bulgin

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, VDE**
   approvals Internationally recognised certification (pending)

○ **Screw, Crimp and Solder terminations available**

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

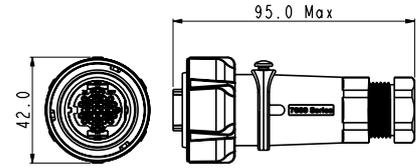## Flex Cable Connector

○ 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
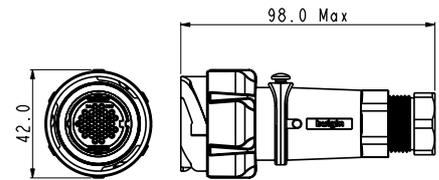○ Screw solder and crimp termination

PXP7010

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

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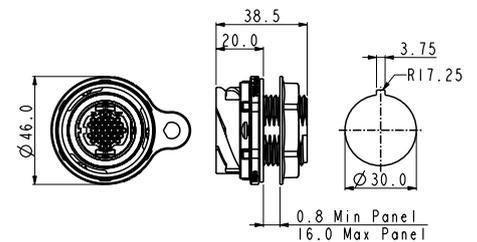○ 2, 3, 6, 10 and 32 pole
○ Screw solder and crimp termination

PXP7011

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

○ Mates with Flex Cable connectors PXP7010
○ Front panel mounting
○ 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

PXP7012

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
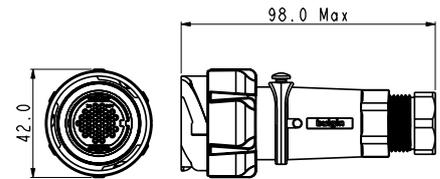○ Cable braid termination accessory option, add /SNsuffix
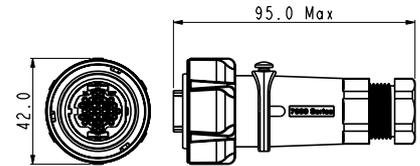
Poles	Termination	Pin Contacts	Socket Contacts	Contacts
2	Screw	PXM7010/02P/ST	PXM7010/02S/ST	Supplied Fitted
3	Screw	PXM7010/03P/ST	PXM7010/03S/ST	Supplied Fitted
6	Screw	PXM7010/06P/ST	PXM7010/06S/ST	Supplied Fitted
10	Crimp / Solder	PXM7010/10P/CR	PXM7010/10S/CR	Contact Required
32	Crimp / Solder	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
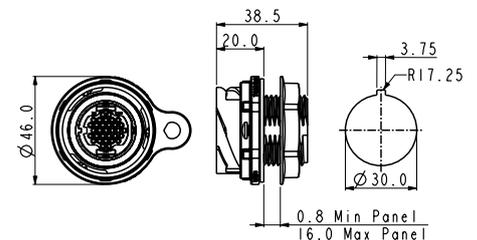○ Cable braid termination accessory option, add /SNsuffix

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
○ Front panel mounting
○ 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

Crimp / Solder Contacts

○ Gold Plated
○ Current ratings:
  10 pole: 10A
  32 pole: 2A

10 & 32 pole contacts

Contacts (for 10 pole) (Supplied in packs of 10)	Crimp	Solder
Pins	SA3544/P	SA3623/P
Sockets	SA3544/S	SA3623/S

Contacts (for 32 pole) (Supplied in packs of 10)	Crimp	Solder
Pins	SA3542/P	SA3622/P
Sockets	SA3542/S	SA3622/S

Crimp Tooling

○ Crimp Tools for 10 and 32 pole crimp contacts

PNo 14025

Crimp Tooling

Crimp Tool (10 & 32 pole)	PNo. 14025
Positioner (10 pole)	PNo. 15021/SP
Positioner (32 pole)	PNo. 15019/SP

