µA max., Green 10µA max., Yellow 10µA max., Blue 50µA max.	Red 10µA max., Green 10µA max., Yellow 10µA max., Blue 50µA max.
LED Luminous Intensity:	Red 2000mcd, Green 100mcd, Yellow 400mcd, Blue 1600mcd (typ)	Red 2000mcd, Green 100mcd, Yellow 400mcd, Blue 1600mcd (typ)
Operating Temp. Range:	-40°C to +80°C	-40°C to +80°C
Storage Temperature:	-40°C to +85°C	-40°C to +85°C
Sealing (Front of panel):	Protection Classification IP67 to EN60529:1992+A2:2013	Protection Classification IP67 to EN60529:1992+A2:2013
Materials		
Body:	Stainless Steel	Stainless Steel
Lens:	Polycarbonate UL94V-0	Polycarbonate UL94V-0
O Ring (external):	Nitrile	Nitrile
(internal):	Silicone	Silicone
Tightening Torque	0.5Nm - 0.9Nm (4.4lbf.in. - 8.0lbf.in.)	0.5Nm - 0.9Nm (4.4lbf.in. - 8.0lbf.in.)
Thread Size:	M12 x 1.25-6g	M12 x 1.25-6g
LED Colours:	/RD (Red), /GN (Green), /YL (Yellow) /BL (Blue), with colour coded insulator	/RD (Red), /GN (Green), /YL (Yellow) /BL (Blue), with colour coded insulator
LED Voltage:	/12 (12V d.c.), /24 (24V d.c.) or /00 (no ballast resistor)	/12 (12V d.c.), /24 (24V d.c.) or /00 (no ballast resistor)
RoHS	Compliant	Compliant

Chrome Plated Brass Bezel



DX0998

- Chrome Plated Brass Bezel
- Prominent or Recessed Style
- Choice of LED Types and Colours



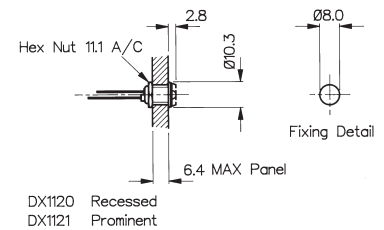
Nylon Bezel



DX1120

DX1121

- Glass Filled Nylon Bezel
- Prominent or Recessed Style
- Choice of LED Types and Colours



Specifications	DX0998 Colour/Options	DX1120, DX1121/Colour/Options
Bezel Material:	Brass, Chrome Plated	Glass Filled Nylon
Style:	Recessed (DX0998)	Recessed (DX1120) Prominent (DX1121)
Operating Temp. Range:	Dependent on LED used	Dependent on LED used
Storage Temperature:	Dependent on LED used	Dependent on LED used
LED Colours:	/RD (Red), /GN (Green), /YL (Yellow), /BL (Blue), /TR (Tri Colour), /D1 (Dual Colour - Red/Green), /D2 (Dual Colour - Red/Amber), /D3 (Dual Colour - Green/Amber)	/RD (Red), /GN (Green), /YL (Yellow), /BL (Blue), /TR (Tri Colour), /D1 (Dual Colour - Red/Green), /D2 (Dual Colour - Red/Amber), /D3 (Dual Colour - Green/Amber)
LED Options:	/02 (Flashing, Green or Red only)	/02 (Flashing, Green or Red only)
Thread Size:	0.312" x 32TPI	0.312" x 32TPI
<b>RoHS</b>	Compliant	Compliant

See Page 212 for LED options and specifications\*

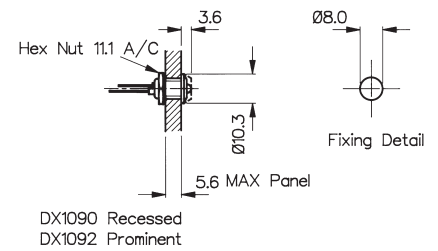
Aluminium Bezel - IP66 Sealed



DX1090

DX1092

- Aluminium Bezel, Black
- Anodised Finish
- IP66 Front Panel Sealed
- Prominent or Recessed Style
- Choice of LED Types and Colours



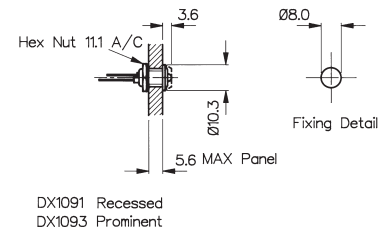
Aluminium Bezel - IP66 Sealed



DX1091

DX1093

- Aluminium Bezel, Clear
- Anodised Finish
- IP66 Front Panel Sealed
- Prominent or Recessed Style
- Choice of LED Types and Colours



Specifications	DX1090, DX1092/Colour/Options	DX1091, DX1093/Colour/Options
Materials:	Aluminium - Black	Aluminium - Clear
Style:	Recessed (DX1090) Prominent (DX1092)	Recessed (DX1091) Prominent (DX1093)
Operating Temp. Range:	Dependent on LED used	Dependent on LED used
Storage Temperature:	Dependent on LED used	Dependent on LED used
Sealing (Front of panel):	Protection Classification IP66 to EN60529:1992+A2:2013	Protection Classification IP66 to EN60529:1992+A2:2013
Tightening Torque:	0.056Nm (8ozf.in.) min	0.056Nm (8ozf.in.) min
Lead Solder Time:	260°C for 5 seconds max.	260°C for 5 seconds max.
LED Colours:	/RD (Red), /GN (Green), /YL (Yellow), /BL (Blue), /TR (Tri Colour), /D1 (Dual Colour - Red/Green), /D2 (Dual Colour - Red/Amber), /D3 (Dual Colour - Green/Amber)	/RD (Red), /GN (Green), /YL (Yellow), /BL (Blue), /TR (Tri Colour), /D1 (Dual Colour - Red/Green), /D2 (Dual Colour - Red/Amber), /D3 (Dual Colour - Green/Amber)
Thread Size:	0.312" x 32TPI	0.312" x 32TPI
<b>RoHS</b>	Compliant	Compliant

See Page 212 for LED options and specifications



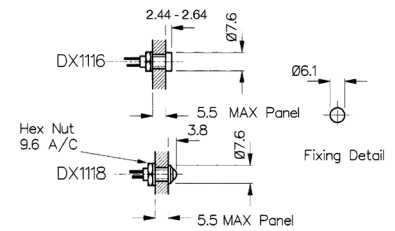
Chrome Plated Brass Bezel



DX1116

DX1118

- Chrome Plated Brass Bezel
- Prominent or Recessed Style
- Choice of LED Types and Colours



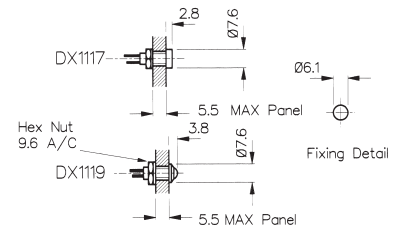
Black Nickel Pated Brass Bezel



DX1117

DX1119

- Aluminium, Black Anodised Bezel
- Prominent or Recessed Style
- Choice of LED Types and Colours

