4000 Series - C-Type USB Buccaneer
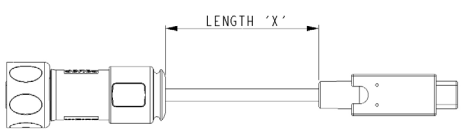
Sealed C-Type USB Cables

bulgin

- ⬡ IP66, IP68 and IP69K rated
- ⬡ USB3.2 supported
- ⬡ Plug and play capability
- ⬡ Shielded system
- ⬡ Secure, proven locking system

- ⬡ EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
- ⬡ Data rates up to 20 Gbps
- ⬡ Tamperproof Construction
- ⬡ Colour coded O-rings & washers for easy identificaiton purposes

4000 Series - C-Type USB Buccaneer

Sealed C-Type USB Cables

bulgin

Sealed 'C' type to Standard 'C'

- Sealed Plug USB 'C' to Standard Plug USB 'C'
- Available in 1, 2, 3 & 5m lengths
- Plug variant mates with PXP4043/C
- USB 3.2 Gen 2x2 Supported

LENGTH 'X'

PXP4041/C/C

Part No.	Length	Description
PXP4041/C/C/1M00	1.0m	IP-sealed 'C' type to Standard 'C' type USB
PXP4041/C/C/2M00	2.0m	IP-sealed 'C' type to Standard 'C' type USB
PXP4041/C/C/3M00	3.0m	IP-sealed 'C' type to Standard 'C' type USB
PXP4041/C/C/5M00	5.0m	IP-sealed 'C' type to Standard 'C' type USB

Sealed 'C' type to Standard 'A'

- Sealed Plug USB 'C' to Standard Plug USB 'A'
- Available in 1, 2, 3 & 5m lengths
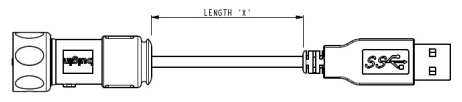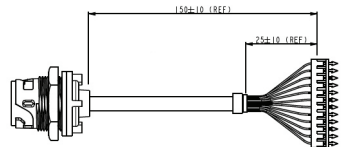- Plug variant mates with PXP4043/C
- USB 3.2 Gen 1 Supported

LENGTH 'X'

PXP4040/C/A

Part No.	Length	Description
PXP4040/C/A/1M00	1.0m	IP-sealed 'C' type to Standard 'A' type USB
PXP4040/C/A/2M00	2.0m	IP-sealed 'C' type to Standard 'A' type USB
PXP4040/C/A/3M00	3.0m	IP-sealed 'C' type to Standard 'A' type USB
PXP4040/C/A/5M00	5.0m	IP-sealed 'C' type to Standard 'A' type USB

Rear Panel Mount

- Sealed Socket USB 'C' Connector
- Leaded with 2x 12 way header
- Socket variant mates with PXP4040/C/A and PXP4041/C/C type cables
- USB 3.2 Gen 2 Supported

150±10 (REF)
25±10 (REF)

PXP4043/C

Part no.	Description
PXP4043/C	IP-sealed 'C' type USB, rear panel mounted. 2x 12 way header connector at rear

---

Sealing Caps

- Sealing caps to maintain IP rating when connectors are not in use

Part no.	Description
PXP4081	Sealing cap for use with PXP4040/C/A and PXP4041/C/C
PXP4083	Sealing cap for use with PXP4043/C

O-ring & washer pack

Part no.	Description
PXP4089/YL	Yellow coloured O-ring and washer pack
PXP4089/BL	Blue coloured O-ring and washer pack
PXP4089/RD	Red coloured O-ring and washer pack
PXP4089/WH	White coloured O-ring and washer pack
PXP4089/GN	Green coloured O-ring and washer pack

Cables & connectors

Mechanical

Sealing	IP69K, DIN40050-9
	IP68, EN60529:1992+A2:2013
	(10m depth for 2 weeks)
	IP66, EN60529:1992+A2:2013
Panel Mount Nut	1.0 - 1.1Nm (91lb.in)
Operating temperature	-40°C to +80°C
Salt Mist	EN60068-2-52 Test Kb Salt Mist
	(Cyclic) Marine Severity Level 1

Electrical

|	
No. of Contacts	2x 12 way
Current rating	5A
Voltage rating	≤ 30V AC
Contact resistance	40m Ω max.
USB3.2 Gen 1:	5Gbps (2m maximum length)
USB3.2 Gen 2:	10Gbps (1m maximum length)
USB3.2 Gen 1x2:	10Gbps (2m maximum length)
USB3.2 Gen 2x2:	20Gbps (1m maximum length)

