

Micro-wet-mate connectors and cable assemblies



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Eaton’s micro-wet-mate solutions incorporate rugged designs that provide 10,000 PSI pressure ratings and survive 1,000 mate and demate cycles.

These high-contact-density Burton™ connectors and cable assemblies are available in bulkhead, inline overmolded, and dummy-plug configurations:

- Up to 8 contacts in 0.61" (15.5mm) diameter shells
- Up to 16 contacts in 0.98" (25mm) diameter shells

Quick turn, application-specific-solution capabilities include:

- High voltages and currents
- High-speed-data including Ethernet
- Harsh environments including extreme pressures, temperatures, mechanical stresses, and corrosive agents



Shell Diameter	Number of Contacts	Max. Current	Max. Voltage	Dielectric Withstand	Inline Wire Sizes	Bulkhead Wire Sizes
0.61" (15.5mm)	3	7A	600V	<10uA @ 2000VDC	18AWG	20AWG
	4	7A	600V	<10uA @ 2000VDC	18AWG	20AWG
	5	3.5A	300V	<10uA @ 1500VDC	20AWG	22AWG
	6	3.5A	300V	<10uA @ 1500VDC	20AWG	22AWG
	8	3.5A	300V	<10uA @ 1500VDC	20AWG	22AWG
0.98" (25.4mm)	10	3A	300V	<10uA @ 1500VDC	20AWG	22AWG
	16	2.5A	300V	<10uA @ 1500VDC	20AWG	22AWG

Miniaturized solutions available with seven industry-standard contact arrangements

Integral threads facilitate rapid locking-sleeve installation (shell size M bulkhead connectors)

Color coded leads simplify conductor tracing

Gold plated, radiused pins resist corrosion and reduce mating forces

Radiused pin shoulders protect insulators from fraying

Reinforced neck resists damage during aggressive demating

Bulkhead connectors available in brass, stainless steel, aluminum, titanium and customer-defined materials





Parameter	Ratings
Open Face Pressure	10,000 PSI
Mated Pressure	10,000 PSI
Operating Temperature	25°F to 140°F (-4°C to +60°C)
Mating Cycles	1000
Hi-Pot Voltage	3 and 4 Contacts: 2000VDC
	5 to 16 Contacts: 1500VDC
Insulation Resistance	> 200 Megaohms @ 1000 VDC

Component	Materials and platings*
Bulkhead shell	Brass (UNS C36000), Stainless Steel (UNS 31600/UNS 31603), Titanium (6AL/4V, UNS R56400), or Aluminum (6061-T6/T651, UNS A96061)
Body	Proprietary Neoprene Blend
Contacts	Gold-Plated Beryllium Copper C173/C172 per ASTM B196
Orientation Pin	303/304 Stainless Steel
Cable Jacketing	Neoprene
Wire Insulation	Bulkhead Connectors: Extruded TFE, Inline Configurations: EPDM
Locking Sleeves	Delrin Bodies and 302 Stainless-Steel Snap Rings
Dummy Plugs	Proprietary Neoprene Blend

* Contact Eaton to discuss application-specific materials and platings

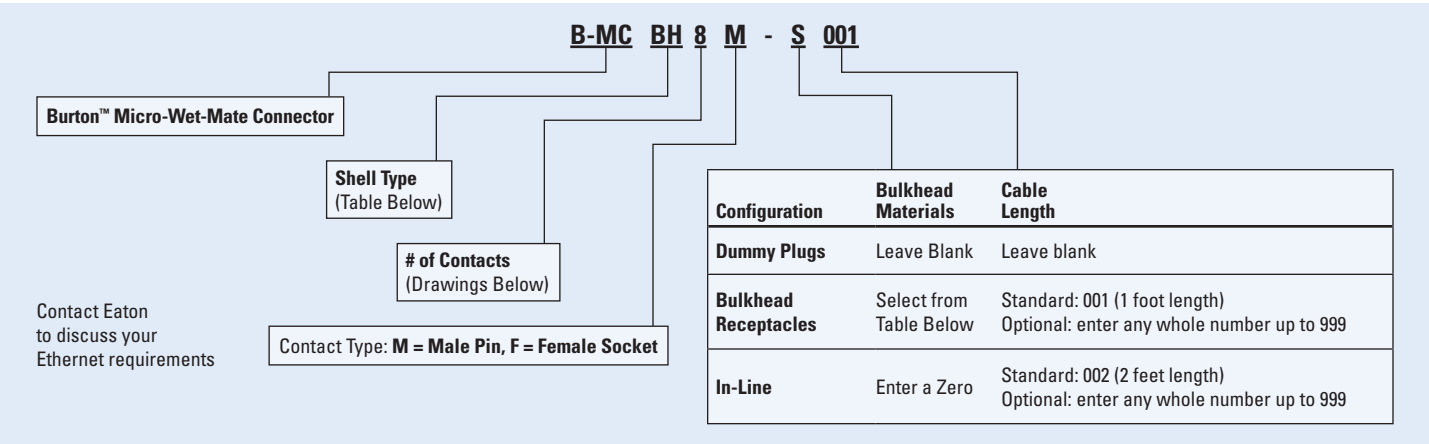


Burton™ subsea solutions are available in wet-mate shell sizes up to 1.59" (41mm) diameter, dry-mate shell sizes 9 to 48, and overmolded and Pressure Balanced Oil Filled (PBOF) configurations.