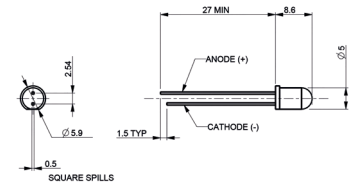


Specifications	DX1116, DX1118/Colour	DX1117, DX1119/Colour
Bezel Materials:	Brass, Chrome Plated	Aluminium, Black Anodised
Style:	Recessed (DX1116) Prominent (DX1118)	Recessed (DX1117) Prominent (DX1119)
Operating Temp. Range:	Dependent on LED used	Dependent on LED used
Storage Temperature:	Dependent on LED used	Dependent on LED used
Lead Solder Time:	260°C for 5 seconds max.	260°C for 5 seconds max.
LED Colours:	/RD (Red), /GN (Green), /YL (Yellow), /BL (Blue)	/RD (Red), /GN (Green), /YL (Yellow), /BL (Blue)
<b>RoHS</b>	Compliant	Compliant

See Page 213 for LED specifications\*

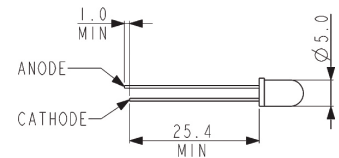
### 5mm LEDs STANDARD

Specification	Red	Green	Yellow	Blue
Luminous Intensity @20mA:	25mcd	20mcd	20mcd	21mcd
Forward voltage:	2.0V	2.0V	2.1V	3.5V
Cont. Forward Current (max):	30mA	25mA	30mA	30mA
Power Dissipation:	105mW (max) @20°C Ambient			120mW
Reverse Current:	10µA	10µA	10µA	50µA
Reverse Voltage:	5V (max)	5V (max)	5V (max)	5V (max)
Operating Temp:	-40°C to +85°C			-20°C to +80°C
Part No:	/RD	/GN	/YL	/BL



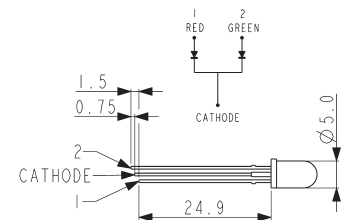
### 5mm LEDs FLASHING

Specification	Red	Green
Luminous Intensity @20mA:	1.2mcd	20mcd
Forward voltage:	2.0-15.0V	2.0V
Cont. Forward Current (max):	10-30mA	25mA
Power Dissipation:	200mW (max) @ 20°C ambient	
Flash Frequency @ 3V supply:	2.2Hz (typ)	
Operating Temp:	0°C to +70°C	
Part No:	/RD/02	/GN/02



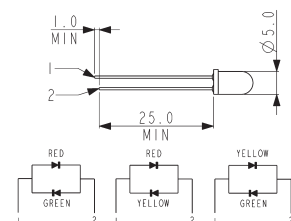
### 5mm LEDs TRI COLOUR

Specification	Red/Green/Amber
Luminous Intensity @20mA:	2.5mcd
Forward voltage:	2.4V
Cont. Forward Current (max):	30mA (max)
Power Dissipation:	150mW (max) @ 20°C Ambient
Reverse Current:	100µA
Reverse Voltage:	5V (max)
Operating Temp:	-40°C to +70°C
Part No:	/TR



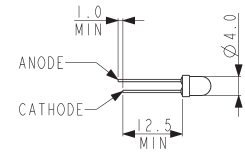
### 5mm LEDs DUAL COLOUR

Specifications	Red/Green	Red/Amber	Green/Amber
Luminous Intensity:	4.5/5mcd	4.5/4mcd	4/5mcd
Forward voltage:	2.2V	2.2V	2.2V
Cont. Forward Current:	30mA/30mA	30mA/20mA	30mA/20mA
Power Dissipation:	100mW/100mW	100mW/60mW	100mW/60mW
Reverse Current:	100mA	100mA	100mA
Reverse Voltage:	5V (max)	5V (max)	5V (max)
Operating Temp:	-40°C to +85°C		
Part No:	/D1	/D2	/D3



**4mm LEDs Standard**

Specifications	Red	Green	Yellow	Blue
Luminous Intensity @10mA:	2.5mcd	2.5mcd	2.5mcd	50mcd
Forward voltage:	2.0V	2.1V	2.0V	3.8V
Cont. Forward Current (max):	30mA	30mA	20mA	30mA
Power Dissipation (max) @ 20°C Ambient:	100mW	100mW	85mW	120mW
Reverse Current:	10µA	10µA	10µA	50µA
Reverse Voltage:	5V (max)	5V (max)	5V (max)	5V (max)
Part No:	/RD	/GN	/YL	/BL



**Part No Breakdown**

DXxxxx	/	XX	/	XX
<b>Bezel Type</b>		<b>LED Colour</b> RD = Red GN = Green YL = Yellow BL = Blue D1 = Dual Colour - 5mm (Red/ Green) D2 = Dual Colour - 5mm (Red/ Amber) D3 = Dual Colour - 5mm (Green/ Amber) TR = Tri Colour - 5mm (Red/ Green/Amber)		<b>LED Options</b> Blank = Standard 02 = Flashing - 5mm (Red or Green only)

**Example:**  
DX1092/RD/02 = Black Aluminum IP66 Prominent Bezel, with Red flashing LED

# Indicator Lights

Neon, LED and Filament Lamp



## Key Features

- Neon, LED, mains LED or filament lamp
- Bezel sizes from 6.7 to 16.3mm diameter
- Red, amber, green, blue and clear lenses
- Red, yellow, green, blue and white LEDs
- Wide choice of styles

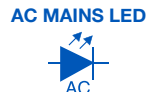
## Colours and voltages:



Available with Red, Amber, Green or Clear lenses  
100/130V (marked 110V),  
200/250V (marked 230V)



Red, Yellow, Green, Blue, White  
2.0/2.2V  
Resistors for other voltages available.



Red, Yellow, Green, Blue, White  
110-230V ac operation.



Available with Red, Amber, Green, Clear or Blue lenses  
6V, 12/14V, 24/28V.

Terminal	Type	Sealed	Illumination	Colour	Voltage	Options
<b>B</b> 2.8 <b>L</b>	<b>(B) 0566 A</b> 	6.0 2.0 max p. 340	<b>N</b> <b>L</b> <b>M</b>	Neon & Filament <b>R</b> Red <b>A</b> Amber <b>G</b> Green <b>B</b> Blue (Special Order) <b>C</b> Clear	<b>1</b> LED No Resistor <b>2</b> 125V Neon <b>3</b> 250V Neon <b>4</b> 6Vdc LED <b>5</b> 12Vdc LED	<b>C</b> Chrome Bezel Finish
<b>B</b> 2.8 <b>L</b>	<b>(B) 0566 B</b> 	6.0 2.0 max p. 340	<b>N</b> <b>L</b> <b>M</b>	Blue (Special Order) <b>C</b> Clear	<b>6</b> 24Vdc LED <b>7</b> 12/14V Filament	
<b>B</b> 2.8 <b>L</b>	<b>(B) 0566 C</b> 	6.0 2.0max p. 340	<b>N</b> <b>L</b> <b>M</b>	Red <b>Y</b> Yellow <b>G</b> Green <b>B</b> Blue	<b>8</b> 24/ 28V Filament <b>9</b> 125/250Vac LED	
<b>C</b> 6.3	<b>(C) 0145 AA</b> 	5.8 3.0max p. 340	<b>N</b> <b>L</b> <b>M</b> <b>F</b>	LED		
<b>L</b> <b>W</b>	<b>(L) 1041 00</b> 	6.3 6.3max p. 340	<b>N</b> <b>L</b> <b>F</b>	Red <b>Y</b> Yellow <b>G</b> Green <b>B</b> Blue		
<b>L</b> <b>W</b>	<b>(L) 1045 00</b> 	6.3 10.0max p. 340	<b>N</b> <b>L</b> <b>M</b> <b>F</b>	LED		

