SEACON®

WET-CON SERIES
UNDERWATER ELECTRICAL WET-MATE CONNECTORS
PRODUCT NEWS

WET-CON SERIES CONNECTOR ENHANCEMENTS

INTRODUCTION
As part of our continuous improvement process the SEA CON® Group consistently reviews its product ranges through both customer feedback and internal improvements. It is via these processes that SEA CON® identified a design enhancement to the WET-CON connector ranges.

DESIGN FEATURES
The design change is associated with the Male Pin connectors only and has been introduced to improve and extend the life of the connectors by decreasing the stresses that are applied to the sealing interface between the male contact pin and the sealing rubber around the pin during the connectors mate and de-mate cycles.

The newly designed male contact has a "Lead in" as part of the contact pin itself which replaces the current rubber lead in. The introduction of the new pin removes any potential wear to the sealing interface between the male contact pin and the sealing rubber around the pin which may occur with many repeated make and breaks of the connector pairs. The new pin will maintain the full connector sealing properties and will provide a greater life expectancy of the connectors.

The incorporation of this design change to the Male Pin connectors will not affect the existing Female Socket connectors currently being used by SEA CON®'s customers and therefore full intermateability will be maintained. In addition, SEA CON® would also like to confirm that pricing will also not be affected.

TESTING
This new pin design concept has been fully tested and has been utilized in both the U-HATE and SEA-MATE connector ranges for a number of years.

IP68 AND IPX8 CERTIFICATION

AWARDED TO SEA CON (europe) LTD

SEA CON (europe) Ltd is pleased to advise that its WET-CON connector series is now approved to IP Codes (Ingress Protection) 68 and X8. These two international standards classify the level of protection provided against the intrusion of dust and water in electrical enclosures.

In order to meet the requirements of the IP68 and IPX8 standards, sample connectors were sent to an independent testing house and subjected to various tests as per the agreed program including pressure testing to 101 bar for a 24 hour period. All test samples successfully passed and therefore conform to the following conditions:

- Dust tight - No ingress of dust, complete protection against contact with dust.
- Immersion beyond 1 meter - Suitable for continuous immersion in water, under conditions specified by SEA CON (europe) Ltd.
INTRODUCTION
SEA CON’s WET-CON connector series was developed to provide inexpensive yet reliable rubber molded connectors that allow the user to make and break connections both on the surface and underwater.

Manufactured using only high quality materials, the WET-CON bulkhead connector’s metal shell is produced using DGS 1043 (UK spec) or CA630 per QQ-C-465 as standard, although other materials are available upon request including PEEK (Polyetheretherketone) which offers superior chemical resistance, excellent electrical properties, wear and abrasion resistance and is light weight. Contacts are gold plated to ASTM B488 providing superior corrosion resistance and stainless steel guide pins ensure “no miss” mating.

AVAILABILITY
This connector range is available in a number of configurations ranging from 1 to 16 contacts rated up to 19 amps maximum current (dependent on cable) and a mated pressure rating of up to 20,000 psi.

The WET-CON series is also available with a metal shell body, individual single tail, extended metal shoulder and a water-blocked version which is suitable where there will be reverse pressure applied to the connector i.e. subsea electronics pods or ROV systems. For further information please contact SEA CON®.

APPLICATIONS
The WET-CON series is suitable for a variety of applications including underwater television and lights, diver communications, ROV systems, recreational submersibles, towed-array cable systems, current meters, animal migration and research and food processing equipment.

SPECIAL ASSEMBLIES
SEA CON® maintains all facilities necessary to furnish complete underwater and environmental electrical connector/cable systems, including Research and Development, Engineering, Manufacturing, Quality Control and Pressure Testing.

As well as supplying our standard ‘off-the-shelf’ items, we have the capability to design and manufacture SPECIAL CUSTOMIZED CONNECTORS AND CABLE ASSEMBLIES to suit your individual needs.

SEA CON® also prides itself with the ability to perform stringent quality conformance testing procedures which are in accordance with the MIL-SPEC programs.

NOTES:
WET-CON connectors are intended to mate with WET-CON connectors only. Although the WET-CON and ALL-WET connectors look similar, the numbering pattern and color codes are not the same. We recommend, as general practice, to verify color code and pin location before installation.

PART NUMBER SYSTEM - EXAMPLE

WET-CON BULKHEAD CONNECTORS

| B H - 4 - MP | MP - Male Plug |
|FS - Female Socket|
| Number of Contacts|
| WET-CON Bulkhead Connector|

WET-CON IN-LINE CONNECTORS

| I L - 4 - FS | FS - Female Socket |
|MP - Male Plug|
| Number of Contacts|
| WET-CON In-Line Connector|

WET-CON LOCKING SLEEVES

| D L S A - M | M - Male |
|F - Female|
| Size (A, B, C)|
| WET-CON Delrin® (DuPont trademark for Acetal Resin) Locking Sleeve|

NOTES:
- Size A fits 2, 3 and 4 contact patterns.
- Size B fits 6, 8 and 10 contact patterns.
- Size C fits 12 and 16 contact patterns.
GENERAL INFORMATION

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>BULKHEAD BODY:</td>
<td></td>
</tr>
<tr>
<td>STANDARD:</td>
<td>DGS 1043 or CA630 per QQ-C-465</td>
</tr>
<tr>
<td>OPTIONAL:</td>
<td>316 Stainless Steel (no cost option), 6061-T6 Aluminum, Hard Anodized</td>
</tr>
<tr>
<td>CONNECTOR BODY:</td>
<td></td>
</tr>
<tr>
<td>STANDARD:</td>
<td>Neoprene per B/A X5727</td>
</tr>
<tr>
<td>OPTIONAL:</td>
<td>Hypalon per B/A X6830 or PEEK (Polyetheretherketone)</td>
</tr>
<tr>
<td>CONTACTS</td>
<td>Copper Alloy Gold Plated per ASTM B488</td>
</tr>
<tr>
<td>GUIDE PINS</td>
<td>304 Stainless Steel</td>
</tr>
<tr>
<td>O-RINGS</td>
<td>Nitrile (formerly known as Buna N)</td>
</tr>
<tr>
<td>IN-LINE CABLE</td>
<td>#18 AWG SO Cable as standard #14 or #16 AWG SO Cable available dependent on connector size</td>
</tr>
<tr>
<td>BULKHEAD PIGTAILS</td>
<td>Teflon® (Registered trademark for DuPont) type E hook-up wire, 18 inches</td>
</tr>
</tbody>
</table>

NOTES:
- Locking sleeves are not standard and must be ordered separately. Available in Delrin® (DuPont trademark for Acetal Resin).
- Bulkhead nut/washer is not standard and must be ordered separately. Available in Brass or 316 Stainless Steel.
- In-line cable and hook up wire is 18 inch standard length. Longer length to be specified when ordering.
- In-line cable is available in #14 or #16 AWG SO. Cable other than SO will be terminated and over-molded to a bulkhead connector.

AMPACITY CHART FOR STANDARD PARTS (18 AWG SO CABLE)

<table>
<thead>
<tr>
<th>PART DESCRIPTION</th>
<th>NUMBER OF CONTACTS</th>
<th>AMPACITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL-BH-2</td>
<td></td>
<td>7 amps</td>
</tr>
<tr>
<td>IL-BH-3</td>
<td></td>
<td>7 amps</td>
</tr>
<tr>
<td>IL-BH-4</td>
<td></td>
<td>5.6 amps</td>
</tr>
<tr>
<td>IL-BH-6</td>
<td></td>
<td>5.6 amps</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART DESCRIPTION</th>
<th>NUMBER OF CONTACTS</th>
<th>AMPACITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL-BH-8</td>
<td></td>
<td>4.9 amps</td>
</tr>
<tr>
<td>IL-BH-10</td>
<td></td>
<td>3.5 amps</td>
</tr>
<tr>
<td>IL-BH-12</td>
<td></td>
<td>3.5 amps</td>
</tr>
<tr>
<td>IL-BH-16</td>
<td></td>
<td>3.5 amps</td>
</tr>
</tbody>
</table>

NOTE:
- Higher ampacities are available.

