



MISSION-CRITICAL  
INTERCONNECT  
SOLUTIONS



*Glenair*  
SIGNATURE SERIES

# Mission-Critical Naval, Shipboard, and Underwater Connectors

NAVSEA Qualified and Glenair Signature Solutions

MARCH 2023



**MISSION-CRITICAL  
INTERCONNECT SOLUTIONS  
Navy/Subsea**

**DLA-Qualified  
and Commercial**



**MIL-DTL-28840 SHIPBOARD ELECTRICAL CONNECTORS, ALL SLASH SHEETS, NO GAPS**



M28840 connectors and contacts, all qualified slash sheets and classes including Tin Zinc



M28840 backshells and connector accessories, qualified and commercial equivalent

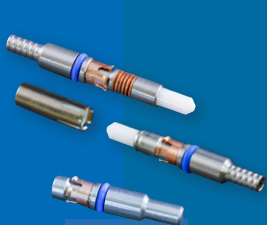


EMI / RFI filters, savers, and other signature M28840 derivatives

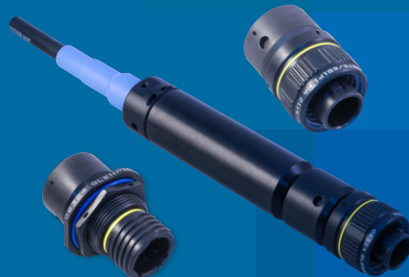


M28840/4 and /5 wire protection metal-core conduit system and fittings

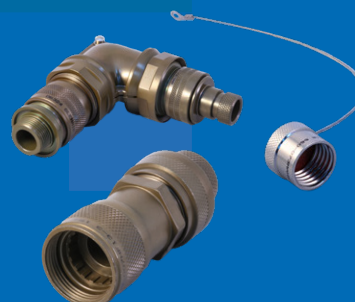
**NAVSEA-QUALIFIED MIL-PRF-28876 FIBER OPTIC CONNECTION SYSTEM**



Qualified QPL-29504 pin, socket, and dummy termini



Qualified M28876 environmental fiber optic connectors



Qualified M28876 backshells and accessories



Turnkey environmental and inside-the-box assemblies

## US NAVY QUALIFIED MIL-PRF-24758A METAL-CORE CONDUIT, FITTINGS, AND ASSEMBLIES FOR ABOVE- AND BELOW-DECK SHIPBOARD WIRE ROUTING APPLICATIONS

**Part Number  
750-098**



**Select for superior crush resistance and corrosion protection**

Highly flexible crush-proof metal conduit in stainless steel with Viton, Neoprene, or Bluejacket protective covering

**Part Number  
750-192**



**Select for low-frequency EMC protection in and around motors and control equipment**

Nickel-iron conduit material plus shielding and jacketing



Composite  
conduit splice  
fitting



Stainless steel  
conduit feed-thru  
fitting



Low-Profile  
RP Plus  
System



Heavy-duty  
environmental  
conduit-to-panel  
fitting



Heavy-duty  
environmental conduit-  
to-connector fitting

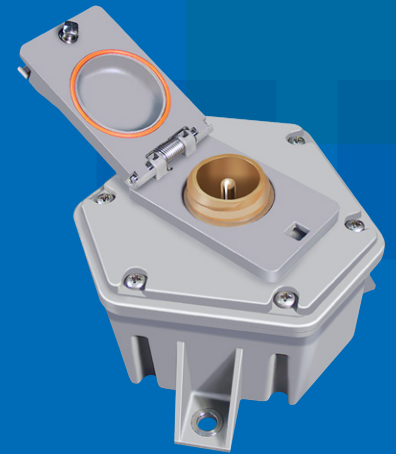
## US NAVY QUALIFIED ENVIRONMENTAL WIRE PROTECTION SOLUTIONS



Qualified MIL-PRF-24758A (SH)  
"Bluejacket" conduit assemblies



Qualified NAVSEA heavy-wall  
boots and feed-thru adapters



NAVSEA-qualified sound / power  
above-deck junction boxes

## DEEP WATER HIGH-PRESSURE 10K PSI / 700 BAR / 7000M CONNECTORS



SeaKing™ 700 10K PSI open-face  
high-density subsea connectors  
and cables



SeaKing™ Fiber 10K PSI  
open-face underwater  
fiber optics



SeaKing™ Power  
1-6.6 kV connectors for  
primary power junctions



SeaKing™ 700 PEEK  
cathodic delamination-free  
glass-filled composite





QUALIFIED

# MIL-DTL-28840

## Connectors and accessories: every slash sheet, no gaps

- All sizes and platings in-stock and ready for immediate shipment
- High density, scoop proof contact arrangements
- Flange mount, box mount, jam-nut and in-line receptacles
- Straight, 45° and 90° strain reliefs and backshell assemblies
- Sav-Con® connector savers and bulkhead feedthrus
- Contact and connector assembly tools



MIL-DTL-28840 qualified connectors and accessories. Splined connector-to-backshell interface is ideally suited for heavy backshells and cables

### QUALIFIED CADMIUM-FREE AND COMPATIBLE TIN-ZINC (TZ) PLATING FOR CLASS CODE L AND M (CLASS T AND TJ) NAVY LAND AND MARITIME APPLICATIONS.