Please visit www.eaton.com/interconnect for more information.



Part number configuration

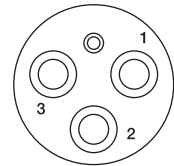


Connectors do not include locking sleeves, please refer to the table below for locking-sleeve ordering information

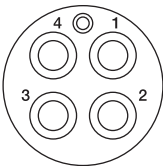
Type	Shell Type
BH	Bulkhead Connector
DC	Dummy Connector
IL	Inline Connector with Overmolded Cable

Type	Bulkhead Materials	Type	Bulkhead Materials
B	Brass	A	Aluminum
S	Stainless Steel	T	Titanium

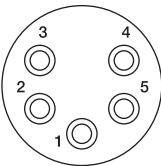
Shell size M insert arrangements 0.61" (15.5mm) diameter shells
Depicted with male-pin connectors



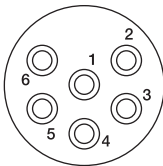
Three contacts
with alignment pin



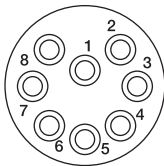
Four contacts
with alignment pin



Five contacts

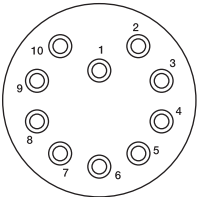


Six contacts

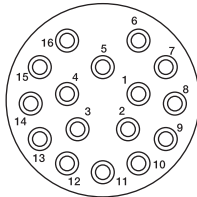


Eight contacts

Shell size A insert arrangements 0.98" (25mm) diameter shells
Depicted with male-pin connectors



Ten contacts



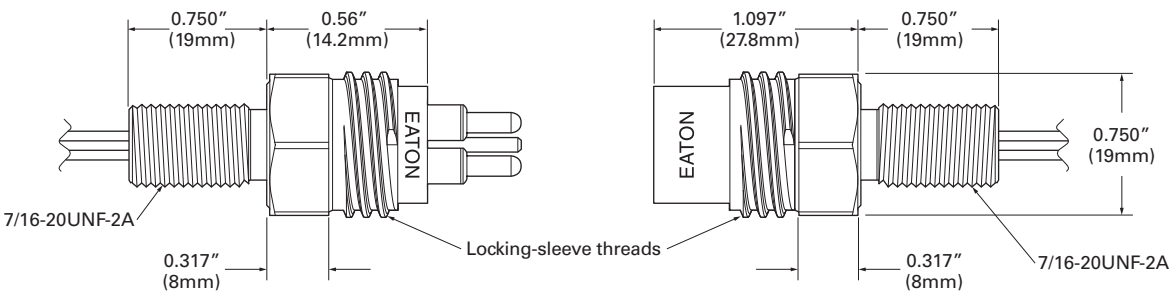
Sixteen contacts

Locking Sleeve Part Numbers

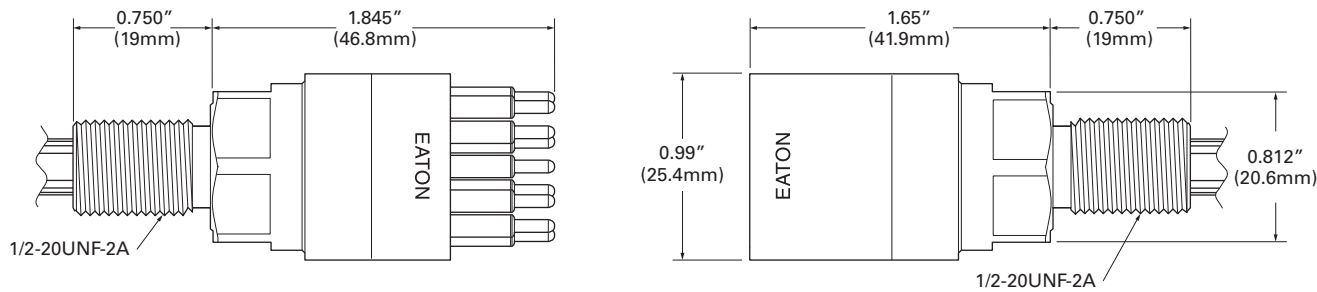
Part Number	Application
B-MCDLSF	Female Connectors - 3 to 8 Sockets
B-MCDLSM	Male Connectors - 3 to 8 Pins
B-DLSAF	Female Connectors - 10 or 16 Sockets
B-DLSAM	Male Connectors - 10 or 16 Pins

