

## Robust, instant connections for harsh environments

The all metal construction 6000 Series Buccaneer - circular connectors that combine the ease of use of a push/pull 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

IP66

IP68

IP69K

### For Power

METAL VERSION



● <b>Push/pull latching mechanism*</b>	Secure, instant latching. Quick connector mating and release
● <b>30° twist locking*</b>	Tamperproof lock prevents accidental un-mating
● <b>IP66, IP68 and IP69K when mated</b>	Suitable for a wide range of dust and water borne environments
● <b>All metal body version; brass, nickel plated</b>	Robust construction offering protection against EMI
● <b>Flex, flex in-line &amp; panel mount body styles, with sealing caps</b>	Complete family of products maintain sealing integrity in all styles
● <b>Polarisation and visual alignment features</b>	Aids the correct mating of connectors
● <b>2 to 22 poles – up to 16A, 277V rated</b>	Suitable for mains power to signal applications
● <b>'Scoop proof' contacts</b>	Prevents damage through mis-mating – ideal for 'blind mating' applications
● <b>Cable braid termination accessory</b>	Maintains continuity between cable screen and connector body
● <b>cULus, VDE, CCC approvals (pending)</b>	Internationally recognised certification

\*patent applied for

# 6000 Series Buccaneer®



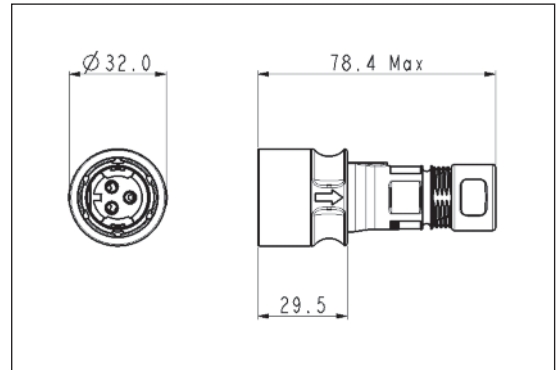
## Metal Version

### FLEX CABLE CONNECTOR



PXM6010/P

- 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 and crimp termination
- Cable braid termination accessory option, add /SN suffix



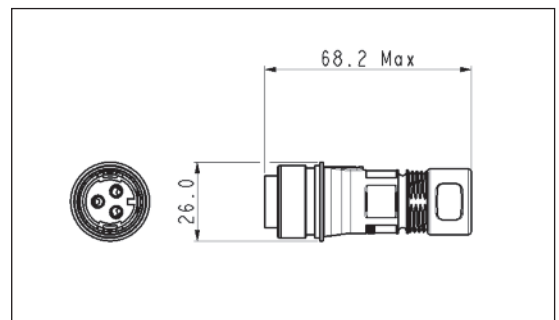
Poles	Termination	Pin Contacts	Socket Contacts	Contacts
2	Screw	PXM6010/02P/ST	PXM6010/02S/ST	Supplied Fitted
2	Crimp	PXM6010/02P/CR	PXM6010/02S/CR	Order Separately
3	Screw	PXM6010/03P/ST	PXM6010/03S/ST	Supplied Fitted
3	Crimp	PXM6010/03P/CR	PXM6010/03S/CR	Order Separately
8	Crimp	PXM6010/08P/CR	PXM6010/08S/CR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

### IN-LINE FLEX CABLE CONNECTOR



PXM6011/S

- 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 and crimp termination
- Cable braid termination accessory option, add /SN suffix



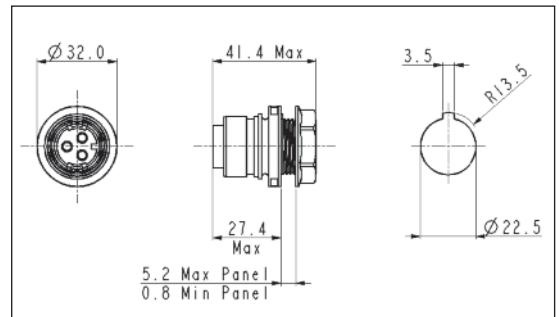
Poles	Termination	Pin Contacts	Socket Contacts	Contacts
2	Screw	PXM6011/02P/ST	PXM6011/02S/ST	Supplied Fitted
2	Crimp	PXM6011/02P/CR	PXM6011/02S/CR	Order separately
3	Screw	PXM6011/03P/ST	PXM6011/03S/ST	Supplied Fitted
3	Crimp	PXM6011/03P/CR	PXM6011/03S/CR	Order separately
8	Crimp	PXM6011/08P/CR	PXM6011/08S/CR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

