7000 Series Buccaneer®

Robust, rapid connections for harsh environments

The all plastic construction 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.

For Power

THERMO-PLASTIC VERSION

- Less than 1/4 Turn locking mechanism
- Positive feedback on locking mechanism
- IP66, IP68 and IP69K when mated
- All plastic body version; UL94-V0 rated, UV stable, halogen free
- Flex, flex in-line & panel mount body styles, with sealing caps
- Polarisation and visual alignment features
- 2 to 32 poles – up to 25A, 600V rated
- ‘Scoop proof’ contacts
- cULs, UL, VDE, CCC approvals (pending)

Secure, quick connector mating and release
Confidence that connector is correctly mated and sealed
Suitable for a wide range of dust and water borne environments
Light-weight, self-extinguishing material suitable for long-term outdoor use
Complete family of products maintain sealing integrity in all styles
Aids the correct mating of connectors
Suitable for mains power to signal applications
Prevents damage through mis-mating – ideal for ‘blind mating’ applications
Internationally recognised certification
7000 Series Buccaneer®

Thermo-plastic Version

**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 and crimp termination

**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 and crimp termination

**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 and crimp termination
Thermo-plastic Version

CRIMP CONTACTS
- Crimp 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

Contacts - Crimp for 10 and 32 pole

Contacts (for 10 pole) (Supplied in packs of 10) | Crimp
---|---
Pins | SA3544/P
.Sockets | SA3544/S

Contacts (for 32 pole) (Supplied in packs of 10) | Crimp
---|---
Pins | SA3542/P
.Sockets | SA3542/S

Crimp Tooling
- Crimp Tool (10 & 32 pole)
- Positioner (10 pole)
- Positioner (32 pole)

PNo. 14025
PNo. 15021/SP
PNo. 15019/SP

Extraction tools
- Extraction tool (10 pole)
- Extraction tool (32 pole)

PNo. 14945/SP
PNo. 14944/SP

Tools
- Contact carrier removal tool (all poles)

PNo. 15065/SP
Thermo-plastic Version

**SEALING CAPS**

- Maintains IP rating of unmated connectors
- PXP7081: Fits PXP7010 (Flex Connector)
- PXP7082: Fits PXP7011 (Flex In-Line Connector) and PXP7012: (Panel 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
**Thermo-plastic Version**

### Plastic Connector Designation

<table>
<thead>
<tr>
<th>Plastic Connector Designation</th>
<th>Series</th>
<th>Body Styles</th>
<th>No. of Contacts</th>
<th>Contacts Type</th>
<th>Terminations</th>
<th>Cable Entry Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>PXP / xxxx / xx x / xx / xxxx</td>
<td>7 = 7000 Series</td>
<td>010 = Flex</td>
<td>02 = 2 Pole</td>
<td>P = Pin</td>
<td>ST = Screw Terminal (2, 3, &amp; 6 pole only)</td>
<td>0507 = 5-7mm (grey)</td>
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<td></td>
<td></td>
<td>011 = Flex In-Line</td>
<td>03 = 3 Pole</td>
<td></td>
<td>CR = Crimp Contacts (10 &amp; 32 pole only)</td>
<td>0709 = 7-9mm (white)</td>
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<tr>
<td></td>
<td></td>
<td>012 = Panel</td>
<td>06 = 6 Pole</td>
<td></td>
<td></td>
<td>0911 = 9-11mm (black)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10 = 10 Pole</td>
<td></td>
<td></td>
<td>1113 = 11 to 13 mm (yellow)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>32 = 32 Pole</td>
<td></td>
<td></td>
<td>1315 = 13 to 15 mm (light grey)</td>
</tr>
</tbody>
</table>

### Examples:

PXP7010/03P/ST/0709 = 3 pole, flex connector, with pin contacts and screw terminals for 7-9mm diameter cable
Thermo-plastic Version

**SPECIFICATION**

### Electrical:
- **No. Poles:** 2, 3, 6, 10, 32
- **Current Rating:**
  - CCC, UL and VDE (pending)
  - cUL (pending)
  - Voltage Rating (ac/dc):
    - CCC, VDE (pending)
    - UL, cUL (pending)
- **Contact Resistance:**
- **Insulation Resistance:**
- **AC Breakdown voltage:** 2 pole, 3 pole, 6 to 32 pole
- **Operating Temp. Range:** –40°C to +120°C
- **Approvals (pending):** UL, CSA, VDE, CCC

### Mechanical:
- **Locking mechanism:** Quarter turn, rapid locking
- **Sealing:**
- **Contact Accommodation:**
  - 2 & 3 pole screw terminals
  - 6 pole screw
  - 10 pole crimp
  - 32 pole crimp
- **Cable Acceptance:**
  - 2 & 3 pole screw: 6.0m² max
  - 6 pole screw: 1.00m² max
  - 10 pole crimp: 18 to 20AWG
  - 32 pole crimp: 22 to 26AWG
- **Cable Acceptance:**
  - 5-15mm dia.
- **Contact Accommodation:**
  - 2 pole: Screw Terminals
  - 3 pole: Screw Terminals
  - 6 pole: Screw Terminals
  - 10 pole: Crimp Contacts
  - 32 pole: Crimp Contacts
- **Tightening Torques:**
  - Gland Nut: TBA
  - Panel Nut: 1.7Nm (15lbf.in.)
  - Panel Nut Thread: M30 x 2-6g
- **Dimensions:**
  - Diameter: (over coupling ring) 42mm
  - Diameter: (panel hole cut-out) 30mm

### Material:
- **Body:** PC/ PBT
- **Colour:** Grey
- **Flammability Rating:** UL94 V-0
- **Halogen free:** Yes
- **UV Resistance:** ISO 4892 part 3 cycle 1 (QUV)
- **Contacts:** Brass, Nickel plated
  - (2A – Gold plated)
- **O Rings & Gaskets:** Silicon
- **RoHS:** Compliant

### Mated dimensions
- **Mated dimensions - Flex to panel connector:**
- **Mated dimensions - Flex connector to in-line connector:**
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.