

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

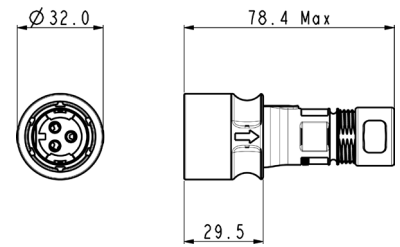


### Flex Cable Connector



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



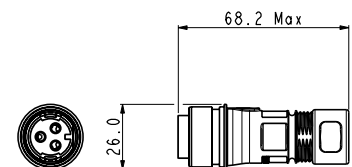
| Poles | Termination    | Pin Contacts   | Socket Contacts | Contacts          |
|-------|----------------|----------------|-----------------|-------------------|
| 2     | Screw          | PXP6010/02P/ST | PXP6010/02S/ST  | Supplied Fitted   |
| 2     | Crimp / Solder | PXP6010/02P/CR | PXP6010/02S/CR  | 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



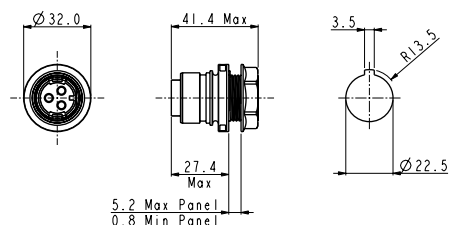
| Poles | Termination    | Pin Contacts   | Socket Contacts | Contacts          |
|-------|----------------|----------------|-----------------|-------------------|
| 2     | Screw          | PXP6011/02P/ST | PXP6011/02S/ST  | Supplied Fitted   |
| 2     | Crimp / Solder | PXP6011/02P/CR | PXP6011/02S/CR  | 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



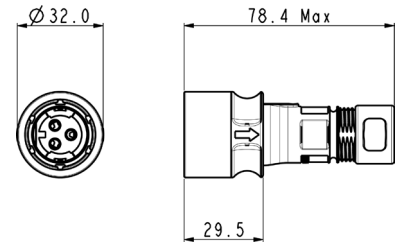
| Poles | Termination    | Pin Contacts   | Socket Contacts | Contacts          |
|-------|----------------|----------------|-----------------|-------------------|
| 2     | Screw          | PXP6012/02P/ST | PXP6012/02S/ST  | Supplied Fitted   |
| 2     | Crimp / Solder | PXP6012/02P/CR | PXP6012/02S/CR  | 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



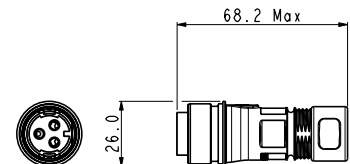
| Poles | Termination    | Pin Contacts   | Socket Contacts | Contacts          |
|-------|----------------|----------------|-----------------|-------------------|
| 2     | Screw          | PXM6010/02P/ST | PXM6010/02S/ST  | Supplied Fitted   |
| 2     | Crimp / Solder | PXM6010/02P/CR | PXM6010/02S/CR  | 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



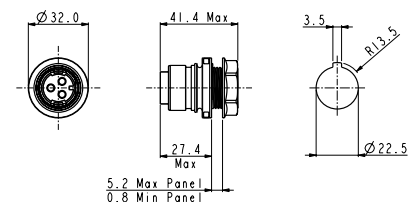
| Poles | Termination    | Pin Contacts   | Socket Contacts | Contacts          |
|-------|----------------|----------------|-----------------|-------------------|
| 2     | Screw          | PXM6011/02P/ST | PXM6011/02S/ST  | Supplied Fitted   |
| 2     | Crimp / Solder | PXM6011/02P/CR | PXM6011/02S/CR  | 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
- 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          | 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 |