# Indicator Lights

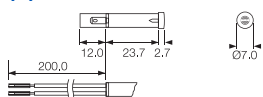
Neon, LED and Filament Lamp



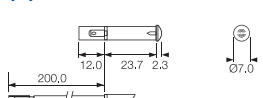
Terminal	Type	Sealed	Illumination	Colour	Voltage	Options
L W	(L) 0245 00 	7.1 6.3 max p. 340	N L M F	Neon & Filament <b>R</b> Red <b>A</b> Amber <b>G</b> Green <b>B</b> Blue (Special Order) <b>C</b> Clear	<b>1</b> LED No Resistor <b>2</b> 125V Neon	<b>C</b> Chrome Bezel Finish
L	L 2950 00 	8.0 0.8-1.6 p. 340	N L M F		<b>3</b> 250V Neon <b>4</b> 6Vdc LED	
L C 6.3	(L) 0195 BB 	8.0 0.8-3.0 p. 340	N F		<b>5</b> 12Vdc LED	
L	L 2951 00 	8.0 0.8-1.6 p. 340	N L M F	LED <b>R</b> Red <b>Y</b> Yellow <b>G</b> Green <b>B</b> Blue	<b>6</b> 24Vdc LED <b>7</b> 12/14V Filament	
L H 4.8	H) 0568 A(*) 	8.0 0.8-3.5 p. 340	N L F		<b>8</b> 24/ 28V Filament	
L H 4.8	(H) 0568 B(*) 	8.0 0.8-3.5 p. 340	N L F		<b>9</b> 125/250Vac LED	

## Dimensions

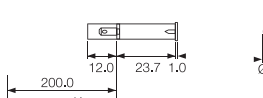
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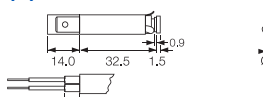
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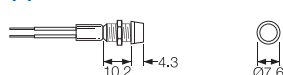
(B) 0566 C



(C) 0145 AA



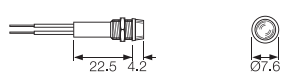
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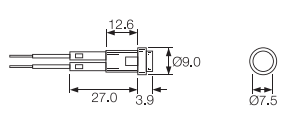
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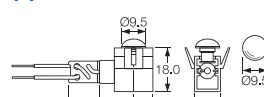
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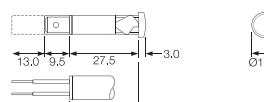
L 2950 00



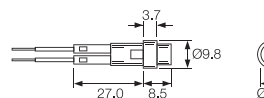
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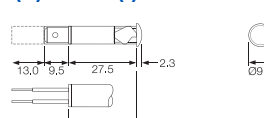
H) 0568 A(\*)



L 2951 00



(H) 0568 B(\*)



# Indicator Lights

Neon, LED and Filament Lamp



## Key Features

- Neon, LED, mains LED or filament lamp
- Bezel sizes from 6.7 to 16.3mm diameter
- Red, amber, green, blue and clear lenses
- Red, yellow, green, blue and white LEDs
- Wide choice of styles

## Colours and voltages:

NEON	DC LED	AC MAINS LED	FILAMENT
Available with Red, Amber, Green or Clear lenses 100/130V (marked 110V), 200/250V (marked 230V)	Red, Yellow, Green, Blue, White 2.0/2.2V Resistors for other voltages available.	Red, Yellow, Green, Blue, White 110-230V ac operation.	Available with Red, Amber, Green, Clear or Blue lenses 6V, 12/14V, 24/28V.

Terminal	Type	Illumination	Colour	Voltage	Options	Panel	Approval
<b>L</b> <b>K</b> 2.8 <b>H</b> 4.8 <b>C</b> 6.3	<b>(C) 0273 00</b> 	<b>N</b> <b>L</b> <b>M</b> <b>F</b>	Neon & Filament	<b>1</b> LED No Resistor	<b>C</b> Chrome Bezel Finish	 9.0  2.0 max  p. 340	
			<b>R</b> Red	<b>2</b> 125V Neon			
			<b>A</b> Amber	<b>3</b> 250V Neon			
			<b>G</b> Green	<b>4</b> 6Vdc LED			
			<b>B</b> Blue (Special Order)	<b>5</b> 12Vdc LED			
<b>L</b> <b>K</b> 2.8 <b>H</b> 4.8 <b>C</b> 6.3	<b>(C) 0278 00</b> 	<b>N</b> <b>L</b> <b>M</b> <b>F</b>	<b>C</b> Clear	<b>6</b> 24Vdc LED	<b>C</b> Chrome Bezel Finish	 9.5  0.8-2.8  p. 340	
			<b>B</b> Blue (Special Order)	<b>7</b> 12/14V Filament			
			<b>C</b> Clear	<b>8</b> 24/ 28V Filament			
			<b>R</b> Red	<b>9</b> 125/250Vac LED			
			<b>L</b> LED				
<b>L</b> <b>K</b> 2.8 <b>H</b> 4.8 <b>C</b> 6.3	<b>(C) 0276 AA</b> 	<b>N</b> <b>L</b> <b>M</b> <b>F</b>	<b>G</b> Green		<b>C</b> Chrome Bezel Finish	 9.0  2.0 max  p. 340	
			<b>A</b> Amber				
			<b>R</b> Red				
			<b>Y</b> Yellow				
			<b>G</b> Green				
<b>L</b> <b>K</b> 2.8 <b>H</b> 4.8 <b>C</b> 6.3	<b>(C) 0275 00</b> 	<b>N</b> <b>L</b> <b>M</b> <b>F</b>	<b>B</b> Blue		<b>C</b> Chrome Bezel Finish	 10.0  12.0  p. 340	
			<b>R</b> Red				
			<b>Y</b> Yellow				
			<b>G</b> Green				
			<b>B</b> Blue				

# Indicator Lights

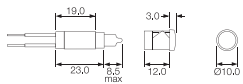
Neon, LED and Filament Lamp



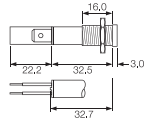
Terminal	Type	Illumination	Colour	Voltage	Options	Panel	Approval
<b>L</b> <b>K</b> 2.8 <b>H</b> 4.8 <b>C</b> 6.3	<b>(C) 0276 00</b> 	<b>N</b> <b>L</b> <b>M</b> <b>F</b>	Neon & Filament <b>R</b> Red <b>A</b> Amber <b>G</b> Green <b>B</b> Blue (Special Order) <b>C</b> Clear	<b>1</b> LED No Resistor <b>2</b> 125V Neon <b>3</b> 250V Neon <b>4</b> 6Vdc LED <b>5</b> 12Vdc LED <b>6</b> 24Vdc LED <b>7</b> 12/14V Filament <b>8</b> 24/ 28V Filament <b>9</b> 125/250Vac LED	<b>C</b> Chrome Bezel Finish	 10.0 2.8 max p. 340 10.0 12 max p. 340 10.0 0.6-2.0 p. 340 12.0 0.75-2.0 p. 340 12.0or12.7 ø12.0 = 0.8-2.5 ø12.7 = 1.1-2.5 p. 340 12.5 0.8-1.5 p. 340	
<b>L</b> <b>K</b> 2.8 <b>H</b> 4.8 <b>C</b> 6.3	<b>(C) 0277 00</b> 	<b>N</b> <b>L</b> <b>M</b> <b>F</b>					
<b>L</b> <b>K</b> 2.8 <b>H</b> 4.8 <b>C</b> 6.3	<b>(C) 0273 LL</b> 	<b>N</b> <b>L</b> <b>M</b> <b>F</b>					
<b>L</b> <b>K</b> 2.8 <b>H</b> 4.8 <b>C</b> 6.3	<b>(C) 2820 00</b> 	<b>N</b> <b>L</b> <b>M</b> <b>F</b>					
<b>L</b> <b>K</b> 2.8 <b>H</b> 4.8 <b>C</b> 6.3	<b>(C) 2821 00</b> 	<b>N</b> <b>L</b> <b>M</b> <b>F</b>					
<b>L</b> <b>K</b> 2.8 <b>H</b> 4.8 <b>C</b> 6.3	<b>(C) 0586 00</b> 	<b>N</b> <b>L</b> <b>M</b> <b>F</b>					

