

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.

### O 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
- O 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
- O Screw, Crimp and Solder terminations available



Thermo Plastic



### Flex Cable Connector



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



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



PXP6011

PXP6010

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



- Mates with Flex Cable connectors PXP6010
- O Front panel mounting
- Single hole fixing
- O Plug or socket versions
- Leading earth on 3 Contact connectors
- 2, 3, 8, 16 and 22 Contact
   Screw, solder and crimp termination



## PXP6012

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

Metal Version



ilex Cable Connec	○ M a ○ P ○ t ○ C ○ 2 ○ S ○ C	Aounting v nd PXM60 Push/pull lo wist lockin Plug or soc eading ea onnectors , 3, 8, 16 a corew, solo cable braic	ocking ring with 30° g ket versions rth on 3 Contact	Ø 32.0	78.4 Max	
Contacts	Termination	Plug Cont	tacts	Socket Contacts	Contacts	
2	Screw	PXM6010/0	2P/ST	PXM6010/02S/ST	Supplied Fitted	
2	Crimp / Solder	PXM6010/0	2P/CR	PXM6010/02S/CR	Contacts Required	
3	Screw	PXM6010/0	)3P/ST	PXM6010/03S/ST	Supplied Fitted	
3	Crimp / Solder	PXM6010/0	)3P/CR	PXM6010/03S/CR	Contacts Required	
8	Crimp / Solder	PXM6010/0	)8P/CR	PXM6010/08S/CR	Contacts Required	
16	Crimp / Solder	PXM6010/1	6P/CR	PXM6010/16S/CR	Contacts Required	
22	Crimp / Solder	PXM6010/2	2P/CR	PXM6010/22S/CR	Contacts Required	
nline Cable Conne	ine Cable Connector			Flex Cable PXM6010 able connection ket versions		68.2 Max

- 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

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PXM6011

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



 Mates with Flex Cable connectors PXM6010

- Single hole fixing
- Plug or socket versions
- Leading earth on 3 Contact
- connectors
- Q 2, 3, 8, 16 and 22 Contact
- $\bigcirc$   $\;$  Screw, solder and crimp termination



# PXM6012

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



0	Gold Plated Current ratings: 2 & 3 Contact : 16A 8 Contact : 10A 16 Contact : 3A 22 Contact : 2A	Contacts (for 2 & 3 Contact) (Supplied in packs of 10) Plugs Sockets Contacts (for 8 Contact) (Supplied in packs of 10) Plugs Sockets	Crimp SA3545/P SA3545/S Crimp SA3544/P SA3544/S	Solder           SA3624// SA3624/2           Solder           Solder           SA3623/2           SA3623/2
		Contacts (for 16 & 22 Contact) (Supplied in packs of 10) Plugs Sockets	Crimp SA3542/P SA3542/S	Solder SA3622/ SA3622/
		Crimp Tooling		
0	Crimp Tools for 2, 3, 8, 16 and 22 Contact crimp contacts	Crimp Tool (2 & 3 Contact) Positioner (2 & 3 Contact)	PNo.142 PNo.140 PNo.150	232/2/SP 025 021/SP
		Extraction Tools		
0	Extraction Tool for 2, 3, 8, 16 and 22 Contact contacts	Extraction Tool (2 & 3 Contact) Extraction Tool (8 Contact) Extraction Tool (16 & 22 Contact)	PNo.14945/	SP
	0	<ul> <li>Current ratings: 2 &amp; 3 Contact : 16A 8 Contact : 10A 16 Contact : 3A 22 Contact : 2A</li> <li>Crimp Tools for 2, 3, 8, 16 and 22 Contact crimp contacts</li> <li>Extraction Tool for 2, 3, 8, 16</li> </ul>	<ul> <li>Gold Plated</li> <li>Current ratings: 2 &amp; 3 Contact : 16A 8 Contact : 3A 22 Contact : 2A</li> <li>Plugs Sockets</li> <li>Contacts (for 8 Contact) (Supplied in packs of 10) Plugs Sockets</li> <li>Contacts (for 16 &amp; 22 Contact) (Supplied in packs of 10) Plugs Sockets</li> <li>Contacts (for 16 &amp; 22 Contact) (Supplied in packs of 10) Plugs Sockets</li> <li>Crimp Tools for 2, 3, 8, 16 and 22 Contact crimp contacts</li> <li>Extraction Tool for 2, 3, 8, 16 and 22 Contact contacts</li> <li>Extraction Tool for 2, 3, 8, 16 and 22 Contact contacts</li> <li>Extraction Tool (2 &amp; 3 Contact) Positioner (16 &amp; 22 Contact) Positioner (16 &amp; 22 Contact)</li> </ul>	O       Gold Plated       (Supplied in packs of 10)         Plugs       SA3545/P         2 & 3 Contact : 16A       Sockets         3 Contact : 10A       Contact : 6 of 8 Contact)       Crimp         16 Contact : 3A       Contacts (for 8 Contact)       Crimp         22 Contact : 2A       Contacts (for 8 Contact)       Crimp         Plugs       SA3544/P         Sockets       SA3544/P         Sockets       SA3544/P         Sockets       SA3542/P         Plugs       SA3542/P         Sockets       SA3542/P         Positioner (2 & 3 Contact)       PNo.144

