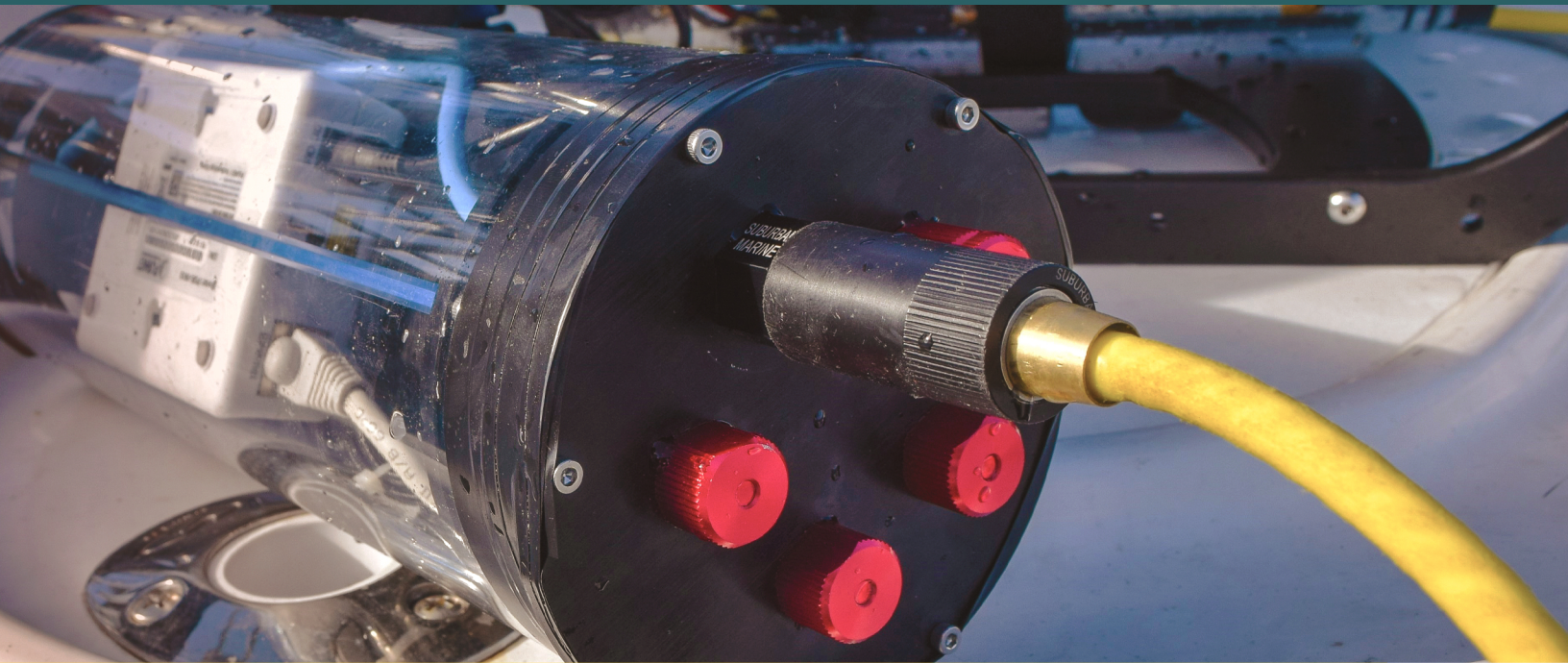


# the Baromax Connector Family

Baromax Datasheet Rev B1.0.



**THE BEST SOLUTION**  
for all underwater industry needs

User configurable assemblies  
provide limitless configurations  
with one connector face.



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# Baromax Connector Family

The Baromax Connector series is the smallest high power density underwater connector rated for continuous submersion up to 10,000psi. Wire sizes up to #18 AWG offers power capabilities up to 15 amps per contact. User configurable assemblies provide limitless configurations with one connector face.

