Dry-mate and wet-mate Burton™ subsea connectors

Subsea connectors and cable assemblies
Commercial and military subsea connectors and cable assemblies

Eaton’s 40-year track record of uncompromised reliability in subsea-connectivity applications includes Burton™ standard and custom solutions. This extensive commercial and military program heritage includes:

- Remotely and autonomously operated vehicles and oceanographic-research instrumentation.
- Submarine launch-tube control and secondary propulsion, motor-control cable assemblies.
- Mine-hunting sonar, tether-cable assemblies.

Micro-Wet-Mate MCBH & MCIL Solutions

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Heritage-proven technologies accelerate custom-solution development

Eaton combines Burton™ standard-product technologies with advanced engineering tools and an extensive array of manufacturing resources to quickly deliver custom connectors and cable assemblies. Custom-solution capabilities include:

- Application-specific shells, insert arrangements and EMI/RFI filtering and shielding for high currents and voltages, high-speed data, radio frequency and acoustic-signal applications.
- Harsh environments including extreme temperatures, shock, vibration, radiation, corrosive media, and pressures.
- Mechanical tow, fluid and gas delivery, and connector/cable separation and release.

This page describes just a few of the hundreds of custom solutions that comprise Eaton’s 40-year track record of uncompromised reliability. Please contact Eaton to discuss your application-specific requirements.

Eaton developed custom shells and insert arrangements for this submarine control-cable application. NAVSEA S9320-AM-PRO-020 certified overmolding using clear polyurethane facilitates inspection of wiring terminations.

These custom connectors feature application-specific shells and inserts that support blind mating and staged engagements of signal, power and ground contacts.

Custom penetrators are available to meet a broad array of mounting, environmental, voltage and current requirements.

In addition to overmolded cables, quick-turn deliveries of bulkhead mounted and Pressure Balanced Oil Filled (PBOF) cable assemblies for Ethernet, signal and power applications are facilitated by Eaton’s broad range of wet and dry mate, standard products.
Micro-wet-mate connectors and cable assemblies

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

<table>
<thead>
<tr>
<th>Shell Diameter</th>
<th>Number of Contacts</th>
<th>Max. Current</th>
<th>Max. Voltage</th>
<th>Dielectric Withstand</th>
<th>Inline Wire Sizes</th>
<th>Bulkhead Wire Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.61” (15.5mm)</td>
<td>3</td>
<td>7A</td>
<td>600V</td>
<td>&lt;10uA @ 2000VDC</td>
<td>18AWG</td>
<td>20AWG</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>7A</td>
<td>600V</td>
<td>&lt;10uA @ 2000VDC</td>
<td>18AWG</td>
<td>20AWG</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>3.5A</td>
<td>300V</td>
<td>&lt;10uA @ 1500VDC</td>
<td>20AWG</td>
<td>22AWG</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>3.5A</td>
<td>300V</td>
<td>&lt;10uA @ 1500VDC</td>
<td>20AWG</td>
<td>22AWG</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>3.5A</td>
<td>300V</td>
<td>&lt;10uA @ 1500VDC</td>
<td>20AWG</td>
<td>22AWG</td>
</tr>
<tr>
<td>0.98” (25.4mm)</td>
<td>10</td>
<td>3A</td>
<td>300V</td>
<td>&lt;10uA @ 1500VDC</td>
<td>20AWG</td>
<td>22AWG</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>2.5A</td>
<td>300V</td>
<td>&lt;10uA @ 1500VDC</td>
<td>20AWG</td>
<td>22AWG</td>
</tr>
</tbody>
</table>

Miniaturized solutions available with seven industry-standard contact arrangements

- Gold plated, radiused pins resist corrosion and reduce mating forces
- Radiused pin shoulders protect insulators from fraying
- Reinforced neck resists damage during off-axis demating
- Bulkhead connectors available in brass, stainless steel, aluminum, titanium and customer-defined materials

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

Color coded leads simplify conductor tracing
**High-contact-density power, signal and Ethernet solutions**

Eaton’s comprehensive range of micro-wet-mate subsea solutions includes locking sleeves, dummy plugs and quick turn, custom-cable assemblies. Contact Eaton to discuss pressure balanced oil filled, wet-mate connectors.

---

**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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open face pressure</td>
<td>10,000 PSI</td>
</tr>
<tr>
<td>Mated pressure</td>
<td>10,000 PSI</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-4°C to 60°C, 25°F to 140°F</td>
</tr>
<tr>
<td>Mating cycles</td>
<td>1000</td>
</tr>
</tbody>
</table>
| Hi-pot voltage | 3 and 4 Contacts: 2000VDC  
5 to 16 Contacts: 1500VDC |
| Insulation resistance | > 200 Megaohms @ 1000 VDC |

**Rugged designs survive 1,000 mating cycles & 10,000 PSI open faced pressures**
Part number configuration – micro-wet-mate subsea connectors

**Burton™ Micro-Wet-Mate Connector**

**Type**

- **BH** Bulkhead connector
- **DC** Dummy connector
- **IL** Inline connector with overmolded cable

<table>
<thead>
<tr>
<th>Type</th>
<th>Shell Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>BH</td>
<td>Bulkhead connector</td>
</tr>
<tr>
<td>DC</td>
<td>Dummy connector</td>
</tr>
<tr>
<td>IL</td>
<td>Inline connector</td>
</tr>
</tbody>
</table>

**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

**Contact Eaton to Discuss Your Ethernet Requirements**

**Configuration**

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Bulkhead Materials</th>
<th>Cable Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dummy Plugs</td>
<td>Leave Blank</td>
<td>Leave Blank</td>
</tr>
<tr>
<td>Bulkhead Receptacles</td>
<td>Select from Table Below</td>
<td>Standard: 001 (1 foot length)</td>
</tr>
<tr>
<td>In-Line</td>
<td>Enter a Zero</td>
<td>Standard: 002 (2 feet length)</td>
</tr>
</tbody>
</table>