Contact Carrier Removal Tool		Tools
PNo 14917	<ul> <li>For removal of all contact carriers</li> </ul>	Contact carrier removal tool PNo. 14917/SP (all Contacts)

Accessories







PXX	601X /	/ <b>xx</b>	x	/ <b>xx</b> /	/ <b>xxxx</b>	/ <b>xx</b>
Series Designation PXM= Metal Series PXP= Plastic Series	Series / Body Style 6010 = Flex 6011 = Inline 6012 = Front Panel	No. of Contacts 02 03 08 16 22	Contacts Type P = Plug S = Socket	Terminations CR = Contacts Required ST = Screw (2 and 3 Contact only)	Cable Entry Size (for Flex and Inline connectors only) 0405 = 4-5mm (Dark Grey) 0507 = 5-7mm (White) 0709 = 7-9mm (Yellow) 0910 = 9-10mm (Light Grey)	Cable Brand Termination Accessory (for Flex and Inline connectors only) SN if required 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:						Mechanical:
No. Contacts:	2	3	8	16	22	Locking mechanism Push/pull with 30° locking Patent applied for
Current Rating:						
See de-rating curves for						Sealing: IP66 to En60529:1992+A2:2013
further information						IP68 to En60529:1992+A2:2013 (10m depth
VDE	16A	16A	10A	ЗA	2A	for 2 weeks)
UL	16A	16A	7A	ЗA	ЗA	IP69k to DIN 40050-9
cUL	11A	11A	4A	1.5A	1.5A	
						Salt Mist (plastic) : EN60068-2-52 Test Kb Salt Mist (Cyclic)
Voltage	277V	277V	277V	60V	60V	Marine Severity Level 1
Rated cable	14	14	16-20	22	26	Salt Mist (metal) : EN60068-2-11 Test Ka Salt Mist
	AWG	AWG	AWG	AWG	AWG	
						Contact Accommodation:
Contact Resistance:	<10m!	Ω				2 & 3 Contact crimp / solder 14 to 18AWG
Insulation Resistance:	>10 <sup>6</sup> N	/Ω @500	DV DC			2 & 3 Contact screw terminals 1.5mm <sup>2</sup> max
AC Breakdown voltage:						8 Contact crimp / solder 18 to 20AWG
2 Contact	>10kV	/				16 Contact crimp / solder 22 to 26AWG
3 Contact	>8kV					22 Contact crimp / solder 22 to 26AWG
8 to 22 Contact	>5kV					
Operating Temp. Range:	_10°C	; to +120	٥°C			Cable Acceptance: 4-10mm dia.
	-40 0	10 +120	,0			Cable retention force
Approvals:						(to BS EN61984):
<b>N</b> UL (E214972)	UL197	77				4 - 9mm dia cable 80N
cQLus (E214972)		No.182	3_M108	7 (R200	10)	9 - 10mm dia cable 100N
VDE (40039281)		1984:200		1 (11200	13)	
						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 (15lbf.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

Materials:	Plastic	Metal
Body:	PC/ PBT	Brass
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





3 Contact (16 Amp)



16 Contact (3 Amp)



22 Contact (2 Amp)

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 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 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











16 Pole, Metal Body, Crimp Terminal, 22 AWG wire



22 Pole, Metal Body, Crimp Terminal, 26 AWG wire



3 Pole, Metal Body, Screw Terminal, 18 AWG wire





16 Pole, Metal Body, Crimp Terminal, 26 AWG wire

