Underwater Connectors

Topside and Subsea Connectors / PBOF Assemblies for High-Pressure Oil & Gas Industry Interconnect Applications

AUGUST 2020
High-performance, high-pressure interconnect technologies with proven sealing performance in shipboard, downhole and underwater applications
# Dry-mate Underwater/Subsea Connector Selection Guide

## Table of Specifications

<table>
<thead>
<tr>
<th>Size</th>
<th>Connector Series</th>
<th>Ruggedness Level</th>
<th>Open-Face Sealing</th>
<th>Depth Rating</th>
<th>Shell Materials</th>
<th>Electrical Rating</th>
<th>Shell OD Range</th>
<th>Cable / Contact Types</th>
<th>Applications</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large</td>
<td></td>
<td>3</td>
<td>Mission-Critical</td>
<td>10K PSI (700 Bar)</td>
<td>Super Duplex Stainless Steel or Titanium</td>
<td>5kV</td>
<td>2.34&quot; to 3.64&quot;</td>
<td>Overmolded Solder</td>
<td>High-Voltage Power</td>
<td>API 16D and 17E-Compliant</td>
</tr>
<tr>
<td>Standard</td>
<td></td>
<td>3</td>
<td>Mission-Critical</td>
<td>10K PSI (700 Bar)</td>
<td>Stainless Steel, Titanium, or PEEK</td>
<td>600VDC 3–10A</td>
<td>1.15&quot; to 2.14&quot;</td>
<td>PROOF, Overmolded Solder</td>
<td>Glass-Sealed Contacts</td>
<td>Dual O-Ring Sealing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>High-Reliability</td>
<td>10K PSI (700 Bar)</td>
<td>Stainless Steel or PEEK Rubber Keyway</td>
<td>600VDC 5–18A</td>
<td>1.12&quot; to 1.50&quot;</td>
<td>PROOF, Overmolded Crimp, Solder</td>
<td>Serial Databus, Low-Voltage Power</td>
<td>5S Series Intermateable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>High-Reliability</td>
<td>5K PSI (450 Bar)</td>
<td>Stainless Steel</td>
<td>500VDC 5–23A</td>
<td>1.03&quot; to 2.03&quot;</td>
<td>Overmolded Solder</td>
<td>Serial Databus, Low-Voltage Power</td>
<td>Arctic Coupling Nuts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>High-Reliability</td>
<td>10K PSI (700 Bar)</td>
<td>Stainless Steel or Titanium</td>
<td>500VDC 5–23A</td>
<td>.875&quot; to 1.95&quot;</td>
<td>Overmolded Crimp, Solder</td>
<td>High-Speed Datalink, RF, Serial Databus, Low-Voltage Power</td>
<td>High-Density From #12 to #30 AWG Wire Support</td>
</tr>
<tr>
<td>Miniature</td>
<td></td>
<td>1</td>
<td>General Duty</td>
<td></td>
<td>Stainless Steel or Marine Bronze</td>
<td>750VDC–1800VDC 5–23A</td>
<td>.5&quot; to 1.562&quot;</td>
<td>Overmolded Crimp, Solder</td>
<td>High-Speed Datalink, RF, Serial Databus, Low-Voltage Power</td>
<td>From 1–130 Glass-Sealed Contacts</td>
</tr>
<tr>
<td>Micro</td>
<td></td>
<td>3</td>
<td>Mission-Critical</td>
<td>10K PSI (700 Bar)</td>
<td>Stainless Steel or Titanium</td>
<td>300VDC 3A</td>
<td>.25&quot; to .32&quot;</td>
<td>Prewired Pigtail, Cables Solder</td>
<td>High-Speed Datalink, Serial Databus, Low-Voltage Power</td>
<td>Glass- and Piston O-Ring Sealed Ethernet-Ready</td>
</tr>
</tbody>
</table>
Sealing: SeaKing 700 is the best-sealed subsea connector on the market. All critical interfaces, including bulkhead seals, glass-to-metal insert seals, mating interface bore seals, and face seals are fully redundant ensuring 10K PSI protection, even in the event of a single-seal failure.

Mating: SeaKing utilizes a modified UNC (coarse) mating interface with added clearance to reduce bio-fouling and facilitate rapid-advance mating. The marine bronze coupler on the plug is equipped with thread flats as well as knurling and is less susceptible to galling than standard steel engaging nuts. Polarized keys and keyways prevent both thread damage and mismating.

Ease-of-Use: Multiple PBOF backshell indexing points, indexable flange FCRs, full-mate inspection ports, retractable engaging nuts, and other features make SeaKing the most user-friendly subsea connector on the market.
**700-001 CABLE CONNECTOR PLUG (CCP) WITH SOLDER CUP TERMINATION**

- **Sample Part Number**: 700-001-K19-Z1
- **Product Series**: 700 = Seaking™
- **Shell Style**: 001 = cable connector plug (CCP)
- **Shell Material**: K = 30% glass reinforced PEEK
- **Contact Style**: P = pin
- **Polarization**: A, B, C, N = normal (see sales drawing for details)

**700-006 GLASS-TO-METAL SEAL OR 700-026 GLASS REINFORCED EPOXY, FLANGE CONNECTOR RECEPTACLE (FCR) WITH SOLDER CUP TERMINATION**

- **Sample Part Number**: 700-006-O19-Z1
- **Product Series**: 700 = Seaking™
- **Shell Style**: 006 = G106 flange connector receptacle (FCR)
- **Shell Material**: Z1 = 316 stainless steel, TC = titanium
- **Contact Style**: P = pin
- **Polarization**: A, B, C, N = normal (see sales drawing for details)

**700-007 GLASS-TO-METAL SEAL OR 700-027 GLASS REINFORCED EPOXY, BULKHEAD CONNECTOR RECEPTACLE (BCR) WITH SOLDER CUP TERMINATION**

- **Sample Part Number**: 700-007-K19-Z1
- **Product Series**: 700 = Seaking™
- **Shell Style**: 007 = G107 flange bulkhead connector feed-thru (BCF)
- **Shell Material**: Z1 = 316 stainless steel, TC = titanium
- **Contact Style**: P = pin
- **Polarization**: A, B, C, N = normal (see sales drawing for details)

**700-001 CABLE CONNECTOR FEED-THRU (BCF), INCONEL INSERT, 10K PSI OPEN FACE RATED**

- **Sample Part Number**: 700-010-M12-Z1
- **Product Series**: 700-010 = Seaking™ bulkhead connector feed-thru (BCF)
- **Shell Size-Insert Arrangement**: (see sales drawing for details)
- **Shell Material**: Z1 = 316 stainless steel, TC = titanium
- **Side A Contact Type**: P = pin
- **Side A Contact Type**: S = socket
- **Side B Contact Type**: P = pin
- **Side B Contact Type**: S = socket
- **Side A Polarization**: A, B, C, N = normal (see polarization table, pgs. 6-7)
- **Side B Polarization**: A, B, C, N = normal (see sales drawing for details)
- **Bulkhead Thickness**: 1 = 1.00 – 1.50, 2 = 1.50 – 2.00, 3 = 2.00 – 2.500, 4 = 2.50 – 3.00, 5 = 3.00 – 3.50, 6 = 3.50 – 4.00

**700-010 BULKHEAD CONNECTOR FEED-THRU (BCF), INCONEL INSERT, 10K PSI OPEN FACE RATED**

- **Sample Part Number**: 700-010-M12-Z1
- **Product Series**: 700-010 = Seaking™ bulkhead connector feed-thru (BCF)
- **Shell Size-Insert Arrangement**: (see sales drawing for details)
- **Shell Material**: Z1 = 316 stainless steel, TC = titanium
- **Contact Style**: P = pin
- **Polarization**: A, B, C, N = normal (see sales drawing for details)

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

700 Series connectors CCP, FCR and BCR

Product Series 700-201 = Seaking™ CCP, non-metallic PEEK
Shell Style 001 = cable connector plug (CCP)
Shell Size-Insert Arrangement (see sales drawing for details)
Shell Material K = 30% glass reinforced PEEK
Contact Style S = socket
Polarization A, B, C, N = normal (see sales drawing for details)
SERIES 700 10K PSI / 700 BAR / 7000 M
SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies

Single-ended connector receptacle pigtail assembly

7071-0012 FLANGE OR BULKHEAD CONNECTOR RECEPTACLE PIGTAIL ASSEMBLY

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>Seaking - How To Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>7071-0012</td>
<td>1 M12 - Z1 - 12 A N</td>
</tr>
</tbody>
</table>

**Product Series**

1. 700-006 (GTMS FCR)
2. 700-007 (GTMS BCR)

**Insert Arrangement**

(see sales drawing for details)

**Material/Finish**

Z1 = 316 stainless steel
TC = titanium

**Cable Length**

In inches

**Wire Coloring**

A = all white
B = 10 color repeating; IAW MIL-STD-681

**Polarization**

A, B, C, N = normal (see sales drawing for details)

**Nominal Length**

(see part number development) tolerance:
+1.80/-0.00 for "L" less than or equal to 60.00 inches.
+3%/-0.00 for "L" greater than 60.00 inches.

Minimum order length 12 inches. Consult factory for options.

NOTES

1. 100% electrically tested for shorts, dielectric withstand voltage (1000Vac 5 seconds max) and insulation resistance (conductor to conductor and conductor to shell at 500Vac/200-megohms min. IAW-STD-202, Method 302)
2. Quantity of conductors determined by insert arrangement. All cavities to be populated with largest gauge wire.
3. All solder cup cavities are isolated with M23053/8 heat shrink tubing.

**Alternate Key Positions**

<table>
<thead>
<tr>
<th>Key Position</th>
<th>Key Rotation</th>
<th>A°</th>
<th>B°</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal (N)</td>
<td>150°</td>
<td>210°</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>75°</td>
<td>210°</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>95°</td>
<td>230°</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>140°</td>
<td>275°</td>
<td></td>
</tr>
</tbody>
</table>

**Cap Options**

1. Protective cap, no lanyard
2. Protective cap, with lanyard
3. Pressure cap, no lanyard
4. Pressure cap, with lanyard

**Cap Options**

1. Protective cap, no lanyard
2. Protective cap, with lanyard
3. Pressure cap, no lanyard
4. Pressure cap, with lanyard

---

Glenair connector 700-007 (Option 1) FCR

Glenair Connector, 700-007 (Option 2) BCR

---

**Brady Label**

LAT-29-799

**M23053/8-XXX-C**

**NOTE**

Label shall be black with white text

---

**SERIES 700 10K PSI / 700 BAR / 7000 M**

SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies

Single ended or back-to-back, overmolded cable

Sample Part Number

<table>
<thead>
<tr>
<th>Seaking - How To Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>7071-0007 - S R Z1 -K19 N -24 11</td>
</tr>
</tbody>
</table>

**Sample Part Number**

<table>
<thead>
<tr>
<th>Seaking - How To Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>7071-0007 - Seaking™ cable connector plug (CCP) assembly</td>
</tr>
</tbody>
</table>

**P1**

B = right angle
S = straight

**P2**

N = none
B = straight

**Shell Material/Finish**

Z1 = 316 stainless steel
TC = titanium

**Insert Arrangement**

(see sales drawing for details)

**Polarization**

A, B, C, N = normal (see sales drawing for details)

**Cable Length**

In inches

**Cap Options**

10, 11, 20, 21: omit for none

---

**NOTES**

1. 100% electrically tested for shorts, dielectric withstand voltage (500Vac 5 seconds max) and insulation resistance (conductor to conductor and conductor to shell at 500Vac/500-megohms min. IAW-STD-202, Method 302)
2. Quantity of conductors determined by insert arrangement. All cavities to be populated with largest gauge wire.
3. All solder cup cavities are isolated with M23053/8 heat shrink tubing.

---

**Alternate Key Positions**

<table>
<thead>
<tr>
<th>Key Position</th>
<th>Key Rotation</th>
<th>A°</th>
<th>B°</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal (N)</td>
<td>150°</td>
<td>210°</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>75°</td>
<td>210°</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>95°</td>
<td>230°</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>140°</td>
<td>275°</td>
<td></td>
</tr>
</tbody>
</table>

**Cap Options**

1. Protective cap, no lanyard
2. Protective cap, with lanyard
3. Pressure cap, no lanyard
4. Pressure cap, with lanyard

---

**End B: None (N) Option**

(1.50) OPTION

N OPTION ONLY

EACH LABEL TO IDENTIFY WIRE CAVITY OR "U" FOR UNUSED AS REQUIRED

**Brady Label**

LAT-29-799

**M23053/5-XXX-0 OR EQ.**

COVERED WITH CLEAR SHRINK TUBING

**M23053/8-XXX-C OR EQ.**

NOTE: LABEL SHALL BE BLACK WITH WHITE TEXT

(2X) OVERMOLD, POLYURETHANE

(2X) GLENAIR CONNECTOR, 700-001

END A: STRAIGHT (S) OPTION

END A: RIGHT ANGLE (R) OPTION

END B: STRAIGHT (S) OPTION

END B: NONE (N) OPTION

---

© 2020 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Underwater Interconnect Technologies

© 2020 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Underwater Interconnect Technologies
NOTES
1. 100% electrically tested for shorts, dielectric withstanding voltage (at 500Vac 5 seconds max) and insulation resistance (conductor to conductor and conductor to shell) at 500Vdc/200 megohms min (@ MIL-STD-202, Method 302).
3. Max pressure rating: 1000 psi.
4. For connector dimensions, materials, finishes, refer to drawing 700-001.
5. For insert arrangements refer to drawing 709-099 contact manufacturer for builds with combo insert arrangements.
6. Double ended cutouts are wired one to one (ex. pin 1 to pin 1, 2 to 2 etc).
7. Quantity and gauge of conductors determined by insert arrangement. All cavities to be populated with largest gauge wire.
8. Marker label, M23053/5 or equivalent. Covered with clear tubing M23053/18 or equivalent tubing shall be white with black text.
9. Single conductors shall be identified with cavity indentifiers or “U” for unused marker label, M23053/5 or equivalent covered with clear tubing M23053/18 or equivalent tubing shall be white with black text.
10. Minimum order length is 24.00 inches. Consult factory for orders longer 1200 inches (100ft).
11. All configurations are wired one to one.

