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
# 7000 Series Buccaneer

**Thermo Plastic**

## 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

**Table:**

<table>
<thead>
<tr>
<th>Poles</th>
<th>Termination</th>
<th>Pin Contacts</th>
<th>Socket Contacts</th>
<th>Contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Screw</td>
<td>PXP7010/02P/ST</td>
<td>PXP7010/02S/ST</td>
<td>Supplied Fitted</td>
</tr>
<tr>
<td>3</td>
<td>Screw</td>
<td>PXP7010/03P/ST</td>
<td>PXP7010/03S/ST</td>
<td>Supplied Fitted</td>
</tr>
<tr>
<td>6</td>
<td>Screw</td>
<td>PXP7010/06P/ST</td>
<td>PXP7010/06S/ST</td>
<td>Supplied Fitted</td>
</tr>
<tr>
<td>10</td>
<td>Crimp / Solder</td>
<td>PXP7010/10P/CR</td>
<td>PXP7010/10S/CR</td>
<td>Contact Required</td>
</tr>
<tr>
<td>32</td>
<td>Crimp / Solder</td>
<td>PXP7010/32P/CR</td>
<td>PXP7010/32S/CR</td>
<td>Contact Required</td>
</tr>
</tbody>
</table>

## 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

**Table:**

<table>
<thead>
<tr>
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</tr>
</tbody>
</table>

## 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

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<tr>
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# BUCCANEER FOR POWER

## 7000 Series Buccaneer

### Metal Version

#### Flex Cable Connector

- 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 terminations
- Cable braid termination accessory option, add /SNsuffix

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#### In-line Flex Cable Connector

- 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 terminations
- Cable braid termination accessory option, add /SNsuffix

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#### Front Panel Mounting Connector

- 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 terminations

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<td>PXM7012/32S/CR</td>
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</tbody>
</table>
58  Circular Power Connectors

Cable Braid Termination Option
- For cable braid termination
- Supplied with ty-rap

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

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

Crimp / Solder Contacts
- Gold Plated
- Current ratings:
  - 10 pole: 10A
  - 32 pole: 2A

10 & 32 pole contacts

Crimp Tooling
- Crimp Tools for 10 and 32 pole crimp contacts

PNo 14025

Extraction Tools
- Extraction tool for 10 and 32 pole contacts

PNo 14944/SP  PNo 14945/SP

Contact Carrier Removal Tool
- For removal of all contact carriers

PNo 15065/SP

Accessories

BUCCANEER FOR POWER
7000 Series Buccaneer

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

Pno 14944/SP  PNo 14945/SP

PNo 15065/SP

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

Crimp Tooling
- PNo. 14025
- PNo. 15021/SP
- PNo. 15019/SP

Extraction Tools
- PNo. 14945/SP
- PNo. 14944/SP

Crimp Tooling
- PNo. 14025
- PNo. 15021/SP
- PNo. 15019/SP

Extraction Tools
- PNo. 14945/SP
- PNo. 14944/SP

Crimp Tooling
- PNo. 14025
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Extraction Tools
- PNo. 14945/SP
- PNo. 14944/SP

Crimp Tooling
- PNo. 14025
- PNo. 15021/SP
- PNo. 15019/SP

Extraction Tools
- PNo. 14945/SP
- PNo. 14944/SP
**Sealing Caps**

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

**Sealing Caps**

- Maintains IP rating of unmounted connectors
- PXM7081: Fits PXM7010 (Flex Connector)
- PXM7082: Fits PXM7011 (Flex In-Line Connector) and PXP7012: (Panel Connector)
- PXM7083: Fits PXM7012 (Panel Mounting Connector)

**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
### Circular Power Connectors

#### 7000 Series Buccaneer

<table>
<thead>
<tr>
<th>PXX</th>
<th>7XXX</th>
<th>/</th>
<th>XX</th>
<th>X</th>
<th>/</th>
<th>XX</th>
<th>/</th>
<th>XXXX</th>
<th>/</th>
<th>XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series Designation</td>
<td>Series / Body Style</td>
<td>No. of Contacts</td>
<td>Contacts Type</td>
<td>Terminations</td>
<td>Cable Entry Size</td>
<td>Cable Brand Termination Accessory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PXM= Metal Series</td>
<td>7010 = Flex</td>
<td>02 = 2 Pole</td>
<td>P = Pin</td>
<td>ST = Screw Terminal</td>
<td>0709 = 7-9mm</td>
<td>SN - if requires</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PXP= Plastic Series</td>
<td>7011 = Flex In-Line</td>
<td>03 = 3 Pole</td>
<td>S = Socket</td>
<td>(2, 3, &amp; 6 pole only)</td>
<td>0911 = 9-11mm</td>
<td>Blank - if not required</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7012 = Panel</td>
<td>06 = 6 Pole</td>
<td>CR = Contacts</td>
<td>Required (10 &amp; 32 pole only)</td>
<td>1113 = 11 to 13 mm</td>
<td>1315 = 13 to 15 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 = 10 Pole</td>
<td>ST = Screw Terminal</td>
<td></td>
<td>(yellow)</td>
<td>(light grey)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>32 = 32 Pole</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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
## Specifications

### Electrical:

<table>
<thead>
<tr>
<th>No Poles:</th>
<th>2</th>
<th>3</th>
<th>6</th>
<th>10</th>
<th>32</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Rating:</td>
<td>25A</td>
<td>25A</td>
<td>10A</td>
<td>10A</td>
<td>3A</td>
</tr>
<tr>
<td>Voltage Rating (ac/dc):</td>
<td>600V 600V 500V 277V 200V</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact Resistance:</td>
<td>&lt;10mΩ</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insulation Resistance:</td>
<td>&gt;10³ MΩ @500V dc</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC Breakdown voltage:</td>
<td>10kV</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Operating Temp. Range:</td>
<td>–40°C to +120°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approvals (pending):</td>
<td>UL1977</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Mechanical:

<table>
<thead>
<tr>
<th>Locking mechanism</th>
<th>Quarter turn, rapid locking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt Mist (plastic)</td>
<td>EN60068-2-52 Test Kb Salt Mist (Cyclic)</td>
</tr>
<tr>
<td>Salt Mist (metal)</td>
<td>EN60068-2-11 Test Ka Salt Mist</td>
</tr>
<tr>
<td>Contact Accommodation:</td>
<td>2 &amp; 3 pole screw terminals 6.0mm² max</td>
</tr>
<tr>
<td></td>
<td>6 pole screw 1.00mm² max</td>
</tr>
<tr>
<td></td>
<td>10 pole crimp / solder 18 to 20AWG</td>
</tr>
<tr>
<td></td>
<td>32 pole crimp / solder 22 to 24AWG</td>
</tr>
<tr>
<td>Cable Acceptance:</td>
<td>5-15mm dia.</td>
</tr>
<tr>
<td>Cable retention force (to BS EN61984):</td>
<td>50N</td>
</tr>
<tr>
<td></td>
<td>100N</td>
</tr>
<tr>
<td>Terminations</td>
<td>2 Pole: Screw Terminals</td>
</tr>
<tr>
<td></td>
<td>3 Pole: Screw Terminals</td>
</tr>
<tr>
<td></td>
<td>6 Pole: Screw Terminals</td>
</tr>
<tr>
<td></td>
<td>10 Pole: Crimp / Solder Contacts</td>
</tr>
<tr>
<td></td>
<td>32 Pole: Crimp / Solder Contacts</td>
</tr>
</tbody>
</table>

### 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**