STANDARD IN-LINE WIRING COLOR CODE (SO CABLE)

<table>
<thead>
<tr>
<th>CONTACT #</th>
<th>COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BLACK</td>
</tr>
<tr>
<td>2</td>
<td>WHITE</td>
</tr>
<tr>
<td>3</td>
<td>RED *</td>
</tr>
<tr>
<td>4</td>
<td>GREEN</td>
</tr>
<tr>
<td>5</td>
<td>ORANGE</td>
</tr>
<tr>
<td>6</td>
<td>BLUE</td>
</tr>
<tr>
<td>7</td>
<td>WHITE/BLACK</td>
</tr>
<tr>
<td>8</td>
<td>RED/BLACK</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CONTACT #</th>
<th>COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>GREEN/BLACK</td>
</tr>
<tr>
<td>10</td>
<td>ORANGE/BLACK</td>
</tr>
<tr>
<td>11</td>
<td>BLUE/BLACK</td>
</tr>
<tr>
<td>12</td>
<td>BLACK/WHITE</td>
</tr>
<tr>
<td>13</td>
<td>RED/WHITE</td>
</tr>
<tr>
<td>14</td>
<td>GREEN/WHITE</td>
</tr>
<tr>
<td>15</td>
<td>BLUE/WHITE</td>
</tr>
<tr>
<td>16</td>
<td>BLACK/RED</td>
</tr>
</tbody>
</table>

NOTE:
- * For 3 contact configurations wiring color code is GREEN.

CAUTION:
WET-CON connectors are intended to mate with WET-CON connectors only. Although the WET-CON and ALL-WET connectors look similar, the numbering pattern and color codes are not the same. We recommend, as general practice, to verify color code and pin location before installation.
### WET-CON SERIES

#### BH-MP
(2 - 10 contacts)

WET-CON Bulkhead Connector Male Plug
Mates with IL-FS
Dummy Connector: DC-FS

**Diagram:**
- [Diagram of BH-MP](#)

<table>
<thead>
<tr>
<th>CONNECTOR</th>
<th>A - THREAD</th>
<th>1 - O-RING</th>
<th>B - Ø (INCHES)</th>
<th>C - HEX FLATS (INCHES)</th>
<th>2 - HOOK-UP WIRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BH-2-MP</td>
<td>7/16-20 UNF-2A</td>
<td>2-014</td>
<td>1.00</td>
<td>0.75</td>
<td>18 AWG</td>
</tr>
<tr>
<td>BH-3-MP</td>
<td>7/16-20 UNF-2A</td>
<td>2-014</td>
<td>1.00</td>
<td>0.75</td>
<td>18 AWG</td>
</tr>
<tr>
<td>BH-4-MP</td>
<td>7/16-20 UNF-2A</td>
<td>2-014</td>
<td>1.00</td>
<td>0.75</td>
<td>18 AWG</td>
</tr>
<tr>
<td>BH-6-MP</td>
<td>5/8-18 UNF-2A</td>
<td>2-017</td>
<td>1.25</td>
<td>1.00</td>
<td>18 AWG</td>
</tr>
<tr>
<td>BH-8-MP/MPX*</td>
<td>5/8-18 UNF-2A</td>
<td>2-017</td>
<td>1.25</td>
<td>1.00</td>
<td>18 AWG</td>
</tr>
<tr>
<td>BH-10-MP</td>
<td>5/8-18 UNF-2A</td>
<td>2-017</td>
<td>1.25</td>
<td>1.00</td>
<td>18 AWG</td>
</tr>
</tbody>
</table>

### WET-CON SERIES

#### BH-FS
(2 - 10 contacts)

WET-CON Bulkhead Connector Female Socket
Mates with IL-MP
Dummy Connector: DC-MP

**Diagram:**
- [Diagram of BH-FS](#)

<table>
<thead>
<tr>
<th>CONNECTOR</th>
<th>D - THREAD</th>
<th>3 - O-RING</th>
<th>E - Ø (INCHES)</th>
<th>F - HEX FLATS (INCHES)</th>
<th>4 - HOOK-UP WIRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BH-2-FS</td>
<td>7/16-20 UNF-2A</td>
<td>2-014</td>
<td>1.00</td>
<td>0.75</td>
<td>18 AWG</td>
</tr>
<tr>
<td>BH-3-FS</td>
<td>7/16-20 UNF-2A</td>
<td>2-014</td>
<td>1.00</td>
<td>0.75</td>
<td>18 AWG</td>
</tr>
<tr>
<td>BH-4-FS</td>
<td>7/16-20 UNF-2A</td>
<td>2-014</td>
<td>1.00</td>
<td>0.75</td>
<td>18 AWG</td>
</tr>
<tr>
<td>BH-6-FS</td>
<td>5/8-18 UNF-2A</td>
<td>2-017</td>
<td>1.25</td>
<td>1.00</td>
<td>18 AWG</td>
</tr>
<tr>
<td>BH-8-FS/FSX*</td>
<td>5/8-18 UNF-2A</td>
<td>2-017</td>
<td>1.25</td>
<td>1.00</td>
<td>18 AWG</td>
</tr>
<tr>
<td>BH-10-FS</td>
<td>5/8-18 UNF-2A</td>
<td>2-017</td>
<td>1.25</td>
<td>1.00</td>
<td>18 AWG</td>
</tr>
</tbody>
</table>

**NOTES:**
- Bulkhead mounting torque: 7/16 thread = 50 inch pounds. 5/8 thread = 85 inch pounds.
- Nut and washer: Optional.
- Dummy Connector: Optional.
- Dummy Shorting Plug: Optional.
- O-Ring: Nitrile (formerly known as Buna N).
- Bulkhead leads are tagged with pin number.
- Connectors must be lubricated prior to mating.
- Torque values referenced in this literature assume installation into dry metal threads. For other applications, please contact SEA CON® for recommendations.
- Connectors are designed for installation on one atmosphere vessels. Contact SEA CON® for recommendations if using compensated vessels.
- For contact configurations please refer to page 14.
- * No guide pin. MPX/FSX connectors are recommended for new applications.
### WET-CON SERIES

#### IL-MP

**In-Line Connector Male Plug**
Mates with BH-FS and IL-FS
Dummy Connector: DC-FS

#### IL-FS

**In-Line Connector Female Socket**
Mates with BH-MP and IL-MP
Dummy Connector: DC-MP

### NOTES:
- Locking Sleeve: Optional (see page 10).
- Dummy Connector: Optional.
- Dummy Shorting Plug: Optional.
- Connectors must be lubricated prior to mating.
- *No guide pin. MPX/FSX connectors are recommended for new applications.*