SIZE

<table>
<thead>
<tr>
<th>SIZE</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>4.55</td>
<td>0.765</td>
<td>3.38</td>
<td>3.43</td>
<td>2.18</td>
</tr>
<tr>
<td>O</td>
<td>4.55</td>
<td>1.500</td>
<td>3.50</td>
<td>3.55</td>
<td>2.05</td>
</tr>
<tr>
<td>Q</td>
<td>4.55</td>
<td>1.750</td>
<td>3.88</td>
<td>3.93</td>
<td>2.18</td>
</tr>
<tr>
<td>G</td>
<td>4.55</td>
<td>0.875</td>
<td>2.94</td>
<td>3.11</td>
<td>2.23</td>
</tr>
<tr>
<td>K</td>
<td>4.55</td>
<td>1.00</td>
<td>3.16</td>
<td>3.16</td>
<td>2.05</td>
</tr>
<tr>
<td>L</td>
<td>4.55</td>
<td>1.125</td>
<td>3.29</td>
<td>3.29</td>
<td>2.16</td>
</tr>
<tr>
<td>M</td>
<td>5.05</td>
<td>1.250</td>
<td>3.38</td>
<td>3.43</td>
<td>2.18</td>
</tr>
<tr>
<td>O</td>
<td>5.05</td>
<td>1.500</td>
<td>3.50</td>
<td>3.55</td>
<td>2.05</td>
</tr>
<tr>
<td>P</td>
<td>5.05</td>
<td>1.625</td>
<td>3.68</td>
<td>3.75</td>
<td>2.12</td>
</tr>
<tr>
<td>R</td>
<td>5.05</td>
<td>1.875</td>
<td>3.94</td>
<td>3.99</td>
<td>2.11</td>
</tr>
<tr>
<td>E</td>
<td>4.55</td>
<td>0.765</td>
<td>2.88</td>
<td>2.93</td>
<td>2.16</td>
</tr>
<tr>
<td>L</td>
<td>4.55</td>
<td>1.125</td>
<td>3.38</td>
<td>3.43</td>
<td>2.18</td>
</tr>
</tbody>
</table>

OUTLINE OF FLANGE CONNECTOR RECEPACLE (FCR), 700-006.
NOTE: CONNECTOR UP TO FLANGE SHOWN ONLY (REAR NOT SHOWN)

REVOLUTIONARY PBOF SWIVEL HOSE ATTACHMENT ACCESSORIES

Hose barb fittings for PBOF assemblies are the perennial weak link in subsea oil & gas applications. Kinked and twisted hoses, leaky fittings, corroded hose clamps, and other performance problems characterize most existing solutions. The Glenair PBOF swivel hose attachment for SeaKing™ connectors solves these problems and more. Designed from the sea floor up to perform flawlessly and reliably, this revolutionary attachment puts an end to the long list of field maintenance problems associated with oil-filled cable applications.

- **Straight, 45°, and 90° “full radius” angle and profile hose routing**
- **Hose angle adjustment feature eliminates risk of oil leakage**
- **Corrosion-resistant materials used throughout**
- **Threaded couplers with safety set-screws for fail-safe leak and decoupling protection—no special tools required for assembly**
- **Compact PBOF compression fitting with 340° swivel action hose for an extra degree freedom of routing in compact situations**
- **Support for the broad range of hose diameters and wall thicknesses**

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**PBOF assembly fittings and accessories**

---

**SeaKing PBOF Attachment Accessory Kits - How To Order**

---

**PBOF assembly fittings and accessories**

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**PBOF assembly fittings and accessories**

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**PBOF assembly fittings and accessories**

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**PBOF assembly fittings and accessories**

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**PBOF assembly fittings and accessories**

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**PBOF assembly fittings and accessories**

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**PBOF assembly fittings and accessories**

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**PBOF assembly fittings and accessories**

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**PBOF assembly fittings and accessories**

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**PBOF assembly fittings and accessories**

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**PBOF assembly fittings and accessories**

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**PBOF assembly fittings and accessories**

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**PBOF assembly fittings and accessories**

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**PBOF assembly fittings and accessories**

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**PBOF assembly fittings and accessories**

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**PBOF assembly fittings and accessories**

---

**SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies**

Single ended or back-to-back, overmolded cable

---

**PBOF assembly fittings and accessories**
SERIES 701

SeaKing™ Junior

High-reliability, dry-mate, harsh-environment connectors and cables for intelligent inline inspection PIG applications

High-density Series 701 SeaKing Junior connectors are the perfect choice for harsh-environment oil & gas industry equipment. All designs are equipped with piston seal nitrile O-rings to withstand exposure to corrosive chemicals and high-temperature environments. These 10,000 psi pressure rated (mated condition) connectors feature high-density crimp-contact or solder cup inserts, and are significantly smaller than our larger form-factor series 700 SeaKing interconnects. Gold-plated crimp contacts accept #12–30 gage wire. SeaKing Junior connectors are backfilled with epoxy potting compound, ready for easy incorporation into overmolded cables. Crimp-contact versions for field installation and repair are also available. SeaKing Junior is specifically designed for high-pressure, mated condition applications that do not require the extra fail-safe features and cost of an open-face rated solution.

10,000 psi (mated condition) pressure rated connector for overmolded (non-PBOF) applications

High density, small form-factor solution—up to 50% reduction in size and weight compared to industry standard solutions

Ultraminiature high-density pin configurations: #22D, #20, #20HD, #16, #12, #8 signal, power, fiber optic and high-speed datalink shielded contacts

Harsh-environment polyurethane overmolded point-to-point cables with straight or right angle ends, one-to-one wiring

Pigtail receptacle assemblies, variable cable length, single-conductor M22759/11 wire, environmental back-end potting

All featured insert arrangements tooled and available now including high-density and combo layouts for Coax, Twinax, and El Ochito® octaxial contacts

Series 701 SeaKing™ Junior Mechanical Features and Configurations

Stainless Steel or Titanium shells, Marine Bronze coupling nuts

Available in nine sizes from 2 to 128 contacts, Series 701 connectors feature stainless steel or marine bronze shells. Nitrile O-rings resist high temperature and corrosive chemicals.

10,000 psi

These connectors withstand up to 10,000 PSI hydrostatic pressure in a mated condition.

SERIES 701 JUNIOR OVERMOLDED CABLES AND PIGTAIL ASSEMBLIES

SERIES 701 JUNIOR CONTACT SPECIFICATIONS, MATERIALS AND FINISHES, AND CRIMP TOOLS

Performance Specifications

Insulation Resistance 5000 megohms at 500 VDC

Operating Temperature -40° C to +175° C

Hydrostatic Pressure 10,000 PSI mated condition, tested per ISO 13628-6

Durability 500 mating cycles

Material and Finish

Shells, Jam Nuts Stainless steel or Titanium

CCP Coupling Nuts Marine bronze, unplated

Contacts Copper alloy, gold plated

Insulators Composite thermoplastic

Retaining ring and hardware Stainless steel

Interfacial Seal (pin inserts only) and Grommet Fluoroelastomer

O-rings and Seals Nitrile, 90 shore Viton®, 80 shore Viton® O-rings offer wider temperature range

INSULATOR

Series 701 Polarityization

Plug Reciprocate

Series 701 JUNIOR CONTACT SPECIFICATIONS, MATERIALS AND FINISHES, AND CRIMP TOOLS

Performance Specifications

Insulation Resistance 5000 megohms at 500 VDC

Operating Temperature -40° C to +175° C

Hydrostatic Pressure 10,000 PSI mated condition, tested per ISO 13628-6

Durability 500 mating cycles

Material and Finish

Shells, Jam Nuts Stainless steel or Titanium

CCP Coupling Nuts Marine bronze, unplated

Contacts Copper alloy, gold plated

Insulators Composite thermoplastic

Retaining ring and hardware Stainless steel

Interfacial Seal (pin inserts only) and Grommet Fluoroelastomer

O-rings and Seals Nitrile, 90 shore Viton®, 80 shore Viton® O-rings offer wider temperature range

© 2020 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Underwater Interconnect Technologies

© 2020 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Underwater Interconnect Technologies

14

15
SEAKING™ JUNIOR POINT-TO-POINT OVERMOLDED CABLE

Sample Part Number 7071-0067 1 9-15 Z1 P N 36

Seaking Junior - How To Order

- Series
- Insert Arrangement
- Material/Finish
- Contact Style
- Polarization
- Cable Length

SEAKING™ JUNIOR SINGLE-ENDED RECEPTACLE ASSEMBLY

Sample Part Number 7071-0068 1 9-15 Z1 P N 36

Seaking Junior - How To Order

- Series
- Receptacle Style
- Insert Arrangement
- Material/Finish
- Contact Style
- Polarization
- Cable Length
SEAKING™ JUNIOR TOOLED INSERT ARRANGEMENTS (STANDARD LAYOUTS)

Insert Arrangement | 21-26 | 25-29 | 27-37 | 29-39 |
No. of Contacts | 24 | 25 | 27 | 29 |
Contact Size | #20 | #10 | #20 | #22D |
Service Rating | I | I | I | M |

Insert Arrangement | 21-41 | 23-21 | 23-32 | 23-34 |
No. of Contacts | 41 | 21 | 32 | 34 |
Contact Size | #20 | #16 | #20 | #20 |
Service Rating | I | I | I | I |

Insert Arrangement | 23-35 | 23-36 | 23-33 | 23-55 |
No. of Contacts | 100 | 36 | 55 | 55 |
Contact Size | #22D | #20 | #20 | #20 |
Service Rating | M | I | I | I |

Insert Arrangement | 25-97 | 25-99 | 25-19 |
No. of Contacts | 16 | 11 | 19 |
Contact Size | #16 | #15 | #12 |
Service Rating | I | I | I |

SEAKING™ JUNIOR TOOLED INSERT ARRANGEMENTS (HIGH-DENSITY LAYOUTS)

Insert Arrangement | 9-23 | 11-23 | 13-23 | 15-23 |
No. of Contacts | 9 | 19 | 55 | 55 |
Contact Size | #23 | #23 | #23 | #23 |
Service Rating | N | N | N | N |

Insert Arrangement | 17-23 | 19-23 | 21-23 |
No. of Contacts | 73 | 88 | 121 |
Contact Size | #23 | #23 | #23 |
Service Rating | N | N | N |
SEAKING™ JUNIOR TOOLED INSERT ARRANGEMENTS (HIGHP-DENSITY LAYOUTS)

<table>
<thead>
<tr>
<th>Insert Arrangement</th>
<th>No. of Contacts</th>
<th>Contact Size</th>
<th>Service Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>23-23</td>
<td>151</td>
<td>#20</td>
<td>N</td>
</tr>
<tr>
<td>25-20</td>
<td>187</td>
<td>#20</td>
<td>N</td>
</tr>
</tbody>
</table>

Contact Legend
#20 • #10 • #16 • #12 • #8

SEAKING™ JUNIOR TOOLED INSERT ARRANGEMENTS (COMBO LAYOUTS)

<table>
<thead>
<tr>
<th>Insert Arrangement</th>
<th>No. of Contacts and Size</th>
<th>Contact Legend</th>
<th>Service Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-15</td>
<td>1X #16</td>
<td>#20 • #10 • #16 • #12 • #8</td>
<td>N</td>
</tr>
<tr>
<td>15-97</td>
<td>1X #16</td>
<td>#20 • #10 • #16 • #12 • #8</td>
<td>N</td>
</tr>
<tr>
<td>17-99</td>
<td>3X #20</td>
<td>#20 • #10 • #16 • #12 • #8</td>
<td>N</td>
</tr>
<tr>
<td>19-28</td>
<td>7X #20</td>
<td>#20 • #10 • #16 • #12 • #8</td>
<td>N</td>
</tr>
</tbody>
</table>

Contact Legend
#20 • #10 • #16 • #12 • #8

<table>
<thead>
<tr>
<th>Insert Arrangement</th>
<th>No. of Contacts and Size</th>
<th>Contact Legend</th>
<th>Service Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-30</td>
<td>1X #16</td>
<td>#20 • #10 • #16 • #12 • #8</td>
<td>N</td>
</tr>
<tr>
<td>25-39</td>
<td>3X #20</td>
<td>#20 • #10 • #16 • #12 • #8</td>
<td>N</td>
</tr>
<tr>
<td>25-4</td>
<td>5X #20</td>
<td>#20 • #10 • #16 • #12 • #8</td>
<td>N</td>
</tr>
</tbody>
</table>

Contact Legend
#20 • #10 • #16 • #12 • #8

<table>
<thead>
<tr>
<th>Insert Arrangement</th>
<th>No. of Contacts and Size</th>
<th>Contact Legend</th>
<th>Service Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-11</td>
<td>1X #16</td>
<td>#20 • #10 • #16 • #12 • #8</td>
<td>N</td>
</tr>
<tr>
<td>25-24</td>
<td>1X #16</td>
<td>#20 • #10 • #16 • #12 • #8</td>
<td>N</td>
</tr>
<tr>
<td>25-43</td>
<td>1X #16</td>
<td>#20 • #10 • #16 • #12 • #8</td>
<td>N</td>
</tr>
</tbody>
</table>

Contact Legend
#20 • #10 • #16 • #12 • #8

SEAKING™ JUNIOR TOOLED INSERT ARRANGEMENTS (SPECIAL SHIELDED LAYOUTS)

Contact Legend
#20 • #16 • #12 • #8

<table>
<thead>
<tr>
<th>Shell Size - Insert Arrangement</th>
<th>No. of Contacts</th>
<th>Service Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-1</td>
<td>1x #6</td>
<td>N</td>
</tr>
<tr>
<td>15-1*</td>
<td>1x #6</td>
<td>N</td>
</tr>
<tr>
<td>17-2</td>
<td>1x #8</td>
<td>N</td>
</tr>
</tbody>
</table>

Contact Legend
#20 • #16 • #12 • #8

<table>
<thead>
<tr>
<th>Shell Size - Insert Arrangement</th>
<th>No. of Contacts</th>
<th>Service Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-22</td>
<td>2x #8</td>
<td>N</td>
</tr>
<tr>
<td>17-60</td>
<td>3x #22</td>
<td>N</td>
</tr>
<tr>
<td>17-75</td>
<td>2x #8</td>
<td>N</td>
</tr>
</tbody>
</table>

Contact Legend
#20 • #16 • #12 • #8

<table>
<thead>
<tr>
<th>Shell Size - Insert Arrangement</th>
<th>No. of Contacts</th>
<th>Service Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-4</td>
<td>4x #8</td>
<td>N</td>
</tr>
<tr>
<td>19-10</td>
<td>4x #8</td>
<td>N</td>
</tr>
<tr>
<td>19-15</td>
<td>14x #22</td>
<td>N</td>
</tr>
</tbody>
</table>

Contact Legend
#20 • #16 • #12 • #8

<table>
<thead>
<tr>
<th>Shell Size - Insert Arrangement</th>
<th>No. of Contacts</th>
<th>Service Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-75</td>
<td>4x #8</td>
<td>N</td>
</tr>
<tr>
<td>25-5</td>
<td>5x #8</td>
<td>N</td>
</tr>
<tr>
<td>25-6</td>
<td>6x #8</td>
<td>N</td>
</tr>
</tbody>
</table>

Contact Legend
#20 • #16 • #12 • #8
SeaKing™ Junior Tooled Insert Arrangements (Special Shielded Layouts)

- Contact Legend:
  - #20
  - #16
  - #12
  - #8

<table>
<thead>
<tr>
<th>Shell Size</th>
<th>Insert Arrangement</th>
<th>No. of Contacts and Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-7</td>
<td>2x #8</td>
<td>9x #22</td>
</tr>
<tr>
<td>25-8</td>
<td>8x #8</td>
<td>6x #8</td>
</tr>
<tr>
<td>25-17</td>
<td>3x #8</td>
<td>30x #22</td>
</tr>
</tbody>
</table>

- Contact Legend:
  - #20
  - #16
  - #12
  - #8

<table>
<thead>
<tr>
<th>Shell Size</th>
<th>Insert Arrangement</th>
<th>No. of Contacts and Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-20</td>
<td>3x #8</td>
<td>4x #12</td>
</tr>
<tr>
<td>25-20</td>
<td>15x #16</td>
<td>10x #20</td>
</tr>
<tr>
<td>25-20</td>
<td>4x #8</td>
<td>5x #12</td>
</tr>
<tr>
<td>25-20</td>
<td>15x #20</td>
<td></td>
</tr>
</tbody>
</table>

- Contact Legend:
  - #20
  - #16
  - #12
  - #8

<table>
<thead>
<tr>
<th>Shell Size</th>
<th>Insert Arrangement</th>
<th>No. of Contacts and Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-41</td>
<td>3x #8</td>
<td>2x #12</td>
</tr>
<tr>
<td>25-41</td>
<td>11x #16</td>
<td>3x #20</td>
</tr>
<tr>
<td>25-41</td>
<td>22x #20</td>
<td></td>
</tr>
<tr>
<td>25-41</td>
<td>2x #8</td>
<td>4x #16</td>
</tr>
<tr>
<td>25-41</td>
<td>40x #20</td>
<td></td>
</tr>
</tbody>
</table>

**SERIES 701 SeaKing™ Junior**

**Harsh-Environment Dry-Mate Connectors**

**Insert arrangements**

**DEEP WATER**

SeaKing™ Fiber Optic

10K PSI open-face pressure rated fiber optic connectors, cables and jumpers, plus ruggedized transceivers and media converters

Data-intensive applications such as towed array sonar systems, well logging and monitoring equipment, digital seismic streamers, as well as magnetic flux leakage and ultrasonic inspection sensors used in intelligent pipeline inspection are ideally suited for ruggedized high-pressure fiber optics. Fiber optic interconnect systems deliver ultra-high data bandwidth, immunity from RFI and other forms of electromagnetic interference, as well as reduced size and weight compared to high-speed copper. Glenair SeaKing™ Fiber Optic solutions include harsh-environment overmolded cable assemblies, multibranch inside-the-box jumpers, as well as Glenair signature high-temp, high-vibration transceivers and optical-to-electrical media converters. Pressure-balanced oil-filled (PBOF) cable assemblies are also available for deep subsea applications.