## Features

### High Power Density

Up to 40 amps per connector in a compact footprint

### Wire-to-bulkhead & Wire-to-Wire Configuration

Connector faces are interchangeable

Locking rings for secure mate and quick disconnection

### Gigabit Ethernet Ready

Minimize un-twisted cable length for high speed differential signals

## Applications

### Data

- 10/100/1000Base-T Ethernet
- VDSL2
- RS232 / RS485
- CAN bus
- Analog
- Digital GPIO

### Power

- ROV thruster
- ROV tether
- Camera tether
- Light/strobe power
- Wet area quick disconnect
- Power over Ethernet
  - 802.3af, 802.3at, 802.3bt
- Relay, burn wire

## Ordering Information

### Evaluation Kit

| Description    | Part Number | Kit Contents  |
|----------------|-------------|---|
| Evaluation kit | BM-EVAL-A   | 1x BM-A-8-M<br>1x BM-A-8-F<br>1x BM-BH-A-A-1<br>1x BM-IL-A-A-1<br>1x BM-A-LR-F-A-B-1<br>1x BM-A-LR-M-A-B-1<br>1x BM-EPOXY-KIT |

### Connector Face

| Description            | Part Number | Material / Desc   | Kit Contents |
|------------------------|-------------|---|--------------|
| Male 8-pin Connector   | BM-A-8-M    | Neoprene body, brass contact with 30u" gold plating, solder cup | N/A          |
| Female 8-pin Connector | BM-A-8-F    | Neoprene body, brass contact with 30u" gold plating, solder cup | N/A          |
| Male 3-pin Connector   | BM-A-3-M    | Neoprene body, brass contact with 30u" gold plating, solder cup | N/A          |
| Female 3-pin Connector | BM-A-3-F    | Neoprene body, brass contact with 30u" gold plating, solder cup | N/A          |

### Bulkhead backshell

| Part Number | Material / Desc | Kit Contents |
|-------------|-----------------|--------------|
| BM-BH-A-A-1 | Brass           | O-ring       |

|             |   |        |
|-------------|---|--------|
| BM-BH-A-B-1 | SS316   | O-ring |
| BM-BH-A-C-1 | AL 6061T6   | O-ring |
| BM-BH-B-C-1 | AL 6061T6, M10 rear thread,<br>standard front thread    | O-ring |
| BM-BH-C-C-1 | AL 6061T6, M10 rear thread,<br>low-profile front thread | O-ring |

### Inline backshell

| Part Number | Material / Desc | Kit Contents |
|-------------|-----------------|--------------|
| BM-IL-A-A-1 | Brass           | Snap ring    |
| BM-IL-A-B-1 | SS316           | Snap ring    |
| BM-IL-A-C-1 | AL 6061T6       | Snap ring    |

### Accessories

| Description          | Part Number     | Material / Desc                     | Kit Contents |
|----------------------|-----------------|-------------------------------------|--------------|
| Locking Ring, female | BM-A-LR-F-A-B-1 | Standard locking ring,<br>female    | Snap ring    |
| Locking Ring, male   | BM-A-LR-M-A-B-1 | Standard locking ring,<br>male      | Snap ring    |
| Locking Ring, female | BM-A-LR-F-B-B-1 | Low-profile locking ring,<br>female | Snap ring    |

### Accessories

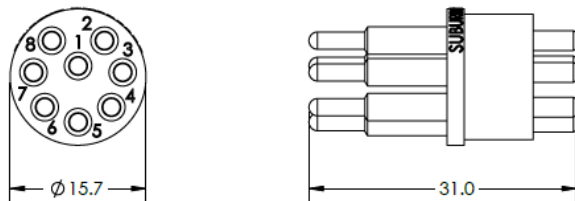
| Item            | Part Number | Description                                 | Kit Contents |
|-----------------|-------------|---|--------------|
| Epoxy Cartridge | BM-EPOXY-A  | Recommended potting<br>compound for Baromax | N/A          |

|           |                |   |   |
|-----------|----------------|---|---|
| Epoxy Kit | BM-EPOXY-KIT   | Epoxy and consumable mixing nozzles and needle tips | 1x BM-EPOXY-A<br>5x 20 element luer lock mixing nozzle<br>5x 1.5" 14ga needle tip |
| Epoxy gun | BM-DISPENSER-A | Dispensing gun for 2:1 cartridge                    | 2:1 Plunger   |