**Bulkhead Materials**

- **B** Brass
- **A** Aluminum
- **S** Stainless steel
- **T** Titanium

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

EATON Subsea Connectors
Mechanical drawings – micro-wet-mate subsea connectors

Shell size M bulkhead connectors

Shell size A bulkhead connectors

Inline connectors

<table>
<thead>
<tr>
<th>Shell Size M</th>
<th>Shell Size A</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1.32&quot; (33.4mm)</td>
</tr>
<tr>
<td></td>
<td>1.99&quot; (50.5mm)</td>
</tr>
<tr>
<td>B</td>
<td>1.55&quot; (39.4mm)</td>
</tr>
<tr>
<td></td>
<td>2.37&quot; (60.2mm)</td>
</tr>
<tr>
<td>ØC</td>
<td>0.61&quot; (15.5mm)</td>
</tr>
<tr>
<td></td>
<td>0.98&quot; (25.4mm)</td>
</tr>
</tbody>
</table>
Mechanical drawings – micro-wet-mate locking sleeves

Shell size M (3 to 8 contacts) locking sleeves

B-MCDLSF
Used with connectors with socket contacts

B-MCDLSM
Used with connectors with pin contacts

Shell size A (10 and 16 contacts) locking sleeves

B-DLSAF
Used with connectors with socket contacts

B-DLSAM
Used with connectors with pin contacts
Installation instructions – micro-wet-mate subsea connectors

Greasing and Mating

Above Water Mating

Apply a silicone grease, such as Molykote 44 Medium, to approximately 10% 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.

Submerged Mating in Depths Less Than Three Meters

Apply a silicone grease, such as Molykote 44 Medium, to approximately 30% of the depth of the female contact socket cavities.

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

<table>
<thead>
<tr>
<th>Contact #</th>
<th>Wire Color</th>
<th>Contact #</th>
<th>Wire Color</th>
<th>Contact #</th>
<th>Wire Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Black</td>
<td>7</td>
<td>White &amp; Black</td>
<td>13</td>
<td>Red &amp; White</td>
</tr>
<tr>
<td>2</td>
<td>White</td>
<td>8</td>
<td>Red &amp; Black</td>
<td>14</td>
<td>Green &amp; White</td>
</tr>
<tr>
<td>3*</td>
<td>Red</td>
<td>9</td>
<td>Green &amp; Black</td>
<td>15</td>
<td>Blue &amp; White</td>
</tr>
<tr>
<td>4</td>
<td>Green</td>
<td>10</td>
<td>Orange &amp; Black</td>
<td>16</td>
<td>Black &amp; Red</td>
</tr>
<tr>
<td>5</td>
<td>Orange</td>
<td>11</td>
<td>Blue &amp; Black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Blue</td>
<td>12</td>
<td>Black &amp; White</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Three-pin connectors utilize a green wire on pin #3.
Eaton’s high contact density, shell size 9 and 12 dry-mate connectors are available with 6, 8, and 14 contacts; custom contact arrangements are also available. Additional features include:

- 10,000 PSI open-faced pressure ratings
- Gold plated, copper-alloy contacts
- Standard 600-volt dielectric ratings
- Cable assemblies available in overmolded and Pressure Balanced Oil Filled (PBOF) configurations.
- Contact Eaton to discuss solutions for Ethernet and high-voltage applications.

**Materials and Finishes**

<table>
<thead>
<tr>
<th>Contacts / Inserts</th>
<th>Gold plated, copper alloy / Proprietary neoprene compounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shells and coupling rings</td>
<td>Passivated 316 stainless steel, other materials available upon request</td>
</tr>
<tr>
<td>Overmold</td>
<td>Neoprene, other materials available upon request</td>
</tr>
<tr>
<td>Cable / Pigtails</td>
<td>UL SOW-A or MIL-C-915 / NEMA HP3, SAE-AS22759</td>
</tr>
</tbody>
</table>

**Performance and Environmental**

<table>
<thead>
<tr>
<th>Pressure rating</th>
<th>10,000 PSI open faced pressure rating, standard, Contact Eaton to discuss application-specific pressure requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mating cycles</td>
<td>Rated for 500 mate/demate cycles</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>-40 to 90°C, -40 to 194°F</td>
</tr>
<tr>
<td>Operating voltage ratings</td>
<td>600V standard; contact Eaton to discuss high-voltage configurations</td>
</tr>
</tbody>
</table>

**High-contact-density solutions for subsea Ethernet, signal and power applications**

- Compared to shell size 20 connectors, shell sizes 9 and 12 provide space savings of 58% and 40%, respectively.
- Integrally-molded interfacial seals eliminate failures caused by O-ring loss or damage.
- Passivated 316 stainless steel shells and coupling rings. Titanium, Monel, and other materials available upon request.
- 10,000 PSI open-faced pressure ratings.
- Quick-turn, custom-cable capabilities include Pressure Balanced Oil Filled (PBOF) solutions.
Part number configuration – micro-dry-mate subsea connectors

Ordering information - Part numbering system

<table>
<thead>
<tr>
<th>Type</th>
<th>Configuration</th>
<th>Solution Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factory overmolded cables</td>
<td>In-line plugs</td>
<td>01</td>
</tr>
<tr>
<td></td>
<td>In-line receptacles</td>
<td>02</td>
</tr>
<tr>
<td></td>
<td>Right-angle plugs</td>
<td>R1</td>
</tr>
<tr>
<td>Flange/bulkhead receptacles</td>
<td>Flange-mount</td>
<td>06</td>
</tr>
<tr>
<td></td>
<td>Bulkhead mount</td>
<td>07</td>
</tr>
<tr>
<td>Dummy plugs and receptacles</td>
<td>Specify 01 or 02 code with “0000” cable length</td>
<td></td>
</tr>
</tbody>
</table>

Contact arrangements

Face view of pin connectors shown, shell/contact arrangement designators are followed by contact sizes and suggested wire gauges

- **0906**
  - 6 X 0.040” contacts
  - #20 AWG wires

- **0908**
  - 8 X 0.040” contacts
  - #20 AWG wires

- **1208**
  - 8 X 1/16” contacts
  - #18 AWG wires

- **1214**
  - 14 X 0.040” contacts
  - #20 AWG wires

Gigabit Ethernet solutions include custom cable lengths and shielding configurations

EATON Subsea Connectors
Mechanical drawings – micro-dry-mate subsea connectors

Dimensions are stated as shell size 9 / shell size 12

<table>
<thead>
<tr>
<th>Thread Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shell</strong></td>
</tr>
<tr>
<td>09</td>
</tr>
<tr>
<td>12</td>
</tr>
</tbody>
</table>
Dimensions are stated as shell size 9 / shell size 12

Flange-Mount Receptacles

Shell Size 9 Pressure Balanced Oil Filled

Shell Size 12 Pressure Balanced Oil Filled
Dry-mate subsea connectors – shell sizes 15 to 48

Eaton’s subsea solutions include Burton™ dry-mate connectors in shell sizes 15 to 48. These 10,000 PSI-rated interconnects have been field proven for over 40 years and feature integrally molded interfacial seals that, unlike O-rings, cannot fall off.