- Overmolded and PBOF butt-joint assemblies
- Full hydrostatic qualification test report available
- Wide range of fiber and hybrid fiber/electric layouts
- Singlemode and multimode
- <1.0db data loss for singlemode
DEEP WATER
SeaKing™ Fiber Optic
10K PSI open-face pressure-rated fiber optic connectors, cables, transceivers, and media converters

ENVIRONMENTAL OVERMOLDED FIBER OPTIC JUMPERS

PRESSURE-BALANCED OIL-FILLED (PBOF) HIGH-PRESSURE FIBER OPTIC ASSEMBLIES

SEAKING™ BCR OR FCR TO COMMERCIAL FIBER OPTIC PIGTAIL ASSEMBLY FOR I/O-TO-BOARD MODULE APPLICATIONS

KEY AND KEYWAY POSITIONS

Fiber Only

Copper/Fiber

Fiber Only

Copper/Fiber

Contact Specifications

Contact Size | K | L | M | Q
---|---|---|---|---
Amps | 3 | 10 | 10 | 16
Wire Gage | 22 | 16 | 22 | 16
All contact arrangements are rated for 600 volts.
Contact arrangements are shown as face view of receptacle insert.
Contact arrangements of plug inserts are reverse.

Alternate Keyway Positions

<table>
<thead>
<tr>
<th>Key Position</th>
<th>Key Rotation</th>
<th>Key Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal (N)</td>
<td>90°</td>
<td>8</td>
</tr>
<tr>
<td>A</td>
<td>90°</td>
<td>6 #16</td>
</tr>
<tr>
<td>B</td>
<td>90°</td>
<td>6 #16</td>
</tr>
<tr>
<td>C</td>
<td>90°</td>
<td>6 #16</td>
</tr>
</tbody>
</table>

Plug (Key)

Receptacle (Keyway)
DEEP WATER
SeaKing™ Fiber Optic
Overmolded assemblies with SeaKing™ connectors or SeaKing™ to commercial fiber optic connector

NOTES
1. Optical performance: Insertion loss shall be <1.0dB when measured @ 1310/1550 nm wavelength.
   Insertion loss shall be <1.0dB when measured @ 1310/1550 nm wavelengths.
2. Molding process for high pressure applications shall be used for polyurethane overmolds.
3. Insert arrangement shown is for reference only. See page 24 for SeaKing fiber optic insert arrangements.
4. See drawing 700-001 for connector dimensions, materials, and finishes.
5. Wiring for each arrangement is one to one. Fiber cavities can be populated with fiber termini and/or conductors. Electrical cavities can be populated with largest gauge wire and contacts.
6. Cables over 240” (20ft) shall be shipped on a reel.
7. Kit GBS1000-0033 shall be used for inspection/cleaning.
10. 10Kpsi open-face and mated

COMMERCIAL FO OPTIONS

Sample Part Number

<table>
<thead>
<tr>
<th>Seaking Fiber How To Order</th>
<th>Sample Part Number</th>
<th>End 1</th>
<th>End 2</th>
<th>Pressure Cap</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>7071-0037</td>
<td>7071-0037</td>
<td>C</td>
<td>C</td>
<td>Z1</td>
<td>0.8</td>
</tr>
<tr>
<td>7071-0038</td>
<td>7071-0038</td>
<td>B</td>
<td>F</td>
<td>Z1</td>
<td>0.8</td>
</tr>
</tbody>
</table>

End 1 Option
- C = CCP
- F = FC leads
- B = BCR

End 2 Option
- R = right angle CCP
- S = ST leads
- L = LC leads
- G = GC leads

Pressure Cap Option
- C = pressure cap, same size and material will be provided (709-001); omit for none

Length
- 700-001-XXX-Z1SN (2X) GLENAIR CONNECTOR, 10Kpsi open-face and mated

NOTES
1. Optical performance: Insertion loss shall be <1.0dB when measured @ 1310nm wavelength.
   Insertion loss shall be <1.0dB when measured @ 1310nm wavelength.
   (See note 4)
2. Insert arrangement shown is for reference only. See SeaKing fiber optic insert arrangements on page 24.
3. See drawing 700-001 for connector dimensions, materials, and finishes. See PBOF assembly fittings, 709-003, for more information.
4. Wiring for each arrangement is one to one. Fiber cavities can be populated with fiber termini and/or conductors. Electrical cavities shall be populated with largest gauge wire and contacts.
5. Kit GBS1000-0033 shall be used for inspection/cleaning.
7. Fiber optic terminus: 1.58 mm ferrule id, single O-ring.

COMMERCIAL FO OPTIONS

Sample Part Number

<table>
<thead>
<tr>
<th>Seaking Fiber How To Order</th>
<th>Sample Part Number</th>
<th>End 1</th>
<th>End 2</th>
<th>Pressure Cap</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>7071-0037</td>
<td>7071-0037</td>
<td>C</td>
<td>C</td>
<td>Z1</td>
<td>0.8</td>
</tr>
<tr>
<td>7071-0038</td>
<td>7071-0038</td>
<td>B</td>
<td>F</td>
<td>Z1</td>
<td>0.8</td>
</tr>
</tbody>
</table>

End 1 Option
- C = CCP
- F = FC leads
- B = BCR

End 2 Option
- R = right angle CCP
- S = ST leads
- L = LC leads
- G = GC leads

Pressure Cap Option
- C = pressure cap, same size and material will be provided (709-001); omit for none

Length
- 700-001-XXX-Z1SN (2X) GLENAIR CONNECTOR, 10Kpsi open-face and mated

NOTES
1. Optical performance: Insertion loss shall be <1.0dB when measured @ 1310nm wavelength.
   Insertion loss shall be <1.0dB when measured @ 1310nm wavelength.
   (See note 4)
2. Insert arrangement shown is for reference only. See SeaKing fiber optic insert arrangements on page 24.
3. See drawing 700-001 for connector dimensions, materials, and finishes. See PBOF assembly fittings, 709-003, for more information.
4. Wiring for each arrangement is one to one. Fiber cavities can be populated with fiber termini and/or conductors. Electrical cavities shall be populated with largest gauge wire and contacts.
5. Kit GBS1000-0033 shall be used for inspection/cleaning.
7. Fiber optic terminus: 1.58 mm ferrule id, single O-ring.
### Deep Water SeaKing™ Fiber Optic

**PBOF back-to-back SeaKing fiber optic assembly with straight, 45°, or 90° connectors**

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>7071-0049</th>
<th>S</th>
<th>MF4</th>
<th>-36</th>
<th>N</th>
</tr>
</thead>
</table>

**Backshell End Option (P1)**
- S = straight
- R = right
- F = 45°

**Insert Arrangement**
See page 24; Insert body material 316 SST

**Cable Length**
In inches

**Polarization**
N = normal, see page 23

---

**Fiber optic terminus:** 1.58 mm ferrule id, single o-ring.

**Tolerance is:**
- +3%/-0.00 for "L" greater than 60.00 inches.
- +1.80/-0.00 for "L" less than or equal to 60.00 inches.

**Fiber optic terminus:**
1.58 mm ferrule id, single o-ring.

### Deep Water SeaKing™ Fiber Optic

**PBOF single-ended fiber optic pigtail cable assembly with straight, 45°, and 90° routing**

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>7071-0050</th>
<th>S</th>
<th>F</th>
<th>MF4</th>
<th>XX</th>
<th>XX</th>
<th>N</th>
</tr>
</thead>
</table>

**Backshell End Option (P1)**
- S = Straight
- R = Right
- F = 45°

**Insert Arrangement**
See page 24; Insert body material 316 SST

**Cable Length**
In inches

**Tube Cut Length**
In inches

**Polarization**
N = Normal, see page 23

---

**NOTES**

1. 100% electrical tested for shorts, dielectric withstanding voltages at 500 Vac. 5 seconds, and insulation resistance (conductor to conductor and conductor to shell) at 500 Vdc/200 megohms min. JES1106E-STD-202, Method 3D2. Applies to electrical cavities only.
2. Optical performance:
   - Insertion loss shall be < 0.08 dB when measured at 1310 nm wavelength.
   - 5%–0.00 for "L" greater than 60.00 inches.
   - 3%–0.00 for "L" less than or equal to 60.00 inches.
3. Insertion arrangement shown is for reference only. See SeaKing fiber optic insert arrangements on page 24.
4. Wiring shall be one-to-one for all insert arrangements.
5. Cables over 240" (20ft) shall be shipped on a reel.
6. Wiring for each arrangement is one to one. Fiber cavities can be populated with fiber termini and/or conductors. Electrical cavities shall be populated with largest gauge wire and contacts.
7. Fiber optic terminus: 1.58 mm ferrule id, single o-ring.
8. Recommended SeaKing cleaning tool GCLT-H160.
9. Kit GBS1000-00033 shall be used for inspection/cleaning.
10. Insertion loss shall be < 0.08 dB when measured at 1310 nm wavelength. (See note 4)
11. Wiring for each arrangement is one to one. Fiber cavities can be populated with fiber termini and/or conductors. Electrical cavities shall be populated with largest gauge wire and contacts.
12. Fiber optic terminus: 1.58 mm ferrule id, single o-ring.
SeaKing™ Power

1–3kV connectors for deep sea oil & gas primary power junctions

Glenair’s SeaKing Power connector family is rated to 10K PSI in open-face or mated condition. These high-voltage (1–3kV) and high-amperage (up to 350 Amps) solder cup contact connectors are ready for immediate deployment in overmolded or PBOF configurations for primary power junction applications. Test ports available upon request. A range of shell sizes and contact inserts are available.

- API 16D and 17E-compliant test ports
- Fully redundant dual O-ring sealing
- Indexable flange or threaded bulkhead designs
- O-ring pressure inspection ports available on all BCR and FCR designs
- Factory acceptance testing in both mated and open-face conditions
- Keyed mating interface for mismate prevention
- API 16D and 17E-Compliant Cable Connector Plug (CCP)
- PBOF and overmold compatible cable connector plug
- Super duplex stainless steel or titanium construction with glass-reinforced thermoplastic insulator
- Accepts various backshell accessories
- Aggressive coupling nut knurling for easy field mating
- Inspection ports, spanner wrench holes, and coupling nut lock set screws ensure reliable foolproof performance
- Mates with SeaKing Power receptacle assemblies with similar contact arrangement
- Conductor sealing boots protect solder cup wire-to-contact terminations in the event of a flooded hose

FLANGE CONNECTOR RECEPTACLE (FCR)

- FCR delivers 10K PSI sealing in both mated and open-face condition
- Indexable flange allows receptacle shell rotation for 360° routing flexibility of right-angle-mating cable plugs
- Available API O-ring pressure test ports ensure reliability prior to deployment to ocean floor
- Super duplex stainless steel or titanium shells for complete compatibility with mating CCP
- Wire sealing boots ensure reliable environmental protection of cable-to-connector interface

BULKHEAD CONNECTOR RECEPTACLE (BCR)

- BCR is designed for direct threaded bulkhead mounting
- Supplied washer, mounting nut, and bulkhead-mate O-ring seals ensure secure sealing and grounding to equipment housing
- BCR shell equipped with both wrench flats and spanner wrench holes for convenient installation regardless of tool choice
- Available API O-ring pressure test ports ensure reliability prior to deployment
- Mates with SeaKing Power CCP with similar contact arrangement

SeaKing™ Power Performance Specifications

<table>
<thead>
<tr>
<th>Pressure Rating</th>
<th>Plug: 10,000 psi, mated condition</th>
<th>Recptacles: 10,000 psi mated and open face</th>
<th>per ISO 13628-6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical</td>
<td></td>
<td>per MIL-STD-202, Method 301</td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td>Salt Spray (corrosion)</td>
<td>Humidity (usually state)</td>
<td>MIL-STD-202, Method 101</td>
</tr>
<tr>
<td></td>
<td>Thermal Cycle</td>
<td>MIL-STD-202, Method 103</td>
<td>ISO 13628-6</td>
</tr>
<tr>
<td>Power Ratings</td>
<td>1kV, 100 Amp / contact</td>
<td>1kV, 50 Amp / contact</td>
<td>700-101-48, 700-101-49</td>
</tr>
<tr>
<td></td>
<td>1kV, 350 Amp / contact</td>
<td>P/N 707-0065, 707-0066</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>P/N 707-0089, P/N 707-0080</td>
<td></td>
</tr>
</tbody>
</table>

© 2020 Glenair, Inc. • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Underwater Interconnect Technologies
**HIGH VOLTAGE SUBSEA**

SeakIng™ Power connectors for underwater primary power junctions

Size 48, 4-way #8 HV contacts, 3kV, 50 amps/contact

---

### 700-101-48 Seaking Power, Cable Connector Plug (CCP), Size 48, 4-Way #8 HV Contacts*

#### How to Order

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>700-101-48HV4</th>
<th>Z1</th>
<th>S</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>700-101 = cable connector plug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shell Size / Insert Arrangement</td>
<td>-48HV4 = shell size 48 / layout HV4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shell Material</td>
<td>Z1 = SS super duplex, TC = titanium</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact Style</td>
<td>P = pins, S = sockets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polarization</td>
<td>N = normal, A, B, C, see key positions table at right</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Mates only with 700-106 BCR or FCR