## Dimensions

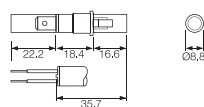
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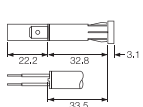
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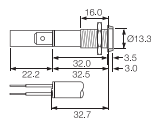
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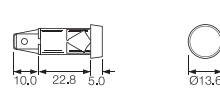
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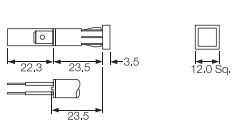
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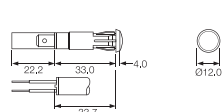
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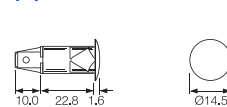
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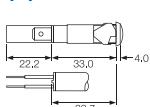
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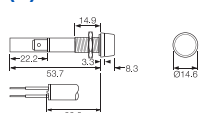
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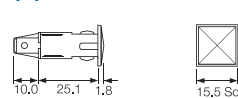
### (C) 0276 AA



### (C) 0277 00



### (C) 0586 00



# Indicator Lights

Neon, LED and Filament Lamp



## Key Features

- Neon, LED, mains LED or filament lamp
- Bezel sizes from 6.7 to 16.3mm diameter
- Red, amber, green and clear lenses
- Red, yellow, green, blue and white LEDs
- Wide choice of styles

## Colours and voltages:

<b>NEON</b>	<b>DC LED</b>	<b>AC MAINS LED</b>	<b>FILAMENT</b>
Available with Red, Amber, Green or Clear lenses 100/130V (marked 110V), 200/250V (marked 230V)	Red, Yellow, Green, Blue, White 2.0/2.2V Resistors for other voltages available.	Red, Yellow, Green, Blue, White 110-230V ac operation.	Available with Red, Amber, Green, Clear or Blue lenses 6V, 12/14V, 24/28V.


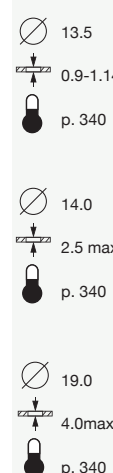



Terminal	Type	Illumination	Colour	Voltage	Options	Panel	Approval
<b>L</b> <b>K</b> 2.8 <b>H</b> 4.8 <b>C</b> 6.3	<b>(C) 2870 00</b> 	<b>N</b> <b>L</b> <b>M</b> <b>F</b>	Neon & Filament	<b>1</b> LED No Resistor	<b>C</b> Chrome Bezel Finish	12.7	  
			<b>R</b> Red	<b>2</b> 125V Neon		0.75-2.0	
			<b>A</b> Amber	<b>3</b> 250V Neon		P. 340	
			<b>G</b> Green	<b>4</b> 6Vdc LED		12.7	
<b>L</b> <b>K</b> 2.8 <b>H</b> 4.8 <b>C</b> 6.3	<b>(C) 0589 00</b> 	<b>N</b> <b>L</b> <b>M</b> <b>F</b>	<b>B</b> Blue (Special Order)	<b>5</b> 12Vdc LED	<b>C</b> Chrome Bezel Finish	0.8-1.5	  
			<b>C</b> Clear	<b>6</b> 24Vdc LED		p. 340	
			<b>L</b> LED	<b>7</b> 12/14V Filament		12.7	
			<b>M</b> Mains LED	<b>8</b> 24/ 28V Filament		12.0max	
<b>L</b> <b>K</b> 2.8 <b>H</b> 4.8 <b>C</b> 6.3	<b>(C) 0177 00</b> 	<b>N</b> <b>L</b> <b>M</b> <b>F</b>	<b>R</b> Red	<b>9</b> 125/250Vac LED	<b>C</b> Chrome Bezel Finish	9.5	  
			<b>Y</b> Yellow	<b>1</b> LED No Resistor		p. 340	
			<b>G</b> Green	<b>2</b> 125V Neon		12.7	
			<b>B</b> Blue	<b>3</b> 250V Neon		12.0max	
<b>L</b> <b>K</b> 2.8 <b>H</b> 4.8 <b>C</b> 6.3	<b>(C) 0067 00</b> 	<b>N</b> <b>L</b> <b>M</b> <b>F</b>	<b>L</b> LED	<b>4</b> 6Vdc LED	<b>C</b> Chrome Bezel Finish	12.7	  
			<b>R</b> Red	<b>5</b> 12Vdc LED		12.0max	
			<b>Y</b> Yellow	<b>6</b> 24Vdc LED		p. 340	
			<b>G</b> Green	<b>7</b> 12/14V Filament		12.7	
<b>L</b> <b>K</b> 2.8 <b>H</b> 4.8 <b>C</b> 6.3	<b>(C) 0180AA</b> 	<b>N</b> <b>L</b> <b>M</b> <b>F</b>	<b>R</b> Red	<b>8</b> 24/ 28V Filament	<b>C</b> Chrome Bezel Finish	1.14 max	  
			<b>Y</b> Yellow	<b>9</b> 125/250Vac LED		p. 340	
			<b>G</b> Green	<b>1</b> LED No Resistor		12.7	
			<b>B</b> Blue	<b>2</b> 125V Neon		19.0 max	



# Indicator Lights

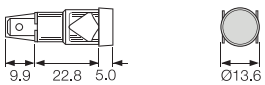
Neon, LED and Filament Lamp



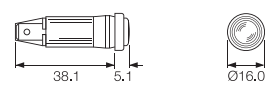
Terminal	Type	Illumination	Colour	Voltage	Options	Panel	Approval
L C 6.3	(C) 0180BB 	N L F	Neon & Filament  <b>R</b> Red  <b>A</b> Amber  <b>G</b> Green  <b>B</b> Blue (Special Order)  <b>C</b> Clear  LED  <b>R</b> Red  <b>Y</b> Yellow  <b>G</b> Green  <b>B</b> Blue	<b>1</b> LED No Resistor  <b>2</b> 125V Neon  <b>3</b> 250V Neon  <b>4</b> 6Vdc LED  <b>5</b> 12Vdc LED  <b>6</b> 24Vdc LED  <b>7</b> 12/14V Filament  <b>8</b> 24/ 28V Filament  <b>9</b> 125/250Vac LED	<b>C</b> Chrome Bezel Finish	 13.5 0.9-1.14 p. 340  14.0 2.5 max p. 340  19.0 4.0max p. 340	
L K 2.8 H 4.8 C 6.3	(C) 0579 00 	N L M F					
C 6.3	(C) 1092 	N					