---

#### IL-MP

<table>
<thead>
<tr>
<th>CONNECTOR</th>
<th>A - Ø (INCHES)</th>
<th>1 - CABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL-2-MP</td>
<td>1.00</td>
<td>18/2 SO</td>
</tr>
<tr>
<td>IL-3-MP</td>
<td>1.00</td>
<td>18/3 SO</td>
</tr>
<tr>
<td>IL-4-MP</td>
<td>1.00</td>
<td>18/4 SO</td>
</tr>
<tr>
<td>IL-6-MP</td>
<td>1.25</td>
<td>18/6 SO</td>
</tr>
<tr>
<td>IL-8-MP/MPX*</td>
<td>1.25</td>
<td>18/8 SO</td>
</tr>
<tr>
<td>IL-10-MP</td>
<td>1.25</td>
<td>18/10 SO</td>
</tr>
</tbody>
</table>

#### IL-FS

<table>
<thead>
<tr>
<th>CONNECTOR</th>
<th>B - Ø (INCHES)</th>
<th>2 - CABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL-2-FS</td>
<td>1.00</td>
<td>18/2 SO</td>
</tr>
<tr>
<td>IL-3-FS</td>
<td>1.00</td>
<td>18/3 SO</td>
</tr>
<tr>
<td>IL-4-FS</td>
<td>1.00</td>
<td>18/4 SO</td>
</tr>
<tr>
<td>IL-6-FS</td>
<td>1.25</td>
<td>18/6 SO</td>
</tr>
<tr>
<td>IL-8-FS/FSX*</td>
<td>1.25</td>
<td>18/8 SO</td>
</tr>
<tr>
<td>IL-10-FS</td>
<td>1.25</td>
<td>18/10 SO</td>
</tr>
</tbody>
</table>
**WET-CON SERIES**

**BH-MP**
(12 - 16 contacts)

*WET-CON Bulkhead Connector Male Plug*
Mates with IL-FS
Dummy Connector: DC-FS

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**WET-CON SERIES**

**BH-FS**
(12 - 16 contacts)

*WET-CON Bulkhead Connector Female Socket*
Mates with IL-MP
Dummy Connector: DC-MP

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**NOTES:**
- Bulkhead Mounting Torque: 5/8 Thread = 85 inch pounds. 3/4 Thread = 85 inch pounds.
- Locking Sleeve: Optional (see page 10).
- Nut and washer: Optional.
- Dummy Connector: Optional.
- Dummy Shorting Plug: Optional.
- O-Ring: Nitrile (formerly known as Buna N).
- Bulkhead leads are tagged with pin number.
- Connectors must be lubricated before mating.
- Torque values referenced in this literature assume installation into dry metal threads. For other applications, please contact **SEA CON®** for recommendations.
- Connectors are designed for installation on one atmosphere vessels. Contact **SEA CON®** for recommendations if using compensated vessels.
- For contact configurations please refer to page 14.

---

**CONNECTOR** | **A - THREAD** | **B - O-RING** | **C - HEX FLATS (INCHES)** | **D - HOOK-UP WIRE**
---|---|---|---|---
BH-12-MP | 5/8-18 UNF-2A | 2-017 | 1.00 | 18 AWG
BH-16-MP | 3/4-16 UNF-2A | 2-118 | 1.25 | 18 AWG

**CONNECTOR** | **E - THREAD** | **F - O-RING** | **G - HEX FLATS (INCHES)** | **H - HOOK-UP WIRE**
---|---|---|---|---
BH-12-FS | 5/8-18 UNF-2A | 2-017 | 1.00 | 18 AWG
BH-16-FS | 3/4-16 UNF-2A | 2-118 | 1.25 | 18 AWG
**WET-CON SERIES**

**IL-MP**

(12 - 16 contacts)

**WET-CON In-Line Connector Male Plug**

Mates with BH-FS and IL-FS

Dummy Connector: DC-FS

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**CONNECTOR** | **A - Ø (INCHES)** | **B - CABLE**
--- | --- | ---
IL-12-MP | 1.60 | 18/12 SO
IL-16-MP | 1.60 | 18/16 SO

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**WET-CON SERIES**

**IL-FS**

(12 - 16 contacts)

**WET-CON In-Line Connector Female Socket**

Mates with BH-MP and IL-MP

Dummy Connector: DC-MP

---

**CONNECTOR** | **C - Ø (INCHES)** | **D - CABLE**
--- | --- | ---
IL-12-FS | 1.60 | 18/12 SO
IL-16-FS | 1.60 | 18/16 SO

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**NOTES:**

- IL-16-MP WOC is not available, substitute with BH-16-MP.
- Locking Sleeve: Optional (see page 10).
- Dummy Connector: Optional.
- Connectors must be lubricated prior to mating.
- Shorting plugs are available should you require the ability of looping together 'like' circuits for testing purposes within the dummy. Pin to pin shorting details need to be supplied at time of order placement.
**WET-CON SERIES**

**DLS-F**
**WET-CON Locking Sleeve Female**

**DLS-M**
**WET-CON Locking Sleeve Male**

**SERIES DIMENSION DETAILS**

<table>
<thead>
<tr>
<th>LOCKING SLEEVE</th>
<th>A - Ø (INCHES)</th>
<th>B - (INCHES)</th>
<th>C - (INCHES)</th>
<th>D - MATED LENGTH (INCHES)</th>
<th>E - SPIROLOX*</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLSA-M</td>
<td>1.40</td>
<td>0.90</td>
<td>-</td>
<td>2.19</td>
<td>RR 103</td>
</tr>
<tr>
<td>DLSA-F</td>
<td>1.40</td>
<td>-</td>
<td>1.29</td>
<td>2.19</td>
<td>RR 103</td>
</tr>
<tr>
<td>DLSB-M</td>
<td>1.62</td>
<td>0.94</td>
<td>-</td>
<td>2.26</td>
<td>RR 125</td>
</tr>
<tr>
<td>DLSB-F</td>
<td>1.62</td>
<td>-</td>
<td>1.32</td>
<td>2.28</td>
<td>RR 125</td>
</tr>
<tr>
<td>DLSC-M</td>
<td>2.37</td>
<td>0.78</td>
<td>-</td>
<td>1.95</td>
<td>RR 187</td>
</tr>
<tr>
<td>DLSC-F</td>
<td>2.38</td>
<td>-</td>
<td>1.17</td>
<td>1.85</td>
<td>RR 187</td>
</tr>
</tbody>
</table>

**NOTES:**
- *SPIROLOX RINGS: Stainless Steel.*

www.seaconworldwide.com
**WET-CON SERIES LPBH-MP**

**WET-CON Low Profile Bulkhead Connector Male Plug**
Mates with LPBH-FS & LPIL-FS

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**NOTES:**

1. LPBH-BC SHELL: CA 630 and Copper Contacts, Gold Plated.
2. O-RING: 2-014 Nitrile (formerly known as Buna N).
3. LPBH-3/4-MP: Neoprene Molding per B/A X-5727.
4. PIN: Copper Alloy and Gold Plated per MIL-G-45204.
5. #18 AWG TEFLO® (Registered trademark for DuPont) WIRE: 12 inches long.
7. HEX NUT (OPTIONAL): Brass.

- MOUNTING TORQUE: 40 inch lbs.
- PRESSURE RATING: 20,000 psi mated.

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**WET-CON SERIES LPBH-FS**

**WET-CON Low Profile Bulkhead Connector Female Socket**
Mates with LPBH-MP & LPIL-MP

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**NOTES:**

8. LPBH-BC SHELL: CA 630 and Copper Sockets, Gold Plated.
9. POTTING: White Epoxy per B/A 6373.
10. O-RING: 2-014 Nitrile (formerly known as Buna N).
11. MOLDED BODY: Neoprene Molding per B/A X-5727.
12. SOCKET: Copper Alloy 360 per QQ-B-626 or 61A; Gold Plated per MIL-G-45204, Type II, Grade C, Class I, with Flash Nickel Undercoat.
13. #18 AWG TEFLO® (Registered trademark for DuPont) WIRE: 12 inches long.