Additional harsh-environment design features include:

- Stub ACME threads (size 16 and larger shells) provide protection against cross threading and damage.
- Factory-overmolded solutions feature crimped contacts that are more resistant to damage from flexing than soldered terminals.
- High-temperature overmolding is performed under several thousand pounds of pressure to ensure a robust bond that eliminates water intrusion.

Eaton offers a broad range of custom solutions. This cable assembly features NAVSEA-PRO-20 certified polyurethane overmolding, shielded twisted pairs, and a 1000V rating.

<table>
<thead>
<tr>
<th>Dry-Mate Connectors Overview - Shell Sizes 15 to 48</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plug configurations</strong></td>
</tr>
<tr>
<td>• In-line and right angle, factory-overmolded cable assemblies</td>
</tr>
<tr>
<td>• Pressure Balanced Oil Filled (PBOF), shell sizes 15 to 32</td>
</tr>
<tr>
<td>• Attachable, in-line solutions for customer overmolding</td>
</tr>
<tr>
<td><strong>Receptacle configurations</strong></td>
</tr>
<tr>
<td>• Square flange and bulkhead-mount configurations</td>
</tr>
<tr>
<td>• Attachable, in-line solutions for customer overmolding</td>
</tr>
<tr>
<td><strong>Contacts and terminations</strong></td>
</tr>
<tr>
<td>• Pins in receptacles, sockets in plugs (5500 connectors)</td>
</tr>
<tr>
<td>• Pins in plugs, sockets in receptacles (6600 connectors)</td>
</tr>
<tr>
<td>• Factory-overmolded solutions utilize crimped terminations, attachable and PBOF connectors utilize soldered terminations</td>
</tr>
<tr>
<td><strong>Ethernet solutions</strong></td>
</tr>
<tr>
<td>• Standard Ethernet/power and pure Ethernet cables in shell sizes 15 and 20 rated for 1 Gb/sec. up to 75 meters cable length</td>
</tr>
<tr>
<td>• Contact Eaton to discuss application-specific Ethernet solutions in other shell sizes</td>
</tr>
</tbody>
</table>

End-to-end solutions include factory overmolded and Pressure Balanced Oil Filled (PBOF) cable assemblies for Ethernet, signal, power and hybrid applications.

The overmolded solution depicted to the left features abrasion-resistant jacketing and anti-capillary water blocking.
Solutions include Ethernet and high-voltage cable assemblies

**Materials and Finishes**

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contacts</td>
<td>Gold plated, copper alloy</td>
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<tr>
<td>Inserts</td>
<td>Proprietary neoprene compounds</td>
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<td>Shells and coupling rings</td>
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</tr>
<tr>
<td>Overmold</td>
<td>Neoprene, other materials available upon request</td>
</tr>
<tr>
<td>Cable</td>
<td>UL SOW-A or MIL-C-915</td>
</tr>
<tr>
<td>Pigtails</td>
<td>MIL-W-16878</td>
</tr>
</tbody>
</table>

**Performance and Environmental**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure rating</td>
<td>10,000 PSI open faced pressure rating standard. Contact Eaton to discuss application-specific pressure requirements</td>
</tr>
<tr>
<td>Mating cycles</td>
<td>Rated for 500 mate/demate cycles</td>
</tr>
<tr>
<td>Operating-temperature range</td>
<td>- 40 to 90˚C, - 40 to 194˚F</td>
</tr>
<tr>
<td>Operating-voltage ratings</td>
<td>• 600V ratings standard on all contact arrangements</td>
</tr>
<tr>
<td></td>
<td>• 1000V to 5000V ratings available on selected contact arrangements. Please refer to page 21 for additional information</td>
</tr>
</tbody>
</table>

Eaton offers the industry’s broadest range of dry-mate solutions with integrally-molded interfacial seals; eliminating failures caused by O-ring loss or damage.
Ordering information – Ethernet and 600V-rated subsea solutions

**Ordering information - Part numbering system**

55 01 – 2420 – 0004

- **Solution code (tables below)**
- **Shell size and contact arrangements designator (drawings on pages 17 - 20)**
- **Cable or pigtail length (feet)**
  - Leave blank when ordering attachable connectors
  - See tables below for Ethernet and PBOF codes

<table>
<thead>
<tr>
<th>Type</th>
<th>Configuration</th>
<th>Solution Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factory overmolded cables</td>
<td>In-line plugs</td>
<td>01</td>
</tr>
<tr>
<td></td>
<td>In-line receptacles</td>
<td>02</td>
</tr>
<tr>
<td></td>
<td>Right-angle plugs</td>
<td>R1</td>
</tr>
<tr>
<td></td>
<td>Right-angle receptacles</td>
<td>R2</td>
</tr>
<tr>
<td>Flange/bulkhead receptacles</td>
<td>Flange mount</td>
<td>06</td>
</tr>
<tr>
<td></td>
<td>Bulkhead mount</td>
<td>07</td>
</tr>
<tr>
<td>Dumb plugs and receptacles</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specify 01 or 02 code with &quot;0000&quot; cable length</td>
<td></td>
</tr>
</tbody>
</table>

**Ethernet / Power Configurations**

<table>
<thead>
<tr>
<th>Connector Style</th>
<th>Shell Size</th>
<th>Number Contacts</th>
<th>Part Numbers (XXX = Cable Length)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethernet and power</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bulkhead receptacles</td>
<td>20</td>
<td>13</td>
<td>5507-2013-EXXX</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>21</td>
<td>5507-2021-EXXX</td>
</tr>
<tr>
<td>Flange mount receptacles</td>
<td>20</td>
<td>13</td>
<td>5506-2013-EXXX</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>21</td>
<td>5506-2021-EXXX</td>
</tr>
<tr>
<td>Ethernet only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bulkhead receptacles</td>
<td>15</td>
<td>8</td>
<td>5507-1508-EXXX</td>
</tr>
<tr>
<td>Flange mount receptacles</td>
<td>15</td>
<td>8</td>
<td>5506-1508-EXXX</td>
</tr>
<tr>
<td>Single ended plug/cable</td>
<td>15</td>
<td>8</td>
<td>5501-1508-EXXX</td>
</tr>
</tbody>
</table>

Contact Eaton to discuss application-specific Ethernet solutions including double-ended cables.