## Dimensions

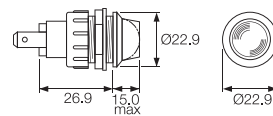
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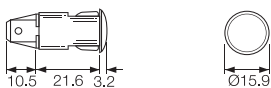
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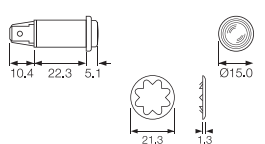
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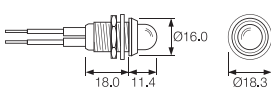
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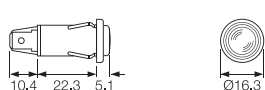
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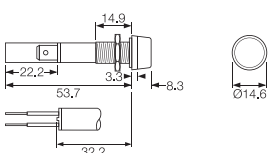
L 0081 00



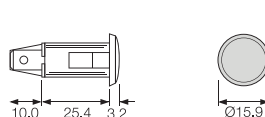
(C) 0180BB



(C) 0177 00



(C) 0579 00



# Indicator Lights

Neon, LED and Filament Lamp



## Key Features

- Neon, LED, mains LED or filament lamp
- Bezel sizes from 6.7 to 16.3mm diameter
- Red, amber, green and clear lenses
- Red, yellow, green, blue and white LEDs
- Wide choice of styles

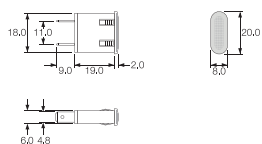
## Colours and voltages:

NEON	DC LED	AC MAINS LED	FILAMENT
Available with Red, Amber, Green or Clear lenses 100/130V (marked 110V), 200/250V (marked 230V)	Red, Yellow, Green, Blue, White 2.0/2.2V Resistors for other voltages available.	Red, Yellow, Green, Blue, White 110-230V ac operation.	Available with Red, Amber, Green, Clear or Blue lenses 6V, 12/14V, 24/28V.

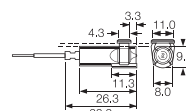
Terminal	Type	Illumination	Colour	Voltage	Options	Panel	Approval
L		N	Neon & Filament	<b>1</b> LED No Resistor	<b>C</b> Chrome Bezel Finish	  	
			<b>R</b> Red	<b>2</b> 125V Neon			
			<b>A</b> Amber	<b>3</b> 250V Neon			
			<b>G</b> Green	<b>4</b> 6Vdc LED			
			<b>B</b> Blue (Special Order)	<b>5</b> 12Vdc LED			
			<b>C</b> Clear	<b>6</b> LED 24Vdc LED			
			<b>R</b> Red	<b>7</b> 12/14V Filament			
			<b>Y</b> Yellow	<b>8</b> 24/ 28V Filament			
			<b>G</b> Green	<b>9</b> 125/250Vac LED			
<b>B</b> Blue							

## Dimensions

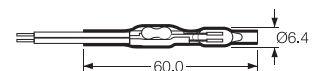
### H 0581 AY



### L 0234 00



### L 0233 00



Neon tube, resistor and flexible lead assembly, protected by "shrunk on" transparent sleeving.




## Key Features

- Up to 50V
- Red, Amber, Green, Blue and Clear
- Linestra/Philinea lamp holder

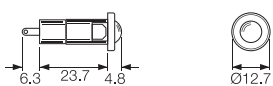
## Colours and voltages:

These lampholders are suitable for up to 50V max.

Colours - Red, Amber, Green, (Clear & Blue, check availability).

Terminal	Type	Colour	Options	Panel
T	<b>T0061 00 (LES)</b> 	Neon & Filament <b>R</b> Red <b>A</b> Amber <b>G</b> Green <b>B</b> Blue (Special Order)	<b>C</b> Chrome Bezel Finish	9.5 0.9-1.14 T85
C	<b>(C) 0067 00</b> 	<b>B</b> Blue (Special Order)		12.7 1.14max T85
T 6.3	<b>(T) 0062 A0</b> 	<b>C</b> Clear		12.7 9.6max T85
T	<b>(C) 0062 M0</b> 	LED <b>R</b> Red		12.7 9.6max T85
S	<b>(S) 0095 00</b> 	<b>Y</b> Yellow <b>G</b> Green <b>B</b> Blue		T85

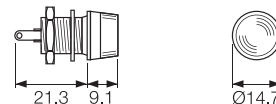
**T0061 00 (LES)**



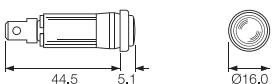
**(C) 0062 M0**



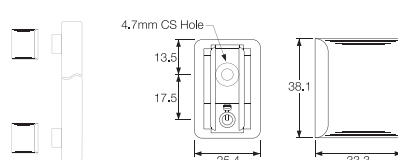
**(T) 0062 A0**



**(C) 0067 00**



**(S) 0095 00**





C1090FE ---



P1090FL ---

## Key Features

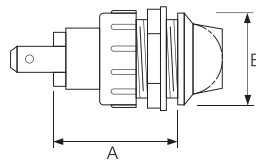
- Up to 50V
- MES or MBC bulb
- Flat and domed lens
- Brass or nylon bodies
- Red, Amber, Green, Blue and Clear lenses

## Approvals and specifications

These lampholders are suitable for up to 50V max.

Colours - Red, Amber, Green, (Clear & Blue, check availability).  
Brass bodies have polished chrome finish.

## Dimensions and Options



F0445 MO  
P.V.C. Insulating terminal cover.



Terminal	Type	Colour	Options	Panel	Lens																																			
<b>C</b>  6.3 x 0.8 9.1	<b>1090</b> MES (E10)	<b>R</b> Red	<b>C</b> Chrome Bezel Finish	<b>1090 (MES lamps)</b> <table border="1"> <thead> <tr> <th></th> <th>Panel Hole Dia</th> <th>Body Material</th> <th>Dim A</th> <th>Dim B</th> </tr> </thead> <tbody> <tr><td>A</td><td>19.0</td><td>Brass</td><td>35.0</td><td>22.0</td></tr> <tr><td>D</td><td>19.0</td><td>Brass</td><td>30.2</td><td>22.0</td></tr> <tr><td>E</td><td>19.0</td><td>Nylon with chrome bezel</td><td>30.2</td><td>22.8</td></tr> <tr><td>G</td><td>19.0</td><td>Brass</td><td>24.6</td><td>22.0</td></tr> <tr><td>H</td><td>19.0</td><td>Nylon with chrome bezel</td><td>24.6</td><td>22.8</td></tr> <tr><td>L</td><td>25.4</td><td>Brass</td><td>26.0</td><td>31.5</td></tr> </tbody> </table>		Panel Hole Dia	Body Material	Dim A	Dim B	A	19.0	Brass	35.0	22.0	D	19.0	Brass	30.2	22.0	E	19.0	Nylon with chrome bezel	30.2	22.8	G	19.0	Brass	24.6	22.0	H	19.0	Nylon with chrome bezel	24.6	22.8	L	25.4	Brass	26.0	31.5	<b>F</b> Flat 
					Panel Hole Dia	Body Material	Dim A	Dim B																																
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<b>G</b> Green																																								
<b>B</b> Blue																																								
<b>C</b> Clear																																								
<b>T</b>  9.1 Ø2.0 4.8 Solder	<b>1091</b> MBC (BA9s) (C and S Terminals only)	<b>C</b> Clear	<b>1091 (MBC lamps)</b> <table border="1"> <thead> <tr> <th></th> <th>Panel Hole Dia</th> <th>Body Material</th> <th>Dim A</th> <th>Dim B</th> </tr> </thead> <tbody> <tr><td>B</td><td>19.0</td><td>Brass</td><td>36.0</td><td>22.0</td></tr> <tr><td>C</td><td>19.0</td><td>Nylon</td><td>36.6</td><td>22.0</td></tr> <tr><td>Q</td><td>19.0</td><td>Nylon (Chrome twin)</td><td>36.6</td><td>22.8</td></tr> <tr><td>M</td><td>25.4</td><td>Brass</td><td>38.1</td><td>31.5</td></tr> </tbody> </table>		Panel Hole Dia	Body Material	Dim A	Dim B	B	19.0	Brass	36.0	22.0	C	19.0	Nylon	36.6	22.0	Q	19.0	Nylon (Chrome twin)	36.6	22.8	M	25.4	Brass	38.1	31.5	<b>V</b> MES (E10) 											
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<b>L</b> No lens																																								
<b>S</b>  9.1 Screw and Clamp																																								