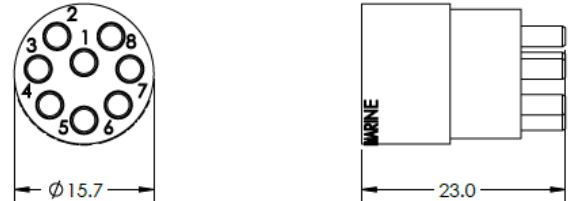
## Part Overview

For reference only. See detailed part drawings.

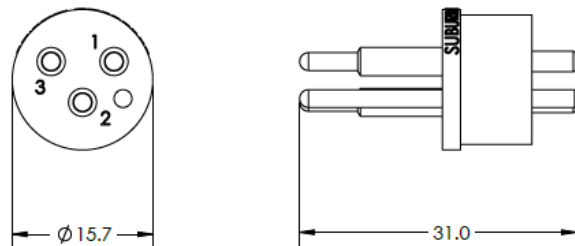
### Male 8-pin Connector



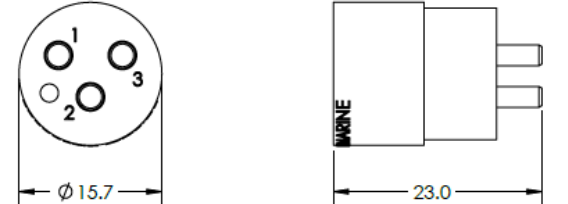
### Female 8-pin Connector



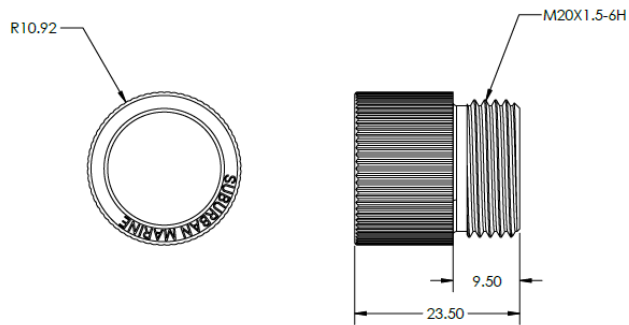
### Male 3-pin Connector



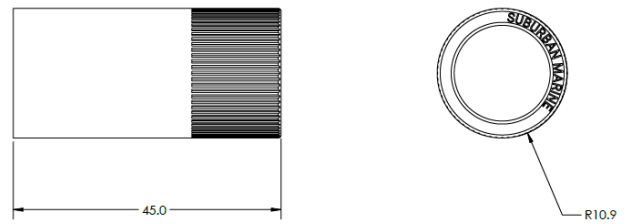
### Female 3-pin Connector



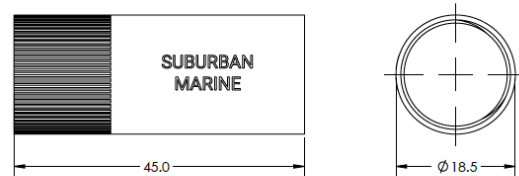
## Male Locking Ring



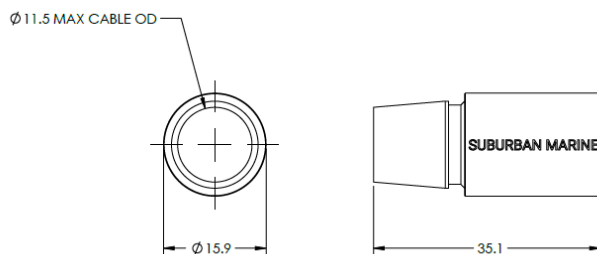
## Female Locking Ring



## Female Locking Ring Low Profile

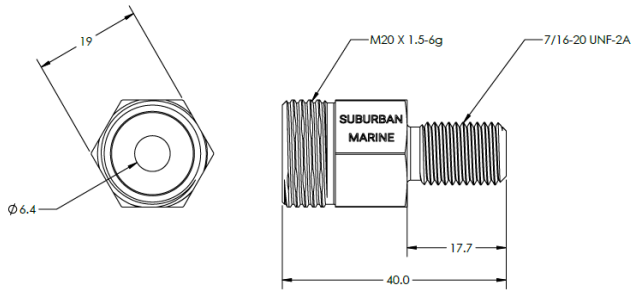


## Inline Backshell

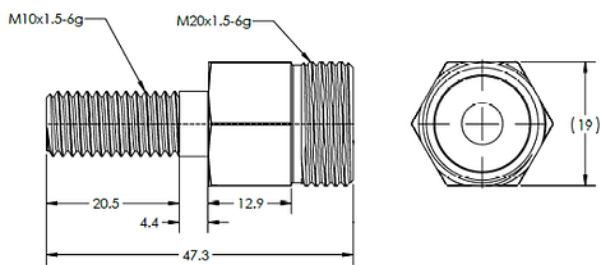


## Bulkhead Backshell

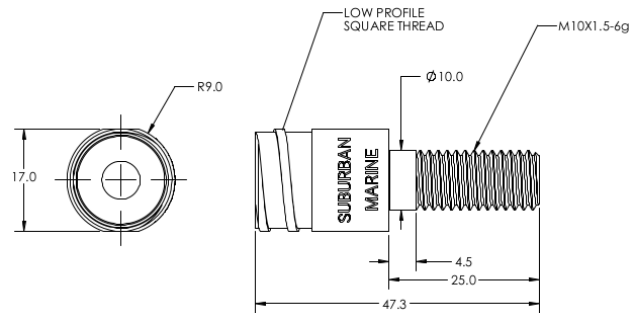
### Standard thread option



### M10 rear thread option



### M10 rear thread low-profile option





## Specifications

### Electrical

|   |  |
|---|--|
| Current Rating, per contact (Amperes)           | 15   |
| Current Rating, per connector (Amperes)         | 40   |
| Voltage Rating, operating (VDC / peak VAC)      | 400  |
| Dielectric Withstanding Voltage (VDC/ peak VAC) | 500  |
| Typical Contact Resistance (mOhm)               | < 1.0  |
| Hot Plug  | Not rated for hot plug or live circuit interruption. |

### Materials

|                    |                         |
|--------------------|-------------------------|
| Connector Body     | Neoprene                |
| Connector Contacts | Brass, 30u" gold plated |

### Mechanical

|   |              |
|---|--------------|
| Wire Size Range                           | AWG 24 to 18 |
| Contact Termination Method                | Hand solder  |
| Max. Cable Diameter (Standard backshells) | 0.40 inches  |
