

# 6000 Series Buccaneer®



## Robust, instant connections for harsh environments

The all plastic 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.

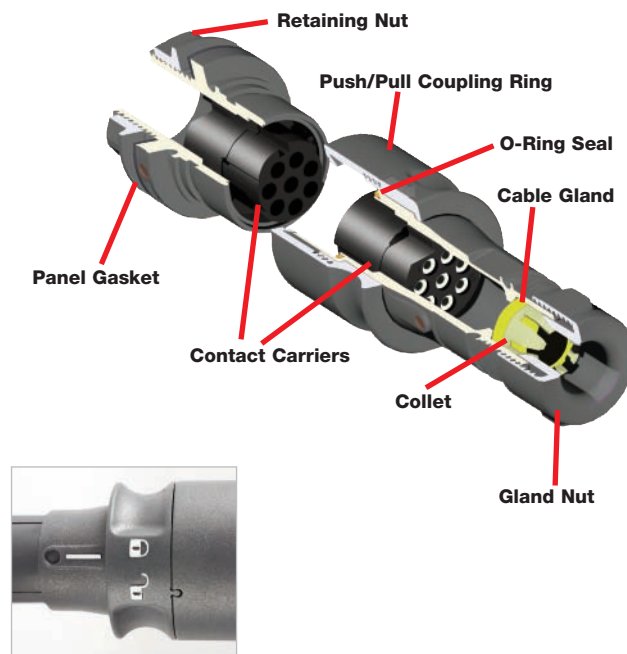
IP66

IP68

IP69K

### For Power

THERMO-PLASTIC VERSION



● <b>Push/pull locking mechanism*</b>	Secure, instant locking. 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 plastic body version; UL94-V0 rated, UV stable, halogen free</b>	Light-weight, self-extinguishing material suitable for long-term outdoor use
● <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>cULs, UL, VDE, CCC approvals</b> (pending)	Internationally recognised certification

\*patent applied for

## Thermo-plastic Version

### FLEX CABLE CONNECTOR



**PXP6010/P PXP6010/S**

- 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 and crimp termination



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

### IN-LINE FLEX CABLE CONNECTOR



**PXP6011/P PXP6011/S**

- 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 and crimp termination



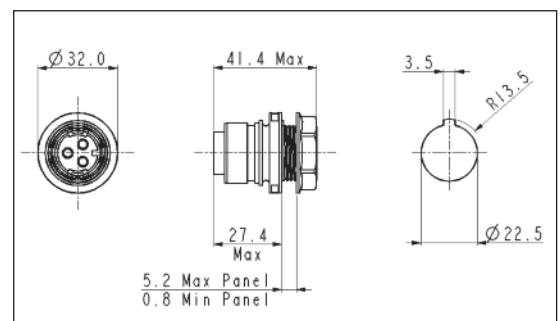
Poles	Termination	Pin Contacts	Socket Contacts	Contacts
2	Screw	PXP6011/02P/ST	PXP6011/02S/ST	Supplied Fitted
2	Crimp	PXP6011/02P/CR	PXP6011/02S/CR	Order separately
3	Screw	PXP6011/03P/ST	PXP6011/03S/ST	Supplied Fitted
3	Crimp	PXP6011/03P/CR	PXP6011/03S/CR	Order separately
8	Crimp	PXP6011/08P/CR	PXP6011/08S/CR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

### FRONT PANEL MOUNTING CONNECTOR



**PXP6012/P PXP6012/S**

- 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 and crimp termination



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

## Thermo-plastic 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



PNo 14232

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

#### Crimp Tooling

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

### INSERTION/EXTRACTION TOOLS



PNo 14946

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

#### Insertion/Extraction Tools

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

### CONTACT CARRIER REMOVAL TOOL



PNo 14917

- For removal of all contact carriers

#### Tools

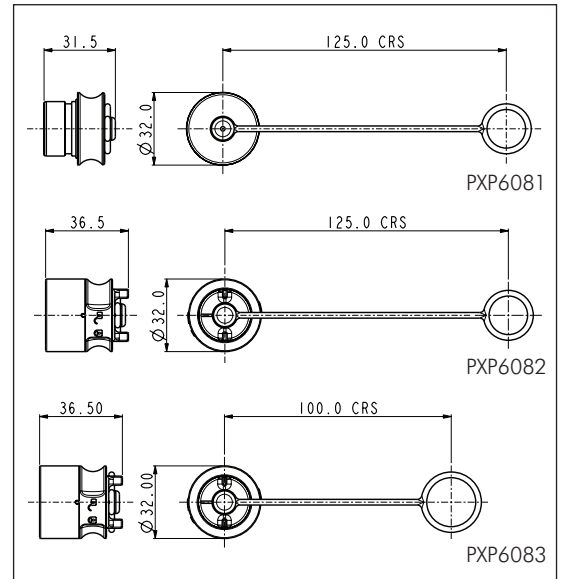
Contact carrier removal tool (all poles)	PNo. 14917/SP
--	---------------

## Thermo-plastic Version

### SEALING CAPS



- Maintains IP rating of unmated connectors
- PXP6081: Fits PXP6010 (Flex Connector)
- PXP6082: Fits PXP6011 (Flex In-Line Connector) with 30° twist locking
- PXP6083: Fits PXP6012 (Panel Connector) with 30° twist locking