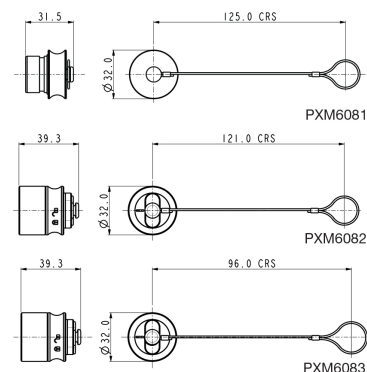
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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Crimp / Solder Contacts</div> <div></div> <div>2, 3, 8, 16 &amp; 22 pole contacts</div> | <div><div><div><div></div><div>Gold Plated</div></div><div><div></div><div>Current ratings:</div><div>2 &amp; 3 pole : 16A</div><div>8 pole : 10A</div><div>16 pole : 3A</div><div>22 pole : 2A</div></div></div></div> | <div><div><div>Contacts (for 2 &amp; 3 pole)<br/>(Supplied in packs of 10)</div><div>Pins</div><div>Sockets</div></div><div><div>Crimp</div><div>SA3545/P</div><div>SA3545/S</div></div><div><div>Solder</div><div>SA3624/P</div><div>SA3624/S</div></div></div> <div><div><div>Contacts (for 8 pole)<br/>(Supplied in packs of 10)</div><div>Pins</div><div>Sockets</div></div><div><div>Crimp</div><div>SA3544/P</div><div>SA3544/S</div></div><div><div>Solder</div><div>SA3623/P</div><div>SA3623/S</div></div></div> <div><div><div>Contacts (for 16 &amp; 22 pole)<br/>(Supplied in packs of 10)</div><div>Pins</div><div>Sockets</div></div><div><div>Crimp</div><div>SA3542/P</div><div>SA3542/S</div></div><div><div>Solder</div><div>SA3622/P</div><div>SA3622/S</div></div></div> |
| <div>Crimp Tooling</div> <div></div> <div>PNo 14232</div>                                    | <div><div><div></div><div>Crimp Tools for 2, 3, 8, 16 and 22 pole crimp contacts</div></div></div>                                                                                                                      | <div><div>Crimp Tooling</div><div><div><div>Crimp Tool (2 &amp; 3 pole)</div><div>Positioner (2 &amp; 3 pole)</div><div>Crimp Tool (8, 16 &amp; 22 pole)</div><div>Positioner (8 pole)</div><div>Positioner (16 &amp; 22 pole)</div></div><div><div>PNo.14232</div><div>PNo.14232/2/SP</div><div>PNo.14025</div><div>PNo.15021/SP</div><div>PNo.15019/SP</div></div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                             |
| <div>Extraction Tool</div> <div></div>                                                     | <div><div><div></div><div>Extraction Tool for 2, 3, 8, 16 and 22 pole contacts</div></div></div>                                                                                                                        | <div><div>Extraction Tools</div><div><div><div>Extraction Tool<br/>(2 &amp; 3 pole)</div><div>Extraction Tool<br/>(8 pole)</div><div>Extraction Tool<br/>(16 &amp; 22 pole)</div></div><div><div>PNo.14946/SP</div><div>PNo.14945/SP</div><div>PNo.14944/SP</div></div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <div>Contact Carrier Removal Tool</div> <div></div> <div>PNo 14917</div>                   | <div><div><div></div><div>For removal of all contact carriers</div></div></div>                                                                                                                                         | <div><div>Tools</div><div><div>Contact carrier removal tool (all poles)</div><div>PNo. 14917/SP</div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

#### 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)

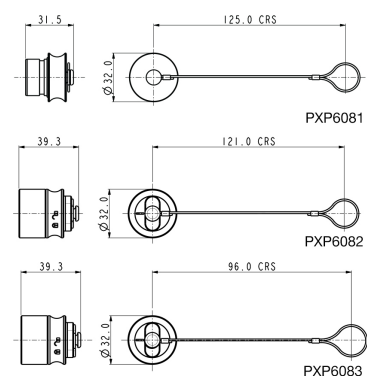


#### Plastic Sealing Caps



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

#### Cable Braid Termination Option



PXM6090

- For cable braid termination
- Supplied with ty-rap

| PXX / 6XXX / 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<br>PXP= Plastic Series | Body Styles<br>6010 = Flex<br>6011 = Flex In-Line<br>6012 = Panel | No. of Contacts<br>02 = 2 Pole<br>03 = 3 Pole<br>08 = 8 Pole<br>16 = 16 Pole<br>22 = 22 Pole | Contacts Type<br>P = Pin<br>S = Socket | Contacts Termination<br>CR = Contacts Required<br>ST = Screw<br>(2 and 3 pole only) | Cable Entry Size<br>(for Flex and Flex In-Line connectors only)<br><br>0405 = 4-5mm (Dark Grey)<br><br>0507 = 5-7mm (White)<br><br>0709 = 7-9mm (Yellow)<br><br>0910 = 9-10mm (Light Grey) | Cable Braid Termination Accessory<br>(for Flex and Flex In-Line connectors only)<br>SN if required<br>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:<br>See de-rating curves for<br>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<br>AWG                    | 14<br>AWG | 16-20<br>AWG | 22<br>AWG | 26<br>AWG |
| 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:                                                                                       |                              |           |              |           |           |
|  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<br>Patent applied for                                                                |
| Sealing:                                  | IP66 to En60529:1992+A2:2013<br>IP68 to En60529:1992+A2:2013 (10m depth<br>for 2 weeks)<br>IP69k to DIN 40050-9 |
| Salt Mist (plastic) :                     | EN60068-2-52 Test Kb Salt Mist (Cyclic)<br>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<br>(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)<br>Brass, (3A – Gold plated) | Brass, Nickel Plate (Screw and<br>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 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