# LED Lamps and LED Lampholders

LED Lampholders can be supplied with or without LEDs



## Key Features

- LED lampholders
- Supplied with or without LEDs
- Black or Chrome finish

## Colours and voltages:

Colours: Red, Yellow, Green and Blue LEDs  
(High Intensity is standard. Option of extra super bright).

Voltages: LEDs are available for direct connection to 2.0/2.2V or 12Vdc

For other voltages contact sales.

Terminal	Type	Body Colour	LED Colour	Voltage	Panel Cutout	Approval	Dimensions
<b>W</b> LED fitted <b>A</b> LED not fitted <b>L</b> LED & Wires fitted	<b>(W) 1047 00</b> 	<b>B</b> Black  Blank	<b>R</b> Red	<b>1</b> LED No Resistor	6.3 6.3max T105		
<b>Y</b> Yellow			<b>4</b> 6Vdc LED	T105			
<b>G</b> Green			<b>5</b> 12Vdc LED	T105			
<b>W</b> LED fitted <b>A</b> LED not fitted <b>L</b> LED & Wires fitted	<b>(L) 1048 00</b> 	<b>B</b> Black	<b>B</b> Blue	<b>6</b> 24Vdc LED	8.0 5.5max T105		
<b>Y</b> Yellow			<b>4</b> 6Vdc LED	T105			
<b>G</b> Green			<b>5</b> 12Vdc LED	T105			
<b>W</b> LED fitted <b>A</b> LED not fitted <b>L</b> LED & Wires fitted	<b>(W) 1050 00</b> 	<b>B</b> Black	<b>B</b> Blue	<b>6</b> 24Vdc LED	8.0 7.0max T105		
<b>Y</b> Yellow			<b>4</b> 6Vdc LED	T105			
<b>G</b> Green			<b>5</b> 12Vdc LED	T105			
<b>W</b> LED fitted <b>L</b> LED & Wires fitted	<b>(L) 1035 0A</b> 		<b>R</b> Red	<b>1</b> LED No Resistor	4.5 0.9-1.6 T105		
<b>L</b> LED & Wires fitted			<b>Y</b> Yellow	<b>4</b> 6Vdc LED	T105		
<b>W</b> LED fitted <b>L</b> LED & Wires fitted	<b>(L) 1036 0A</b> 		<b>R</b> Red	<b>1</b> LED No Resistor	6.0 0.9-1.6 T105		
<b>L</b> LED & Wires fitted			<b>Y</b> Yellow	<b>4</b> 6Vdc LED	T105		
<b>W</b> LED fitted <b>L</b> LED & Wires fitted	<b>(L) 1037 0A</b> 		<b>R</b> Red	<b>1</b> LED No Resistor	6.35 0.9-1.6 T105		
<b>L</b> LED & Wires fitted			<b>Y</b> Yellow	<b>4</b> 6Vdc LED	T105		




















## Key Features

- ⊞ IP67 front bezel sealing
- ⊞ LED lampholders
- ⊞ Supplied with or without LEDs
- ⊞ Black or Chrome finish

## Colours and voltages:

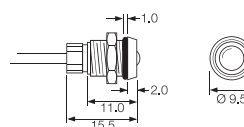
Colours:  
Red, Yellow Green and Blue LEDs.  
(High Intensity is standard. Option of extra super bright).

Voltages:  
LEDs are available for direct connection to 2.0/2.2V or 12Vdc.  
For other voltages contact sales.

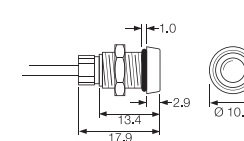
Terminal	Type	LED Colour	Voltage	Panel	Approval
<b>L</b> LED & Wires fitted 	<b>(L) 1048 00</b> 	<b>B</b> Blue	<b>6</b> 24Vdc LED	 8.0  5.5max  T105	
<b>W</b> LED fitted 	<b>(W) 1050 00</b> 			 8.0  7.0max  T105	
<b>A</b> LED not fitted 					
<b>L</b> LED & Wires fitted 	<b>(W) 1050 00</b> 			 8.0  7.0max  T105	

## Dimensions

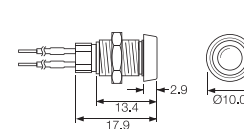
### (L) 1048 00



### (W) 1050 00



### (W) 1050 00



## Properties

### Sealing

O-ring sealing equivalent to IP67, of both the LED to bezel, and bezel to panel is available where shown.

### Polarity

The nylon base mouldings are polarity marked.

### Body Material and Finish

Chromed brass or Black oxide coated brass.

### Lampholders only

Items prefixed 'A' are supplied without LEDs.

### LED wires or PVC covered wire leads

125mm min length wires, 6.3mm standard strip.  
Alternative colours, length and strip available.

### Key Features

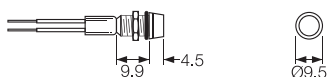
- IP67 Panel Sealing
- Supplied complete with gaskets/'O' rings
- Neon, LED, mains LED or filament lamp
- Bezel sizes from 7.6 to 22.9mm diameter
- Red, amber, green, blue and clear lenses
- Red, yellow, green, blue and white LEDs
- Wide choice of styles

### Colours and voltages:

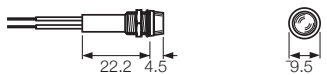
<b>NEON</b>  Available with Red, Amber, Green or Clear lenses 100/130V (marked 110V), 200/250V (marked 230V)	<b>DC LED</b>  Red, Yellow, Green, Blue, White 2.0/2.2V Resistors for other voltages available.	<b>AC MAINS LED</b>  Red, Yellow, Green, Blue, White 110-230V ac operation.	<b>FILAMENT</b>  Available with Red, Amber, Green, Clear or Blue lenses 6V, 12/14V, 24/28V.
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Terminal	Type	Sealed	Illumination	Colour	Voltage	Option	Panel Cutout	Approval
L	(L) 1041 OS 	S Sealed	N L M F	R Red  A Amber	1 LED No Resistor  2 125V Neon	C Chrome Bezel Finish	6.3 5.3max	KEMA
L	(L) 0245 OS 		N L M F	G Green  B Blue (Special)	3 250V Neon		7.1 4.6max	KEMA
L C 6.3 K 2.8 H 4.8	(C) 0275 OS 		N L M F	C Clear	4 6Vdc LED  5 12Vdc LED		10.0 11.15max	KEMA
L C 6.3 K 2.8 H 4.8	(C) 0277 OS 		N L M F	LED  R Red	6 24Vdc LED		10.0 11.15max	KEMA
L C 4.8 K 2.8 H	(C) 0177 OS 		N L M F	Y Yellow  G Green  B Blue  W White	7 12/14V Filament  8 24/ 28V Filament  9 125/250Vac LED		12.7 11.15max	KEMA

