# 400 Series Buccaneer

bulgin

- IP68 rating tested at 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks

- IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k

- 2 and 3 Contact - 8A, 250V rating

- 4, 6 and 8 Contact - 5A, 125V rating

- 10 and 12 Contact - 1A, 50V rating

- 2.5mm contact engagement for electrical integrity 'Scoop proof' contacts

- Contact inserts are part of body moulding

- Cable range from 3 to 7mm

- Overall length (flex + Inline) 80mm

- Gold plated contacts

- Diameter over coupling ring 19.1mm

- Pre-wired, overmoulded cable assemblies

- Flex, Inline, Front Panel, Rear Panel and PCB mounting body styles

- Plug and Socket versions in all body styles

- Flame Retardant moulding material - Polyamide UL94-V0

- Contacts supplied separately (except PCB versions)

- Sealing caps available to maintain IP68 rating

- Secure sealing system

- Crimp and solder contacts

- PCB mounting connector supplied with contacts pre-loaded

- Front and rear panel mounting panel connectors

- UL, CSA and VDE approvals

- EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

- Smart options available with EEPROM memory chip

Flex Cable Connector

- Mates with Inline or Panel mounting versions PX0401, PX0411, PX0412 & PX0413
- Plug or socket
- 2, 3, 4, 6, 8, 10 or 12 Contact
- Screw locking ring
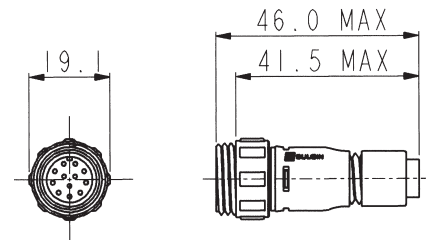- Contacts supplied separately

PX0410

19.1

46.0 MAX
41.5 MAX
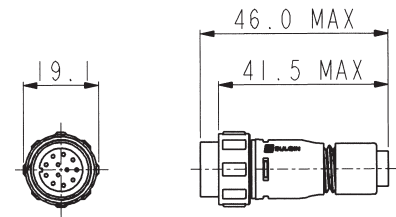
Inline Cable Connector

- Mates with Flex Cable connectors PX0400, PX0402 & PX0410
- Plug or socket
- 2, 3, 4, 6, 8, 10 or 12 Contact
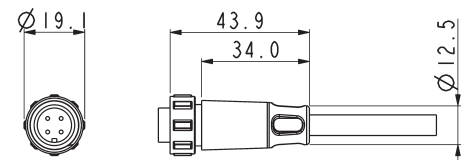- For Inline cable connection
- Contacts supplied separately

PX0411

19.1

46.0 MAX
41.5 MAX

Pre Wired Flex Cable Connector

- Overmoulded Flex connector for pre-wired cable assemblies
- Plug or socket
- Cable range 2.5 -9.0mm O/D
- 2, 3, 4, 6, 8, 10 or 12 Contact
- Mates with PX0401 & PX0411 Inline connectors and PX0412 & PX0413 panel mounting connectors

PX0400

Ø19.1

43.9
34.0
Ø12.5

Pre Wired Flex Cable Connector

- Right-angled overmoulded
- Flex connector for pre-wired cable assemblies
- Plug or socket
- Cable range 2.5 -9.0mm O/D
- 2, 3, 4, 6, 8, 10 or 12 Contact
- Mates with PX0401 & PX0411 Inline connectors and PX0412 & PX0413 panel mounting connectors
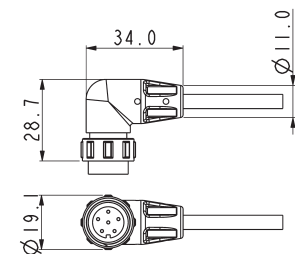
PX0402