Eaton’s overmolding capabilities include neoprene, polyurethane and NAVSEA-PRO-20
Contact arrangements – dry-mate 5500 subsea connectors

Face view of pin connectors shown, insert arrangement designators are followed by contact sizes and suggested wire gauges.

1. **1503**
   - 2 X 3/32” contacts
   - #16 AWG wires

2. **1504**
   - 4 X 1/16” contacts
   - #18 AWG wires

3. **1506**
   - 6 X 1/16” contacts
   - #18 AWG wires

4. **1508**
   - 8 X 1/16” contacts
   - #18 AWG wires

5. **1603**
   - 3 X 3/32” contacts
   - #16 AWG wires

6. **1604**
   - 4 X 1/16” contacts
   - #18 AWG wires

7. **1606**
   - 6 X 1/16” contacts
   - #18 AWG wires

8. **1608**
   - 8 X 1/16” contacts
   - #18 AWG wires

9. **1610**
   - 10 X 1/16” contacts
   - #18 AWG wires

10. **2003**
    - 3 X 1/8” contacts
    - #16 AWG wires

11. **2004**
    - 4 X 1/8” contacts
    - #16 AWG wires

12. **2006**
    - 6 X 1/8” contacts
    - #16 AWG wires

13. **2008**
    - 8 X 3/32” contacts
    - #16 AWG wires

14. **20A8**
    - 8 X 3/32” contacts
    - #16 AWG wires

15. **20B3**
    - 3 X 1/8” contacts
    - #16 AWG wires

16. **2013**
    - 13 X 1/16” contacts
    - #18 AWG wires

17. **2021**
    - 21 X 1/16” contacts
    - #18 AWG wires
Contact arrangements – dry-mate 5500 subsea connectors

Face view of pin connectors shown, insert arrangement designators are followed by contact sizes and suggested wire gauges.

- **2403**: 3 X 3/32” contacts #16 AWG wires
- **2410**: 8 X 1/8” contacts #16 AWG wires
- **2412**: 12 X 3/32” contacts #16 AWG wires
- **2420**: 20 X 1/16” contacts #16 AWG wires
- **3203**: 3 X 3/16” contacts #8 AWG wires
- **3204**: 4 X 3/16” contacts #8 AWG wires
- **3208**: 4 X 3/32” contacts #16 & #8 AWG wires
- **3210**: 10 X 5/32” contacts #16 AWG wires
- **3212**: 12 X 5/32” contacts #16 AWG wires
- **3216**: 11 X 3/32” contacts #16 AWG wires
- **3221**: 9 X 3/32” contacts #16 AWG wires
- **3224**: 18 X 3/32” contacts #16 AWG wires
- **3239**: 39 X 1/16” contacts #18 AWG wires
Contact arrangements – dry-mate 6600 subsea connectors

Face view of pin connectors shown, insert arrangement designators are followed by contact sizes and suggested wire gauges.

- 1603: 3 X 3/32” contacts
  - #16 AWG wires

- 1604: 4 X 1/16” contacts
  - #18 AWG wires

- 1606: 6 X 1/16” contacts
  - #18 AWG wires

- 1608: 8 X 1/16” contacts
  - #18 AWG wires

- 2003: 3 X 1/8” contacts
  - #16 AWG wires

- 2004: 2 X 1/8” contacts
  - #16 AWG wires
  - 2 X 5/32 contact

- 2006: 6 X 1/16” contacts
  - #18 AWG wires

- 2008: 8 X 1/16” contacts
  - #18 AWG wires

- 2013: 13 X 1/16” contacts
  - #18 AWG wires

- 2403: 3 X 3/32” contacts
  - #16 AWG wires

- 2404: 4 X 5/32” contacts
  - #12 AWG wires

- 2406: 4 X 1/8” contacts
  - #16 AWG wires
  - 2 X 5/32” contacts

- 2408: 2 X 3/32” contacts
  - #16 AWG wires
  - 6 X 1/8” contacts

- 2410: 10 X 3/32” contacts
  - #16 AWG wires

- 2412: 12 X 3/32” contacts
  - #16 AWG wires

- 2420: 20 X 1/16” contacts
  - #18 AWG wires
Contact arrangements – dry-mate 6600 subsea connectors

Face view of pin connectors shown, insert arrangement designators are followed by contact sizes and suggested wire gauges

- **3203**
  - 3 X 3/16" contacts
  - #8 AWG wires

- **3204**
  - 4 X 3/16" contacts
  - #8 AWG wires

- **3208**
  - 4 X 3/32" contacts
  - #16 & #8 AWG wires

- **3210**
  - 10 X 5/32" contacts
  - #16 AWG wires

- **3212**
  - 4 X 1/8" contacts
  - #16 AWG wires

- **3214**
  - 2 X 1/8" contacts
  - 10 X 5/32" contacts
  - 2 X 3/32" contacts
  - #16 AWG wires

- **3221**
  - 11 X 3/32" contacts
  - #16 AWG wires

- **3224**
  - 24 X 3/32" contacts
  - #16 AWG wires

- **3239**
  - 39 X 1/16" contacts
  - #18 AWG wires
Ordering information – high voltage, dry-mate subsea connectors

Ordering information - Part numbering system

55 12 – 2420 – 0004

55 = Pins in receptacles, sockets in plugs
66 = Sockets in receptacles, pins in plugs

Solution code (tables below)

Shell size and contact arrangements designator (drawings on pages 22 - 23)

Cable or pigtail length (feet)
Leave blank when ordering attachable connectors

Contact Eaton to discuss application-specific configurations not listed below
Solution code X values: 1 = 1000V, 2 = 2000V, 3 = 3000V, 5 = 5000V