### FRONT PANEL MOUNTING CONNECTOR



PXM6012/S

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



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

## Metal Version

### CRIMP CONTACTS



2, 3, 8, 16 & 22 pole contacts

- Crimp Contacts
- Gold Plated
- Current ratings:
  - 2 & 3 pole : 16A
  - 8 pole : 10A
  - 16 pole : 3A
  - 22 pole : 2A

### Contacts - Crimp for 2, 3, 8, 16 and 22 pole

#### Contacts (for 2 & 3 pole) (Supplied in packs of 10)

	Crimp
Pins	SA3545/P
Sockets	SA3545/S

#### Contacts (for 8 pole) (Supplied in packs of 10)

	Crimp
Pins	SA3544/P
Sockets	SA3544/S

#### Contacts (for 16 & 22 pole) (Supplied in packs of 10)

	Crimp
Pins	SA3542/P
Sockets	SA3542/S

### CRIMP TOOLING



PN 14232

- Crimp Tools for 2, 3, 8, 16 and 22 pole crimp contacts

### Crimp Tooling

Crimp Tool (2 & 3 pole)	PN 14232
Positioner (2 & 3 pole)	PN 14232/2/SP
Crimp Tool (8, 16 & 22 pole)	PN 14025
Positioner (8 pole)	PN 15021/SP
Positioner (16 & 22 pole)	PN 15019/SP

### INSERTION/EXTRACTION TOOLS



PN 14946

- Insertion/Extraction Tool for 2, 3, 8, 16 and 22 pole contacts

### Insertion/Extraction Tools

Insertion/Extraction Tool (2 & 3 pole)	PN 14946/SP
Insertion/Extraction Tool (8 pole)	PN 14945/SP
Insertion/Extraction Tool (16 & 22 pole)	PN 14944/SP

### CONTACT CARRIER REMOVAL TOOL



PN 14917

- For removal of all contact carriers

### Tools

Contact carrier removal tool (all poles)	PN 14917/SP
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## Metal Version

### SEALING CAPS



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



### CABLE GLAND PACKS



- Pack of all cable glands to suit cable ranges from 4.0 to 10.0mm diameter

### CABLE BRAID TERMINATION OPTION



- For cable braid termination
- Supplied with ty-rap

## Metal Version

### PART NO SYSTEM



#### Examples:

PXM6010/03/P/CR/0507= Flex cable connector, 3 pole, pin contacts, crimp termination with 5 to 7mm cable glands

PXM6012/03/S/ST= Front panel mounting connector, 3 pole, socket with screw termination

## Metal Version

### SPECIFICATION

#### Electrical:

No. Poles:	2	3	8	16	22
Rated cable	18 AWG	18 AWG	18 AWG	22 AWG	26 AWG
Current Rating: See de-rating curves for further information					
CCC, UL and VDE (pending)	16A	12A	10A	3A	3A
cUL (pending)	13A	12A	10A	3A	3A
Voltage Rating (ac/dc):	277V	277V	277V	60V	60V
Contact Resistance:	<10mΩ				
Insulation Resistance:	>10 <sup>9</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 (pending):					
UL	UL1977				
CSA	C22.2 No.182.3-M1987 (R2009)				
VDE	IEC 61984:2009				
CCC	GB/T11918 and GB/T11919				

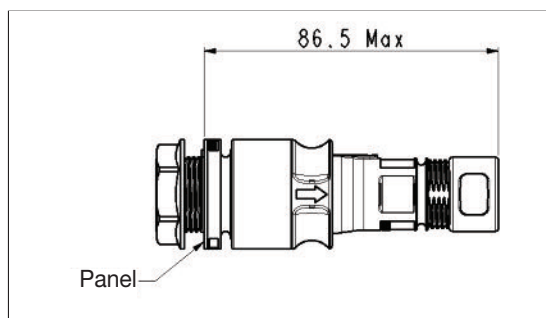
#### Material:

Body:	Brass, Nickel plated
Colour:	Matt Silver
Contacts:	Brass, Nickel plated (2A – Gold plated)
O Rings & Gaskets:	Silicon
RoHS	Compliant

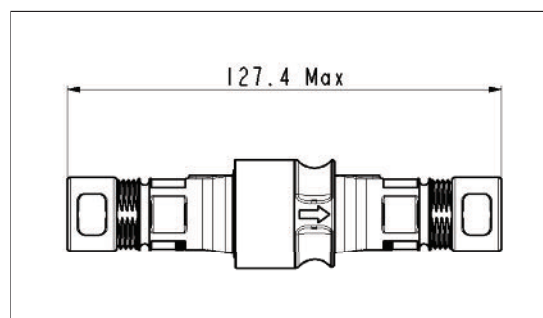
#### Mechanical:

Locking mechanism	Push/pull with 30° locking Patent applied for
Sealing:	IP66 to EN60529:1992 IP68 to EN60529:1992 (10m depth for 2 weeks) IP69k to DIN 40050-9
Contact Accommodation:	
2 & 3 pole crimp	14 to 18AWG
2 & 3 pole screw terminals	1.5mm <sup>2</sup> max
8 pole crimp	18 to 20AWG
16 pole crimp	22 to 26AWG
22 pole crimp	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 Terminals & Crimp Contacts
8 Pole:	Crimp Contacts
16 Pole:	Crimp Contacts
22 Pole:	Crimp 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

Mated dimensions - Flex to panel connector



Mated dimensions - Flex connector to in-line connector





## Metal Version

### CURRENT CARRYING CAPACITY

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.

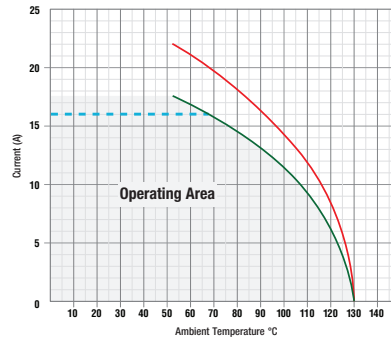
De-rating curves are plotted for each contact combination with the current being carried simultaneously by all contacts. These graphs show the heat rise generated as the current is increased.

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.

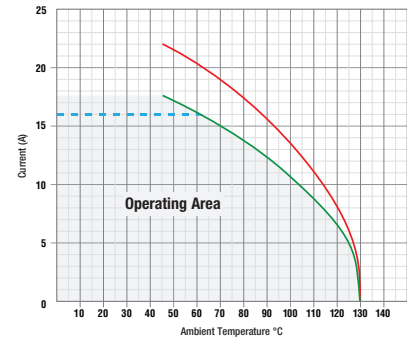
The shaded area under the 0.8 curve shows the permitted operating area, and allows safe current vs ambient temperature characteristics to be determined.

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

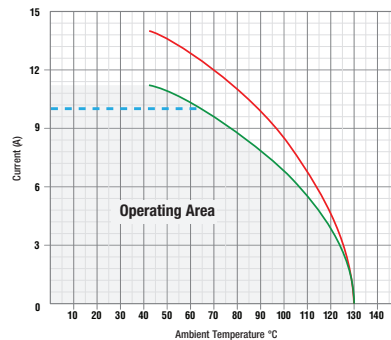
**2 Pole, Metal Body, Crimp Terminal, 18 AWG wire**  
current applied through all pins simultaneously



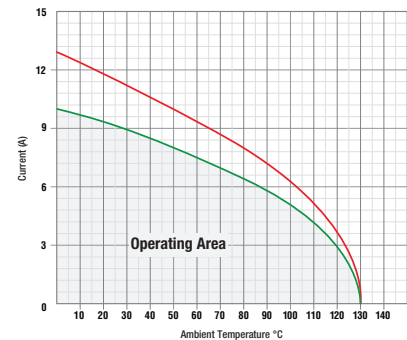
**3 Pole, Metal Body, Screw Terminal, 18 AWG wire**  
current applied through all pins simultaneously



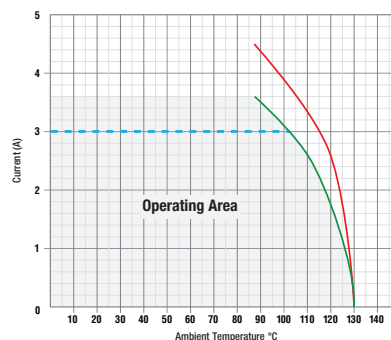
**8 Pole, Metal Body, Crimp Terminal, 18 AWG wire**  
current applied through all pins simultaneously



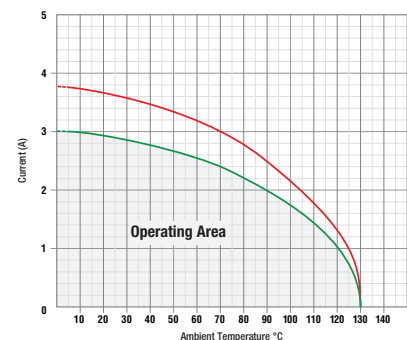
**8 Pole, Metal Body, Crimp Terminal, 20 AWG wire**  
current applied through all pins simultaneously



**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

