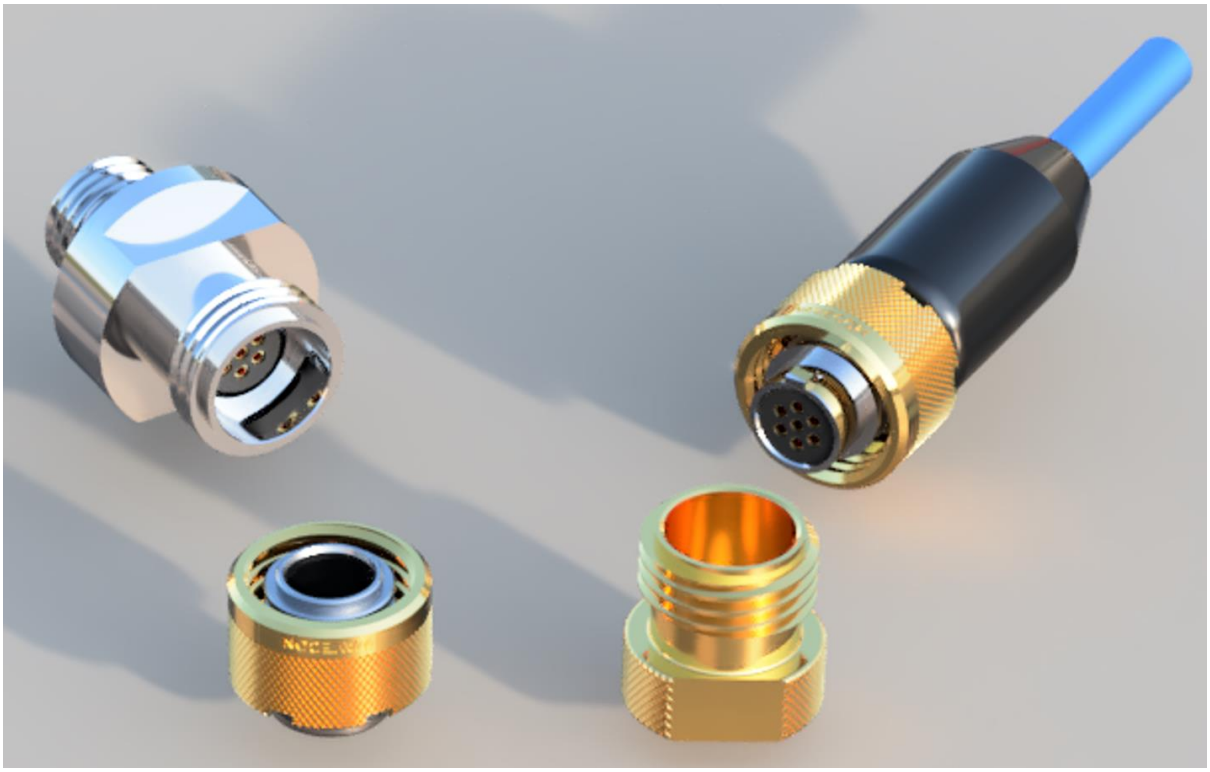
Wavecon Subsea 'W' Class Electrical Connector



Wavecon Subsea Electrical Connectors are an off the shelf range of robust, hardshell connectors designed for the most demanding environments. The design includes a dual sealing arrangement to the mating faces.

Available as standard in AISI 316 Stainless Steel with Nickel Aluminium Bronze C63000 locking collar.

Features:

- 6,000 metre standard depth rating mated and open face.
- Multiple Configurations.
- Available in stainless steel AISI 316 with C63000 locking collar.
- Working voltage and current dependent on contact density and diameter.

Applications:

- Subsea ROVs, Trenchers and Ploughs
- Renewables
- Drill Templates
- Bespoke applications

Specification:

Metal Shell Housing:	AISI 316 Stainless Steel
Locking Collar:	C63000
O Rings:	Nitrile 70
Insert:	PEEK
Contacts:	1µm Gold over Nickel
Depth Rated:	6000m
Temperature:	Op: -20°C - +70°C
	St: -40°C - +55°C
Mating Cycles:	>1000

Part Numbering

Plug / Receptacle Moulded

PL	W	07	M	0900	24
PL – Plug RC – Receptacle	Shell Size	No. Contacts	Male / Female Contacts	Wire length (0900 = 900mm)	Wire Guage

Bulkhead

BR	W	07	F	1000	22	03
BR – Bulkhead Receptacle (Thread) FR – Flanged Receptacle	Shell Size	No. Contacts	Male / Female Contacts	Wire length (0900 = 900mm)	Wire Guage	Type

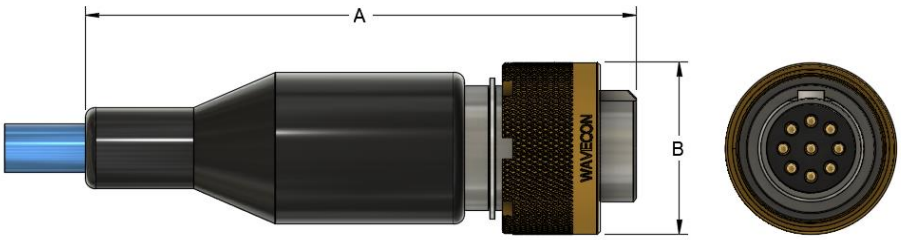
Blanks

BR	W
BR – Blank for Receptacle PL – Blank for Plug	Shell Size

Material

Part	**Material**
Connector Shell	Stainless Steel 316L
Locking Collar	C63000 Nickel Aluminium Bronze
Locking Collar Washers	Acetal
Contact Insert	PEEK
Electrical Contact	CuZn 1um Au over Ni
O Ring	Nitrile NI70 Shore A