- MOUNTING TORQUE: 40 inch lbs.
- PRESSURE RATING: 20,000 psi mated.
**WET-CON SERIES**

**LPIL-MP**

WET-CON Low Profile In-Line Connector Male Plug
Mates with LPBH-FS & LPIL-FS

**NOTES:**
1 - PIN: CA 630 & Gold Plated per ASTM-B488-95.
2 - RUBBER MOLD: Neoprene Mold per B/A X-5727.
3 - CABLE: 16/3 SOW or 16/4 SOW.

- PRESSURE RATING: 20,000 psi mated.

**WIRE COLOR CODE**

<table>
<thead>
<tr>
<th>CONTACT NUMBER</th>
<th>COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BLACK</td>
</tr>
<tr>
<td>2</td>
<td>WHITE</td>
</tr>
<tr>
<td>3</td>
<td>RED</td>
</tr>
<tr>
<td>4</td>
<td>GREEN</td>
</tr>
</tbody>
</table>

**WET-CON SERIES**

**LPIL-FS**

WET-CON Low Profile In-Line Connector Female Socket
Mates with LPBH-MP & LPIL-MP

**NOTES:**
1 - SOCKET: CA 630 per MSBA-019.
2 - RUBBER MOLD: Neoprene per MSNBA-027.
3 - CABLE: 16/3 SOW or 16/4 SOW.

- PRESSURE RATING: 20,000 psi mated.
## WET-CON SERIES

### BH-MP/FS THROUGH BORE OPTION

**WET-CON** Bulkhead Connector Male Plug/Female Socket

![THROUGH BORE OPTION](image)

### BH-MP/FS THREADED MOUNTING OPTION

**WET-CON** Bulkhead Connector Male Plug/Female Socket

![THREADED MOUNTING OPTION](image)

<table>
<thead>
<tr>
<th>CONNECTOR</th>
<th>THREAD</th>
<th>BORE Ø (INCHES)</th>
<th>MOUNTING TORQUE (INCH POUNDS)</th>
<th>SPOT FACE Ø (INCHES)</th>
<th>A - MAX (INCHES)</th>
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</thead>
<tbody>
<tr>
<td>BH-MP/FS (2/3/4)</td>
<td>7/16-20 UNF-2B</td>
<td>0.437 +0.015 -0.000</td>
<td>50</td>
<td>1.00</td>
<td>0.44</td>
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<tr>
<td>BH-MP/FS (6/8/10/12)</td>
<td>5/8-18 UNF-2B</td>
<td>0.625 +0.015 -0.000</td>
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<td>0.44</td>
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<tr>
<td>BH-MP/FS (16)</td>
<td>3/4-16 UNF-2B</td>
<td>0.750 +0.015 -0.000</td>
<td>85</td>
<td>1.50</td>
<td>0.44</td>
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<tr>
<td>SIZE</td>
<td>WET-CON SERIES BULKHEAD/IN-LINE CONTACT CONFIGURATIONS (FEMALE FACE VIEW ONLY - NOT TO SCALE)*</td>
<td></td>
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<td><img src="image3.png" alt="Diagram" /></td>
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</table>

**NOTES:**

- * For male face view contact configurations please contact SEA CON®.

www.seaconworldwide.com
Micro WET-CON SERIES

UNDERWATER ELECTRICAL WET-MATE CONNECTORS
# Product News - Connector Enhancements

- **Introduction** ........................................................................................................ MWC 4
- **Availability** ........................................................................................................... MWC 4
- **Applications** ......................................................................................................... MWC 4
- **Special Assemblies** .............................................................................................. MWC 4

## Part Number System

- **General Information** ............................................................................................ MWC 5
- **Ampacity Chart for Standard Parts** ..................................................................... MWC 5
- **Standard Wiring Color Code** ................................................................................ MWC 5

## Dimension Details:

- **MC-BH-M (2 to 8 Contacts)** ............................................................................... MWC 6
- **MC-BH-F (2 to 8 Contacts)** ................................................................................ MWC 6
- **MC-BH-M (10 to 16 Contacts)** .......................................................................... MWC 7
- **MC-BH-F (10 to 16 Contacts)** .......................................................................... MWC 7
- **MC-BH-M-DO (2 to 8 Contacts)** ....................................................................... MWC 8
- **MC-BH-F-DO (2 to 8 Contacts)** ....................................................................... MWC 8
- **MC-BH-M-DO (10 to 16 Contacts)** ................................................................ MWC 9
- **MC-BH-F-DO (10 to 16 Contacts)** ................................................................ MWC 9
- **MC-IL-M (2 to 8 Contacts)** .............................................................................. MWC 10
- **MC-IL-F (2 to 8 Contacts)** .............................................................................. MWC 10
- **MC-IL-M (10 to 16 Contacts)** ....................................................................... MWC 11
- **MC-IL-F (10 to 16 Contacts)** ....................................................................... MWC 11
- **MC-DC-M (2 to 8 Contacts)** ........................................................................... MWC 12
- **MC-DC-F (2 to 8 Contacts)** ........................................................................... MWC 12
- **MC-DC-M (10 to 16 Contacts)** ............................................................... MWC 13
- **MC-DC-F (10 to 16 Contacts)** ............................................................... MWC 13
- **MC-DLS-M (2 to 8 Contacts)** ....................................................................... MWC 14
- **MC-DLS-F (2 to 8 Contacts)** ....................................................................... MWC 14
- **MC-DLS-M (10 to 16 Contacts)** ............................................................... MWC 14
- **MC-DLS-F (10 to 16 Contacts)** ............................................................... MWC 14

## Interface Details ........................................................................................................ MWC 15

## Contact Configurations .......................................................................................... MWC 16
PRODUCT NEWS

Micro WET-CON and Micro WET-CON SPLIT SERIES
CONNECTOR ENHANCEMENTS

INTRODUCTION
As part of our continuous improvement process the SEA CON® Group consistently reviews its product ranges through both customer feedback and internal improvements. It is via these processes that SEA CON® identified a design enhancement to the Micro WET-CON connector ranges. This new design improvement has now been implemented not only across this connector range, but also the new Micro WET-CON Split Series.

DESIGN FEATURES
The design change is associated with the Male Pin connectors only and has been introduced to improve and extend the life of the connectors by decreasing the stresses that are applied to the sealing interface between the male contact pin and the sealing rubber around the pin during the connectors mate and de-mate cycles.

The newly designed male contact has a "Lead in" as part of the contact pin itself which replaces the current rubber lead in. The introduction of the new pin removes any potential wear to the sealing interface between the male contact pin and the sealing rubber around the pin which may occur with many repeated make and breaks of the connector pairs. The new pin will maintain the full connector sealing properties and will provide a greater life expectancy of the connectors.

The incorporation of this design change to the Male Pin connectors will not affect the existing Female Socket connectors currently being used by SEA CON®’s customers and therefore full intermateability will be maintained. In addition, SEA CON® would also like to confirm that pricing will also not be affected.

TESTING
This new pin design concept has been fully tested and has been utilized in both the U-MATE and SEA-MATE connector ranges for a number of years.

MCAT ATTACHABLE Micro WETCON
Due to global demand to terminate standard rubber molded connectors onto specialized or customer furnished cable, SEA CON Global Production has introduced an MCAT version of the successful Micro WET-CON connector series.

This new connector can be terminated virtually anywhere eliminating the need for shipping bulky long lengths of cable. In addition the end user is able to produce a reduced length termination without the need for additional cable splices and have one continuous cable diameter for the total length of the cable.