Extraction Tools

○ Extraction tool for 10 and 32 pole contacts

PNo 14944/SP   PNo 14945/SP

Extraction Tools

Extraction tool (10 pole)	PNo. 14945/SP
Extraction tool (32 pole)	PNo. 14944/SP

Contact Carrier Removal Tool

○ For removal of all contact carriers

PNo 15065/SP

Contact Carrier Removal Tool

Contact carrier removal tool (all poles)	PNo. 15065/SP

Cable Braid Termination Option

○ For cable braid termination
○ Supplied with ty-rap

PXM7090

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Sealing Caps

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

PXP7082   PXP7081

Sealing Caps

○ Maintains IP rating of unmated connectors
○ PXM7081: Fits PXM7010 (FlexConnector)
○ PXM7082: Fits PXM7011 (Flex In-Line Connector) and PXP7012: (Panel Connector)
○ PXM7083: Fits PXM7012 (Panel Mounting Connector)
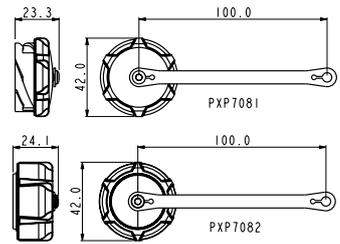
PXM7082   PXM7081   PXM7083
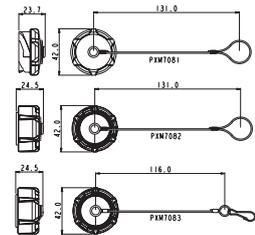
Cable Gland Packs

○ 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

PXP7088/ *

PXX   **7XXX** / **XX**   **X** / **XX** / **XXXX** / **XX**

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

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:

CCC, UL and VDE	25A	25A	10A	10A	3A
cUL (pending)	25A	25A	8A	6A	2A

Voltage Rating (ac/dc):

CCC, VDE (pending)	600V	600V	500V	277V	200V
UL, cUL (pending)	600V	600V	600V	600V	600V

Contact Resistance: <10mΩ

Insulation Resistance: >10^{6}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 (pending):

🏷	UL (Pending)	UL1977
c🏷us	cULus (Pending)	C22.2 No.182.3-M1987 (R2009)
⚐	VDE (Pending)	IEC 61984:2009
CCC	CCC (Pending)	GB/T11918 and GB/T11919

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	6.0mm² max
6 pole screw	1.00mm² 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:	TBA
Panel Nut:	1.7Nm (15lbf.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)	-
RoHS	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
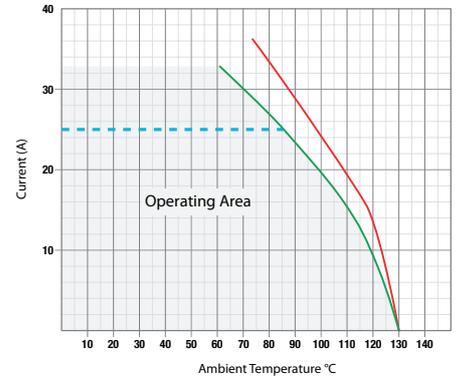—— = de-rated operating limits
– – = rated current

7000 Series Current vs. Temperature Characteristics

2 Pole, Plastic Body, Screw Terminal, 6.0mm² wire
current applied through all pins simultaneously
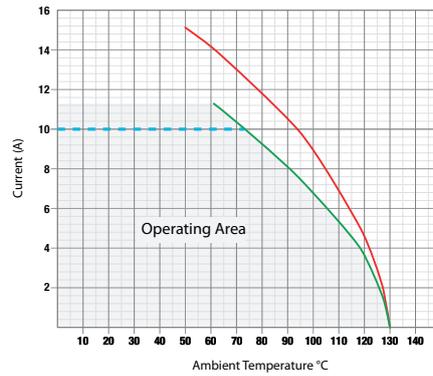
Operating Area
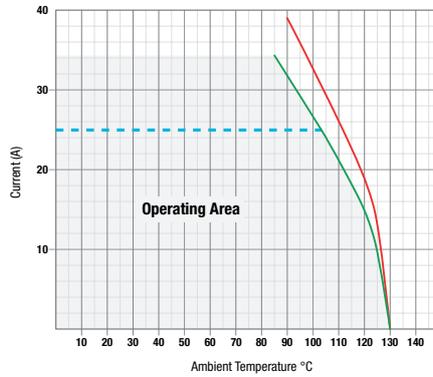
7000 Series Current vs. Temperature Characteristics

3 Pole, Plastic Body, Screw Terminal, 4.0mm² wire
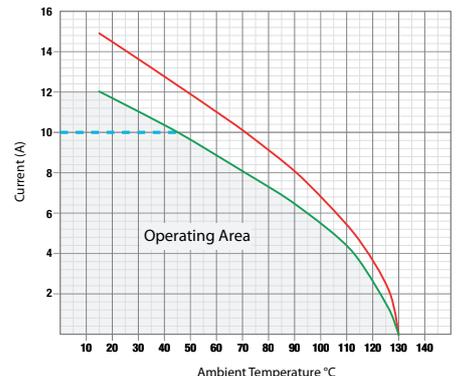current applied through all pins simultaneously

