

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, Inline & 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 Contacts – 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**

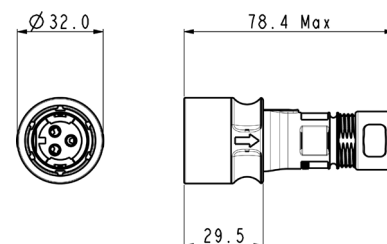


#### Flex Cable Connector



PXP6010

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



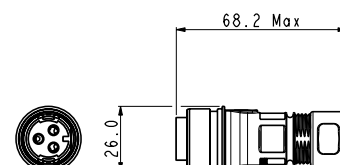
| Contacts | Termination    | Plug Contacts  | Socket Contacts | Contacts          |
|----------|----------------|----------------|-----------------|-------------------|
| 2        | Screw          | PXP6010/02P/ST | PXP6010/02S/ST  | Supplied Fitted   |
| 2        | Crimp / Solder | PXP6010/02P/CR |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

#### Inline Cable Connector



PXP6011

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



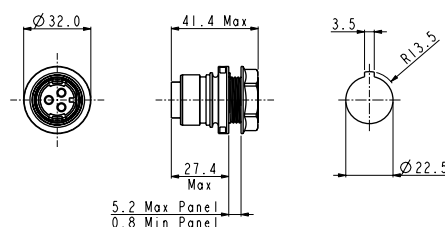
| Contacts | Termination    | Plug Contacts  | Socket Contacts | Contacts          |
|----------|----------------|----------------|-----------------|-------------------|
| 2        | Screw          | PXP6011/02P/ST | PXP6011/02S/ST  | Supplied Fitted   |
| 2        | Crimp / Solder | PXP6011/02P/CR | 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
- Plug or socket versions
- Leading earth on 3 Contact connectors
- 2, 3, 8, 16 and 22 Contact
- Screw, solder and crimp termination



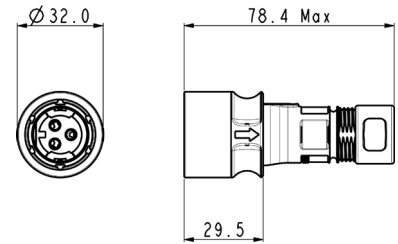
| Contacts | Termination    | Plug Contacts  | Socket Contacts | Contacts          |
|----------|----------------|----------------|-----------------|-------------------|
| 2        | Screw          | PXP6012/02P/ST | PXP6012/02S/ST  | Supplied Fitted   |
| 2        | Crimp / Solder | PXP6012/02P/CR | 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 Inline or Panel Mounting versions PXM6011 and PXM6012
- Push/pull locking ring with 30° twist locking
- Plug or socket versions
- Leading earth on 3 Contact connectors
- 2, 3, 8, 16 and 22 Contact
- Screw, solder and crimp termination
- Cable braid termination accessory option, add /SNsuffix



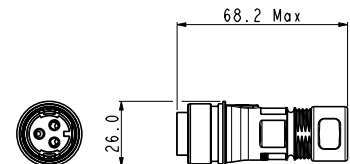
| Contacts | Termination    | Plug Contacts  | Socket Contacts | Contacts          |
|----------|----------------|----------------|-----------------|-------------------|
| 2        | Screw          | PXM6010/02P/ST | PXM6010/02S/ST  | Supplied Fitted   |
| 2        | Crimp / Solder | PXM6010/02P/CR |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

#### Inline Cable Connector



PXM6011

- Mates with Flex Cable connector PXM6010
- For Inline cable connection
- Plug or socket versions
- Leading earth on 3 Contact connectors
- 2, 3, 8, 16 and 22 Contact
- Screw, solder and crimp termination
- Cable braid termination accessory option, add /SNsuffix



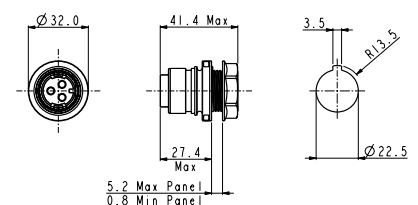
| Contacts | Termination    | Plug Contacts  | Socket Contacts | Contacts          |
|----------|----------------|----------------|-----------------|-------------------|
| 2        | Screw          | PXM6011/02P/ST | PXM6011/02S/ST  | Supplied Fitted   |
| 2        | Crimp / Solder | PXM6011/02P/CR |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

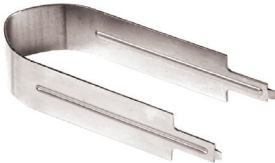


PXM6012

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



| Contacts | Termination    | Plug 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 |