The MCAT connector is fully inter-mateable with like configured Micro WET-CON inline and bulkhead connectors. For further information and for cable jacket materials that can be accommodated please contact SEA CON®.
INTRODUCTION
The Micro WET-CON connector series was developed to provide all the features of SEA CON’s ALL-WET connector series, but in a miniature, industry standard configuration. The small size offers the same flexibility and reliability as our rubber molded connectors, in a light-weight and user friendly model.

The Micro WET-CON series allows for smaller through ports in a pressure vessel and a greater density of conductors in a compact area. The smaller cables decrease the overall weight and drag of an ROV or other vessel. This connector range is wet-mateable and therefore enables connections to be made underwater, on-deck or in any weather condition.

AVAILABILITY
The Micro WET-CON series is a stocked item, which ensures quick delivery (in reasonable quantities) of standard configurations. Custom cable lengths are available upon request. Shorting plugs are available should you require the ability of looping together 'like' circuits for testing purposes within the dummy. Pin to pin shorting details need to be supplied at time of order placement.

MATERIALS
The Micro WET-CON is made from a proprietary grade Neoprene. The standard locking sleeves are Delrin® (DuPont trademark for Acetal Resin), which is lightweight, durable and user-friendly in the working environment (Brass and Stainless Steel are also available upon request).

APPLICATIONS
Possible applications include: underwater television and lights, diver communications, ROV systems, submersibles, towed-array cable systems, current meters, animal migration research and food processing equipment.

TESTING
The Micro WET-CON range has undergone complete Qualification testing including low pressure soak tests, full mate/de-mate and high pressure cycling to 10,000 psi.

SPECIAL ASSEMBLIES
SEA CON® maintains all facilities necessary to furnish complete underwater and environmental electrical connector/cable systems, including Research and Development, Engineering, Manufacturing, Quality Control and Pressure Testing.

As well as supplying our standard 'off-the-shelf' items, we have the capability to design and manufacture SPECIAL CUSTOMIZED CONNECTORS AND CABLE ASSEMBLIES to suit your individual needs.

SEA CON® also prides itself with the ability to perform stringent quality conformance testing procedures which are in accordance with the MIL-SPEC programs.

PART NUMBER SYSTEM - EXAMPLE

<table>
<thead>
<tr>
<th>M - Male Plug</th>
<th>I - IL (In-Line)</th>
<th>4 - Number of Contacts</th>
<th>S/S - Stainless Steel - Bulkheads Only (Standard is Brass)</th>
</tr>
</thead>
</table>

NOTES:
- For Locking Sleeves see page MWC 14.
GENERAL INFORMATION

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOLDED BODY</td>
<td>Neoprene</td>
</tr>
<tr>
<td>BULKHEAD BODY</td>
<td>Brass (CA #360)</td>
</tr>
<tr>
<td>CONTACTS</td>
<td>Brass-gold plated (CA #360)</td>
</tr>
<tr>
<td>GUIDE PINS</td>
<td>Stainless Steel (303 SS or 304 SS)</td>
</tr>
<tr>
<td>BULKHEAD N &amp; W</td>
<td>Brass (CA #360)</td>
</tr>
<tr>
<td>O-RING</td>
<td>Nitrile (formerly known as Buna N)</td>
</tr>
<tr>
<td>LOCKING SLEEVE</td>
<td>Delrin® (DuPont trademark for Acetal Resin)</td>
</tr>
<tr>
<td>IN-LINE CABLE</td>
<td>Neoprene, #18 AWG (SO Cable)</td>
</tr>
<tr>
<td>(2, 3 &amp; 4 PIN)</td>
<td>Neoprene, #20 AWG</td>
</tr>
<tr>
<td>(5, 6, 8, 10, 12 &amp; 16 PIN)</td>
<td>24 inches (60cm)</td>
</tr>
<tr>
<td>HOOK-UP WIRE (BC)</td>
<td>Teflon® (Registered trademark for DuPont), #20 AWG</td>
</tr>
<tr>
<td></td>
<td>Standard length 13 inches (33cm)</td>
</tr>
</tbody>
</table>

NOTES:
- Contact 9EA CON® for special order materials.
- Incorporation of special order cables will be determined on a case by case basis.
- Connectors are designed for installation on one atmosphere vessels. Contact 9EA CON® for recommendations if using compensated vessels.

AMPACITY CHART FOR STANDARD PARTS (18 & 20 AWG SO CABLE)

<table>
<thead>
<tr>
<th>PART DESCRIPTION NUMBER OF CONTACTS</th>
<th>AMPACITY</th>
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<tbody>
<tr>
<td>MCBHIL-2</td>
<td>10 amps</td>
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<tr>
<td>MCBHIL-3</td>
<td>6 amps</td>
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<tr>
<td>MCBHIL-4</td>
<td>3 amps</td>
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<tr>
<td>MCBHIL-5</td>
<td>3 amps</td>
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<tr>
<td>MCBHIL-6</td>
<td>3 amps</td>
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<td>MCBHIL-8</td>
<td>3 amps</td>
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<td>MCBHIL-10</td>
<td>2.5 amps</td>
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<tr>
<td>MCBHIL-12</td>
<td>2.5 amps</td>
</tr>
<tr>
<td>MCBHIL-16</td>
<td>2 amps</td>
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STANDARD IN-LINE WIRING COLOR CODE (SO CABLE)

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<th>CONTACT #</th>
<th>COLOR</th>
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<td>1</td>
<td>BLACK</td>
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<tr>
<td>2</td>
<td>WHITE</td>
</tr>
<tr>
<td>3</td>
<td>RED *</td>
</tr>
<tr>
<td>4</td>
<td>GREEN</td>
</tr>
<tr>
<td>5</td>
<td>ORANGE</td>
</tr>
<tr>
<td>6</td>
<td>BLUE</td>
</tr>
<tr>
<td>7</td>
<td>WHITE/BLACK</td>
</tr>
<tr>
<td>8</td>
<td>RED/BLACK</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CONTACT #</th>
<th>COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>GREEN/BLACK</td>
</tr>
<tr>
<td>10</td>
<td>ORANGE/BLACK</td>
</tr>
<tr>
<td>11</td>
<td>BLUE/BLACK</td>
</tr>
<tr>
<td>12</td>
<td>BLACK/WHITE</td>
</tr>
<tr>
<td>13</td>
<td>RED/WHITE</td>
</tr>
<tr>
<td>14</td>
<td>GREEN/WHITE</td>
</tr>
<tr>
<td>15</td>
<td>BLUE/WHITE</td>
</tr>
<tr>
<td>16</td>
<td>BLACK/RED</td>
</tr>
</tbody>
</table>

NOTE:
- * For 3 contact configurations wiring color code is GREEN.
**Micro WBT-CON SERIES**

**MC-BH-M**
(2 - 8 contacts)

Micro WBT-CON Bulkhead Connector Male Plug
Mates with MC-IL-F
Dummy Connector: MC-DC-F

**MC-BH-F**
(2 - 8 contacts)

Micro WBT-CON Bulkhead Connector Female Socket
Mates with MC-IL-M
Dummy Connector: MC-DC-M

**HEX NUT AND WASHER**
(2 - 8 contacts)

Micro WBT-CON Bulkhead Connector

---

**NOTES:**
- Hex Nut and Washer: Optional.
- O-Ring: 2-014.
- Dummy Connector: Optional.
- Dummy Shorting Plug Connector: Optional.
- Connectors must be lubricated prior to mating.
- Torque values referenced in this literature assume installation into dry metal threads. For other applications, please contact 9EA CON® for recommendations.
- Connectors are designed for installation on one atmosphere vessels. Contact 9EA CON® for recommendations if using compensated vessels.
**Micro WET-CON SERIES**