34.0
Ø11.0
28.7
Ø19.1

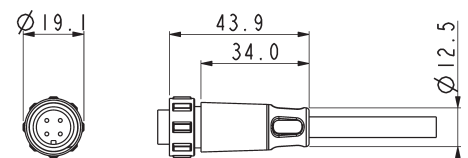## Smart Connector

- Overmoulded pre-wired sealed connector
- 4, 6, 8, 10, 12 Contact
- Embedded memory chip through 1 wire EEPROM
- Mates with PX0401 & PX0411 Inline connectors and PX0412 & PX0413 panel mounting connectors
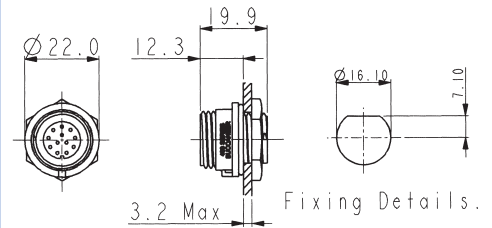
PXS410

Ø19.1

43.9
34.0
Ø12.5

Front Panel Mounting Connector

PX0412

- Mates with Flex Cable connectors PX0410, PX0400 & PX0402
- Single hole fixing
- Contacts supplied separately
- 2, 3, 4, 6, 8, 10 or 12 Contact

Ø22.0 12.3 19.9
Ø16.10 7.10
3.2 Max Fixing Details.

Rear Panel Mounting Connector

PX0413/XXX

- Mates with Flex Cable connector PX0410, PX0400 & PX0402
- Single hole fixing
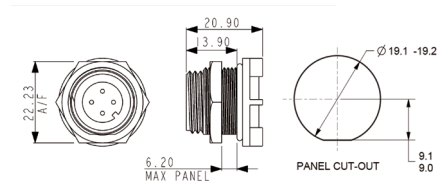- Contacts supplied separately
- 2, 3, 4, 6, 8, 10 or 12 Contact

20.90 3.90 Ø 19.1 -19.2
22.23 A/F
6.20 MAX PANEL PANEL CUT-OUT 9.1 / 9.0

PCB Mounting Connector

PX0413/XXX/PC

- Mates with Flex Cable connector PX0410, PX0400 & PX0402
- PCB Rear Panel mounting
- Straight PC spills
- Supplied with pre-loaded gold plated contacts
- 2, 3, 4, 6, 8, 10 or 12 Contact

20.90 3.50 Ø 19.1 -19.2
3.90
22.23 A/F
6.20 MAX PANEL PANEL CUT-OUT 9.1 / 9.0
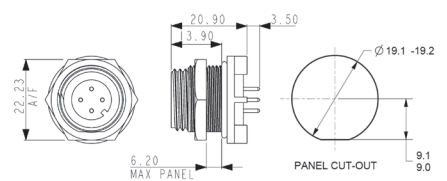
Sealing Caps

PX0480 PX0480/1 PX0481 PX0484

- Maintains IP68 Rating of Unmated Connectors
- PX0480: Fits PX0412 (panel mounting)
- PX0480/1: Fits PX0401 & PX0411 (Inline)
- PX0481: Fits PX0400, PX0402 & PX0410 (flex connector)
- PX0484: Fits PX0413 (PCB and rear panel mount)

Gland Packs

Part No	Description
PX0482	Pack of 4 pairs cable glands and collets to suit cables from 3.0 to 5.0mm diameter.
PX0483	Pack of 4 pairs cable glands and collets to suit cables from 5.0 to 7.0mm diameter.