Operating Area

7000 Series Current vs. Temperature Characteristics

6 Pole, Plastic Body, Screw Terminal, 1.0mm² wire
current applied through all pins simultaneously
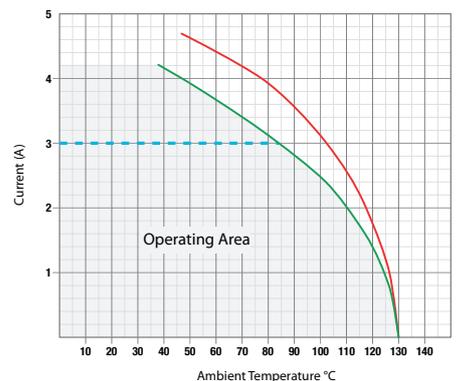
Operating Area

7000 Series Current vs. Temperature Characteristics

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

Operating Area

7000 Series Current vs. Temperature Characteristics

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

Operating Area

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Bulgin]():

  PXP7011/03P/ST/0709   PXP7010/10S/CR/0911   PXP7010/10S/CR/0507   PXP7010/06P/ST/0507
PXP7011/03P/ST/0507   PXP7012/03P/ST   PXP7011/03P/ST/0911   PXP7011/32P/CR/1315   PXP7010/06P/ST/0709
PXP7011/10P/CR/1315   PXP7011/32S/CR/1113   PXP7010/32P/CR/1315   PXP7010/03P/ST/1113
PXP7010/03P/ST/0507   PXP7011/06P/ST/0507   PXP7010/32P/CR/0911   PXP7011/10S/CR/1315   PXP7082
PXP7010/06P/ST/1315   PXP7011/32S/CR/0911   PXP7011/10P/CR/0709   PXP7010/10P/CR/0911
PXP7010/03P/ST/0709   PXP7010/10S/CR/0709   PXP7010/10P/CR/1113   PXP7010/06S/ST/0911
PXP7011/32S/CR/0507   PXP7011/06S/ST/0709   PXP7010/10P/CR/1315   PXP7011/10P/CR/0911
PXP7010/02P/ST/0507   15065/SP   PXP7010/02P/ST/0709   PXP7011/06P/ST/0911   PXP7012/02S/ST
PXP7010/02S/ST/0507   PXP7011/10S/CR/0911   PXP7011/02P/ST/0709   PXP7011/03S/ST/1113
PXP7011/03S/ST/0507   PXP7010/10P/CR/0507   PXP7011/02S/ST/0507   PXP7010/06S/ST/0507
PXP7010/06P/ST/0911   PXP7011/02P/ST/1113   PXP7011/02S/ST/0911   PXP7011/02P/ST/1315
PXP7011/32S/CR/0709   PXP7010/06S/ST/0709   PXP7010/32S/CR/0709   PXP7010/03S/ST/1315
PXP7011/10S/CR/1113   PXP7010/02P/ST/0911   PXP7010/03P/ST/0911   PXP7012/02P/ST   PXP7011/06S/ST/1113
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PXP7011/06P/ST/1113   PXP7011/32P/CR/0507   PXP7011/06P/ST/1315   PXP7011/32P/CR/1113   PXP7088/1315
PXP7011/10S/CR/0507   PXP7010/03S/ST/1113   PXP7011/10P/CR/0507   PXP7011/03P/ST/1315
PXP7010/10S/CR/1315   PXP7012/10P/CR   PXP7011/06P/ST/0709   PXP7010/32S/CR/0507   PXP7012/06S/ST
PXP7010/02S/ST/0911   PXP7010/06S/ST/1113   PXP7010/32P/CR/1113   PXP7011/06S/ST/0507
PXP7011/03S/ST/0911   PXP7012/32P/CR   PXP7081   PXP7011/32S/CR/1315   PXP7010/32P/CR/0507
PXP7012/32S/CR   PXP7011/02P/ST/0911   PXP7010/02P/ST/1315   PXP7010/32S/CR/1113   PXP7010/06P/ST/1113
PXP7010/03S/ST/0709   PXP7010/02S/ST/0709   PXP7088/0507   PXP7012/10S/CR   PXP7011/02S/ST/0709
PXP7010/02S/ST/1113   PXP7011/02S/ST/1113   PXP7011/03S/ST/0709   PXP7010/10S/CR/1113
PXP7011/06S/ST/1315   PXP7010/03S/ST/0911