**MC-BH-M**
*(10 - 16 contacts)*

*Micro WET-CON Bulkhead Connector Male Plug*
Mates with MC-IL-F  
Dummy Connector: MC-DC-F

**MC-BH-F**
*(10 - 16 contacts)*

*Micro WET-CON Bulkhead Connector Female Socket*
Mates with MC-IL-M  
Dummy Connector: MC-DC-M

**HEX NUT AND WASHER**
*(10 - 16 contacts)*

*Micro WET-CON Bulkhead Connector*

**NOTES:**
- Bulkhead Locking Sleeve: Optional.
- Hex Nut and Washer: Optional.
- O-Ring: 0-015.
- Dummy Connector: Optional.
- Dummy Shorting Plug Connector: Optional.
- Connectors must be lubricated prior to mating.
- Torque values referenced in this literature assume installation into dry metal threads. For other applications, please contact **SEA CON**® for recommendations.
- Connectors are designed for installation on one atmosphere vessels. Contact **SEA CON**® for recommendations if using compensated vessels.

(STD - BRASS  
(Stainless Steel and others upon request)
**Micro WET-CON SERIES**

**MC-BH-M-DO (DOUBLE O-RING)**
(2 - 8 contacts)

*Micro WET-CON Bulkhead Connector Male Plug with Double O-Ring*
*Mates with MC-IL-F*
*Dummy Connector: MC-DC-F*

**MC-BH-F-DO (DOUBLE O-RING)**
(2 - 8 contacts)

*Micro WET-CON Bulkhead Connector Female Socket with Double O-Ring*
*Mates with MC-IL-M*
*Dummy Connector: MC-DC-M*

**NOTES:**
- Bulkhead Locking Sleeve: Optional.
- Hex Nut and Washer: Optional.
- Dummy Connector: Optional.
- Dummy Shorting Plug Connector: Optional. (Shorting plugs are available should you require the ability of looping together 'like' circuits for testing purposes within the dummy. Pin to pin shorting details need to be supplied at time of order placement).
- Connectors must be lubricated prior to mating.
- Torque values referenced in this literature assume installation into dry metal threads. For other applications, please contact SEACON® for recommendations.
- Connectors are designed for installation on one atmosphere vessels. Contact SEACON® for recommendations if using compensated vessels.

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>PART DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>MC-BH DOUBLE O-RING SHELL</td>
</tr>
<tr>
<td>B</td>
<td>NEOPRENE MOLDING</td>
</tr>
<tr>
<td>C</td>
<td>O-RING 2-012</td>
</tr>
<tr>
<td>D</td>
<td>O-RING 06-10525-1</td>
</tr>
<tr>
<td>E</td>
<td>WASHER</td>
</tr>
<tr>
<td>F</td>
<td>BULKHEAD LEADS</td>
</tr>
<tr>
<td>G</td>
<td>HEX NUT 7/16 - 20</td>
</tr>
</tbody>
</table>
**Micro WET-CON SERIES**

**MC-BH-M-DO (DOUBLE O-RING)**

(10 - 16 contacts)

Micro WET-CON Bulkhead Connector Male Plug with Double O-Ring

Mates with MC-IL-F

Dummy Connector: MC-DC-F

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---

**Micro WET-CON SERIES**

**MC-BH-F-DO (DOUBLE O-RING)**

(10 - 16 contacts)

Micro WET-CON Bulkhead Connector Female Socket with Double O-Ring

Mates with MC-IL-M

Dummy Connector: MC-DC-M

---

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**PART NUMBER** | **PART DESCRIPTION**
---|---
A | MC-BH DOUBLE O-RING SHELL
B | NEOPRENE MOLDING
C | O-RING 06-10583-1
D | O-RING 06-10437-1
E | WASHER
F | HEX NUT 1/2-20
G | BULKHEAD LEADS

**NOTES:**

- Bulkhead Locking Sleeve: Optional.
- Hex Nut and Washer: Optional.
- Dummy Connector: Optional.
- Dummy Shorting Plug Connector: Optional. (Shorting plugs are available should you require the ability of looping together 'like' circuits for testing purposes within the dummy. Pin to pin shorting details need to be supplied at time of order placement).
- Connectors must be lubricated prior to mating.
- Torque values referenced in this literature assume installation into dry metal threads. For other applications, please contact 96A CON® for recommendations.
- Connectors are designed for installation on one atmosphere vessels. Contact 96A CON® for recommendations if using compensated vessels.
**Micro WBT-CON SERIES**

**MC-IL-M**

*(2 - 8 contacts)*

**Micro WBT-CON In-Line Connector Male Plug**

Mates with MC-IL-F & MC-BH-F

Dummy Connector: MC-DC-F

**Micro WBT-CON SERIES**

**MC-IL-F**

*(2 - 8 contacts)*

**Micro WBT-CON In-Line Connector Female Socket**

Mates with MC-IL-M & MC-BH-M

Dummy Connector: MC-DC-M

**NOTES:**

- Locking Sleeve: Optional (see page MWC 14).
- Dummy Connector: Optional.
- Dummy Shorting Plug Connector: Optional. (Shorting plugs are available should you require the ability of looping together 'like' circuits for testing purposes within the dummy. Pin to pin shorting details need to be supplied at time of order placement).
- Connectors must be lubricated prior to mating.
- * Incorporation of special order cables will be determined on a case-by-case basis.
Micro W&T-CON SERIES
MC-IL-M
(10 - 16 contacts)
Micro W&T-CON In-Line Connector Male Plug
Mates with MC-IL-F & MC-BH-F
Dummy Connector: MC-DC-F

Micro W&T-CON SERIES
MC-IL-F
(10 - 16 contacts)
Micro W&T-CON In-Line Connector Female Socket
Mates with MC-IL-M & MC-BH-M
Dummy Connector: MC-DC-M

NOTES:
- Locking Sleeve: Optional (see page MWC 14).
- Dummy Connector: Optional.
- Dummy Shorting Plug Connector: Optional. (Shorting plugs are available should you require the ability of looping together 'like' circuits for testing purposes within the dummy. Pin to pin shorting details need to be supplied at time of order placement).
- Connectors must be lubricated prior to mating.
- * Incorporation of special order cables will be determined on a case-by-case basis.
Micro WBT-CON SERIES
MC-DC-M
(2 - 8 contacts)
Micro WBT-CON Dummy Connector Male Plug
Mates with MC-IL-F & MC-BH-F

NOTES:
· Locking Sleeve: Optional (see page MWC 14).
· Dummy Shorting Plug Connector: Optional. (Shorting plugs are available should you require the ability of looping together ‘like’ circuits for testing purposes within the dummy. Pin to pin shorting details need to be supplied at time of order placement).
· Connectors must be lubricated prior to mating.
Micro WBT-CON SERIES
MC-DC-M
(10 - 16 contacts)

Micro WBT-CON Dummy Connector Male Plug
Mates with MC-IL-F & MC-BH-F

NOTES:
- Locking Sleeve: Optional (see page MWC 14).
- Dummy Shorting Plug Connector: Optional. (Shorting plugs are available should you require the ability of looping together 'like' circuits for testing purposes within the dummy. Pin to pin shorting details need to be supplied at time of order placement).
- Connectors must be lubricated prior to mating.