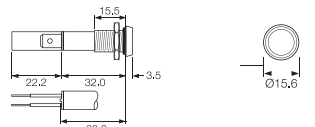
(L) 1041 OS



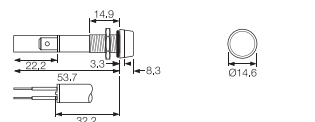
(L) 0245 OS



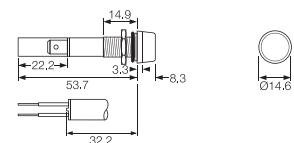
(C) 0275 OS



(C) 0277 OS



(C) 0177 OS



The majority of Arcoelectric indicator lights can be supplied with alternative light sources:

## Neon, Fluorescent, Filament lamp or LED

### NEON and FLUORESCENT LAMPS

#### Colours

Available with Red, Amber, Green, Blue or Clear lenses.

#### Maximum striking voltages

Standard brightness types 65Vac 90Vdc.

High brightness types 85Vac 135Vdc.

High brightness types are usually fitted.

#### Life

Typically 25,000 hours (Green fluorescent lamps 20,000 hours).

(Measured to a point when the light output of the lamp is half its original level.)

The end of life for a neon lamp is not usually a sudden failure.

#### False signals due to long wiring

It is possible for neon or fluorescent tubes to glow when they should be off.

The false signal is caused by the capacitance effect of fairly long wiring to the indicator being adjacent to other live cables. This effect can be prevented in most cases by fitting a 100k resistor across the supply wires close to the indicator assembly.

### MATERIALS

Moulded bodies and bases . . . . . Nylon 6.6

Metal bodies and bezels . . . . . Chrome plated brass (except #)

Lenses . . . . . Polycarbonate

Terminals (most types) . . . . . Brass (electro-tin plated)

Terminals (exceptions) . . . . . Brass (flash silver\* or nickel\*\* plated)

Threaded metal nuts . . . . . Brass (nickel plated on 0275/7)

Other fixings . . . . . Call sales for details

\* R9, 0061, 0062, 0430, 0480, 1090, 1091, 6030, 7030, 8630, 8580

\*\* # 3130, 3160, 3161, 3221 have nickel plated terminals with steel screws and plated polyamide bezel trims

### TEMPERATURE RATING

Authority	with Terminals	with Wire leads	
		PVC	SILICONE
European	T105°C	T105°C	T105°C
UL	T65/75°C	T65/75°C	

### SYMBOLS

-  Terminals  
C 6.3, H 4.8, K 2.8
-  Wire leads  
200mm long Standard
-  Solid wires  
LED only
-  Panel hole size
-  Panel thickness
-  Temperature rating

### FILAMENT LAMPS

#### Colours

Available with Red, Amber, Green, Clear or Blue lenses

#### LEDs - DC

##### Colours

Red, Yellow, Green, Blue and White.

#### Voltage

Basic voltage 2.0/2.2V. Some items are available with integral resistors for 12V use. For details of resistors required for higher voltages, please call sales.

#### Current

Maximum continuous forward current 20mA

#### Life

>100,000hrs

#### LEDs - AC

##### Colours

Red, Yellow, Green, Blue and White.

#### Voltage

Rated up to 230V ac, suitable for use at 110V and 230V ac.

#### Current

<3mA

#### Life

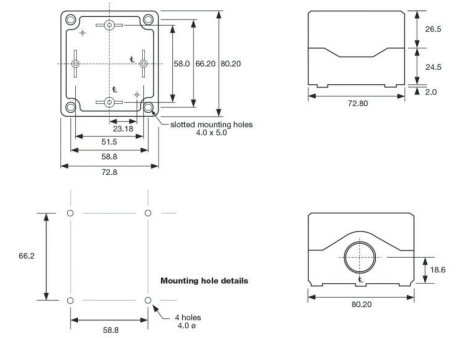
>100,000hrs



BEA01S - ABS



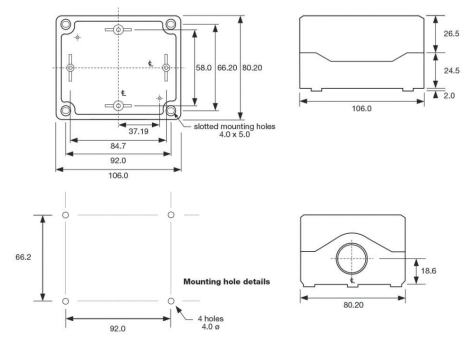
- Dimensions: 80 x 72 x 53mm
- Slotted mounting holes, 66.2 x 58.8mm
- 2 x M20 threaded knock-outs suitable for use with M20 glands
- Option for single pre-drilled 22mm Ø hole in lid
- PCB mounting posts suitable for M3 self tapping screws
- Grey or black base
- Transparent, black, grey or yellow lid



BEA02S - ABS



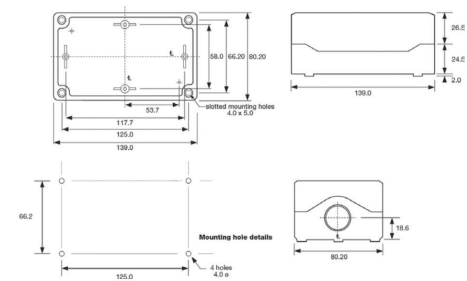
- Dimensions: 80 x 106 x 53mm
- Slotted mounting holes, 66.2 x 92.0mm
- 2 x M20 threaded knock-outs suitable for use with M20 glands
- Option for two pre-drilled 22mm Ø holes in lid
- PCB mounting posts suitable for M3 self tapping screws
- Grey or black base
- Transparent, black, grey or yellow lid

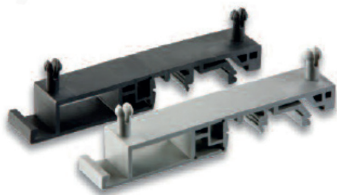


BEA03S - ABS



- Dimensions: 80 x 139 x 53mm
- Slotted mounting holes, 66.2 x 125mm
- 2 x M20 threaded knock-outs suitable for use with M20 glands
- Option for three pre-drilled 22mm Ø holes in lid
- PCB mounting posts suitable for M3 self tapping screws
- Grey or black base
- Transparent, black, grey or yellow lid



Combifoot rail mounting  
accessory

- Easy snap fixing to enclosure
- Suitable for TS32 & TS35 rails
- Available in black or grey
- Part numbers:
  - Grey - BE123456
  - Black - BE123457

Wall mounting accessory



- Easy snap fixing to enclosure
- For easy access wall mounting
- Available in black or grey
- Part numbers:
  - Grey - BE123458
  - Black - BE123459

Cable glands



- For use in pre-moulded knock-outs
- M20 thread
- Cable range 6-12mm
- Supplied with gasket
- Available in black or grey
- Part numbers:
  - Grey - BE123460
  - Black - BE123461

## Specifications

	BEAxxx
<b>Sealing:</b>	IP67
<b>Material:</b>	ABS
<b>Flammability rating:</b>	UL94HB
<b>Gasket:</b>	TPE
<b>Temperature rating:</b>	-20°C to +85°C

