

Performance Characteristics¹

Depth Rating	1000 msw / 3280 ftsw
Design Lifetime ²	3 years or 500 cycles to rated depth

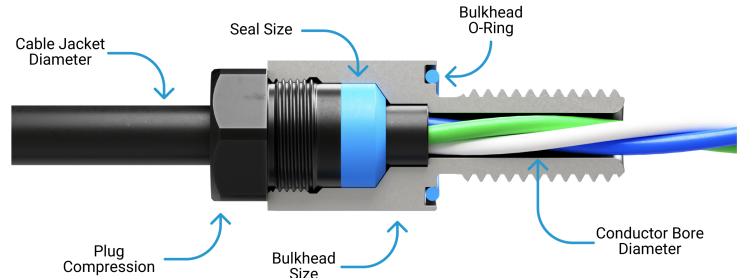
¹ For reference only, performance may vary depending on application and cable construction, it is the responsibility of the customer to determine suitability for their application

² Design life was used to inform testing in an accelerated environment, does not reflect warranty period

Size Index

Seal Size	Bulkhead Sizes	Conductor Bore Diameter [mm]	Plug Compression	Jacket Diameter Range ¹ [mm]	Part Number
4.5	M06	3.3 mm	High (HC)	4.0 ± 0.3	BR-100870-345
	M10				BR-100870-145
	M06		Low (LC)	4.5 ± 0.3	BR-100870-245
					M10
5.5	M10	4.0 mm	High (HC)	5.0 ± 0.3	BR-100870-155
			Low (LC)	5.5 ± 0.3	BR-100870-055
6.5	M10	4.8 mm	High (HC)	6.0 ± 0.3	BR-100870-165
			Low (LC)	6.5 ± 0.3	BR-100870-065
7.5	M10	5.7 mm	High (HC)	7.0 ± 0.3	BR-100870-175
			Low (LC)	7.5 ± 0.3	BR-100870-075
8.5	M10	6.5 mm	High (HC)	8.0 ± 0.3	BR-100870-185
			Low (LC)	8.5 ± 0.3	BR-100870-085
9.5	M14	7.5 mm	High (HC)	9.0 ± 0.3	BR-100870-195
			Low (LC)	9.5 ± 0.3	BR-100870-095

¹ Jacket diameter range varies for foam jacketed cables, see guides for more details



Tools

Seal Size	Bulkhead Size	Bulkhead Wrench	Bulkhead/Nut Flat Size	Bulkhead Torque	Plug Wrench	Plug Hex Size	Plug Torque
4.5	M06	BR-100977-006	12 mm	1 N · m	BR-100369-011	11 mm	14 N · m
4.5	M10	BR-100977-010	16 mm	3.5 N · m	BR-100369-011	11 mm	14 N · m
5.5, 6.5, 7.5, 8.5	M10	BR-100977-010	16 mm	3.5 N · m	BR-100369-014	14 mm	14 N · m
9.5	M14	BR-100977-014	20 mm	3.5 N · m	BR-100369-018	18 mm	20 N · m

Tested Cables

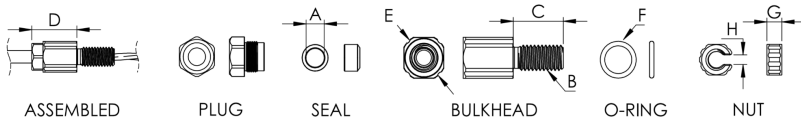
Compatible WetLink Penetrator Part Number	Cable Part Name / Number	Manufacturer	Application	Jacket Diameter [mm]	Jacket Material	Conductors	Tested Current ¹	Nominal Voltage	Max Temp ²
BR-100875-345 BR-100875-145	Fathom Slim Tether (BR-100638)	Blue Robotics	Tether	4.0	PUR Foam	1x UTP 26AWG	-	-	50°C
BR-100875-245 BR-100875-045	Lumen/Gripper Cable (BR-101050)	Blue Robotics	Power / PWM	4.5	PUR	3x 22AWG	-	-	60°C
BR-100875-055	chainflex® control cable CF9 (CF9-02-06)	IGUS	Power / Signal	5.4	TPE	6x 24AWG	-	300V	60°C
	Ping 360 Cable (BR-100452)	Blue Robotics	Power / Ethernet	5.5	PUR	3x UTP 26AWG	-	-	50°C
BR-100875-165	T200 Thruster Cable (BR-100997)	Blue Robotics	Power	6.4	PUR	3x 16AWG	48A	-	60°C
	Etherline® (2170300)	LAPP	Cat5e	6.3	PUR	4x SFTP 26AWG	-	1000V	60°C
BR-100875-175	Fathom ROV Tether (BR-100987)	Blue Robotics	Cat5 / Tether	7.6	PUR Foam	4x UTP 26AWG	-	-	50°C
BR-100875-075	Ethernet and Power Cable (BR-100897)	Blue Robotics	Cat5 + Power	7.5	PUR	4x UTP 26AWG + 2x 22AWG	-	-	60°C
BR-100875-185	chainflex® control cable CF9 (CF9-02-12)	IGUS	Power / Signal	7.7	TPE	12x 24AWG	-	300V	60°C
BR-100875-085	Power Cable, 2-conductor (BR-101093)	Blue Robotics	Power	8.3	PUR	2x 12AWG	60A	-	60°C
BR-100875-195	T500 Thruster Cable (BR-100235)	Blue Robotics	Power	9.0	PUR	3x 12AWG	100A	-	60°C

¹ Current ratings evaluated at ambient temperatures in water

² Sustained high temperatures can lead to performance loss over long periods of time

Physical Properties

	M06	M10	M14
Bulkhead Size			
Seal Sizes (A)	4.5	4.5, 5.5, 6.5, 7.5, 8.5	9.5
Bulkhead Thread (B)	M6 x 1	M10 x 1.5	M14 x 1.5
Bulkhead Thread Length (C)	10 mm	20 mm	25 mm
Recommended Bulkhead Through Hole Size	6.2	10.2	14.2
Assembled Height from Endcap (D)	23.5 mm	18 – 26 mm	23 mm
Overall Outer Diameter (E)	13 mm	18 mm	22 mm
O-ring Size (F)	1.5x7 Buna-N 70A	-013 Buna-N 70A	1.5x15 Buna-N 70A
Nut Height (G)	4 mm	8 mm	8 mm
Nut Slot Width (H)	3.5 mm	5 mm	9 mm
Assembled air weight (no cable)	7.6 g	13.9 – 15.6 g	24.9 g
Assembled water weight (no cable)	5.1 g	10.2 – 10.7 g	16.4 g
Seal Material	FKM		
Seal Material Temperature Range	-25°C to 200°C		
Bulkhead & Plug Material	7075-T6 Aluminum, Type III Anodized		



Test Procedure¹

Minimum Number of Test Samples	36
Test Pressure	1000 msw
Number of Cycles	500 cycles
Water Temperatures at Pressure	2°C to 40°C
Tested Current at Pressure (if applicable)	✓
Temperature Shock Cycling in Air	-30°C to 70°C
Cable Axial Strain (10 cycles)	3.5 to 7.5 kg
Cable Radial & Torsional Straining	✓
1000V Hipot Test & Continuity Test	✓
Accelerated Age Test	✓

¹ Test values shown for reference only, it is the responsibility of the customer to determine suitability for their application