Micro WBT-CON SERIES
MC-DC-F
(10 - 16 contacts)

Micro WBT-CON Dummy Connector Female Socket
Mates with MC-IL-M & MC-BH-M
**SERIES DIMENSION DETAILS**

**Micro WET-CON SERIES**

**MC-DLS-F**  
(2 - 8 contacts)  
**Micro WET-CON Dummy Locking Sleeve Female Socket**

**MC-DLS-M**  
(2 - 8 contacts)  
**Micro WET-CON Dummy Locking Sleeve Male Plug**

---

**Micro WET-CON SERIES**

**MC-DLS-F**  
(10 - 16 contacts)  
**Micro WET-CON Dummy Locking Sleeve Female Socket**

**MC-DLS-M**  
(10 - 16 contacts)  
**Micro WET-CON Dummy Locking Sleeve Male Plug**

---

**NOTES:**

- * Not required for 2 to 8 way Bulkhead connectors. For In-Lines only.
- Locking Sleeves: Delrin® (DuPont trademark for Acetal Resin).

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www.seaconworldwide.com - MWC 14 - REV VII SEACON®
**Micro WET-CON SERIES**  
**MC-BH-M/F**  
**THROUGH BORE OPTION**  
Micro WET-CON Bulkhead Connector Male/Female

**Micro WET-CON SERIES**  
**MC-BH-M/F**  
**THREADED MOUNTING OPTION**  
Micro WET-CON Bulkhead Connector Male/Female

---

### Connector Details

<table>
<thead>
<tr>
<th>Connector</th>
<th>Bore Ø (Inches)</th>
<th>Thread</th>
<th>Spot Face Ø (Inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC-BH (2-8)</td>
<td>0.437 ±0.015 -0.000</td>
<td>7/16-20 UNF-2B</td>
<td>0.88</td>
</tr>
<tr>
<td>MC-BH (10-16)</td>
<td>0.500 ±0.015 -0.000</td>
<td>1/2-20 UNF-2B</td>
<td>0.94</td>
</tr>
</tbody>
</table>

---

**Micro WET-CON SERIES**  
**MC-BH-M/F-DO (DOUBLE O-RING)**  
**THROUGH BORE OPTION**  
Micro WET-CON Bulkhead Connector Male/Female with Double O-Ring

**Micro WET-CON SERIES**  
**MC-BH-M/F-DO (DOUBLE O-RING)**  
**THREADED MOUNTING OPTION**  
Micro WET-CON Bulkhead Connector Male/Female with Double O-Ring

---

<table>
<thead>
<tr>
<th>Connector</th>
<th>A - Length (Inches)</th>
<th>B - Ø (Inches)</th>
<th>C - Ø (Inches)</th>
<th>D - Thread</th>
<th>E - Ø (Inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC-BH-DO (2-8)</td>
<td>0.425</td>
<td>0.475</td>
<td>0.88</td>
<td>7/16-20 UNF-2B</td>
<td>0.750 MIN</td>
</tr>
<tr>
<td>MC-BH-DO (10-16)</td>
<td>0.500</td>
<td>0.553</td>
<td>0.94</td>
<td>1/2-20 UNF-2B</td>
<td>1.000 MIN</td>
</tr>
</tbody>
</table>
### Micro WBT-CON SERIES CONTACT CONFIGURATIONS

<table>
<thead>
<tr>
<th>SIZE</th>
<th>Micro WBT-CON SERIES BULKHEAD/IN-LINE CONTACT CONFIGURATIONS (MALE FACE VIEW ONLY - NOT TO SCALE)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-8</td>
<td><img src="image" alt="Contact Configurations" /></td>
</tr>
<tr>
<td>10-16</td>
<td><img src="image" alt="Contact Configurations" /></td>
</tr>
</tbody>
</table>

**KEY**
- GUIDE PIN

**NOTES:**
- * For female face view contact configurations available please contact [SEA CON](http://www.seaconworldwide.com).
- ** Ethernet version available.

[www.seaconworldwide.com](http://www.seaconworldwide.com) - MWC 16 - REV VII [SEA CON](http://www.seaconworldwide.com)
Micro WET-CON SPLIT SERIES

UNDERWATER ELECTRICAL WET-MATE CONNECTORS
### Section Page

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wet-Con Split Series</strong></td>
<td></td>
</tr>
<tr>
<td>Introduction</td>
<td>MWC 19</td>
</tr>
<tr>
<td>Availability</td>
<td>MWC 19</td>
</tr>
<tr>
<td>Applications</td>
<td>MWC 19</td>
</tr>
<tr>
<td>Testing</td>
<td>MWC 19</td>
</tr>
<tr>
<td>Special Assemblies</td>
<td>MWC 19</td>
</tr>
<tr>
<td>Part Number System</td>
<td>MWC 19</td>
</tr>
<tr>
<td>General Information</td>
<td>MWC 19</td>
</tr>
<tr>
<td>In-Line Cable</td>
<td>MWC 19</td>
</tr>
<tr>
<td>Dimension Details:</td>
<td></td>
</tr>
<tr>
<td>MC-BH-F (6 Contacts)</td>
<td>MWC 20</td>
</tr>
<tr>
<td>MC-IL-M (6 Contacts)</td>
<td>MWC 20</td>
</tr>
<tr>
<td>MC-DLS-F (6 Contacts)</td>
<td>MWC 20</td>
</tr>
<tr>
<td>MC-BH-F (12 to 16 Contacts)</td>
<td>MWC 21</td>
</tr>
<tr>
<td>MC-IL-M (12 to 16 Contacts)</td>
<td>MWC 21</td>
</tr>
<tr>
<td>MC-DLS-F/M (12 to 16 Contacts)</td>
<td>MWC 21</td>
</tr>
<tr>
<td>Interface Details</td>
<td>MWC 22</td>
</tr>
<tr>
<td>Contact Configurations</td>
<td>MWC 23</td>
</tr>
</tbody>
</table>
**Micro WET-CON Split Series**

**Introduction**
Sea Con® has added a range of split connectors to its popular Micro WET-CON wet-mate series. This series of connectors was originally developed to provide all the features of the ALL-WET connector range, but in a miniature industry standard configuration. The split connector range prevents costly 'Y' assemblies and allows ease of replacement of break-outs by the customer. This smaller connector series offers the same flexibility and reliability as Sea Con®'s standard rubber molded connectors, in a lightweight and user-friendly model.

**Availability**
The Micro WET-CON Split series is currently available in six different configurations ranging from 6 to 16 contacts rated up to 600 VDC (dependent on cable) with a mated pressure rating of 10,000 psi.

**Applications**
Applications include underwater television and lights, diver communications, ROV systems, submersibles, towed-array cable systems, current meters, animal migration research and food processing equipment.

**Part Number System - Example**

<table>
<thead>
<tr>
<th>MC</th>
<th>IL</th>
<th>3/6</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>M - Male Plug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F - Female Socket</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Number of Contacts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Contacts Per Sector</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IL - In-Line</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BH - Bulkhead</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC - Dummy Connector</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Micro WET-CON Split Series</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Testing**
The Micro WET-CON Split range has undergone complete Qualification testing including low pressure soak tests, full mate/demate and high pressure cycling to 10,000 psi.

**Special Assemblies**
Sea Con® maintains all facilities necessary to furnish complete underwater and environmental electrical connector/cable systems, including Research and Development, Engineering, Manufacturing, Quality Control and Pressure Testing.

As well as supplying our standard 'off-the-shelf' items, we have the capability to design and manufacture SPECIAL CUSTOMIZED CONNECTORS AND CABLE ASSEMBLIES to suit your individual needs.