## Features

- IP67 rated, dust and waterproof for short-term submersion to 1m depth
- ABS - UL94HB rated
- Threaded M20 knock-outs, premoulded areas that can be pushed out for use with M20 size cable glands
- Plastic lid fixing screws, corrosion resistant
- Captive lid screws, standard on all lids
- Additional pre-drilled 22mm holes in the lid may be specified, suitable for standard switches and indicators
- PCB mounting, mounting posts and slots for PCB as standard
- Self tapping screw fixing, standard feature
- Transparent top cover, available in clear and smoke grey
- Accessories:
  - Wall mounting brackets
  - Combifoot - TS32 & TS35 din rail mounting
  - M20 cable glands for use in knock-outs
- Registered design

<b>BE</b>	/	<b>X</b>	<b>XXX</b>	/	<b>X</b>	/	<b>X</b>	<b>X</b>
<b>Body Styles</b>		<b>Materials</b>	<b>Size</b>		<b>Base Colour</b>		<b>Lid Colour</b>	<b>Pre-drilled Lid Holes</b>
		A = ABS - UL94HB	01S = 80 x 72 x 53 02S = 80 x 106 x 53 03S = 80 x 139 x 53		B = black G = grey		B = black G = grey Y = yellow T = transparent	0 = no holes 1 = with hole(s) (1 x 22mmØ Size 1, 2 x 22mmØ Size 2 & 3 x 22mmØ Size 3 Enclosures)

## Examples:

**BEA02SGT0** = Size 2, ABS material, grey base, transparent lid with no holes

## Terms and Conditions of Sale

All orders are accepted subject to our Standard Terms & Conditions.

## Health & Safety

Bulgin proprietary components are designed, manufactured, assessed and tested to comply with good commercial quality and engineering standards. They are safe and reliable in use within the vast majority of normal environments. In the interest of safety, application in certain extreme destructive or unsuitable environments must be avoided.

The following restrictions are given as guidance:

- External or wet areas (exposed to rain or spray), except where designated "Sealed".
- Atmospheres designated as "explosive", except where designated "Gas Tight" or "Explosion Proof".
- Highly corrosive atmospheres or subject to contamination by corrosive chemicals.  
(Avoid the use of corrosive acid soldering flux. Use an approved Electrical Grade).
- Atmospheres containing a high density of abrasive dust (mechanically operated components).
- Contamination with Silicone or Silicone Compounds (switches).
- Areas or levels unprotected from severe impact by heavy bodies moving in close proximity - (panel mounted components).
- Extremes of temperatures, beyond the specified limits.
- Electric supply voltage or load current above the published maximum ratings.

## General

To ensure electrical safety as far as is reasonably practical, these products should be properly applied, installed and maintained by or under the supervision of competent persons in accordance with good engineering practice.

## Dimensions

All dimensions are in millimetres (mm) unless otherwise stated.

## The CE Marking Directive

Equipment bearing the CE mark is allowed free circulation throughout Europe. The products in this catalogue, when installed correctly, comply with the CE requirements where it relates to them.

## The Low Voltage Directive

The Low Voltage Directive 2014/35/EU seeks to ensure that electrical equipment within certain limits both provides a high level of protection for European citizens and enjoys a single market in the European Union. Where applicable, Bulgin products comply with the requirements of this directive.

## RoHS

These European Directives introduced environmental responsibilities for electrical and electronics equipment manufacturers. The RoHS (Restriction of use of certain Hazardous Substances) regulation (Directive 2002/95/EC) came into force July 2006. The WEEE (Waste Electrical and Electronic Equipment) regulation (Directive 2002/96/EC), came into force January 2007. The RoHS directive effectively bans the use of certain chemicals, these are defined as:

- Lead
- Cadmium
- Mercury
- Hexavalent Chromium
- Polybrominated Biphenyl (PBB) – flame retardant
- Polybrominated Diphenyl Ether (PBDE) – flame retardant (including Deca BDE)

Action has been taken to ensure all standard products meet the requirements of this directive. All packing carries RoHS compliance information as conformation.

## REACH

REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) is the new system for controlling chemicals in Europe and became law in the UK on 1 June 2007. Bulgin as a manufacturer of articles, are reliant on our supply chain to ensure that the substances/articles we use, are in compliance with the EC1907/2006, REACH Regulations.

Our articles and their packaging, based on our knowledge at this point, do not contain any of the 15 substances on the SVHC Candidate List, dated 28th October 2008, nor any of the 14 substances added to the SVHC Candidate List, dated 13th January 2010, nor Acrylamide added to the SVHC Candidate List, dated 30th March 2010, according to article 59 (1, 10) of Regulation (EC) No. 1907/2006 (REACH), in a concentration above 0.1% weight by weight.

If this situation changes we confirm that this information will be passed through the supply chain in a timely manner.

United Kingdom



BS EN ISO 9001:2000



Austria



Australia



Belgium



Canada



China



Denmark



Europe



Finland



Germany



Holland



Italy



Norway



South Africa



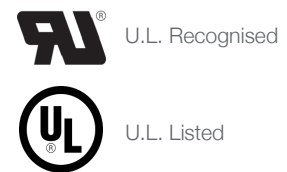
Sweden



Switzerland



U.S.A.



Russia



# Comparison Chart

Metric to AWG wire sizes



AWG	Cross Sectional Area in mm <sup>2</sup>	Closest standard equivalent in mm <sup>2</sup>
30	0.0503	0.05
29	0.0646	-
28	0.0804	-
27	0.102	0.1
26	0.128	0.14
25	0.163	-
24	0.205	0.2
23	0.259	0.25
22	0.325	-
21	0.412	-
20	0.519	0.5
19	0.653	-
18	0.823	0.75
17	1.04	1
16	1.31	-
15	1.65	1.5
14	2.08	-
13	2.63	2.5
12	3.13	-
11	4.15	4
10	5.27	-
9	6.62	6
8	8.35	-
7	10.6	10
6	13.3	-
5	16.8	16
4	21.2	-
3	26.7	25
2	33.6	35
1	42.4	-
0	53.4	50
2/0	67.5	70
3/0	85	95
4/0	107.2	120
5/0	135.1	150

## IP Ratings Guide

The IP classification system designates the degree of protection provide by an enclosure against solid objects or water ingress. Table I shows degrees of protection against solid objects. Table II shows degrees of protection against water.



**Table 1 (1st characteristic numeral)**

Degree of Protection against solid objects

Digit	Degree of Protection
0	Non-protected
1	Protected against a solid object greater than 50mm, such as a hand.
2	Protected against a solid object greater than 12.5mm, such as a finger.
3	Protected against a solid object greater than 2.5mm, such as wire or a tool.
4	Protected against a solid object greater than 1.0mm, such as wire or thin strips.
5	Dust-protected. Prevents ingress of dust sufficient to cause harm.
6	Dust tight. No ingress of dust.

Degree of protection to - DIN 40050-9

**Table 2 (2nd characteristic numeral)**

Degree of Protection against water

Digit	Degree of Protection
0	Non-protected
1	Protected against dripping water.
2	Protected against dripping water when tilted up to 15°.
3	Protected against spraying water at an angle of up to 60°.
4	Protected against splashing water from any direction.
5	Protected against jets of water from any direction.
6	Protected against heavy seas or powerful jets of water. Prevents ingress sufficient to cause harm.
7	Protected against the effects of temporary immersion in water.
8	Protected against the effects of continuous immersion in water.
69K	Protected against very high pressure, high temperature wash-down test.

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