<table>
<thead>
<tr>
<th>Type</th>
<th>Configuration</th>
<th>Solution Code*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factory overmolded cables</td>
<td>In-line plugs</td>
<td>X1</td>
</tr>
<tr>
<td></td>
<td>In-line receptacles</td>
<td>X2</td>
</tr>
<tr>
<td></td>
<td>Right-angle plugs</td>
<td>XR</td>
</tr>
<tr>
<td>Flange/bulkhead receptacles</td>
<td>Flange-mount</td>
<td>X6</td>
</tr>
<tr>
<td></td>
<td>Bulkhead mount</td>
<td>X7</td>
</tr>
</tbody>
</table>

*Please refer to the contact-arrangement drawings on the next two pages to determine voltage-rating availability

<table>
<thead>
<tr>
<th>Type</th>
<th>Configuration</th>
<th>Solution Code*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attaches for customer overmolding**</td>
<td>In-line plugs</td>
<td>XA</td>
</tr>
<tr>
<td>Pressure balanced oil filled attachables**</td>
<td>In-line plugs</td>
<td>XP</td>
</tr>
<tr>
<td>Dummy plugs and receptacles</td>
<td>Specify X1 or X2 in-line cable code with &quot;0000&quot; cable length</td>
<td></td>
</tr>
</tbody>
</table>

**Specify "0000" cable length when ordering attachables

Shell size 48 subsea connectors – 5000V ratings

<table>
<thead>
<tr>
<th>Part number</th>
<th>Type</th>
<th>Configuration</th>
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</thead>
<tbody>
<tr>
<td>5551-4803-XXXX</td>
<td>In-line overmolded plug</td>
<td></td>
</tr>
<tr>
<td>5556-4803-XXXX</td>
<td>Flange-mount receptacle</td>
<td>Three contacts; rated for 220A</td>
</tr>
<tr>
<td>5552-4803-0000</td>
<td>Dummy receptacle</td>
<td></td>
</tr>
<tr>
<td>5551-4806-XXXX</td>
<td>In-line overmolded plug</td>
<td></td>
</tr>
<tr>
<td>5556-4806-XXXX</td>
<td>Flange-mount receptacle</td>
<td>Six contacts; #2 AWG and #6 AWG pigtails</td>
</tr>
<tr>
<td>5552-4806-0000</td>
<td>Dummy receptacle</td>
<td></td>
</tr>
</tbody>
</table>

Shell size 48 solutions are available with 5000V, 220A ratings. Contact Eaton to discuss Pressure Balanced Oil Filled (PBOF) configurations.
Contact arrangements – high voltage 5500 subsea connectors

Face view of pin connectors shown, insert arrangement designators are followed by contact sizes and suggested wire gauges

1503
- 3 X 1/16” contacts
- #18 AWG wires
- 1000V, 2000V

1603
- 3 X 1/16” contacts
- #16 AWG wires
- 1000V, 2000V

2004
- 3 X 1/8” contacts
- 1 X 5/32 contact
- #14 AWG wires
- 1000V, 2000V, 3000V

2013
- 13 X 1/16” contacts
- #18 AWG wires
- 1000V

2403
- 3 X 3/32” contacts
- #14 AWG wires
- 1000V, 2000V, 3000V

2410
- 10 X 3/32” contacts
- #16 AWG wires
- 1000V, 2000V

2420
- 20 X 1/16” contacts
- #18 AWG wires
- 1000V

3203
- 3 X 3/16” contacts
- #8 AWG wires
- 1000V, 2000V, 3000V, 5000V

3204
- 4 X 3/16” contacts
- #8 AWG wires
- 1000V, 2000V, 3000V, 5000V

3210
- 10 X 5/32” contacts
- #14 AWG wires
- 1000V, 2000V, 3000V

3212
- 12 X 1/8” contacts
- #14 AWG wires
- 1000V, 2000V, 3000V

3224
- 24 X 1/16” contacts
- #18 AWG wires
- 1000V

3239
- 39 X 1/16” contacts
- #18 AWG wires
- 1000V
Contact arrangements – high voltage 6600 subsea connectors

Face view of pin connectors shown, insert arrangement designators are followed by contact sizes and suggested wire gauges

- **1603**
  - 3 X 3/32” contacts
  - #16 AWG wires
  - 1000V, 2000V

- **2004**
  - 2 X 1/8” contacts
  - 2 X 5/32 contact
  - #14 AWG wires
  - 1000V, 2000V, 3000V

- **2013**
  - 13 X 1/16” contacts
  - #18 AWG wires
  - 1000V

- **2403**
  - 3 X 3/32” contacts
  - #16 AWG wires
  - 1000V, 2000V, 3000V

- **3203**
  - 3 X 3/16” contacts
  - #8 AWG wires
  - 1000V, 2000V, 3000V

- **3204**
  - 4 X 3/16” contacts
  - #8 AWG wires
  - 1000V, 2000V, 3000V

- **3239**
  - 39 X 1/16” contacts
  - #18 AWG wires
  - 1000V

Contact Eaton to discuss quick turn, custom high voltage solutions
Mechanical drawings – flange mount and bulkhead receptacles