Sea Con® also prides itself with the ability to perform stringent quality conformance testing procedures which are in accordance with the MIL-SPEC programs.

**General Information**

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molded Body</td>
<td>Neoprene</td>
</tr>
<tr>
<td>Bulkhead Body</td>
<td>Brass (CA #360)</td>
</tr>
<tr>
<td>Contacts</td>
<td>Brass-gold plated</td>
</tr>
<tr>
<td>Bulkhead N &amp; W</td>
<td>Brass (CA #360)</td>
</tr>
<tr>
<td>O-Ring</td>
<td>Nitrile (formerly known as Buna N)</td>
</tr>
<tr>
<td>Locking Sleeve</td>
<td>Delrin® (DuPont trademark for Acetal Resin)</td>
</tr>
<tr>
<td>Hook-Up Wire</td>
<td>Teflon® (Registered trademark for DuPont), #20 AWG</td>
</tr>
</tbody>
</table>

**In-Line Cable**

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Face Pressure</td>
<td>Up to 10,000 psi (700 bar) optional and needs to be specified</td>
</tr>
<tr>
<td>Mated Pressure</td>
<td>Up to 10,000 psi (700 bar)</td>
</tr>
<tr>
<td>Voltage Rating</td>
<td>Up to 600 VDC (dependent on cable)</td>
</tr>
<tr>
<td>Current Rating</td>
<td>Up to 19 amps per contact*</td>
</tr>
<tr>
<td>Insulation Resistance</td>
<td>&gt;200 megohms @ 300 VDC</td>
</tr>
<tr>
<td>Contact Resistance</td>
<td>&lt;0.01 ohms</td>
</tr>
<tr>
<td>Air Mate</td>
<td>&gt;1,000 cycles</td>
</tr>
<tr>
<td>Underwater Mate</td>
<td>&gt;500</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>25° to 140°F (-4° to 60°C)</td>
</tr>
<tr>
<td>Mounting Torque</td>
<td>50 in-lb In dry stainless 1/2&quot; long Female threads</td>
</tr>
</tbody>
</table>

**Notes:**
- * Maximum carrying capacity for contacts may be affected by cable selection.
- * Connectors are designed for installation on one atmosphere vessels. Contact Sea Con® for recommendations if using compensated vessels.

www.seaconworldwide.com
Micro WET-CON SPLIT SERIES
MC-BH-F
(6 contacts)
Micro WET-CON Split Bulkhead Connector Female Socket

NOTE:
· O-RING SIZE: 2-014

Micro WET-CON SPLIT SERIES
MC-IL-M
(6 contacts)
Micro WET-CON Split In-Line Connector Male Plug

OPTIONAL PARTS

Micro WET-CON SPLIT SERIES
MC-DLS-F
(6 contacts)
Micro WET-CON Split Dummy Locking Sleeve Female Socket

Micro WET-CON SPLIT SERIES
HEX NUT AND WASHER
(6 contacts)
Micro WET-CON Split Bulkhead Connector

NOTE:
· For interface details please contact SEA CON®.

STD - BRASS
(Stainless Steel and others upon request)
**Micro WET-CON SPLIT SERIES**

**MC-BH-F**
(12 - 16 contacts)

*Micro WET-CON Split Bulkhead Connector Female Socket*

---

**Micro WET-CON SPLIT SERIES**

**MC-IL-M**
(12 - 16 contacts)

*Micro WET-CON Split In-Line Connector Male Plug*

---

**OPTIONAL PARTS**

**Micro WET-CON SPLIT SERIES**

**MC-DLSA-F/M**
(12 - 16 contacts)

*Micro WET-CON Split Dummy Locking Sleeve Female Socket/Male Plug*

**Micro WET-CON SPLIT SERIES**

**HEX NUT AND WASHER**
(12 - 16 contacts)

*Micro WET-CON Split Bulkhead Connector*

**NOTES:**
- For interface details please contact **SEA CON®**.

**STD - BRASS**
(Stainless Steel and others upon request)

---

*Image and dimensions*
SERIES INTERFACE DETAILS

Micro WBT-CON Split SERIES
MC-BH *
(6 contacts)
THROUGH BORE OPTION
Micro WBT-CON Bulkhead Connector

NOTES:
· * This option requires the 7/16 Hex Nut, Washer and MIN Ø0.88 clearance on low pressure side of wall.
· ** This option requires the 7/16 Hex Nut, Washer and MIN Ø0.94 clearance on low pressure side of wall.

Micro WBT-CON Split SERIES
MC-BH
(6 contacts)
THREADED MOUNTING OPTION
Micro WBT-CON Bulkhead Connector

Micro WBT-CON Split SERIES
MC-BH **
(12 - 16 contacts)
THROUGH BORE OPTION
Micro WBT-CON Bulkhead Connector

Micro WBT-CON Split SERIES
MC-BH
(12 - 16 contacts)
THREADED MOUNTING OPTION
Micro WBT-CON Bulkhead Connector
<table>
<thead>
<tr>
<th>SIZE</th>
<th>Micro WET-CON® SPLIT CONTACT CONFIGURATIONS (FEMALE FACE VIEW ONLY - NOT TO SCALE)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td><img src="#" alt="Diagram" /> MC-BH-2/6-FS SPLIT  <img src="#" alt="Diagram" /> MC-BH-3/6-FS SPLIT</td>
</tr>
</tbody>
</table>

**NOTES:**
- * For male face view contact configurations available please contact **SEA CON®**.

[www.seaconworldwide.com](http://www.seaconworldwide.com) - MWC 23 - REV VII **SEA CON®**
Handling Procedures and Special Capabilities

Even though these procedures appear simple, only qualified technicians should perform the installation and maintenance.

Connectors are designed for installation on one atmosphere vessels. Contact SEA CON® for recommendations if using compensated vessels.

Installation Procedures

Torque values referenced in this literature assume installation into dry metal threads. For other applications, please contact SEA CON® for recommendations.

Bulkhead Connector (BC): The BC may be installed using one of two methods. The preferred method is to spotface the bulkhead surface and thread the hole, then screw the connector by means of a nut and washer. The bored hole (threaded hole) should be free of any "burs" and all o-ring sealing surfaces polished to a number 32 finish. Lubricate the BC o-ring with an appropriate silicone spray or grease before installing. This lubrication should be applied to form an adequate film. Excessive lubrication is detrimental to the operation of the connector. Bulkhead nut, if used, should not be over-torqued.

IN-LINE CONNECTOR: Lubricate the sealing areas around the male pins, using an appropriate silicone spray, or grease lightly.

Care and Maintenance

The WETCON and Micro WET-CON connectors require very little maintenance. They are designed to be used in harsh environments and thus limited amounts of dirt and grit do not affect their performance.

It is recommended that, upon disconnecting or retrieving the system, the connectors be cleaned, to storage (if possible, remate with dummy plugs). Prior to deployment the following maintenance procedure is recommended:

1. Demate the connector set.
2. Flush connector interface with fresh water (deionized water if available), remove all dirt, grit and grease.
3. Inspect for damage in sealing areas, excessive corrosion, debonding of the cable and connector interface and cuts in the cable jacket.
4. Apply thin film of dielectric compound (DC) grease, silicon based, to sealing areas of male connector and across the face of the female connector*.
5. Mate the connector halves, wipe away any excess grease off the interface line of the mated set.

* CAUTION: The use of some oil-based propellants in spray cans can cause conductivity problems in neoprene.

Cable and Continuity Preservation

Avoid sharp bends in cables. Cables subjected to vibration or exposed to seawater drag should be adequately clamped to prevent conductor fatigue and ultimate failure.