| Operating Temperature Air (degC)          | -40 - 60     |
| Operating Temperature Water (degC)        | -4 - 60      |
| Mating Cycles                             | 500          |
| Typical Mating / Unmating Force           | -            |
| Max ambient pressure (psi)                | 10,000       |

## Warranty

Suburban Marine, Inc.'s products are subject to a limited warranty. Suburban Marine, Inc. warrants Baromax connectors will meet the specifications listed in their respective datasheets and be free of defects in material and workmanship for a period of 1 year. This limited warranty does not cover damage resulting from misuse, abuse, accidents, alterations, or improper installation/assembly. This warranty extends to the original purchaser or ultimate consignee and is not transferable. The exclusive remedy under this limited warranty will be at Suburban Marine's option to replace or refund the purchased items. Under no circumstances will Suburban Marine, Inc. be liable for any indirect, special, incidental, or consequential damages or loss caused by the failure of an item covered under this warranty. Under no circumstances will Suburban Marine, Inc.'s liability under this warranty exceed the purchase price paid for the products. Suburban Marine, Inc.'s products are not designed for use in medical, life-saving, life sustaining applications, or applications where the failure of a Suburban Marine Inc product could result in personal injury or death. Customers using products in such applications do so at their own risk and agree to indemnify Suburban Marine, Inc. from any damages resulting from such improper use.