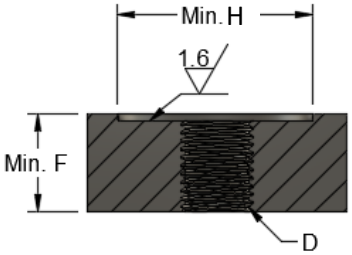
Plug – Molded (PL)

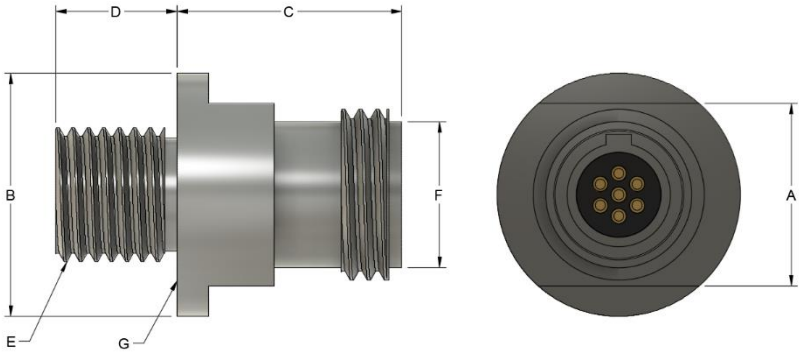


A	B
Approx. 56	16

Bulkheads

BR

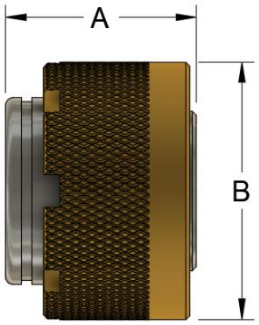




A	B	C	D	E	F	G O Ring	H	Type
15	Ø 20	Ø18.5	10	7/16-20 UNF	12	16x1 & 12x1	21	03

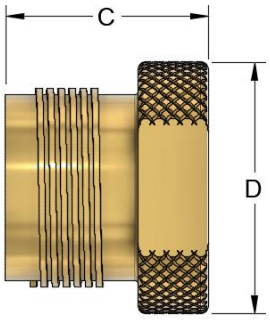
Blanks

PLWBC



A	B
12	16

BRWBC

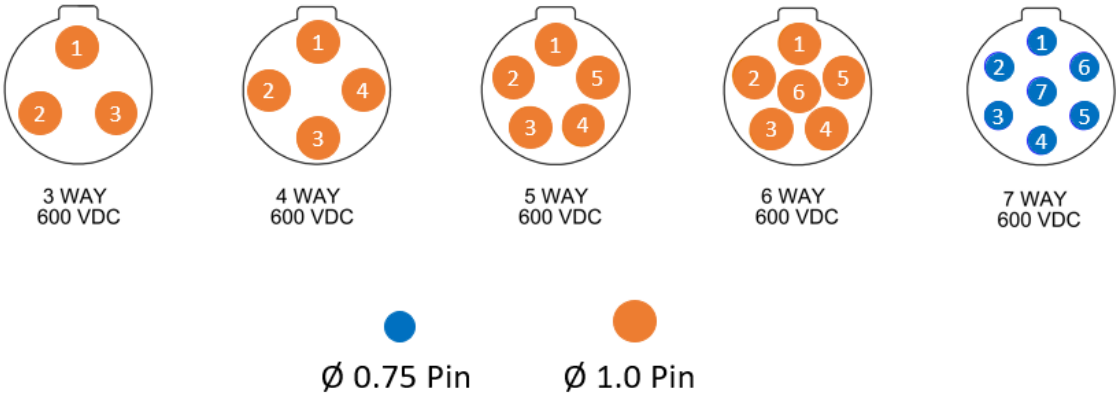


C	D
16	16

Pin Face View



Socket Face View



Current Capacity and Wire Recommendations

- The wire options for bulkheads are governed by the through bore of the bulkhead body and the dimensions of the solder bucket on the contact.
- Heat, caused by an electrical current flowing through a conductor will determine the amount of current that the wire will handle.
- The current rating follows industry standards for a single wire in free air at 30 deg. C with derating for bundled wires.
- The table below shows the current required to raise the temperature of a single insulated conductor to the limits of its insulation temperature.

Contact Dia.	**0.75**	**1.0**
Wire Size	24awg	22awg
Current	7A	11A

Derating Factor for Bundled Cables	
Bundle No.	Derating Factor (x Amps)
2 -5	0.8
6 – 15	0.7
16 – 30	0.5

BC Bulkhead Torque Recommendations

Thread	**Torque N/m (Lubricated)**	**Torque Inch Pound (Lubricated)**
7/16-20 UNF	3 – 4	30 – 35
5/8-18 UNF	5 – 7	40 – 45