**Flange Mount Receptacles**

<table>
<thead>
<tr>
<th>Shell Size</th>
<th>A</th>
<th>B</th>
<th>ØC</th>
<th>D-Thread</th>
<th>E-Thread</th>
<th>F</th>
<th>G</th>
<th>ØH</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>1.25”</td>
<td>0.50”</td>
<td>0.63”</td>
<td>5/8 – 18 UNF-2A</td>
<td>15/16 – 20 UNEF-2A</td>
<td>1.50”</td>
<td>1.00”</td>
<td>0.22”</td>
<td>1.13”</td>
</tr>
<tr>
<td></td>
<td>(31.75)</td>
<td>(12.70)</td>
<td>(16.00)</td>
<td></td>
<td></td>
<td>(38.10)</td>
<td>(25.40)</td>
<td>(5.59)</td>
<td>(28.70)</td>
</tr>
<tr>
<td>16</td>
<td>1.50”</td>
<td>0.50”</td>
<td>0.62”</td>
<td>5/8 – 18 UNF-2A</td>
<td>1 – 9 Stub Acme</td>
<td>1.63”</td>
<td>1.13”</td>
<td>0.22”</td>
<td>1.13”</td>
</tr>
<tr>
<td></td>
<td>(38.10)</td>
<td>(12.70)</td>
<td>(15.75)</td>
<td></td>
<td></td>
<td>(41.40)</td>
<td>(28.70)</td>
<td>(5.59)</td>
<td>(28.70)</td>
</tr>
<tr>
<td>20</td>
<td>1.50”</td>
<td>0.50”</td>
<td>0.74”</td>
<td>3/4 – 16 UNF-2A</td>
<td>1 1/4 – 9 Stub Acme</td>
<td>1.75”</td>
<td>1.25”</td>
<td>0.28”</td>
<td>1.25”</td>
</tr>
<tr>
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<td>(38.10)</td>
<td>(12.70)</td>
<td>(18.80)</td>
<td></td>
<td></td>
<td>(44.45)</td>
<td>(31.75)</td>
<td>(7.11)</td>
<td>(31.75)</td>
</tr>
<tr>
<td>24</td>
<td>1.50”</td>
<td>0.50”</td>
<td>0.99”</td>
<td>1 – 14 UNF-2A</td>
<td>1-1/2 – 9 Stub Acme</td>
<td>2.00”</td>
<td>1.50”</td>
<td>0.28”</td>
<td>1.50”</td>
</tr>
<tr>
<td></td>
<td>(38.10)</td>
<td>(12.70)</td>
<td>(25.15)</td>
<td></td>
<td></td>
<td>(50.80)</td>
<td>(38.10)</td>
<td>(7.11)</td>
<td>(38.10)</td>
</tr>
<tr>
<td>32</td>
<td>1.50”</td>
<td>0.50”</td>
<td>1.49”</td>
<td>1 1/2–12 UNF-2A</td>
<td>2 – 9 Stub Acme</td>
<td>2.63”</td>
<td>2.00”</td>
<td>0.34”</td>
<td>2.00”</td>
</tr>
<tr>
<td></td>
<td>(38.10)</td>
<td>(12.70)</td>
<td>(37.85)</td>
<td></td>
<td></td>
<td>(66.80)</td>
<td>(50.80)</td>
<td>(8.64)</td>
<td>(50.80)</td>
</tr>
<tr>
<td>48</td>
<td>4.75”</td>
<td>N/A</td>
<td>2.00”</td>
<td>N/A</td>
<td>3 – 5 Stub Acme</td>
<td>4.00”</td>
<td>3.00”</td>
<td>0.44”</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>(120.65)</td>
<td></td>
<td>(50.80)</td>
<td></td>
<td></td>
<td>(101.60)</td>
<td>(76.20)</td>
<td>(11.18)</td>
<td></td>
</tr>
</tbody>
</table>

Dimensions are stated as inches (mm).
Mechanical drawings – cable-mount receptacles

Factory Overmolded Cable Mount Receptacles

55X2 Connectors
Pin contacts

66X2 Connectors
Socket contacts

Attachable Cable-Mount Receptacles

55A2 Connectors
Pin contacts

66A2 Connectors
Socket contacts

<table>
<thead>
<tr>
<th>Shell Size</th>
<th>A Max.</th>
<th>B</th>
<th>ØC</th>
<th>E-Thread</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>2.20” (55.88)</td>
<td>1.47” (37.34)</td>
<td>0.78” (19.81)</td>
<td>15/16 – 20 UNEF-2A</td>
</tr>
<tr>
<td>16</td>
<td>2.20” (55.88)</td>
<td>1.50” (38.10)</td>
<td>0.84” (21.34)</td>
<td>1 – 9 Stub Acme</td>
</tr>
<tr>
<td>20</td>
<td>2.00” (50.80)</td>
<td>1.59” (40.39)</td>
<td>1.06” (26.92)</td>
<td>1-1/4 – 9 Stub Acme</td>
</tr>
<tr>
<td>24</td>
<td>2.88” (73.15)</td>
<td>1.68” (42.67)</td>
<td>1.32” (33.53)</td>
<td>1-1/2 – 9 Stub Acme</td>
</tr>
<tr>
<td>32</td>
<td>3.90” (99.06)</td>
<td>1.70” (43.18)</td>
<td>1.81” (45.97)</td>
<td>2 – 9 Stub Acme</td>
</tr>
</tbody>
</table>

Dimensions are stated as inches (mm).
# Mechanical drawings – cable-mount overmolded plugs

## In-line plugs

<table>
<thead>
<tr>
<th>Shell Size</th>
<th>A-55X1</th>
<th>A-66X1</th>
<th>ØC</th>
<th>D-55R1</th>
<th>F-55R1</th>
<th>D-66R1</th>
<th>F-66R1</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>1.78” (45.21)</td>
<td>N/A</td>
<td>1.09” (27.69)</td>
<td>2.75” (69.85)</td>
<td>2.13” (54.10)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>16</td>
<td>2.45” (62.23)</td>
<td>2.15” (54.61)</td>
<td>1.17” (29.72)</td>
<td>3.00” (76.20)</td>
<td>2.51” (63.75)</td>
<td>2.56” (65.02)</td>
<td>2.44” (61.98)</td>
</tr>
<tr>
<td>20</td>
<td>2.45” (62.23)</td>
<td>1.64” (41.66)</td>
<td>1.50” (38.10)</td>
<td>3.24” (82.30)</td>
<td>3.00” (76.20)</td>
<td>2.65” (67.31)</td>
<td>2.90” (73.66)</td>
</tr>
<tr>
<td>24</td>
<td>2.80” (71.12)</td>
<td>2.33” (59.18)</td>
<td>1.75” (44.45)</td>
<td>3.87” (98.30)</td>
<td>3.25” (82.55)</td>
<td>3.25” (82.55)</td>
<td>3.57” (90.68)</td>
</tr>
<tr>
<td>32</td>
<td>4.00” (101.60)</td>
<td>3.50” (88.90)</td>
<td>2.24” (56.90)</td>
<td>4.51” (114.55)</td>
<td>4.70” (119.38)</td>
<td>3.88” (98.55)</td>
<td>4.59” (116.59)</td>
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<tr>
<td>48</td>
<td>6.55” (166.37)</td>
<td>N/A</td>
<td>3.48” (88.39)</td>
<td>N/A</td>
<td>(N/A)</td>
<td>(N/A)</td>
<td>(N/A)</td>
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Dimensions are stated as inches [mm].