Bulkhead and inline connectors mechanical drawings

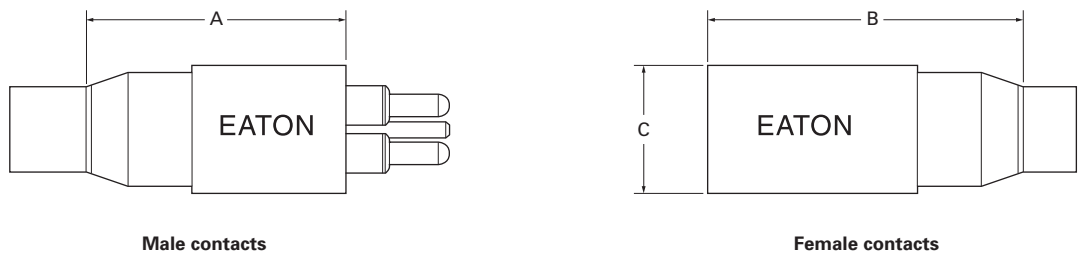
Shell size M bulkhead connectors



Shell size A bulkhead connectors



Inline connectors

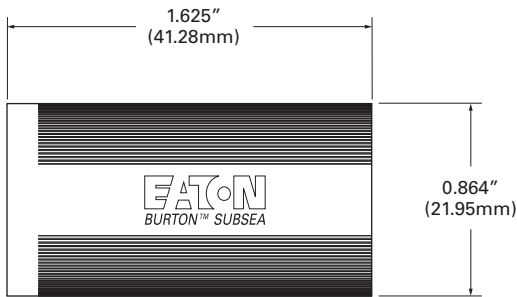


	Shell Size M	Shell Size A
A	1.32" (33.4mm)	1.99" (50.5mm)
B	1.55" (39.4mm)	2.37" (60.2mm)
C	0.61" (15.5mm)	0.98" (25.4mm)

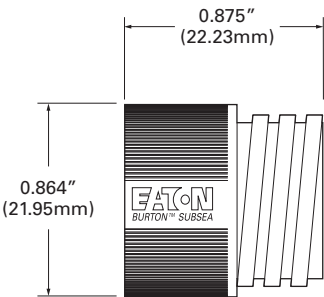


Locking sleeve mechanical drawings

Shell size M (3 to 8 contacts) locking sleeves

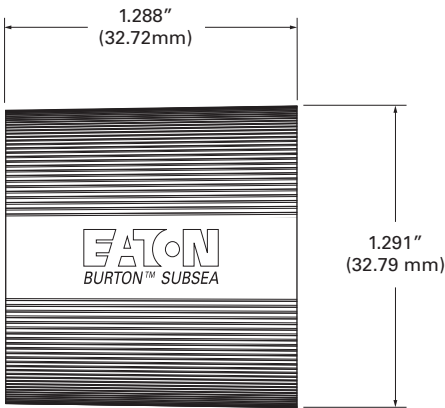


B-MCDLSF
Used with female connectors

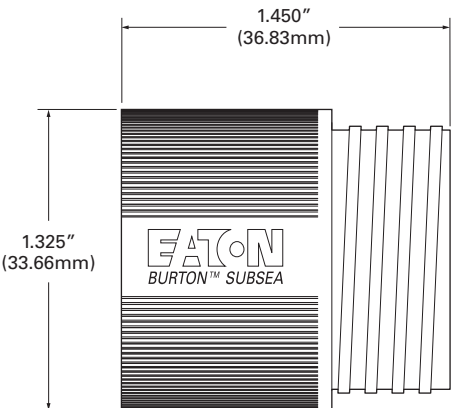


B-MCDLSM
Used with male connectors

Shell size A (10 and 16 contacts) locking sleeves



B-DLSAF
Used with female connectors



B-DLSAM
Used with male connectors

Installation instructions

Greasing and Mating

Above Water Mating	Submerged Mating in Depths Less Than Three Meters
Apply a silicone grease, such as Molykote 44 Medium, to approximately 10% of the depth of the female contact socket cavities.	Apply a silicone grease, such as Molykote 44 Medium, to approximately 30% of the depth of the female contact socket cavities.
Confirm that the openings of all female sockets are sealed with grease and that a thin layer of grease covers the face of the female-contact connector.	
Mate and demate the connector and inspect for grease on all male contacts before final remating.	Fully mate the connector and remove excess grease.
Mate and demate by pushing straight in and pulling straight out and never at an angle. Always grasp the connector body and never try to demate by pulling on the cable.	
Repeat these processes using new grease whenever male and female connectors are demated and remated.	

Wiring Color Codes

Contact #	Wire Color	Contact #	Wire Color	Contact #	Wire Color
1	Black	7	White & Black	13	Red & White
2	White	8	Red & Black	14	Green & White
3*	Red	9	Green & Black	15	Blue & White
4	Green	10	Orange & Black	16	Black & Red
5	Orange	11	Blue & Black		
6	Blue	12	Black & White		

* Three-pin connectors utilize a green wire on pin #3.



Dummy plugs should be used on all unmated connectors to protect contacts from corrosion and mechanical damage.

For additional information

- Visit www.eaton.com/interconnect
- Call 805.484.0543
- Email cicustomer.service@eaton.com

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