Materials - Re-wireable and Panel Connectors

Shell material	Stainless Steel
Shell plating	Nickel
Contact material	Copper Alloy
Contact plating	30 micro inch Gold
Connector body & locking ring	PC/PBT
Panel connector	PC/PBT
Flammability rating	UL94V-0
'O' rings	Silicone
Mating cycles	1,000
RoHS	Compliant

Materials - cable

Cable Jacket	PVC (black)
Screen	Tinned copper braid
Flammability	UL94V-0
RoHS	Compliant

**Cable construction - PXP4040/C/A, PXP4041/C/C & PXP4043/C**

Jacket

Braid

AL / MYLAR

MYLAR

Conductor

Insulation

Drain
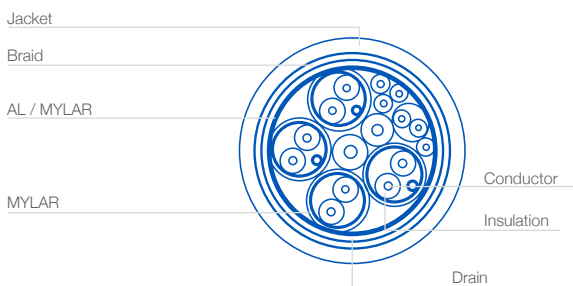
PXP4043/C

	Wire Colour	Label	Type	Cable Number	PCB Header Plugs P2	PCB Header Plugs P3
A1	-	Gnd	Braid	-	1	-
A2	Orange	TxI+	Shielded Twisted	3	2	-
A3	Brown	TxI-	Shielded Twisted	3	3	-
A4	Red	Vbus	Power	11	4	-
A5	Blue	CC	Single	10	5	-
A6	White	D0+	Shielded Twisted	5	6	-
A7	Green	D0-	Shielded Twisted	5	7	-
A8	Orange	SbuA	Single	8	8	-
A9	Red	Vbus	Power	11	9	-
A10	Blue	Rx2+	Shielded Twisted	2	10	-
A11	Black	Rx2-	Shielded Twisted	2	11	-
A12	-	Gnd	Braid	-	12	-
B1	-	Gnd	Braid	-	-	12
B2	White	Tx2+	Shielded Twisted	1	-	11
B3	Red	Tx2-	Shielded Twisted	1	-	10
B4	Red	Vbus	Power	11	-	9
B5	Yellow	Vconn	Single	9	-	8
B6	Purple	DI-	Twisted Pair	6	-	7
B7	Grey	DI+	Twisted Pair	6	-	6
B8	Brown	SbuB	Single	7	-	5
B9	Red	Vbus	Power	11	-	4
B10	Yellow	RXI-	Shielded Twisted	4	-	3
B11	Green	RXI+	Shielded Twisted	4	-	2
B12	-	Gnd	Braid	-	-	1

Receptacle Plug Colour Key:

A1, A12, B12, B1:	Cable Ground
A2, A3, B3, B2:	High Speed Path (TX for USB or for DP Alt mode)
A4, A9, B9, B4:	Cable Bus Power
A6, A7, B7, B6:	USB 2.0 Interface
A8, B8:	For Sideband Use (not used for USB)
A5, B5:	Plug Configuration Detection (- One becomes Vconn, for cable or adaptor power. - CC is used for USB-PD communication)
A10, A11, B11, B10:	High Speed Data Path (RX for USB, or TX for DP Alt Mode)
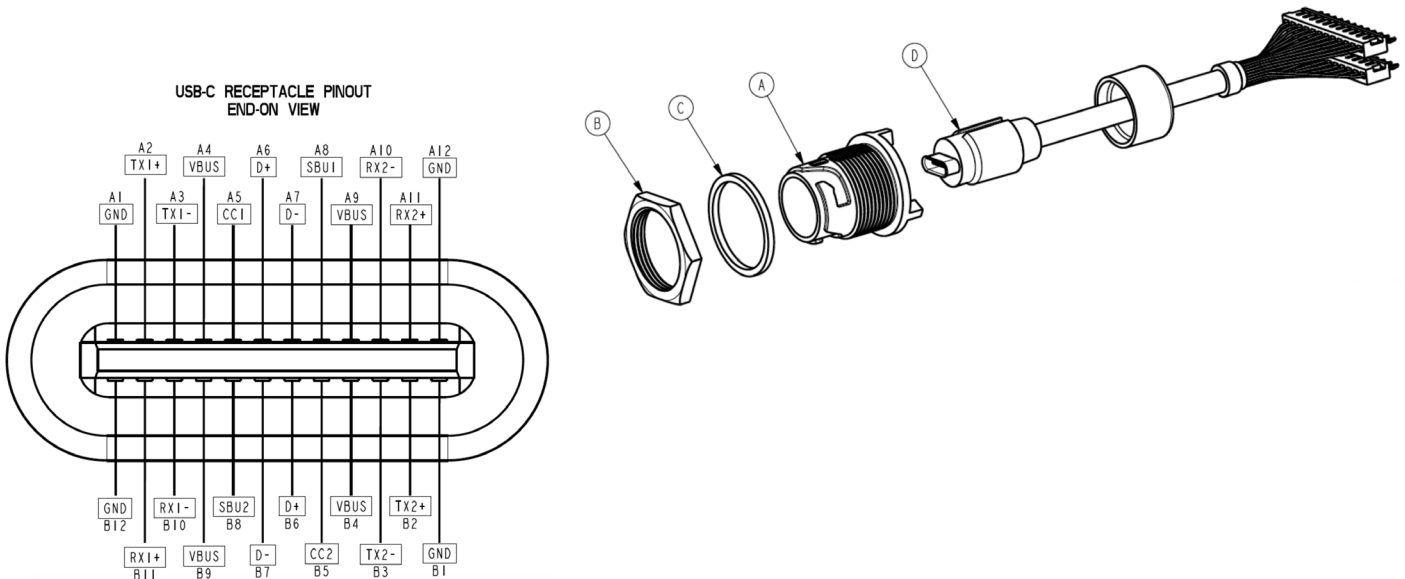
PXP4040/C/A

	Wire Colour	Label	Type	Cable Number	USB-3 Plug P2
A1, B1, A12, B12	-	Gnd	Braid	-	4, 7
A4, B4, A9, B9	Red	Vbus	-	10, 11	1
A5	-	CC	-	-	-
B5	-	Vconn	-	-	-
A6	Green	Dp 1	(Twisted Pair)	5	3
A7	White	D -	Twisted Pair	5	2
A2	Blue (Brown Jacket)	SSTXp 1	(Twisted Pair)	1	6
A3	White (Brown Jacket)	SSTXn 1	Twisted Pair	1	5
B11	Blue (Red Jacket)	SSRXp 1	(Twisted Pair)	2	9
B10	White (Red Jacket)	SSRXn 1	Twisted Pair	2	8
Shell	-	-	Braid	Screen	Shield

USB-C PLUG PINOUT
END-ON VIEW
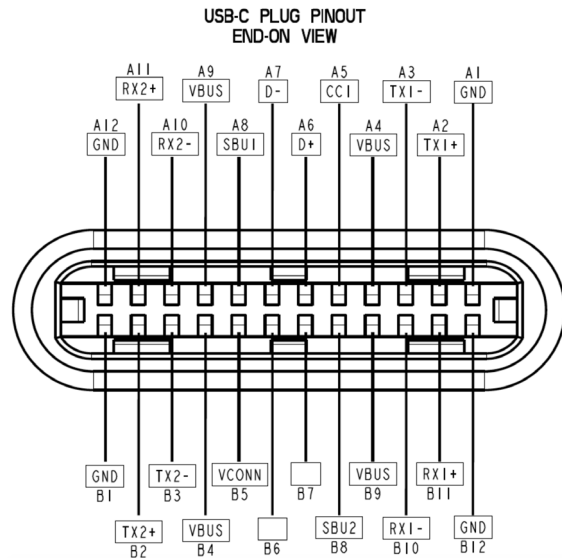
Wiring Notes:

1. Cable used has shielded twisted pairs with drain wires used for all SDP's.

2. Pin A5 (CC) of the USB Type-C Plug shall be connected to Vbus through a 56 K Ω ±5% resistor.

3. Contaacts B6 and B7 are not connected in the USB Type-C Plug.

4. All Vbus pins are connected together within the USB Type-C Plug. A Bypass Capacitor is required between the ground pins in the USB Type-C Plug side of the cable. The Bypass Capacitor is 10nF ± 20%. The bypass capacitor shall is as close as possible to the power supply pad.

5. All ground return pins are connected together within the USB Type-C Plug.

6. Shield and Gnd grounds are connected within the USB Type-C and USB 3.1 standard-A plugs on both ends of the cable assembly.

7. All USB Type-C plug pins that are not listed in this table shall be open (not connected).