## Right-angle plugs

<table>
<thead>
<tr>
<th>Shell Size</th>
<th>A-55X1</th>
<th>A-66X1</th>
<th>ØC</th>
<th>D-55R1</th>
<th>F-55R1</th>
<th>D-66R1</th>
<th>F-66R1</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>1.78” (45.21)</td>
<td>N/A</td>
<td>1.09” (27.69)</td>
<td>2.75” (69.85)</td>
<td>2.13” (54.10)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>16</td>
<td>2.45” (62.23)</td>
<td>2.15” (54.61)</td>
<td>1.17” (29.72)</td>
<td>3.00” (76.20)</td>
<td>2.51” (63.75)</td>
<td>2.56” (65.02)</td>
<td>2.44” (61.98)</td>
</tr>
<tr>
<td>20</td>
<td>2.45” (62.23)</td>
<td>1.64” (41.66)</td>
<td>1.50” (38.10)</td>
<td>3.24” (82.30)</td>
<td>3.00” (76.20)</td>
<td>2.65” (67.31)</td>
<td>2.90” (73.66)</td>
</tr>
<tr>
<td>24</td>
<td>2.80” (71.12)</td>
<td>2.33” (59.18)</td>
<td>1.75” (44.45)</td>
<td>3.87” (98.30)</td>
<td>3.25” (82.55)</td>
<td>3.25” (82.55)</td>
<td>3.57” (90.68)</td>
</tr>
<tr>
<td>32</td>
<td>4.00” (101.60)</td>
<td>3.50” (88.90)</td>
<td>2.24” (56.90)</td>
<td>4.51” (114.55)</td>
<td>4.70” (119.38)</td>
<td>3.88” (98.55)</td>
<td>4.59” (116.59)</td>
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<td>6.55” (166.37)</td>
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<td>3.48” (88.39)</td>
<td>N/A</td>
<td>(N/A)</td>
<td>(N/A)</td>
<td>(N/A)</td>
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</table>

Dimensions are stated as inches [mm].
Mechanical drawings – attachable cable-mount plugs

<table>
<thead>
<tr>
<th>Shell Size</th>
<th>A</th>
<th>ØB</th>
<th>ØC</th>
<th>D</th>
</tr>
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<tr>
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<td>1.55&quot; (39.40)</td>
<td>0.68&quot; (17.30)</td>
<td>1.09&quot; (27.70)</td>
<td>1.67&quot; (42.40)</td>
</tr>
<tr>
<td>16</td>
<td>1.66&quot; (42.20)</td>
<td>0.84&quot; (21.30)</td>
<td>1.17&quot; (29.70)</td>
<td>1.72&quot; (43.70)</td>
</tr>
<tr>
<td>20</td>
<td>1.66&quot; (42.20)</td>
<td>1.09&quot; (27.70)</td>
<td>1.50&quot; (38.10)</td>
<td>1.62&quot; (41.10)</td>
</tr>
<tr>
<td>24</td>
<td>1.66&quot; (42.20)</td>
<td>1.32&quot; (33.50)</td>
<td>1.75&quot; (44.50)</td>
<td>1.62&quot; (41.10)</td>
</tr>
<tr>
<td>32</td>
<td>1.78&quot; (45.20)</td>
<td>1.81&quot; (46.00)</td>
<td>2.25&quot; (57.20)</td>
<td>1.62&quot; (41.10)</td>
</tr>
</tbody>
</table>

Dimensions are stated as inches (mm).
Mechanical drawings – Pressure Balanced Oil Filled (PBOF)

Shells and coupling rings are constructed of 316 stainless steel. JIC fittings are available to facilitate the use of hydraulic hose instead of clear tubing. Contact Eaton for additional information.

**PBOF Plug Dimensions**

<table>
<thead>
<tr>
<th>Shell Size</th>
<th>A-5500</th>
<th>A-6600</th>
<th>ØB</th>
<th>ØC</th>
<th>D-5500***</th>
<th>E-5500***</th>
<th>ØF</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>3.80”(96.52)*</td>
<td>N/A</td>
<td>1.12” (28.45)</td>
<td>0.67” (17.02)</td>
<td>2.76” (70.10)</td>
<td>2.51” (63.75)</td>
<td>1.09” (27.69)</td>
</tr>
<tr>
<td>16</td>
<td>3.95”(100.33)</td>
<td>4.02” (102.11)</td>
<td>1.25” (31.75)</td>
<td>0.67” (17.02)**</td>
<td>Contact Eaton</td>
<td></td>
<td>1.17” (29.72)</td>
</tr>
<tr>
<td>20</td>
<td>4.04” (102.62)</td>
<td>4.00” (101.60)</td>
<td>1.50” (38.10)</td>
<td>0.67”(17.02)</td>
<td>3.25” (82.55)</td>
<td>2.60” (66.04)</td>
<td>1.50” (38.10)</td>
</tr>
<tr>
<td>24</td>
<td>4.19” (106.43)</td>
<td>4.29” (108.97)</td>
<td>1.75” (44.45)</td>
<td>0.67” (17.02)</td>
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<td>1.75” (44.45)</td>
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<tr>
<td>32</td>
<td>4.45” (113.03)</td>
<td>4.29” (108.97)</td>
<td>2.25” (57.15)</td>
<td>1.00” (25.40)</td>
<td>4.51” (114.55)</td>
<td>3.63” (92.20)</td>
<td>2.24” (56.90)</td>
</tr>
</tbody>
</table>

*55P1-1503 length is 3.56” (90.42mm), **66P1-1608 is 0.64” (16.26mm) *** Contact Eaton for right angle, 6600-plug dimensions

**5500 PBOF Receptacle Dimensions**

<table>
<thead>
<tr>
<th>Shell Size</th>
<th>A</th>
<th>ØB</th>
<th>ØC</th>
<th>F-Thread</th>
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</thead>
<tbody>
<tr>
<td>15</td>
<td>3.71” (94.23)</td>
<td>1.13” (28.70)</td>
<td>0.67” (17.02)</td>
<td>15/16 - 20 UNEF-2A</td>
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<tr>
<td>16</td>
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<td></td>
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<tr>
<td>20</td>
<td>4.00” (102.60)</td>
<td>1.50” (38.10)</td>
<td>0.67” (17.02)</td>
<td>1 1/4 - 9 Stub Acme</td>
</tr>
<tr>
<td>24</td>
<td>4.36” (110.74)</td>
<td>1.75” (44.45)</td>
<td>0.67” (17.02)</td>
<td>1 1/2 - 9 Stub Acme</td>
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<tr>
<td>32</td>
<td>4.37” (110.99)</td>
<td>2.24” (56.90)</td>
<td>1.00” (25.40)</td>
<td>2 - 9 Stub Acme</td>
</tr>
</tbody>
</table>
## Accessories – dry-mate subsea connectors