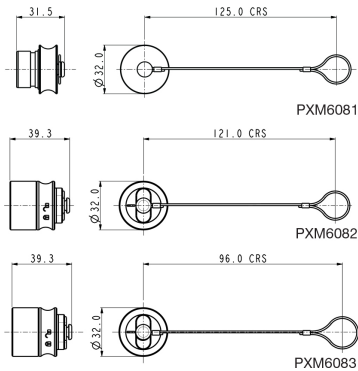
|                                                                                                                                                                                  |                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Crimp / Solder Contacts</div> <div></div> <div>2, 3, 8, 16 &amp; 22 Contact contacts</div> | <div><div><div></div><div></div></div><div>Gold Plated<br/>Current ratings:<br/>2 &amp; 3 Contact : 16A<br/>8 Contact : 10A<br/>16 Contact : 3A<br/>22 Contact : 2A</div></div> | <div><div>Contacts (for 2 &amp; 3 Contact)<br/>(Supplied in packs of 10)</div><div><div>Plugs</div><div>Sockets</div></div><div><div>Crimp</div><div>Solder</div></div><div><div>SA3545/P</div><div>SA3545/S</div></div><div><div>SA3624/P</div><div>SA3624/S</div></div></div> <div><div>Contacts (for 8 Contact)<br/>(Supplied in packs of 10)</div><div><div>Plugs</div><div>Sockets</div></div><div><div>Crimp</div><div>Solder</div></div><div><div>SA3544/P</div><div>SA3544/S</div></div><div><div>SA3623/P</div><div>SA3623/S</div></div></div> <div><div>Contacts (for 16 &amp; 22 Contact)<br/>(Supplied in packs of 10)</div><div><div>Plugs</div><div>Sockets</div></div><div><div>Crimp</div><div>Solder</div></div><div><div>SA3542/P</div><div>SA3542/S</div></div><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><div>Crimp Tools for 2, 3, 8, 16 and 22 Contact crimp contacts</div></div>                                                                           | <div><div>Crimp Tooling</div><div><div>Crimp Tool (2 &amp; 3 Contact)<br/>Positioner (2 &amp; 3 Contact)<br/>Crimp Tool (8, 16 &amp; 22 Contact)<br/>Positioner (8 Contact)<br/>Positioner (16 &amp; 22 Contact)</div><div><div>PNo.14232<br/>PNo.14232/2/SP<br/>PNo.14025<br/>PNo.15021/SP<br/>PNo.15019/SP</div></div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <div>Extraction Tool</div> <div></div>                                                        | <div><div><div></div></div><div>Extraction Tool for 2, 3, 8, 16 and 22 Contact contacts</div></div>                                                                             | <div><div>Extraction Tools</div><div><div>Extraction Tool (2 &amp; 3 Contact)<br/>Extraction Tool (8 Contact)<br/>Extraction Tool (16 &amp; 22 Contact)</div><div><div>PNo.14946/SP<br/>PNo.14945/SP<br/>PNo.14944/SP</div></div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <div>Contact Carrier Removal Tool</div> <div></div> <div>PNo 14917</div>                      | <div><div><div></div></div><div>For removal of all contact carriers</div></div>                                                                                                 | <div><div>Tools</div><div><div>Contact carrier removal tool (all Contacts)</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 (Inline Connector)
- PXM6083: Fits PXM6012 (Panel Connector)

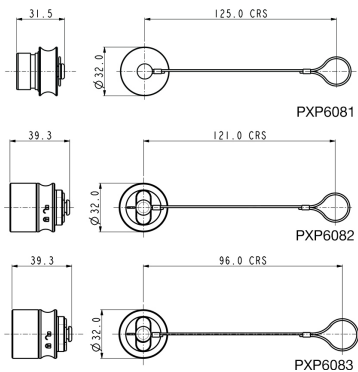


Plastic Sealing Caps



PXP6083   PXP6082   PXP6081

- Maintains IP Rating of Unmated Connectors
- PXP6081: Fits PXP6010 (Flex Connector)
- PXP6082: Fits PXP6011 (Inline 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



| PXX                                      |  | 601X                                               |  | /                          | 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 |  | 6010 = Flex<br>6011 = Inline<br>6012 = Front Panel |  | 02<br>03<br>08<br>16<br>22 |    | P = Plug<br>S = Socket |   | CR = Contacts Required<br>ST = Screw<br>(2 and 3 Contact only) |  | (for Flex and Inline 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) |    | (for Flex and Inline connectors only)<br><br>SN if required<br>Blank if not required |   |      |  |   |    |  |

Examples

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

### Electrical:

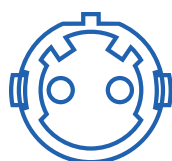
|                                                                                                  |                              |           |              |           |           |
|--------------------------------------------------------------------------------------------------|------------------------------|-----------|--------------|-----------|-----------|
| No. Contacts:                                                                                    | 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 Contact                                                                                        | >10kV                        |           |              |           |           |
| 3 Contact                                                                                        | >8kV                         |           |              |           |           |
| 8 to 22 Contact                                                                                  | >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 Contact crimp / solder              | 14 to 18AWG                                                                                                     |
| 2 & 3 Contact screw terminals             | 1.5mm <sup>2</sup> max                                                                                          |
| 8 Contact crimp / solder                  | 18 to 20AWG                                                                                                     |
| 16 Contact crimp / solder                 | 22 to 26AWG                                                                                                     |
| 22 Contact 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 Contact:                                | Screw Terminals                                                                                                 |
| 3 Contact:                                | Screw, crimp or solder terminals                                                                                |
| 8 Contact:                                | Crimp / Solder Contacts                                                                                         |
| 16 Contact:                               | Crimp / Solder Contacts                                                                                         |
| 22 Contact:                               | 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:

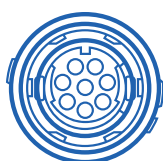
|                      | Plastic                                                            | Metal                                                              |
|----------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|
| 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)                                      | -                                                                  |
| <b>RoHS</b>          | Compliant                                                          | Compliant                                                          |



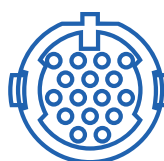
2 Contact  
(16 Amp)



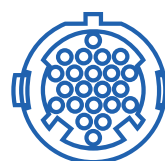
3 Contact  
(16 Amp)



8 Contact  
(10 Amp)



16 Contact  
(3 Amp)



22 Contact  
(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 contact 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