---

### 700-106-48 Seaking Power, Flange or Bulkhead Connector Receptacle (FCR or BCR), Size 48, 4-Way #8 HV Contacts*

#### How to Order

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>700-106-48HV4</th>
<th>Z1</th>
<th>S</th>
<th>N</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>700-106 = bulkhead or flange connector receptacle (BCR OR FCR)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shell Size / Insert Arrangement</td>
<td>-48HV4 = shell size 48 / layout HV4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shell Material</td>
<td>Z1 = SS super duplex, TC = titanium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact Style</td>
<td>P = pins, S = sockets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polarization</td>
<td>N = normal, A, B, C, see key positions table at right</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mounting Option*</td>
<td>B = BCR option includes bulkhead nut and washer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F = FCR option and includes indexable mounting flange (fastener not included)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N = None, receptacle is mountable to a threaded bulkhead</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shell Option*</td>
<td>API = test parts, omit for none</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Mates only with 700-101 Cable Connector Plug

---
**707-0065-P4 SEAKING POWER, CABLE CONNECTOR PLUG (CCP)**

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>How to Order</th>
<th>Key Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>707-0065</td>
<td>-P4 -Z1 S N</td>
</tr>
<tr>
<td>Shell Size/Insert</td>
<td>= cable connector plug (CCP)</td>
<td></td>
</tr>
<tr>
<td>Shell Material</td>
<td>707-0065-P4</td>
<td></td>
</tr>
<tr>
<td>Shell Material</td>
<td>= stainless steel</td>
<td></td>
</tr>
<tr>
<td>Insert Material</td>
<td>= normal, A, B, C</td>
<td></td>
</tr>
<tr>
<td>Shell Option</td>
<td>= socket (707-0065 only)</td>
<td></td>
</tr>
<tr>
<td>Mounting Style</td>
<td>= BCR option and includes bulkhead nut and washer</td>
<td></td>
</tr>
<tr>
<td>Mounting Option</td>
<td>= FCR option and includes indesalible mounting flange</td>
<td></td>
</tr>
<tr>
<td>Polarization</td>
<td>= normal, A, B, C</td>
<td></td>
</tr>
</tbody>
</table>

*Mates only with 707-0065 BCR*

**707-0066-P4 SEAKING POWER, BULKHEAD CONNECTOR RECEPTACLE (BCR)**

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>How to Order</th>
<th>Key Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>707-0066</td>
<td>-P4 -Z1 S N</td>
</tr>
<tr>
<td>Shell Size/Insert</td>
<td>= bulkhead receptacle (BCR)</td>
<td></td>
</tr>
<tr>
<td>Shell Material</td>
<td>707-0066-P4</td>
<td></td>
</tr>
<tr>
<td>Shell Material</td>
<td>= stainless steel</td>
<td></td>
</tr>
<tr>
<td>Insert Material</td>
<td>= normal, A, B, C</td>
<td></td>
</tr>
<tr>
<td>Shell Option</td>
<td>= socket (707-0066 only)</td>
<td></td>
</tr>
<tr>
<td>Mounting Style</td>
<td>= FCR option and includes indexable mounting flange</td>
<td></td>
</tr>
<tr>
<td>Mounting Option</td>
<td>= pin</td>
<td></td>
</tr>
<tr>
<td>Polarization</td>
<td>= normal, A, B, C</td>
<td></td>
</tr>
</tbody>
</table>

*Mates only with 707-0066 CCP*

**707-0088 SEAKING POWER, CABLE CONNECTOR PLUG (CCP), SIZE 32, 1-WAY #1/0 HV CONTACTS**

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>How to Order</th>
<th>Key Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>707-0088</td>
<td>-Z1 P N</td>
</tr>
<tr>
<td>Shell Material</td>
<td>707-0088-P4</td>
<td></td>
</tr>
<tr>
<td>Shell Material</td>
<td>= stainless steel</td>
<td></td>
</tr>
<tr>
<td>Insert Material</td>
<td>= normal, A, B, C</td>
<td></td>
</tr>
<tr>
<td>Shell Option</td>
<td>= socket (707-0088 only)</td>
<td></td>
</tr>
<tr>
<td>Mounting Option</td>
<td>= API</td>
<td></td>
</tr>
<tr>
<td>Polarization</td>
<td>= normal, A, B, C</td>
<td></td>
</tr>
</tbody>
</table>

*Mates only with 707-0088 FCR or BCR*

**707-0089 SEAKING POWER, FCR/BCR, SIZE 32, 1-WAY #1/0 CONTACTS**

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>How to Order</th>
<th>Key Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>707-0089</td>
<td>-Z1 P N -N -API</td>
</tr>
<tr>
<td>Shell Material</td>
<td>707-0089-P4</td>
<td></td>
</tr>
<tr>
<td>Shell Material</td>
<td>= stainless steel</td>
<td></td>
</tr>
<tr>
<td>Insert Material</td>
<td>= normal, A, B, C</td>
<td></td>
</tr>
<tr>
<td>Shell Option</td>
<td>= pin</td>
<td></td>
</tr>
<tr>
<td>Mounting Option</td>
<td>= BCR option and includes bulkhead nut and washer</td>
<td></td>
</tr>
<tr>
<td>Mounting Option</td>
<td>= FCR option and includes indesalible mounting flange</td>
<td></td>
</tr>
<tr>
<td>Polarization</td>
<td>= normal, A, B, C</td>
<td></td>
</tr>
</tbody>
</table>

*Mates only with 707-0089 CCP*

---

Seaking™ Power connectors for underwater primary power junctions

Size P, 4-way #8 HV contacts, 1kV, 50 amps/contact

Size 32, 1-way #1/0 HV contact, 1kV, 150 amps/contact
**Seaking™ Power connectors for underwater primary power junctions**

**Size 64, 4-way #4/0 HV contact, 1kV, 350 amps/contact**

### How to Order

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>Key Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>707-0142-1</td>
<td>N</td>
</tr>
</tbody>
</table>

### Key Positions

<table>
<thead>
<tr>
<th>Position</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>75°</td>
<td>210°</td>
</tr>
<tr>
<td>B</td>
<td>95°</td>
<td>230°</td>
</tr>
<tr>
<td>C</td>
<td>130°</td>
<td>275°</td>
</tr>
</tbody>
</table>

*Mate only with 707-0142-1 CCP or 707-0142-7 BCR

---

**707-0142-6 SEAKING POWER, FLANGE CONNECTOR RECEPTACLE (FCR), SIZE 64, 4-WAY #4/0 HV CONTACTS**

*Mate only with 707-0142-1 CCP

---

**707-0142-7 SEAKING POWER, BULKHEAD CONNECTOR RECEPTACLE (BCR), SIZE 64, 4-WAY #4/0 HV CONTACTS**

*Mate only with 707-0142-1 CCP

---

**SeaKing™ Power connectors for underwater primary power junctions**

**Size 64, 4-way #4/0 HV contact, 1kV, 350 amps/contact**
The SuperG55™ family of dry-mate underwater deep-sea—high pressure connectors are a revolutionary new design of the popular industry-standard used in countless ROV, underwater camera, diver communications, lights, pan and tilts, and other deep subsea applications.

Available in multiple shell sizes, the SuperG55™ is manufactured from 316L Stainless Steel with insert molded contact assemblies designed for pressure-sealed applications up to 10K psi mated and unmated. Intermateable and intermountable with other “55” series connectors, the Glenair solution introduces a long list of product innovations designed to improve performance and durability. Our PBOF versions, for example, utilize easy-to-assemble threaded fittings which deliver both superior sealing performance while reducing installation time. Other innovations include full-mate inspection ports, improved solder cup contact design and more.

Cable plugs and receptacles available in attachable (user-terminatable) versions as well as factory overmolded single-ended whips.

Non-Standard Materials: Other material options are available as part of our non-catalog offerings including anodized aluminum, titanium, and aluminum bronze. Glenair is also able to supply SuperG55™ interconnects in composite thermoplastic (PEEK) to meet application requirements for reduced cathodic corrosion as well as weight reduction without affecting connector performance.

High-Speed Ethernet: The SuperG55™ Ethernet option is available in the 1508, 2013 and 2021 contact configurations and provides both high speed (Up to 1GB) and power (600 Volts) in a full subsea environment (10,000 PSI). Gigabit speed data transfer up to a distance of 75mtrs.
### SUPERG55™ INSERT ARRANGEMENTS

Mating face view of pin insert (socket insert IDs are reversed)

<table>
<thead>
<tr>
<th>Shell Size 15</th>
<th>1503</th>
<th>1504</th>
<th>1506</th>
<th>1508*</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Size #12 AWG Contacts</td>
<td>4 Size #16 AWG Contacts</td>
<td>6 Size #16 AWG Contacts</td>
<td>8 Size #16 AWG Contacts</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shell Size 20</th>
<th>2003</th>
<th>2004</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Size #10 AWG Contacts</td>
<td>4 Size #10 AWG Contacts</td>
<td>6 Size #10 AWG Contacts</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shell Size 20</th>
<th>2008*</th>
<th>2021*</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 Size #12 AWG Contacts</td>
<td>13 Size #16 AWG Contacts</td>
<td>25 Size #16 AWG Contacts</td>
</tr>
</tbody>
</table>

### G55 A1 ATTACHABLE CABLE CONNECTOR PLUG (CCP)

**Sample Part Number**

<table>
<thead>
<tr>
<th>G55A1</th>
<th>-1508</th>
<th>-0000</th>
</tr>
</thead>
</table>

**Series**

- SuperG55™ = underwater dry-mate, long version (CCP), attachable

**Shell/Shell Size/Insert Arrangement Size**

- See shell size/insert arrangements (page 38)

**Overall Length**

- In feet (0000 = no cable, 0001 = one foot, etc.)

**Potting Boot**

- PB = potting boot, omit for none. Not required if used for OFR1

**Material Options**

- Omit for stainless steel
- B = brass coupling nut and barrel
- PK = peek coupling nut and barrel
- See material options on page 40

### G55 01 STRAIGHT OVERMOLDED, CABLE PLUG (CCP)

**Sample Part Number**

<table>
<thead>
<tr>
<th>G5501</th>
<th>-1508</th>
<th>-0004</th>
</tr>
</thead>
</table>

**Series**

- SuperG55™ = underwater dry-mate, straight overmolded CCP

**Shell Size/Insert Arrangement**

- See shell size/insert arrangements (page 38)

**Cable Length**

- In feet (0001 = one foot, 0002 = two feet etc.)

**Inch Increments**

- 3, 6 or 9 inches, omit for whole feet lengths

**Material Options**

- Omit for stainless steel
- B = brass coupling nut and barrel
- See material options on page 40

**Back-to-Back**

- B2B = back-to-back, omit if not required

### G55 R1 RIGHT ANGLE OVERMOLDED, CABLE CONNECTOR PLUG (CCP)

**Sample Part Number**

<table>
<thead>
<tr>
<th>G55R1</th>
<th>-1508</th>
<th>-0004</th>
</tr>
</thead>
</table>

**Series**

- SuperG55™ = underwater dry-mate, right angle overmolded CCP

**Shell Size/Insert Arrangement**

- See shell size/insert arrangements (page 38)

**Cable Length**

- In feet (0001 = one foot, 0002 = two feet etc.)

**Inch Increments**

- 3, 6 or 9 inches, omit for whole feet lengths

**Material Options**

- Omit for stainless steel
- B = brass coupling nut and barrel
- PK = peek coupling nut and barrel
- See material options on page 40

**Back-to-Back**

- B2B = back-to-back, omit if not required

---

**SuperG55™ - How To Order**

**Sample Part Number**

<table>
<thead>
<tr>
<th>G55R1</th>
<th>-1508</th>
<th>-0004</th>
</tr>
</thead>
</table>

**Series**

- SuperG55™ = underwater dry-mate, right angle overmolded CCP

**Shell Size/Insert Arrangement**

- See shell size/insert arrangements (page 38)

**Cable Length**

- In feet (0001 = one foot, 0002 = two feet etc.)

**Inch Increments**

- 3, 6 or 9 inches, omit for whole feet lengths

**Material Options**

- Omit for stainless steel
- B = brass coupling nut and barrel
- PK = peek coupling nut and barrel
- See material options on page 40

**Back-to-Back**

- B2B = back-to-back, omit if not required

*Not compatible with high-speed Ethernet

**Not intermateable with any other brand of connector. Contact factory for details

**Depending on availability

**Custom insert arrangements available, contact factory.
**SuperG55™ High-Pressure, Dry-Mate Subsea Connectors**

G55 01 STRAIGHT OIL-FILLED CABLE CONNECTOR PLUG (CCP)

**SuperG55™ - How To Order**

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>G5501F1 -1508 -0010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>SuperG55™ = Underwater dry-mate, straight oil-filled CCP</td>
</tr>
<tr>
<td>Shell Size/Insert Arrangement</td>
<td>See shell size / insert arrangements (page 40)</td>
</tr>
<tr>
<td>Overall Length</td>
<td>In feet (0000 = no cable, no hose 0001 = one foot, etc.)</td>
</tr>
<tr>
<td>Back-to-Back*</td>
<td>B28 = back-to-back (min. 7ft hose length); omit if not required</td>
</tr>
</tbody>
</table>

*Consult factory for additional back-to-back options

G55 07 BULKHEAD CONNECTOR RECEPTACLE (BCR)

**SuperG55™ - How To Order**

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>G5507 -1508 -0004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>SuperG55™ = underwater dry-mate, bulkhead connector receptacle (BCR)</td>
</tr>
<tr>
<td>Shell Size/Insert Arrangement</td>
<td>See shell size / insert arrangements (page 38)</td>
</tr>
<tr>
<td>Cable Length</td>
<td>In feet (0000 = 1 foot, 0004 = 4 feet, standard length)</td>
</tr>
<tr>
<td>Material Option</td>
<td>PK = peek coupling nut and barrel</td>
</tr>
<tr>
<td></td>
<td>B = brass coupling nut and barrel</td>
</tr>
</tbody>
</table>

G55 02 STRAIGHT OVERMOLDED CABLE CONNECTOR RECEPTACLE (CCR)

**SuperG55™ - How To Order**

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>G5502 -1508 -0004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>SuperG55™ = underwater dry-mate, straight overmolded CCR</td>
</tr>
<tr>
<td>Shell Size/Insert Arrangement</td>
<td>See shell size / insert arrangements (page 38)</td>
</tr>
<tr>
<td>Cable Length</td>
<td>In feet (0001 = one foot, 0002 = two feet etc.)</td>
</tr>
<tr>
<td>Inch Increments</td>
<td>3, 6 or 9 inches, omit for whole feet lengths</td>
</tr>
<tr>
<td>Material Option</td>
<td>PK = peek coupling nut and barrel</td>
</tr>
<tr>
<td></td>
<td>B = brass coupling nut and barrel</td>
</tr>
</tbody>
</table>

G55 06 FLANGE CONNECTOR RECEPTACLE (FCR)