Crimp Contacts

Contact	Current Rating	Plug Part No.	Socket Part No.	Pack Qty	Cable Acceptance (dia)
2, 3	8A	SA3350	SA3349	10	20 - 24 AWG
4, 6, 8	5A	SA3348	SA3347	10	22 - 26 AWG
10, 12	1A	SA3180	SA3179	10	24 - 28 AWG

Solder Contacts

Contact	Current Rating	Plug Part No.	Socket Part No.	Pack Qty	Cable Acceptance (dia)
2, 3	8A	SA3350/1	SA3349/1	10	20 - 24 AWG
4, 6, 8	5A	SA3348/1	SA3347/1	10	22 - 26 AWG
10, 12	1A	SA3180/1	SA3179/1	10	24 - 28 AWG

Insertion / Extraction

	Contacts	Contact Rating	Colour	Part No
Insertion/Extraction Tool	2,3	8A	Blue	13027/2
Insertion/Extraction Tool	4,6,8	5A	Red	13027/1
Insertion/Extraction Tool	10,12	1A	Green	13027

Crimp tools

	Contacts	Contact Rating	Colour	Part No
Positioner	2,3	8A	Blue	14025/8AMP
Positioner	4,6,8	5A	Red	14025/5AMP
Positioner	10,12	1A	Green	14025/1AMP
8 Indent Crimp Tool for use with positioners				14025

PX0413 PCB Contact Layout

Sockets
Contact numbers viewed from rear of panel
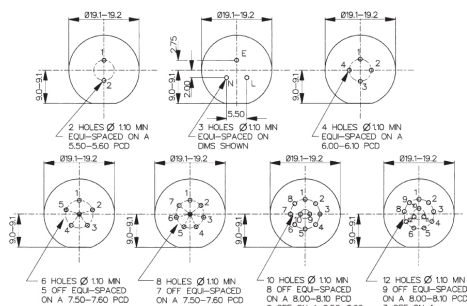
Plugs
Contact numbers viewed from rear of panel

2 Contact (8 Amp)	3 Contact (8 Amp)	4 Contact (5 Amp)	6 Contact (5 Amp)	8 Contact (5 Amp)	10 Contact (1 Amp)	12 Contact (1 Amp)

Electrical:

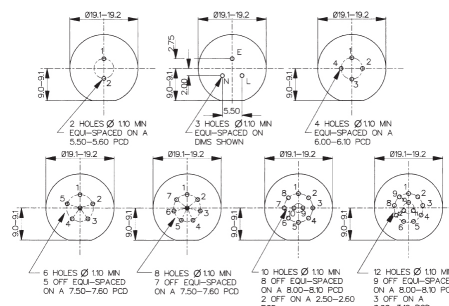| No. Contacts:	2, 3	4, 6, 8	10, 12
Current Rating:	8A	5A	1A
Voltage Rating:	250V AC/DC	125V AC/DC	50V AC/DC

Contact Resistance:	<5mΩ
Insulation Resistance:	>10^{6}MΩ (@ 500V DC)
AC Breakdown voltage:	2.5kV
Cycles:	>1000

Operating Temperature:

Flex and panel types	–40°C to +80°C
Overmoulded	–20°C to +60°C

Approvals:

U⃝	UL (Underwriters Laboratory)	E214972
S⃝	CSA (Canadian Standards Associations)	1273303
⚠	VDE (Verband der Elektrotechnik)	40002226

Overmoulded cable assemblies approvals to customer requirements.

Material:

Flex and panel types:

Body Mouldings:	Polyamide
Flammability Rating:	UL94V-0
UV Resistance:	To EN 50021:1999

Overmoulded types:

Body Mouldings:	Polyurethane
Flammability Rating:	UL94V-HB
Contacts:	Copper alloy, Gold plated
O Rings:	Nitrile
Panel Sealing O Ring:	Nitrile
RoHS	Compliant

Smart Connector EEPROM:

1024 - Bit Memory

1 - Wire

Can be Write Protected

Manufacturer - Maxim Intergrated

Part Number - 0S2431
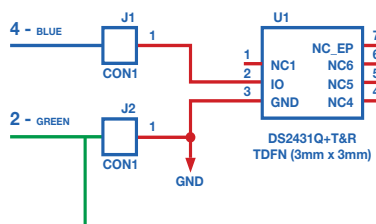
Mechanical:

Sealing:	IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
	IP68, EN60529:1992+A2:2013 tested @ 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks
Salt Mist:	EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
Cable Acceptance:	3.0 - 7.0mm
Contact Accommodation:	2, 3 Contact, 20 - 24 AWG
	4, 6, 8 Contact, 22 - 26 AWG
	10, 12 Contact, 24 - 28 AWG
Termination:	Crimp, solder and PCB

Insertion/Withdrawal Force:

No. Contacts:	2	3	4	6	8	10	12
Insertion Force (typ):	19N	25N	27N	27N	28N	55N	62N
Withdrawal Force (typ):	12N	17N	17N	21N	22N	25N	29N

Tightening Torques:

Panel mount (PX0412) Rear fixing nut:	1.0-1.1Nm (9lbf.in.)
Panel mount (PX0413) Front fixing nut:	1.0-1.1Nm (9lbf.in.)

Cable Retention force:

3.0mm dia	60N
4.0 to 7.0mm dia	80N
Rear panel thread PX0412:	M16x1.5
Panel thread PX0413:	18.97x26TPI Whitworth form to BS84 med fit

Dimensions:

Overall dimensions of connectors when mated together

Flex + Inline	80mm
Dia. over coupling ring	19.1mm

Dia. over coupling ring

Plug	/	Wire Colour
1		Red
2		Green
3		Yellow
4		Blue
5		White
6		Black
7		Brown
8		Violet
9		Orange
10		Pink
11		Turqouise
12		Grey

400 Series Buccaneer
Specifications

bulgin

Standard:

PX041X	/	XX	X	/	XXXX

Body Styles

PX0410 = Flex body
PX0411 = Inline body
PX0412 = Front panel mounting body
PX0413 = Rear panel/PCB mounting body

Number of Contacts

02
03
04
06
08
10
12

Contact Type

P = Plug,
S = Socket

For PX0410 and PX0411 cable connectors - Cable Entry Size:

3035 = 3.0 - 3.5mm (Light Grey)
3540 = 3.5 - 4.0mm (Grey)
4045 = 4.0 - 4.5mm (Green)
4550 = 4.5 - 5.0mm (Red)

5055 = 5.0 - 5.5mm (Yellow)
5560 = 5.5 - 6.0mm (Blue)
6065 = 6.0 - 6.5mm (White)
6570 = 6.5 - 7.0mm (Black)

Cable gland and collet supplied in colour coded pairs.

For PX0413 PCB/Rear Panel Mount:
PC = Pre-loaded PC Plugs
Blank = no Plugs supplied

For PX0412 Front Panel Mount:
Suffix not required - leave blank

Examples:

PX0410/10S/4045 = Flex cable connector, 10 socket contacts with gland and collet for cables between 4.0 and 4.5mm diameter (supplied less contacts).
PX0412/08P = Front panel mounting connector, 8 Plug contacts (supplied less contacts.)
PX0413/06P = Rear panel mounting connector, for 6 Plug contacts (supplied less contacts).
PX0413/04P/PC = Rear panel/PCB connector, 4 Plug contacts, PCB mounting (supplied with contacts loaded).

Pre Wired Variation:

PX040X	/	XXX	/	XX	/	X

Body Styles

PX0400 = Pre Wired Flex Cable Connector
PX0402 = Pre Wired Flex Cable Connector - Right angle

Length

001 = 1m
002 = 2m
003 = 3m
...
015 = 15m

Number of Contacts

02
03
04
06
08
12

Contact Type

P = Plug
S = Socket

Smart:

PXS410	/	XX	/	XX	/	X

Body Styles

PXS410 = Flex body

Cable length

02 = 2m
03 = 3m
05 = 5m
10 = 10m

Number of Contacts

04
06
08
10
12

Contact Type

P = Plug
S = Socket

Examples:

PXS410/02/04/P = Smart flex cable connector, 2m cable to free end, 4 Plug contact