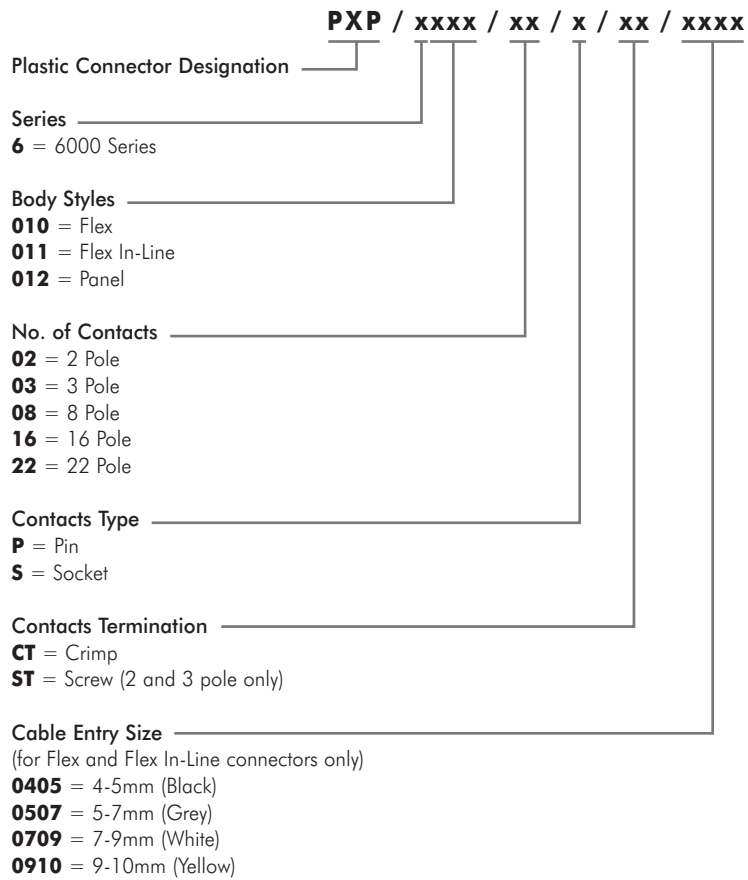
### CABLE GLAND PACKS



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

## Thermo-plastic Version

### PART NO SYSTEM



#### Examples:

PXP6010/03/P/CT/0507= Flex cable connector, 3 pole, pin contacts, crimp termination with 5 to 7mm cable glands

PXP6012/03/S/ST= Front panel mounting connector, 3 pole, socket with screw termination

## Thermo-plastic Version

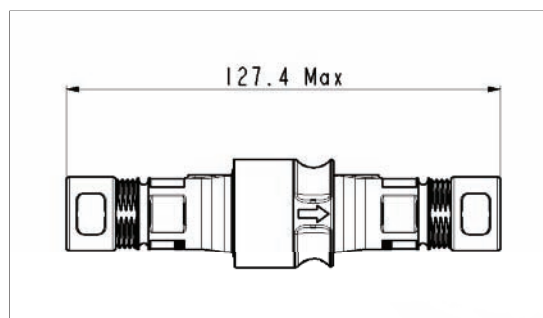
### SPECIFICATION

Electrical:		Mechanical:	
No. Poles:	2    3    8    16    22	Locking mechanism	Push/pull with 30° locking Patent applied for
Rated cable	18    18    18    22    26 AWG    AWG    AWG    AWG    AWG	Sealing:	IP66 to EN60529:1992 IP68 to EN60529:1992 (10m depth for 2 weeks) IP69k to DIN 40050-9
Current Rating: See de-rating curves for further information		Contact Accommodation:	14 to 18AWG 1.5mm <sup>2</sup> max 18 to 20AWG 22 to 26AWG 22 to 26AWG
CCC, UL and VDE (pending)	16A    12A    10A    3A    2A	2 & 3 pole crimp	
cUL (pending)	13A    12A    10A    3A    2A	2 & 3 pole screw terminals	
Voltage Rating (ac/dc):	277V    277V    277V    60V    60V	8 pole crimp	
Contact Resistance:	<10mΩ	16 pole crimp	
Insulation Resistance:	>10 <sup>6</sup> MΩ @500V dc	22 pole crimp	
AC Breakdown voltage:		Cable Acceptance:	4-10mm dia.
2 pole	>10kV	Cable retention force (to BS EN61984):	
3 pole	>8kV	4 - 9mm dia cable	80N
8 to 22 pole	>5kV	9 - 10mm dia cable	100N
Operating Temp. Range:	-40°C to +120°C	Terminations:	
Approvals (pending):		2-7 Pole:	Screw Terminals
UL	UL1977	3 Pole:	Screw Terminals & Crimp Contacts
CSA	C22.2 No.182.3-M1987 (R2009)	9 Pole:	Crimp Contacts
VDE	IEC 61984:2009	12 Pole:	Crimp & Solder Contacts
CCC	GB/T11918 and GB/T11919	25 Pole:	Crimp & Solder Contacts
<b>Material:</b>		Tightening Torques:	
Body:	PC/ PBT	Gland Nut:	1.13Nm (10lb.in)
Colour:	Grey	Panel Nut:	1.7Nm (15lb.in.)
Flammability Rating:	UL94 V-0	Panel Nut Thread:	M22 x 1.5-6g
Halogen free	Yes	Dimensions:	
UV Resistance:	ISO 4892 part 3 cycle 1 (QUV)	Diameter: (over coupling ring)	32mm
Contacts:	Brass, Nickel plated (2A – Gold plated)	Diameter: (panel hole cut-out)	22.5mm
O Rings & Gaskets:	Silicon		
RoHS	Compliant		

Mated dimensions - Flex to panel connector



Mated dimensions - Flex connector to in-line connector



## Thermo-plastic 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 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 under the 0.8 curve shows the permitted operating area.

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

### 6000 Series Current vs. Temperature Characteristics