**SuperG55™ - How To Order**

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>G5506 -2013 -0004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>SuperG55™ = underwater dry-mate, flange connector receptacle (FCR)</td>
</tr>
<tr>
<td>Shell Size/Insert Arrangement</td>
<td>See shell size / insert arrangements (page 48)</td>
</tr>
<tr>
<td>Cable Length</td>
<td>In feet (0001 = 1 foot, 0004 = 4 feet, standard length)</td>
</tr>
<tr>
<td>Material Option</td>
<td>PK = peek coupling nut and barrel</td>
</tr>
<tr>
<td></td>
<td>B = brass coupling nut and barrel</td>
</tr>
</tbody>
</table>

**Note:** Currently only 1504, 1506, 1508, 2013, 2021, 2420 insert arrangements are available.

G55 01 STRAIGHT OIL-FILLED CABLE CONNECTOR PLUG (CCP)

**SuperG55™ - How To Order**

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>G5501FR1 -1508 -0010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>SuperG55™ = Underwater dry-mate, right angle oil-filled CCP</td>
</tr>
<tr>
<td>Shell Size/Insert Arrangement</td>
<td>See shell size / insert arrangements (page 40)</td>
</tr>
<tr>
<td>Overall Length</td>
<td>In feet (0000 = no cable, no hose 0001 = one foot, etc.)</td>
</tr>
<tr>
<td>Back-to-Back*</td>
<td>B28 = back-to-back (min. 7ft hose length); omit if not required</td>
</tr>
</tbody>
</table>

*Consult factory for additional back-to-back options

G55 07 BULKHEAD CONNECTOR RECEPTACLE (BCR)

**SuperG55™ - How To Order**

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>G5507 -1508 -0004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>SuperG55™ = underwater dry-mate, bulkhead connector receptacle (BCR)</td>
</tr>
<tr>
<td>Shell Size/Insert Arrangement</td>
<td>See shell size / insert arrangements (page 38)</td>
</tr>
<tr>
<td>Cable Length</td>
<td>In feet (0000 = 1 foot, 0004 = 4 feet, standard length)</td>
</tr>
<tr>
<td>Material Option</td>
<td>PK = peek coupling nut and barrel</td>
</tr>
<tr>
<td></td>
<td>B = brass coupling nut and barrel</td>
</tr>
</tbody>
</table>

G55 A2 ATTACHABLE CABLE CONNECTOR RECEPTACLE (CCR)

**SuperG55™ - How To Order**

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>G55A2 -1508 -0000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>SuperG55™ = underwater dry-mate, attachable cable connector receptacle (CCR)</td>
</tr>
<tr>
<td>Shell Size/Insert Arrangement</td>
<td>See shell size / insert arrangements (page 38)</td>
</tr>
<tr>
<td>Cable Length</td>
<td>In feet (0000 = no cable, 0001 = one foot, etc.)</td>
</tr>
<tr>
<td>Material Option</td>
<td>PK = peek coupling nut and barrel</td>
</tr>
<tr>
<td></td>
<td>B = brass coupling nut and barrel</td>
</tr>
</tbody>
</table>

**Note:** Currently only 1504, 1506, 1508, 2013, 2021 & 2420 insert arrangements are available.
### G55 OF2 Straight Oil-Filled Cable Connector Receptacle (CCR)

**SuperG55™ - How To Order**

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>SuperG55™ - How To Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Underwater dry-mate, straight oil-filled CCR</td>
</tr>
<tr>
<td>Shell Size/Insert Arrangement*</td>
<td>See shell size / insert arrangements (page 40)</td>
</tr>
<tr>
<td>Cable Length</td>
<td>In feet (0001 = one foot, 0002 = two feet, etc.)</td>
</tr>
<tr>
<td>Inch Increments</td>
<td>3, 6 or 9 inches, omit for whole feet lengths</td>
</tr>
<tr>
<td>Material Option</td>
<td>Omit for stainless steel, B = brass coupling nut and barrel</td>
</tr>
<tr>
<td>Back-to-Back**</td>
<td>0000 = no cable, 0001 = one foot, etc.</td>
</tr>
</tbody>
</table>

**Currently only 1504, 1506, 1508, 2013, 2021, and 2420 insert arrangements are available**

**Consult factory for additional back-to-back options**

### G55 OFR2 Right Angle Oil-Filled Cable Connector Receptacle (CCR)

**SuperG55™ - How To Order**

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>SuperG55™ - How To Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Underwater dry-mate, right angle oil-filled CCR</td>
</tr>
<tr>
<td>Shell Size/Insert Arrangement*</td>
<td>See shell size / insert arrangements (page 40)</td>
</tr>
<tr>
<td>Cable Length</td>
<td>In feet (0001 = one foot, 0002 = two feet, etc.)</td>
</tr>
<tr>
<td>Inch Increments</td>
<td>3, 6 or 9 inches, omit for whole feet lengths</td>
</tr>
<tr>
<td>Material Option</td>
<td>Omit for stainless steel, B = brass coupling nut and barrel</td>
</tr>
<tr>
<td>Back-to-Back**</td>
<td>0000 = no cable, 0001 = one foot, etc.</td>
</tr>
</tbody>
</table>

**Currently only 1504, 1506, 1508, 2013, 2021, and 2420 insert arrangements are available**

**Consult factory for additional back-to-back options**

### G55 D2 Dummy Sealing Plug (DSP)

**SuperG55™ - How To Order**

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>SuperG55™ - How To Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Dummy sealing plug (DSP)</td>
</tr>
<tr>
<td>Shell Size/Insert Arrangement*</td>
<td>See shell size / insert arrangements (page 38)</td>
</tr>
<tr>
<td>Cable Length</td>
<td>0000 = no cable</td>
</tr>
<tr>
<td>Material Option</td>
<td>Omit for stainless steel, B = brass coupling nut and barrel</td>
</tr>
<tr>
<td>Back-to-Back**</td>
<td>See material options on page 40</td>
</tr>
</tbody>
</table>

### G55 M1 Socket to Socket (CCP)

**SuperG55™ - How To Order**

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>SuperG55™ - How To Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Underwater dry-mate, back-to-back socket CCP</td>
</tr>
<tr>
<td>Shell Size/Insert Arrangement*</td>
<td>See shell size / insert arrangements (page 38)</td>
</tr>
<tr>
<td>Cable Length</td>
<td>In feet (0000 = no cable, 0001 = one foot, etc.)</td>
</tr>
<tr>
<td>Material Option</td>
<td>Omit for stainless steel, B = brass coupling nut and barrel</td>
</tr>
<tr>
<td>Back-to-Back**</td>
<td>See material options on page 40</td>
</tr>
</tbody>
</table>
### Super G55 Series custom connectors

#### G55 06 FLANGE CONNECTOR RECEPTACLE (FCR) WITH EARTH LEAD

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>SuperG55™ - How To Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>G5S06  -1508  -0004 -EL</td>
<td><strong>Series</strong> SuperG55™ = underwater dry-mate, FCR with earth lead</td>
</tr>
<tr>
<td></td>
<td><strong>Shell Size/Insert Arrangement</strong> See shell size/insert arrangements (page 40)</td>
</tr>
<tr>
<td></td>
<td><strong>Cable Length</strong> In feet (0001 = 1 foot, 0004 = 4 feet, standard length)</td>
</tr>
<tr>
<td></td>
<td><strong>Earth Lead</strong> EL = earth lead (ground)</td>
</tr>
<tr>
<td></td>
<td><strong>Material Option</strong> T = titanium; omit for stainless steel</td>
</tr>
</tbody>
</table>

#### G55 07 BULKHEAD CONNECTOR RECEPTACLE (BCR) WITH EARTH LEAD

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>SuperG55™ - How To Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>G5S07  -1508  -0004 -EL</td>
<td><strong>Series</strong> SuperG55™ = underwater dry-mate, BCR with earth lead</td>
</tr>
<tr>
<td></td>
<td><strong>Shell Size/Insert Arrangement</strong> See shell size/insert arrangements (page 40)</td>
</tr>
<tr>
<td></td>
<td><strong>Cable Length</strong> In feet (0001 = 1 foot, 0004 = 4 feet, standard length)</td>
</tr>
<tr>
<td></td>
<td><strong>Earth Lead</strong> EL = earth lead (ground)</td>
</tr>
<tr>
<td></td>
<td><strong>Material Option</strong> T = titanium; omit for stainless steel</td>
</tr>
</tbody>
</table>

#### G55 06IF FLANGE CONNECTOR RECEPTACLE (FCR) WITH INDEXABLE FLANGE

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>SuperG55™ - How To Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>G5S06IF  -1508  -0004</td>
<td><strong>Series</strong> SuperG55™ = underwater dry-mate, flange connector receptacle (FCR) with indexable flange</td>
</tr>
<tr>
<td></td>
<td><strong>Shell Size/Insert Arrangement</strong> See shell size/insert arrangements (page 40)</td>
</tr>
<tr>
<td></td>
<td><strong>Cable Length</strong> In feet (0001 = 1 foot, 0004 = 4 feet, standard length)</td>
</tr>
<tr>
<td></td>
<td><strong>Material Option</strong> OMIT for stainless steel</td>
</tr>
<tr>
<td></td>
<td><strong>PR</strong> = peek coupling nut and barrel</td>
</tr>
<tr>
<td></td>
<td><strong>B</strong> = brass coupling nut and barrel</td>
</tr>
</tbody>
</table>

---

### G66 CONNECTOR RANGE

#### G66 OVERMOLDED CABLE CONNECTOR PLUGS AND RECEPTACLES

- Overmolded CCP G6601
- Overmolded CCR G6602
- Right Angle Overmolded CCP G66R1
- Right Angle Overmolded CCR G66R2

#### G66 OIL-FILLED CABLE CONNECTOR PLUGS AND RECEPTACLES

- Oil-filled CCP G66OF1
- Oil-filled CCR G66OF2
- Right Angle Oil-Filled CCP G66OFR1
- Right Angle Oil-Filled CCR G66OFR2

#### G66 CABLE CONNECTOR PLUGS AND BULKHEAD, FLANGE AND CABLE CONNECTOR RECEPTACLES

- Cable Connector Plug G66A1
- Bulkhead Connector Receptacle G6600
- Flange Connector Receptacle G6606
- Cable Connector Receptacle G66A2
- Dummy Sealing Receptacle G66D2
- Dummy Sealing Plug G66D1

---

**INSERT ARRANGEMENTS**

Additional insert arrangements can be engineered, contact factory.
10K PSI SOLUTION

Micro-PSI

Microminiature high-pressure connectors and cables

The Series 707 Micro-PSI is an ultraminiaturized 10K PSI high-pressure, high-temperature interconnect designed specifically for pipeline inspection applications in Magnetic Flux Leakage and ultrasonic pipeline inspection PIGs. The Micro-PSI insert arrangements feature two high-density micro TwistPin layouts for sensor applications and high-speed Gigabit Ethernet, and a coax contact layout for 5 GHz performance. Micro-PSI connectors are supplied as discrete plugs, or overmolded plug cardsets with rugged Viton or Polyurethane jacketing.Bulkhead and flange mount receptacles are 10K psi open-face pressure sealed, and incorporate fused vitreous glass inserts for <1x10^-7 scc He/sec hermetic performance. Serviceable O-rings on plugs and dual piston and face O-rings on receptacles provide high-reliability sealing.

- **10,000 PSI pressure rated**
- **5 GHz Coax**
- **Less than 1 x 10^-7 scc He/sec @ 1 ATM pressure differential**
- **Special-purpose high density (.030” contact spacing) intelligent inspection (PIG) connector series**
- **3 Amp high-speed Gigabit Ethernet-ready**
- **-20°C to +150°C temperature range**
- **High-density, small form-factor**

**Flux Leakage and ultrasonic pipeline inspection PIGs.** The Micro-PSI insert arrangements feature two high-density micro TwistPin layouts for sensor applications and high-speed Gigabit Ethernet, and a coax contact layout for 5 GHz performance. Micro-PSI connectors are supplied as discrete plugs, or overmolded plug cardsets with rugged Viton or Polyurethane jacketing. Bulkhead and flange mount receptacles are 10K psi open-face pressure sealed, and incorporate fused vitreous glass inserts for <1x10^-7 scc He/sec hermetic performance. Serviceable O-rings on plugs and dual piston and face O-rings on receptacles provide high-reliability sealing.
**10K PSI SOLUTION**

**Micro-PSI**

Microminiature, high-pressure connectors and cables

---

**707-0264-1 MICRO-PSI CABLE CONNECTOR PLUG**

- 10K psi rated, mated condition
- Red alignment indicator for accurate mating
- Serviceable O-ring for reliable sealing and easy maintenance
- Ultra small form-factor
- Mates with 707-0264-5 CCR, 707-0264-6 FCR and 707-0264-7 BCR

---

**707-0264-5 MICRO-PSI CABLE CONNECTOR RECEPTACLE**

- 10K psi open-face rated
- Vitreous glass sealed, <1X10⁻⁷ scc He/sec hermeticity
- Operating temperature -20° to +150°C
- Alignment and full-mate indicators
- Ultra small form-factor
- Flying lead option available
- Mates with 707-0264-1 CCP Plugs

---

**707-0264-6 MICRO-PSI FLANGE MOUNT RECEPTACLE**

- 10K psi open-face rated
- Vitreous glass sealed, <1X10⁻⁷ scc He/sec hermeticity
- Operating temperature -20° to +150°C
- Fail-safe piston and mounting face O-rings
- Alignment and full-mate indicators
- Ultra small form-factor
- Flying lead option available
- Mates with 707-0264-1 CCP Plugs

---

**707-0264-7 MICRO-PSI BULKHEAD MOUNT RECEPTACLE**

- 10K psi open-face rated
- Vitreous glass sealed, <1X10⁻⁷ scc He/sec hermeticity
- Operating temperature -20° to +150°C
- Fail-safe piston and mounting face O-rings
- Alignment and full-mate indicators
- Flying lead option available
- Mates with 707-0264-1 CCP Plugs

---

© 2020 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Underwater Interconnect Technologies
709-100 MICRO-PSI PLUG PRESSURE

- 10K psi rated, mated condition
- Red alignment indicator for accurate mating
- Serviceable O-ring for reliable sealing and easy maintenance

709-101 MICRO-PSI RECEPTACLE PRESSURE

- 10K psi rated, mated condition
- Red alignment indicator for accurate mating
- Serviceable O-ring for reliable sealing and easy maintenance

7071-0069 MICRO-PSI OVERMOLDED PLUG-TO-PLUG / PIGTAIL CABLE ASSEMBLY

Sample Part Number

<table>
<thead>
<tr>
<th>Series/Basic P/N</th>
<th>7071-0069 = Back-to-Back or Pigtail Plug Cable Assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overmold Style (P1)</td>
<td>R = Right Angle S = Straight</td>
</tr>
<tr>
<td>Overmold Style (P2)</td>
<td>R = Right Angle S = Straight N = None (pigtail assembly)</td>
</tr>
<tr>
<td>Shell Size / Contact Layout</td>
<td>See page 50</td>
</tr>
<tr>
<td>Plug Shell Material</td>
<td>Z1 = Stainless Steel TC = Titanium</td>
</tr>
<tr>
<td>Overmold and Jacket Mtrl</td>
<td>V = Viton U = Polyurethane</td>
</tr>
<tr>
<td>Clocking Position</td>
<td>N = Normal, A, B, C (See page 50)</td>
</tr>
<tr>
<td>Length (inches)</td>
<td>Length in inches, i.e. 4 equals 4 inches</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shell Size</th>
<th>A (Ref)</th>
<th>B (Nom.)</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>MG</td>
<td>0.250</td>
<td>0.245</td>
<td>0.095</td>
<td>1.50</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>MG</td>
<td>0.680</td>
<td>0.585</td>
<td>0.342</td>
<td>1.50</td>
<td>1.13</td>
<td></td>
</tr>
<tr>
<td>MK</td>
<td>0.750</td>
<td>0.675</td>
<td>0.599</td>
<td>1.50</td>
<td>1.16</td>
<td></td>
</tr>
</tbody>
</table>
AquaMouse

Ultraminiature 3500 PSI

Originally developed for petroleum pipeline inspection equipment, Series 802 connectors are available in ten sizes from 1 to 130 contacts and equipped with Viton® O-rings to withstand exposure to corrosive chemicals and high temperature environments. These connectors feature high density crimp Mighty Mouse inserts, 316 stainless steel or marine bronze shells. Viton® O-rings resist high temperature and corrosive chemicals. Series 802 connectors feature 316 stainless steel or marine bronze shells. Viton® O-rings resist high temperature and corrosive chemicals. Series 802 connectors withstand up to 3500 PSI hydrostatic pressure in a mated condition. Hermetic versions withstand 1000 PSI open face pressure.