### Plug Dust Caps – Hard Rubber

<table>
<thead>
<tr>
<th>Shell Size</th>
<th>5500 Connectors</th>
<th>6600 Connectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>6700-0125-0151</td>
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<td>16</td>
<td>6700-0125-0161</td>
<td>6700-0125-0161</td>
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<tr>
<td>20</td>
<td>6700-0125-0201</td>
<td>6700-0125-0201</td>
</tr>
<tr>
<td>24</td>
<td>6700-0125-0241</td>
<td>6700-0125-0241</td>
</tr>
<tr>
<td>32</td>
<td>6700-0125-0321</td>
<td>6700-0125-0321</td>
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### Flanged Receptacle Mounting Hole Covers

<table>
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<tr>
<th>Shell Size</th>
<th>5500 Connectors</th>
<th>6600 Connectors</th>
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<tbody>
<tr>
<td>15</td>
<td>5106-1500-0000</td>
<td>n/a</td>
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<tr>
<td>16</td>
<td>5106-1600-0000</td>
<td>5106-1600-0000</td>
</tr>
<tr>
<td>20</td>
<td>5106-2000-0000</td>
<td>5106-2000-0000</td>
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<tr>
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<td>5106-2400-0000</td>
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</tr>
<tr>
<td>32</td>
<td>5106-3200-0000</td>
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### Receptacle Pressure Caps – Stainless Steel

<table>
<thead>
<tr>
<th>Shell Size</th>
<th>5500 Connectors</th>
<th>6600 Connectors</th>
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<tr>
<td>15</td>
<td>5101-1500-0000</td>
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<td>16</td>
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<tr>
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<td>5101-2000-0000</td>
<td>6101-2000-0000</td>
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<tr>
<td>24</td>
<td>5101-2400-0000</td>
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</tr>
<tr>
<td>32</td>
<td>5101-3200-0000</td>
<td>6101-3200-0000</td>
</tr>
</tbody>
</table>

### Receptacle Pressure Caps – Hard Rubber

<table>
<thead>
<tr>
<th>Shell Size</th>
<th>5500 Connectors</th>
<th>6600 Connectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>6700-0124-0151</td>
<td>N/A</td>
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<tr>
<td>16</td>
<td>6700-0124-0161</td>
<td>6700-0520-0161</td>
</tr>
<tr>
<td>20</td>
<td>6700-0124-0201</td>
<td>6700-0520-0201</td>
</tr>
<tr>
<td>24</td>
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</tr>
<tr>
<td>32</td>
<td>6700-0124-0321</td>
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</tbody>
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## Accessories – dry-mate subsea connectors (continued)

### Bulkhead Receptacle Mounting-Hole Plugs

<table>
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<tr>
<th>Shell Size</th>
<th>5500 Connectors</th>
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</thead>
<tbody>
<tr>
<td>15</td>
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<td>16</td>
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<tr>
<td>24</td>
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</tr>
<tr>
<td>32</td>
<td>5107-3200-0000</td>
<td>5107-3200-0000</td>
</tr>
</tbody>
</table>

### Bulkhead Receptacle Retaining Rings

<table>
<thead>
<tr>
<th>Shell Size</th>
<th>5500 Connectors</th>
<th>6600 Connectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>5109-1500-0000</td>
<td>N/A</td>
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<tr>
<td>16</td>
<td>5109-1600-0000</td>
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</tr>
<tr>
<td>32</td>
<td>5109-3200-0000</td>
<td>5109-3200-0000</td>
</tr>
</tbody>
</table>
Receptacle installation

The O-ring sealing surfaces of the receptacles and pressure vessels require an RMS 32 finish, free of scratches, dents, or nicks.

- Apply a thin coat of Dow Corning DC-4 silicone grease to the O-ring and install the O-ring in its groove.
- Remove O-rings only with non-metallic objects (such as a wooden toothpick).
- For bulkhead receptacles, apply oil or anti-seize compound to the mounting threads before installation.

The torque values provided in the tables below are minimum values which will be acceptable. They may be increased depending on the bolt diameter, thread pitch and material used for the bolts and the housing.

connector engagement

- Unscrew the coupling nut completely. Note: After deep initial dives the nut may be loose; this is normal.
- Grasp the connector body firmly and pull the plug out. A gentle rocking motion may ease pull. Caution: Do not disengage the plug by pulling on the cable; it may break a wire inside the connector.

Cleaning and reuse

- Clean the plug and receptacle carefully by hand. Use only a bristle brush (no metal allowed), liquid soap and water.
- Dry the connection by shaking off excess water then use alcohol to eliminate the remaining water as described below.
- Flood the connector with alcohol, then pour it out and allow the connector to air dry. Caution: compressed air contains many contaminants such as water, oil and dust and should not be used.

Inspection

- Inspect the connector for bent or otherwise damaged pins and corrosion.
- Metal sealing surfaces must have an RMS 32 finish and be free of scratches, nicks and dents. This applies to both O-ring sealing surfaces and connector sealing surfaces.
- The rubber sealing surfaces must be free of cuts, nicks and tears. On used connectors, the rubber sealing surface may have an impression of the metal sealing surface on it; this is normal.
- The cable and rubber-molded plug must be free of cuts, tears and separations. Carefully inspect the rubber condition near the metal shell. Tears are common here, caused by using the connector in a bent position or using it as a handle.
- When the connectors are being re-used, remember to always use new O-rings in the receptacles and to inspect the threads of the coupling nut for the presence of dry-film lubrication used to prevent galling of the metal. A light coat of moly lube may be used if necessary.
- Apply a thin coat of silicone grease. It is of the utmost importance to use silicone grease sparingly. Light films reduce friction and allow the components to work as they are designed. Larger quantities create the equivalent of a “hydraulic lock” and completely destroy the function of the O-ring and connector.