AQUAMOUSE CONNECTOR CONFIGURATIONS AND CLASSES

AQUAMOUSE SPECIFICATIONS AND PLUG KEY POSITIONS

Stainless Steel or Marine Bronze

Available in ten sizes from 1 to 130 contacts, Series 802 connectors feature 316 stainless steel or marine bronze shells. Viton® O-rings resist high temperature and corrosive chemicals.

3500 psi

These connectors withstand up to 3500 PSI hydrostatic pressure in a mated condition. Hermetic versions withstand 1000 PSI open face pressure.
High-pressure harsh-environment connectors and overmolded cables for inline inspection pigs and shallow subsea applications

Designed for use in oceanographic, geophysical and other severe industrial environments, Glenair Series 22 Geo-Marine® Connectors and Cables are the ultimate harsh-environment power and signal connector solution. Built to withstand hydrostatic pressures up to 5,000 PSI and exposure to extreme temperatures and corrosives, the Series 22 Geo-Marine® is ideally suited for applications such as intelligent pipeline inspection, towed array sonar systems, submersibles and ROVs, offshore oil drilling equipment, seabed exploration, well monitoring equipment, and digital seismic streamers.

Geo-Marine® plugs are equipped with arctic coupling nuts—made from marine-grade naval bronze—with easy-to-grip castellated knurling and a powerful ratcheted anti-decoupling mechanism which guarantees reliable mating and demating performance in even the harshest environments. Supplied as discrete connectors—or more typically in build-to-print overmolded cable assemblies.

Geo-Marine® plugs are supplied with either fused-glass or high grade thermoplastic insulators. Both classes of connectors are supplied with rugged, corrosion-resistant materials. Low-profile and scoop-proof cable plugs and receptacles, as well as bulkhead feed-thrus are available. Specially-designed cable sealing backshells as well as EMI/RFI shield termination backshells and environmentally-sealed protective covers complete the range of discrete product offerings. 35 insert arrangements (contact sizes #12, #16, #20 and #22) are tooled and fully available. Special inline single-pin HTHP glass fused contacts also available.

High-pressure fused-glass underwater / harsh-environmental connectors

Range of Offerings
Series 22 Geo-Marine® connectors are supplied with either fused-glass or high grade thermoplastic insulators. Both classes of connectors are supplied with rugged, corrosion-resistant materials. Low-profile and scoop-proof cable plugs and receptacles, as well as bulkhead feed-thrus are available. Specially-designed cable sealing backshells as well as EMI/RFI shield termination backshells and environmentally-sealed protective covers complete the range of discrete product offerings. 35 insert arrangements (contact sizes #12, #16, #20 and #22) are tooled and fully available. Special inline single-pin HTHP glass fused contacts also available.

Wide range of plug configurations with anti-galling arctic coupling nuts

High-pressure environmental and fused-glass receptacle configurations

Ruggedized stainless steel backshells and other connector accessories
Geo-Marine® Connectors

High-pressure fused-glass underwater / harsh-environmental connectors

**Performance Specifications**

- **Hydrostatic Pressure Rating:** 1,000 PSI (fully mated)
- **Operating Temperature:** -65°C to +125°C
- **Durability:** 500 Cycles of mate/demate
- **Insulation Resistance:** 1000 Megohms minimum at 500 VDC

**Class H Hermetic Receptacles**

- **Open Face Pressure Rating:** 1000 to 5000 PSI
- **Hermeticity:** Less than 1 X 10^-15 cc/sec/second at 1 atmosphere

**Current Rating**

- **Environmental:**
  - Size 22 Contact: 500 VDC, 1 amps
  - Size 20 Contact: 500 VDC, 3 amps
  - Size 16 Contact: 750 VDC, 10 amps
  - Size 12 Contact: 750 VDC, 17 amps

**Service Rating**

- **Contact Size:**
  - 22 GA: 400, 500 VDC
  - 20 GA: 500, 1500 VDC
  - 16 GA: 900, 1800 VDC
  - 12 GA: 700, 3300 VDC

**Depth/Pressure Conversion**

- **Feet Meters PSI Bar**
  - 1 3 4 33.09 1000 304.8 433.0 800.6 29.85 94.89
  - 10 30.4 43.3 137.28 3048 1000 304.8 433.0 948.90
  - 50 15.2 21.7 1.4190 2550 762.0 314.7 428.8 129.35 447.32
  - 100 30.5 43.3 2.9164 5100 1524.0 517.5 657.6 218.65 660.86
  - 250 76.2 188.3 7.4676 10,000 3048.0 914.4 1211.4 398.35 1293.50
  - 500 162.4 373.5 14.9211 15,000 4572.0 1371.2 1822.8 594.59 1974.70

**Cable/Wire D.C. Resistance**

- **AWG Ohms per 1000 feet**
  - 28: 0.62 Max
  - 26: 0.41 Max
  - 24: 0.32 Max
  - 22: 0.16 Max

**Contact Size Suggested Operational Voltage (Sea Level)**

- **Test Voltage (Sea Level)**
  - 22 GA: 400, 550 VDC
  - 20 GA: 750, 1250 VDC
  - 16 GA: 900, 2300 VDC
  - 12 GA: 1000, 2300 VDC

**Connector Materials and Potting**

- **Item Material Potting**
  - Connector Shells: CRS, SAE-AMS-QQ-S-763
  - Protective Covers: CRS, SAE-AMS-QQ-S-763
  - Solder Mount Receptacle: CRS, SAE-AMS-QQ-S-763
  - Flange Coupling Nut: Marine Bronze SAE-AMS-4440
  - Molding Adapters and Backshells: See individual product pages
  - Insulators, Class “E”: Equall 1908, Dural/Phthalate or Hyosil CPD-4289
  - Insulators, Class “H”: Fused Vitreous Glass
  - Contacts, Pin - Class “E”: Leadend Nickel Copper, CA7021
  - Contacts, Pin - Class “H”: Nickel-Iron Alloy 52 - MIL-I-23011, Class 2
  - Contacts, Socket: Copper Alloy, CA7022
  - Contacts, Socket Hood: CRS, SAE-AMS-QQ-S-763 AISI 305
  - O-Rings: Nitrile (Buna N) Rubber MIL-G-21569
  - Interfacial and Peripheral Seals: Fluorosilicone Rubber MIL-DTL-25988

**APPLICATION NOTES**

- All parts will be identified with manufacturer’s name and part number, space permitting.
- Glenair 600 series backshell assembly tools are recommended for assembly and installation.
- Electrical ratings are based on connectors only, not terminated to a cable or conductors, with proper cleaning and drying after hydrostatic testing.

**Geo-Marine® Connector Anatomy**

- **Plug**
  - Anti-Decoupling Device
  - Flat Compression Seal
  - Quick-Coupling Thread
  - 3-Kay Shell Polarization
  - Interfacial Seal on Pin Inserts
  - Red Color Band as Visual Full-Mate Indicator
  - Stainless Steel Jam Nut and Washer

- **Receptacle**
  - Stainless Steel Shell
  - Flange O-ring
  - Quick-Coupling Thread
  - Piston O-ring
  - Interfacial Seal
  - Standard Accessory Accommodation

- **Gold Plated Solder Pot Contacts**

- **Stainless Steel Copper Alloy, CA7021**

- **Nylon**

- **Nitrile (Buna N) Rubber**

- **Fluorosilicone Rubber**

- **Cable/Wire D.C. Resistance**

- **AWG Ohms per 1000 feet**

- **CP2-4289**

- **Stycast 2651/Catalyst 9**

- **Glenair can design and fabricate overmolded Geo-Marine® cable assemblies featuring Viton® chemical resistant materials— terminated and tested to deliver advanced levels of sealing and durability.**

- **Glenair 600 series backshell assembly space permitting.**

- **Manufacturer’s name and part number, reference only. Unless otherwise specified.**

- **Caution**

  - Electrical safety limits must be established by the user. Peak voltages, switching surges, transients, etc., should be used to determine the safety of application.

- **Applications are limited to**

  - On all length callouts, tolerance is ± .060 unless otherwise specified.
  - Metric dimensions appear in parentheses in diagrams and tables, based on 1 inch = 25.4 mm, for reference only. Unless otherwise specified.
  - All parts will be identified with manufacturer’s name and part number, space permitting.
  - Glenair 600 series backshell assembly tools are recommended for assembly and installation.
  - Electrical ratings are based on connectors only, not terminated to a cable or conductors, with proper cleaning and drying after hydrostatic testing.
### ThermaRex Interconnect Solutions

Cryogenic and high-temperature tolerant connectors, cables, and conduit systems

Standard circular and rectangular connectors are rated for +125°C due to elastomeric materials that cannot withstand higher temperatures and pressures. Glenair’s high-temperature Thermame series is built to withstand temperatures as high as +300°C and the extreme pressures of bottom-hole applications such as logging while drilling (LWD) and measurement while drilling (MWD). Designed for use in electronic modules and tools, these high-density, precision-machined rectangular and circular connectors are ideally suited for reliability and performance in the HTHP domain.

#### 300°C Thermarex HT Connectors: Series 806, Supernine, Series 79
- Service rating up to 300°C
- Vibration-resistant threaded coupling
- High-temperature ceramic insulators and silicone seals
- Durable stainless steel construction
- Available in Series 806 Mil-Aero, SuperNine® D38999 type, EN2997, or Series 79 Micro-Crimp rectangular connector styles
- Utilizes Glenair Crown Ring contacts

#### 600°C Thermarex UHT Connector
- 300°C to 600°C service range
- Vibration-resistant threaded coupling
- Specialized contacts, laser welds, and metal seals
- Utilizes ultra-high-temperature-tolerant Mineral Insulated cable
- Ideal for nuclear and other extreme temperature applications

#### 300°C Thermarex Wire
- P/N 961-047 - Single Wire
- P/N 960-2371 - Twisted, Shielded, Jacketed Pair
- Special nickel-coated copper alloy conductors
- 300°C continuous service
- 24 to 8 AWG, 10 colors of insulation
- Single-wires plus jacketed, shielded, twisted pair available

#### 300°C Thermarex Polymer-Core Conduit
- High-temperature-tolerant flexible polymer-core conduit
- All standard colors: Black, clear, orange, blue, yellow
- Qualification test report GT-17-261 available
- 300°C continuous service
- Available with high-temperature braid shield and/or jacket

#### 300°C Thermarex Metal-Core Conduit
- Flexible passivated stainless steel core conduit
- High-temperature-tolerant Thermamex Jacket
- .127” to .250” outer diameter sizes
- 300°C continuous service

#### Armolite CF
- Stainless steel over copper microfilament EMI shield
- High temperature -80°C to 300°C
- Corrosion / harsh environment resistant
- 1000 hour salt spray testing completed
- 70% reduced weight vs. standard braid
- Superb electrical resistance and shielding performance

#### Crown Ring Contacts
- Crimp removable contacts
- Suitable for use at 300°C or higher while maintaining low electrical resistance
- Stainless steel Crown Ring provides compression force on the socket
- Superior vibration resistance
- Higher current carrying capabilities, lower contact resistance

#### Thermamex Cryo Connector
- Dynamic cryogenic connector
- Vibration at -150°C
- Ultra low-temperature Duralectric K seals
- High-temperature sealing technology maintains 1X10⁻⁷ leak-rate performance at 300°C

#### ThermaRex High-Temperature Hermetic
- Flexible passivated stainless steel core conduit
- High-temperature-tolerant ThermaRex jacket
- .127” to .250” outer diameter sizes
- 300°C continuous service

---

© 2020 Glenair, Inc. • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Underwater Interconnect Technologies
How To Order ThermaRex SuperNine connectors

**Sample Part Number** 233-273 -20 Z1 17 -26 P N

**Series / Basic Part No.** 233-273 High-temperature ThermaRex SuperNine connector

**Connector Style**
-20 = Receptacle, square flange-mount
-24 = Receptacle, jam nut
-26 = Plug

**Material/Finish** Z1 = Passivated CRES

**Shell Size** 9, 11, 13, 17, 19, 21, 23, 25

**Insert Arrangement** Per MIL-1560. See insert arrangement tables below

**Contact Style**
P = Pin contacts  S = Socket contacts
A = Pin insert, less contacts  B = Socket insert, less contacts

**Alternate Polarization** A, B, C, D, E, N = Normal (MIL-DTL-38999 Series III)

**Material / Finish Notes**
- Plug and receptacle shells, coupling nut - Passivated CRES
- Insulator - high-grade ceramic dielectric
- Grommet, interfacial, and peripheral seals - high-temp silicone
- Contacts - copper alloy, gold plated, CRES hood and crown ring on socket contacts

ThermaRex High Temperature Crown Ring Contact Arrangements (pin mating face shown)
Suggested high-availability contact arrangements shown. Most MIL-DTL-1560 arrangements are available; consult factory.

<table>
<thead>
<tr>
<th>Contact Size</th>
<th>Qty.</th>
<th>Service Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-35</td>
<td>6</td>
<td>M</td>
</tr>
<tr>
<td>11-99</td>
<td>7</td>
<td>I</td>
</tr>
<tr>
<td>15-35</td>
<td>13</td>
<td>M</td>
</tr>
<tr>
<td>17-6</td>
<td>8</td>
<td>I</td>
</tr>
<tr>
<td>19-35</td>
<td>22</td>
<td>M</td>
</tr>
<tr>
<td>15-37</td>
<td>8</td>
<td>I</td>
</tr>
<tr>
<td>17-24</td>
<td>24</td>
<td>I</td>
</tr>
</tbody>
</table>

© 2020 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Underwater Interconnect Technologies
Series 806 Arrangements with #22HD Contacts (1300 Vac, 5 A, pin mating face shown)

- Operating temperature -65° to +300°C
- Vibration-resistant threaded coupling
- High-temperature ceramic insulators and silicone seals
- Durable stainless steel construction

Series 806 Arrangements with #20 Contacts (1800 Vac, 7.5 A, pin mating face shown)

- Micro-miniature triple-start stub ACME solution
- Series 806 Mil-Aero Connectors
- Durable stainless steel construction
- Vibration-resistant threaded coupling
- Contacts - copper alloy, gold plated, CRES hood and crown ring on socket contacts
- Grommet, interfacial seals - high-temp silicone
- Insulator - high-grade ceramic dielectric
- Plug and receptacle shells, barrel, coupling nut, jam nut, hex nut - Passivated CRES

How To Order ThermaRex Series 806 Mil-Aero Jam Nut Receptacle

- Sample Part Number: 806-041
- Series / Basic Part No: 806-041
- High-temperature ThermaRex Series 806 jam nut receptacle with PCB standoff
- Material/Finish: Z1 = Passivated CRES
- Shell Size/Insert Arr.: Per 806-015, See tables
- Contact Style: P = Pin, A = Pin connector, less contacts
- Polarization Keyway Code: A, B, C, D, E, F

How To Order ThermaRex Series 806 Mil-Aero Plug

- Sample Part Number: 806-042
- Series / Basic Part No: 806-042
- High-temperature ThermaRex Series 806 plug
- Material/Finish: Z1 = Passivated CRES
- Shell Size/Insert Arr.: Per 806-015, See tables
- Contact Style: P = Pin, A = Pin connector, less contacts
- Polarization Keyway Code: A, B, C, D, E, F

ThermaRex HT Series 806 Mil-Aero Connectors

- High-temperature tolerant
- Micro-miniature triple-start stub ACME solution
- Sample Part Number: 806-041
- Series / Basic Part No: 806-041
- High-temperature ThermaRex Series 806 plug
- Material/Finish: Z1 = Passivated CRES
- Shell Size/Insert Arr.: Per 806-015, See tables
- Contact Style: P = Pin, A = Pin connector, less contacts
- Polarization Keyway Code: A, B, C, D, E, F

ThermaRex HT Series 806 Mil-Aero Connectors

- High-temperature tolerant
- Micro-miniature triple-start stub ACME solution
- Sample Part Number: 806-042
- Series / Basic Part No: 806-042
- High-temperature ThermaRex Series 806 plug
- Material/Finish: Z1 = Passivated CRES
- Shell Size/Insert Arr.: Per 806-015, See tables
- Contact Style: P = Pin, A = Pin connector, less contacts
- Polarization Keyway Code: A, B, C, D, E, F
SERIES 806 MIL-AERO SQUARE FLANGE RECEPTACLE

How To Order ThermaRex Series 806 Mil-Aero Jam Nut Receptacle

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>806-052</th>
<th>21</th>
<th>11-19</th>
<th>S</th>
<th>M</th>
<th>T</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series / Basic Part No.</td>
<td>806-052 High-temperature ThermaRex Series 806 square-flange receptacle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material/Finish</td>
<td>Z1 = Passivated CRES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shell Size/Insert Arr.</td>
<td>Per 806-015, See tables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact Style</td>
<td>P = Pin, A = Pin connector, less contacts, S = Socket, B = Socket connector, less contacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shell Style</td>
<td>M = Metric accessory thread, B = Banding platform</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panel Mounting</td>
<td>T = Thru-hole</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polarization Keyway Code</td>
<td>A, B, C, D, E, F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SERIES 806 MIL-AERO JAM NUT RECEPTACLE

How To Order ThermaRex Series 806 Mil-Aero Jam Nut Receptacle

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>806-053</th>
<th>21</th>
<th>11-19</th>
<th>S</th>
<th>M</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series / Basic Part No.</td>
<td>806-053 High-temperature ThermaRex Series 806 jam-nut receptacle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material/Finish</td>
<td>Z1 = Passivated CRES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shell Size/Insert Arr.</td>
<td>Per 806-015, See tables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact Style</td>
<td>P = Pin, A = Pin connector, less contacts, S = Socket, B = Socket connector, less contacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shell Style</td>
<td>M = Metric accessory thread, B = Banding platform</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polarization Keyway Code</td>
<td>A, B, C, D, E, F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

© 2020 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Underwater Interconnect Technologies
ThermaRex HT Series 79 Micro-D Connectors with Micro-Crimp Contacts

How To Order / Contact Arrangements

- Service rating up to 300°C
- Vibration-resistant jackpost coupling
- High-temperature ceramic insulators and silicone seals
- Durable stainless steel construction

ThermaRex High-Temperature Crown Ring Contact Arrangements (pin mating face shown)

<table>
<thead>
<tr>
<th>Series 79 SEVENTY-NINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>How To Order ThermaRex Series 79 connectors:</td>
</tr>
<tr>
<td>Sample Part Number</td>
</tr>
<tr>
<td>Series / Basic Part No.</td>
</tr>
<tr>
<td>Connector Type</td>
</tr>
<tr>
<td>Contact Type</td>
</tr>
<tr>
<td>Insert Arrangement</td>
</tr>
</tbody>
</table>

series 79 ThermaRex HT Series 79 Micro-D Connectors with Micro-Crimp Contacts

How To Order ThermaRex Series 79 Connectors with Micro-Crimp Contacts

- High-Temperature ThermaRex HT Series 79 Micro-D Connectors
- Connector Type: D-3P3 / D-3W3
- Contact Type: B = Socket (for -756 Plug connectors)
- Insert Arrangement: Per 799-009. See insert arrangement tables below

**MATERIAL / FINISH NOTES**

- Housing, Float Mount Hardware, Guide Socket - Stainless Steel / Passivated
- Pin and Socket Contact - Copper Alloy / Gold Plated
- Socket Hood - Stainless Steel / Passivated
- Insulators - High Grade Ceramic / N/A
- Grommet and Interfacial Seal - High Temperature Silicone / N/A
- Retainer Clip Stainless Steel / Passivated
- Pin and Socket Contact - Copper Alloy / Gold Plated
- Housing, Float Mount Hardware, Guide Socket - Stainless Steel / Passivated
- EMI Spring - Stainless Steel / Gold Plated

**BLIND MATE MISALIGNMENT ALLOWANCE**

- Shell Sizes A, B, C, D, E, F, G, I, K: ±0.040 (1.02) allowable misalignment from centerline
- Shell Size H-L: ±0.040 (1.02) allowable misalignment from centerline
- Shell Size M: ±0.050 (1.27) allowable misalignment from centerline

**ELECTRICAL PERFORMANCE**

- Contacts: Size 23 = 5 Amps Max. / Size 16 = 13 Amps Max. / Size 12 = 23 Amps Max.
- DWV: 500 vac, with 5 Milliamperes Max.leakage
- Insulation Resistance - 5000 Megohms Max.
- Operating Temperature: -65°C to +300°C

**Operating Temperature:**

- ±0.050 (1.27) allowable misalignment from centerline

**Insert Arrangement**

- Connector Type -756
- Per 799-009. See insert arrangement tables below

**Sample Part Number**: 797 -756 S H-29P7

**Contact Type S**

- Pin (for -757 Receptacle connectors)
- Socket (for -756 Plug connectors)

**Contact Arrangements**

- Pin (for -757 Receptacle connectors)
- Socket (for -756 Plug connectors)

**Series 79 Crimp-Contact Rectangular Connectors**

- TherapyRex Series 79 connectors
- Connector Type: D-3P3 / D-3W3
- Contact Type: B = Socket (for -756 Plug connectors)
- Insert Arrangement: Per 799-009. See insert arrangement tables below

**ThermaRex HT Series 79 Micro-D Connectors**

- Connector Type: D-3P3 / D-3W3
- Contact Type: B = Socket (for -756 Plug connectors)
- Insert Arrangement: Per 799-009. See insert arrangement tables below

**Material / Finish Notes**

- Housing, Float Mount Hardware, Guide Socket: Stainless Steel / Passivated
- Pin and Socket Contact: Copper Alloy / Gold Plated
- Socket Hood: Stainless Steel / Passivated
- Insulators: High Grade Ceramic / N/A
- Grommet and Interfacial Seal: High Temperature Silicone / N/A
- Retainer Clip: Stainless Steel / Passivated
- Pin and Socket Contact: Copper Alloy / Gold Plated
HIGH-TEMPERATURE TOLERANT
ThermaRex HT Series 79
High-Performance Crimp-Contact Micro-D
797-756 Plug Details

CROSS-SECTIONAL VIEW AND HARDWARE

SHELL SIZES A, B, C, D, E, F, J, K

SHELL SIZE G

SHELL SIZES H AND L

SHELL SIZE M

See Section A-A for Float Mount Details

© 2020 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Underwater Interconnect Technologies
HIGH-TEMPERATURE TOLERANT
TheraRex HT Series 79
High-Performance Crimp-Contact Micro-D
797-757 Receptacle Details

CROSS-SECTIONAL VIEW AND HARDWARE

SHELL SIZES A, B, C, D, E, F, J, K

SHELL SIZE G

SHELL SIZES H AND L

SHELL SIZE M

© 2020 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Underwater Interconnect Technologies
Glass Sealed Penetrators and Feedthroughs

Glass sealed penetrators and feedthroughs provide sealed interconnect solutions for downhole applications such as logging while drilling (LWD) and measurement while drilling (MWD) applying methods such as near-balanced, underbalanced and overbalanced drilling. In these environments, conditions can reach temperatures approaching 300°C while experiencing elevated shock and vibration, downhole fluids / pressures, and limited working room. Glenair HTHP penetrators are typically used where a waterproof seal is needed but connectorized separation from equipment is not. Standard plugs are rated to 10K PSI, mated condition. Standard receptacles are rated to 10K PSI both mated and open-face.

- Available in 7 shell sizes and 17 insert arrangements
- Standard penetrators with hermeticity of <1 X 10^-7 sccHe/sec @ 1 atmosphere differential and rated to 10,000 PSI
- High-pressure / high-temperature penetrators rated to 25,000 PSI and hermeticity of <1 X 10^-8 sccHe/sec @ 1 atmosphere differential

HIGH TEMPERATURE HIGH PRESSURE (HTHP)

MULTI-PIN AND SINGLE-PIN PENETRATORS, RECEPTACLES, AND FEED-THRU'S

<table>
<thead>
<tr>
<th>Size G</th>
<th>Size K</th>
<th>Size O</th>
<th>Size R</th>
</tr>
</thead>
<tbody>
<tr>
<td>G10</td>
<td>K19</td>
<td>O61</td>
<td>Q109</td>
</tr>
<tr>
<td>6 Size #22 Contacts 8 Size #20 Contacts</td>
<td>19 Size #22 Contacts 14 Size #20 Contacts</td>
<td>49 Contacts &amp; 19 #20 • 34 #22</td>
<td>109 Size #22 Contacts 30 Size #16 Contacts</td>
</tr>
<tr>
<td>G8</td>
<td>K14</td>
<td>Q44</td>
<td>Q30</td>
</tr>
<tr>
<td>14 Size #20 Contacts</td>
<td>4 Size #16 Contacts</td>
<td>44 Size #20 Contacts</td>
<td>30 Size #16 Contacts</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size L</td>
<td>Size M</td>
<td>Size Q</td>
<td>Size R</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>L9</td>
<td>M37</td>
<td>Q19</td>
<td>Q31</td>
</tr>
<tr>
<td>9 Size #16 Contacts</td>
<td>37 Size #22 Contacts</td>
<td>19 Size #16 Contacts</td>
<td>39 Contacts &amp; 19 #20 • 34 #22</td>
</tr>
<tr>
<td>M26</td>
<td>M12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26 Size #20 Contacts</td>
<td>12 Size #16 Contacts</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size O</td>
<td>Size R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q109</td>
<td>Q30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>109 Size #22 Contacts 30 Size #16 Contacts</td>
<td>30 Size #16 Contacts</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

© 2020 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Underwater Interconnect Technologies
**HIGH-TEMPERATURE**

**Well-Master® 260°**

The Micro-D connector for serious, high-temperature applications

Standard Micro-D connectors are rated for +125°C. Glenair’s MWDM Micro-D can withstand +150°C continuous operating temperature and can be upgraded to +200°C if assembled with special high temperature epoxies. But oil, gas and geothermal wells can subject electronic instruments to temperatures as high as +260°C. The GHTM Series Micro-D meets the need for a high density, high performance connector capable of handling this temperature. The GHTM features contacts made from a special alloy that resists softening when exposed to temperatures up to +260°C (500°F). Rugged passivated stainless steel shells and hardware, high temperature liquid crystal polymer (LCP) insulators allow these connectors to survive the most demanding environments. Unique angled mounting ears allow the Well-Master™ 260° to fit in confined spaces.

- +260°C operating temperature
- Angled mounting ears to fit in small diameter instruments
- High reliability twistpin contact system with special high temperature alloy
- .050” Pitch contact spacing for reduced size
- Solder cup, pre-wired or PCB

In addition to extreme high temperature tolerance, and demating resistance to vibration and shock, the Glenair Well-Master™ 260° Micro-D connector features unique shell packaging designed to conform with the cylindrical shape of instrument housings. Special angled mounting ears facilitate incorporation of the connector into available space, and the Micro-D’s overall reduced size compared to other rectangular connector solutions allows for more efficient utilization.

![Well-Master 260° Micro-D Connector](image)
GHTM Well-Master™ 260° pre-wired Micro-D connectors withstand +260°C continuous operating temperature. These .050" pitch Micro-D connectors are terminated to .024" AWG insulated wire. Nickel-coated copper wire conforms to M22759/87, PTFE/polyimide insulation. Pin contacts are gold-plated high performance twistpin type and are recessed into insulator to prevent damage. Special nickel alloy contact material resists softening in high heat. Machined passivated stainless steel shell. Glass-filled high temperature LCP thermoplastic insulators. 100% hi-pot tested. Meets performance requirements of MIL-DTL-83513. Available with 9 to 51 contacts. 3 A, 600 Vac, -55°C to +260°C.

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>Series</th>
<th>Shell Size</th>
<th>Contact Type</th>
<th>Wire Gage (AWG)</th>
<th>Wire Type</th>
<th>Wire Color</th>
<th>Wire Length (Inches)</th>
<th>Mounting Hardware</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHTM -31 S -4 T 1 -18 B</td>
<td>GHTM Glenair High Temperature Micro</td>
<td>9, 15, 21, 25, 31, 37, 51</td>
<td>P - Pin/Plug</td>
<td>.024</td>
<td>PTFE/Polyimide Insulated Nickel-Coated Copper</td>
<td>White</td>
<td>18</td>
<td>Std. Thru-Hole (Ø.090/0.091)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>S - Socket/Receptacle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hex Head Jackscrew</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>M - Hex Head Jackscrew</td>
<td></td>
<td></td>
<td></td>
<td>Slot Head Jackscrew</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>P - Integral Jackpost</td>
<td></td>
<td></td>
<td></td>
<td>Integral Jackpost</td>
<td></td>
</tr>
</tbody>
</table>

How To Order

<table>
<thead>
<tr>
<th>GHTM</th>
<th>S</th>
<th>-4</th>
<th>T</th>
<th>1</th>
<th>-18</th>
<th>B</th>
</tr>
</thead>
</table>

GHTM Right Angle Printed Circuit Board Connectors

GHTM Well-Master™ 260° back-to-back Micro-D connectors withstand +260°C continuous operating temperature. These .050" pitch Micro-D connectors are terminated to .024" AWG insulated wire. Nickel-coated copper wire conforms to M22759/87, PTFE/polyimide insulation. Pin contacts are gold-plated high performance twistpin type and are recessed into insulator to prevent damage. Special nickel alloy contact material resists softening in high heat. Machined passivated stainless steel shell. Glass-filled high temperature LCP thermoplastic insulators. Meets performance requirements of MIL-DTL-83513. Available with 9 to 51 contacts. 3 A, 600 Vac, -55°C to +260°C.

<table>
<thead>
<tr>
<th>Sample Part Number</th>
<th>Series</th>
<th>Shell Size</th>
<th>Gender</th>
<th>Termination Type</th>
<th>Mounting Hardware</th>
<th>Terminal Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHTM -31 P RA P -110</td>
<td>GHTM Glenair High Temperature Micro-D</td>
<td>9, 15, 21, 25, 31, 37, 51</td>
<td>P - Pin/Plug</td>
<td>RA - Right Angle Board Mount</td>
<td>Integral Jackpost</td>
<td>All lengths ±0.015 (±0.38)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>S - Socket/Receptacle</td>
<td></td>
<td></td>
<td>Ø.800, .110, .125, .140, .150, .175, .190, .205</td>
</tr>
</tbody>
</table>

How To Order

<table>
<thead>
<tr>
<th>GHTM</th>
<th>P</th>
<th>RA</th>
<th>P -110</th>
</tr>
</thead>
</table>
Industrial-strength power and signal connector series qualified for use in hazardous zone interconnect applications

Designed for safe operation in petrochemical refineries, oil & gas drilling platforms, and other explosion zone applications, the Glenair ITS-Ex series connector is optimized for life-of-system durability and reliability. Qualified by the globally-recognized IEC and IECEx standards bodies, the connector series is suitable for use in application areas where flammable gases and vapors are present as a normal condition of operation (group IIIC) and with temperature classes T6 and T5, zones 1 and 2; and for applications where potentially flammable dust is present as a normal condition of operation (group IIIC) and with temperature classes T80°C and T95°C in zones 21 and 22.

Series ITS-Ex is designed for easy and repeatable termination of armored and unarmored cables built to IEEE 45, IEC, BS, DIN, and JIC standards. A full range of power and signal contacts, from size #16 to size #0 in over 40 insert arrangements are available to address all common voltage, wire size and connector service class ratings.

Special Ex design attributes of the series include an integral labyrinth flame path cooling zone, 2-part epoxy potting well, fixed in-line receptacles for attachment of cables to cable management brackets and trays, set screw (grub screw) secured protective safety covers, and durable life-of-system Ex marking labels.

- Utilizes all standard features of 5015 inserts, contacts, tools, etc.
- Grub nuts (set screw) to lock coupling nut
- Long plug barrels provide cooling zone
- Labyrinth gas exit port/pathway augments cooling
- Accessory accommodation for potted glands
- Increased wall thickness
- Stainless steel and Marine Bronze available

RANGE OF APPLICATIONS
- Automotive refueling or petrol stations
- Oil & gas extraction
- Oil refineries
- Gas pipelines and distribution
- Chemical processing plants
- Aircraft refuelling and hangars
- Transportation
- Pharmaceuticals
- Food processing
- Metal surface grinding
- Sugar refineries
- Grain handling and storage
- Coal mining

SERIES ITS-Ex
IECEx/ATEX Qualified
Explosive Zone Connectors

Glenair ITS-Ex series encompasses both in-line cable plugs and receptacles as well as fixed bulkhead-mountable designs.
Marine Bronze Connectors

For geophysical/offshore and other harsh-environment applications

Glenair manufactures connectors qualified to VG96929, VG95234 and VG95328 standards. These connectors are mostly used in harsh-environment military applications for ground vehicles and ground systems. Our new Marine Bronze version increases the level of robustness of these connectors to be successfully used in all severe environment navy installations, as well as off-shore platforms, sea ports, geological and oceanographic applications.

- Marine bronze alloy for superior corrosion resistance in seawater and other harsh environments
- Ideal for shipboard and offshore drilling applications
- Available in Series ITS (5015 reverse-bayonet), Series IPT (26482), Series IGE (Single-pole high-power VG96929) and Series IT (5015 threaded)
- IP67 environmental sealing in mated condition; IP68 available
- Hundreds of available contact arrangements for both power and signal as well as hybrid applications

Seacrow Connectors

Marine Bronze

VG95234 Equivalent Marine Bronze Series

ITS-MB connectors are compliant with VG95234, using all the same insert arrangements available in the standard ITS Reverse Bayonet Connectors catalog. Typically they are used for power and signal transmission, with wires from 26 AWG to 4/0. A wide variety of backshells allow the ITS-MB to accept jacketed cables, single or multi-poles, with or without RFI/EMI shielding, conduits with PG or metric thread. IP67 protection is the standard performance. IP68 on request.

VG95328 Equivalent Marine Bronze Series

IGE-MB High Power Single Pole Connectors are used with cables from 16 to 240 mm². These connectors achieve high-performance working current and peak current, and are ideal for engines, power supplies, and power distribution boxes. Several backshells are available, either straight or 90° elbows for the most reliable cable accommodation. See the VG96929 catalog for detailed electrical characteristics. IP67 protection is the standard performance. IP68 on request.

IT-MB MIL-C-5015 TYPE THREADED CONNECTORS

MIL-C-5015 Compliant Marine Bronze Series

IT-MB is a threaded connector compliant with the MIL-DTL-5015 standard. All the electrical characteristics are available in the IT standard catalog. IT-MB family is a threaded version mostly used for power and signal, with IP67 standard performance sealing.

VG96929 Equivalent Marine Bronze Series

IGE-MB High Power Single Pole Connectors are used with cables from 16 to 240 mm². These connectors achieve high-performance working current and peak current, and are ideal for engines, power supplies, and power distribution boxes. Several backshells are available, either straight or 90° elbows for the most reliable cable accommodation. See the VG96929 catalog for detailed electrical characteristics. IP67 protection is the standard performance. IP68 on request.

IT-MB MIL-DTL-26482 TYPE HIGH DENSITY BAYONET CONNECTORS

VG95328 Equivalent Marine Bronze Series

IT-MB connectors are the choice for reliability when 20-16 AWG signal cables are used. The insert arrangements as well as the electrical characteristics are detailed in the IPT IPT-5E catalog. Backshells suitable for EMI shield terminations and heat shrink boots are also available.

The receptacle is also available with PCB contacts. IP67 protection is the standard performance. IP68 on request.
ADVANTAGES OF OVERMOLDING

- Waterproof sealing
- Robust mechanical protection
- Permanent protection of terminations
- Resistance to chemicals and fuels
- No induced cold flow stress
- Electrical isolation and insulation
- Reduced wear damage
- Flexible routing and cable entry
- Repeatable assembly performance

Glenair overmolded cable assemblies may be supplied with materials such as Viton®, Duralectric®, polyurethane, EPDM, Santoprene™, or polyamide to optimize harsh-environment performance for the Oil & Gas industry. Assemblies may be specially shielded with conductive overbraiding for superior mechanical protection, flexibility, and resistance to RFI and other forms of electromagnetic interference. Fast turnaround and quality fabrication in overmolded cable assemblies depends on capital investment in tooling, injection molding equipment, planetary wire stranders, and braiding machines.

DURALECTRIC™ APPLICATION AND MATERIAL PROPERTIES

Duralectric™ is high-performance elastomeric material for use as wire insulation, cable jacketing, conduit jacketing, cable/conduit overmolding, and molded boots. Perfectly suited for immersion, chemical or caustic fluid exposure, temperature extremes, UV radiation and more.

- Service temperature range: -65°C to 225°C
- Duralectric K (Kelvin) range: -110° to 225°C
- Fire-resistant, Low Smoke-Zero Halogen (LSZH)
- Mil-aero and industrial fluid-resistant
- Accelerated UV/sunlight resistant, 53 year equivalent exposure
- Ozone resistant IAW ASTM D1149
- Moldable and extrudable

DURALECTRIC™ APPLICATION SHOWCASE

Duralectric™ jacketing employed in environmental commercial application

Service temperature range: -65°C to 225°C
Duralectric K (Kelvin) range: -110° to 225°C
Fire-resistant, Low Smoke-Zero Halogen (LSZH)
Mil-aero and industrial fluid-resistant
Accelerated UV/sunlight resistant, 53 year equivalent exposure
Ozone resistant IAW ASTM D1149
Moldable and extrudable

Duralectric™ jacketing employed in environmental commercial application
Connectorized Flex/PCB Circuit Assemblies

Turnkey connectorized flex/PCB circuit assemblies incorporating Glenair’s broad range of innovative small form-factor circular and rectangular PCB connector solutions. All terminations backpotted for compliance with conformal coating processes.

GLEN AIR SIGNATURE PCB CONNECTOR TYPES AVAILABLE IN TURNKEY FLEX ASSEMBLIES

- Series MWD Micro-D and innovative pogo-pin AlphaLink
- Series 88 SuperFly
- Series 79 Micro-Crimp
- SuperSeal RJ45 and USB

High-speed, high data-rate flex circuit assembly

TURNKEY PCB/Flex Circuit Assemblies with Glenair signature PC tail connectors

MULIBRANCH FLEX / PCB ASSEMBLIES WITH GLENAIR SIGNATURE CONNECTORS

- Micro-D flex assembly for a downhole tool application
- High-shock matched-impedance ThermaFlex assembly with flex circuit
- Quick-disconnect bayonet receptacle and rigid flex header assembly
- Stacked Micro-D I/O connectors with flex jumper to rigid PCB assembly
- Hybrid flex/rigid flex multibranch Micro-D and Series 23 SuperNine flex assembly with discrete RF circuits
Conduit wire protection systems for high-reliability applications must be able to withstand extreme environments—from immersion in harsh chemicals, to temperature extremes and numerous flex cycles—without breakdown or failure. Glenair conduit systems are rigorously engineered to meet the exacting specifications of both commercial and military—geophysical and oceanographic environments.

Corrosion resistant, flexible polymer-core materials are available in a wide variety of materials to suit any application: Annular material choices include: Kynar, PVDF and G-FLEX SiTelm, helical choices include ETFE, FEP, PFA, PTFE, and PEEK plus AS81914 /1 – 11 qualified materials and configurations. Metal-core versions are specified for extreme crush resistance and optimal EMI shielding. The helically-wound metal conduit provides extremely high levels of EMI protection across all radiation fields and frequencies. Stainless steel versions are often specified for environments subject to temperature extremes such as geophysical applications.

Hermetically sealed, flexible metal-core conduit for interconnect applications

Lightweight, flexible helical and annular polymer-core materials and easy to install fittings, transitions and adapters

Turnkey, factory-terminated assemblies for industrial applications

Polymers and Metal-Core Conduit Systems

The flexible wire protection and cable routing alternative to standard jacketed cables

Conduit Systems

Reduce package size, weight, and labor with turnkey factory assemblies

Glenair can design, build, terminate—and even pre-wire—turnkey conduit wire routing solutions.

Certified factory assemblers and calibrated tooling create better-performing systems.

Simple point-to-point or complex multi-branch.
Hydrostatic Test Lab

GLENDALE, CALIFORNIA

Special behind-the-scenes tour of Glenair’s hydrostatic test lab for high-pressure electrical and fiber optic interconnects

1. Cable and subassembly staging

2. Large cable and subassembly pressure test bunker

3. Hydrostatic test lab control room

4. Production connector staging

5. Small connector pressure test bunker

DISCRETE CONNECTOR TESTING: All Glenair high-pressure interconnects are subjected to 100% inspection and test.

CONTROL ROOM: The modular consoles in the control room provide for up to 8 pressure circuits, operating in Manual mode or Automated. Each circuit is capable of a maximum of 16.5K psi. Monitors display Automated Test Profiles, Data Acquisition, remote viewing of Test rooms and more. System is network connected for access to Profiles and distribution of test reports.

LARGE PRESSURE VESSELS: Built to accommodate complete cable assemblies, mated connectors, and customer-supplied subassemblies

TECHNICAL STAFF: Knowledgeable and trained subsea specialists perform both in-house product qualification testing, as well as customer subassemblies

TECHNICAL STAFF: Knowledgeable and trained subsea specialists perform both in-house product qualification testing, as well as customer subassemblies

SeaKing™ and SuperG55™ QUALIFICATION TESTING: Both Glenair Series 70 SeaKing and SuperG55 rugged dry-mate subsea connectors have been tested and qualified to their 10K psi pressure rating—open-face and mated—in Glenair’s state-of-the-art hydrostatic test lab. Additional testing included mating cycles, salt spray, and electrical continuity.

Glenair Hydrostatic Test Lab Technical Specifications and Pressure Test Standards

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure test profiles</td>
<td>Automated or manual</td>
</tr>
<tr>
<td>Maximum test pressure</td>
<td>16.5K psi</td>
</tr>
<tr>
<td>Data acquisition types</td>
<td>Pressure, time, temperature, and electrical performance</td>
</tr>
<tr>
<td>Performance monitoring under pressure</td>
<td>V/I, continuity, insertion loss, and backreflection (optical)</td>
</tr>
<tr>
<td>Industry profiles</td>
<td>All major oil &amp; gas standards</td>
</tr>
<tr>
<td>Custom profiles</td>
<td>Yes, including customer-supplied subassemblies</td>
</tr>
<tr>
<td>Capacity (large pressure vessels)</td>
<td>Working volume = 12” diameter x 72” depth; Test specimen weight up to 1500 lbs.</td>
</tr>
<tr>
<td>Company</td>
<td>Address</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>Glenair East</td>
<td>20 Sterling Drive, Wallingford, CT 06492</td>
</tr>
<tr>
<td>Glenair Microway Systems</td>
<td>7000 North Lawndale Avenue, Lincolnwood, IL 60712</td>
</tr>
<tr>
<td>Glenair GmbH</td>
<td>Schaberweg 28, 61348 Bad Homburg, Germany 06172 / 68 16 0</td>
</tr>
<tr>
<td>Glenair Italia S.p.A.</td>
<td>Via Del Lavoro, 7, Granarolo dell’Emilia, Bologna, Italy +39-051-782811</td>
</tr>
<tr>
<td>Glenair Korea</td>
<td>6-21Tapsil-ro 58beon-gil, Giheung-gu, Yongin-si Gyeonggi-do, Republic of Korea +82-07-5067-2437</td>
</tr>
<tr>
<td>Glenair UK Ltd</td>
<td>40 Lower Oakham Way, Oakham Business Park, Mansfield, Notts NG18 5BY England +44-1623-638100</td>
</tr>
<tr>
<td>Glenair Nordic AB</td>
<td>Gustav III : S Boulevard 42, SE-169 27 Solna, Sweden +46-8-50550000</td>
</tr>
<tr>
<td>Glenair Iberica</td>
<td>C/ La Vega, 16, 45612 Velada, Spain +34-925-89-29-88</td>
</tr>
<tr>
<td>Glenair France SARL</td>
<td>7, Avenue Parmentier, Immeuble Central Parc #2, 31200 Toulouse, France +33-5-34-40-97-40</td>
</tr>
</tbody>
</table>