L - Class T: Aluminum, Tin-Zinc Plate over Electroless Nickel, Non-Reflective

- New DLA-qualified replacement for Cadmium
- High conductivity and shielding performance in harsh maritime conditions
- High corrosion resistance
- Compatibility with legacy cadmium-plated connectors and environmental shrink boots
- RoHS-compliant material
- Test reports available upon request



# QUALIFIED MIL-DTL-28840 Connectors and Accessories



**MIL-DTL-28840 • FULLY-QUALIFIED • EVERY SLASH SHEET • NO GAPS • IN-STOCK AVAILABILITY**



### Contacts

M39029/83 pin and /84 socket



### Clamps

M28840/1 straight  
M28840/2 90°  
M28840/3 45°



### Conduit

M28840/4 Metal-Core



### Conduit Fittings

M28840/5 Backshell for Metal Core Conduit  
M28840/6 EMI/RFI Environmental Backshell  
M28840/25 90° EMI Conduit Adapter  
M28840/27 45° EMI Conduit Adapter  
M28840/30 Metal Conduit Coupler, Styles A and B  
M28840/22 Metal Conduit Bushing  
M28840/23 "E Nut"



### Backshells

M28840/8 90° EMI/RFI Environmental  
M28840/ 45° EMI/RFI Environmental Backshell



### Connectors

M28840/10 Wall Mount Receptacle Connector  
M28840/11 In-Line Receptacle Connector  
M28840/12 Box Mount Receptacle Connector  
M28840/14 Jam Nut Mount Receptacle Connector  
M28840/16 Plug Connector



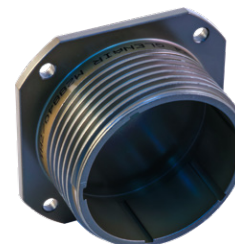
### Connector / Backshell Assemblies

M28840/17 Plug Connector / Straight Strain Relief  
M28840/18 Plug Connector with 90° Strain Relief  
M28840/19 Plug Connector with 45° Strain Relief  
M28840/20 Recept., Straight EMI/RFI Backshell  
M28840/21 In-Line Recept., St. EMI/RFI Backshell  
M28840/26 Plug, with Straight EMI/RFI Backshell  
M28840/28 90° Adapter Assembly Plug  
M28840/29 Plug with 45° EMI/RFI Backshell



### Protective Covers

M28840/13 Protective Receptacle Cover  
M28840/15 Protective Plug Cover



### Tools and Accessories

M28840/7 Dummy Stowage Receptacle  
M28840/24 Mounting Gasket



# QPL AND COMMERCIAL MIL-PRF-28876 Fiber optic connection system

Qualified MIL-PRF-28876 fiber optic connectors and MIL-PRF-29504 termini—Navy approved, in stock, and ready for immediate shipment



- Connectors qualified to the complete requirements of mil-prf-28876 including plugs, wall-mount receptacles, jam-nut mount receptacles and in-line receptacles
- Multiple shell sizes and insert arrangements, including 2, 4, 6, 8, 18 and 31 channel layouts
- Backshells in straight, 45° and 90° configurations
- Corrosion-resistant and environmentally sealed
- Qualified mil-prf-29504/14 and /15 pin and socket termini and /03 dummy terminus
- Connectors, backshells and protective covers available for immediate, same-day shipment



M28876/11 jam nut receptacle



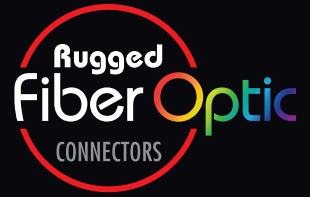
M28876/7 plug with backshell

M28876/2 receptacle with backshell



# QPL AND COMMERCIAL MIL-PRF-28876

## Fiber optic connection system



Connector/Backshell Types			
Connector Type	Backshell Type	MIL-Spec	Commercial Connector Type Code
Wall Mount Receptacle	None	M28876/1	03
	Straight	M28876/2	13
	45°	M28876/3	23
	90°	M28876/4	33
In-Line Receptacle	Straight	M28876/5	15
Plug	None	M28876/6	06
	Straight	M28876/7	16
	45°	M28876/8	26
	90°	M28876/9	36
Jam Nut Receptacle	None	M28876/11	04
	Straight	M28876/12	14
	45°	M28876/13	24
	90°	M28876/14	34



Qualified QPL-29504 pin and socket termini

Qualified Fiber Optic Termini			
Type	Military Part Number	A Dia (Microns)	Typical Fiber Type
Pin Termini	M29504/14-4131C	126.0	Multi Mode
	M29504/14-4132C	127.0	Multi Mode
	M29504/14-4135C	142.0	Multi Mode
Socket Termini	M29504/15-4171C	126.0	Multi Mode
	M29504/15-4172C	127.0	Multi Mode
	M29504/15-4175C	142.0	Multi Mode
Dummy Terminus	M29504/03-4038		

Crimp sleeve is supplied with terminus assembly and may be ordered separately (see Table II). For terminus less crimp sleeve, omit **C** from end of part number. Consult factory for additional sizes.

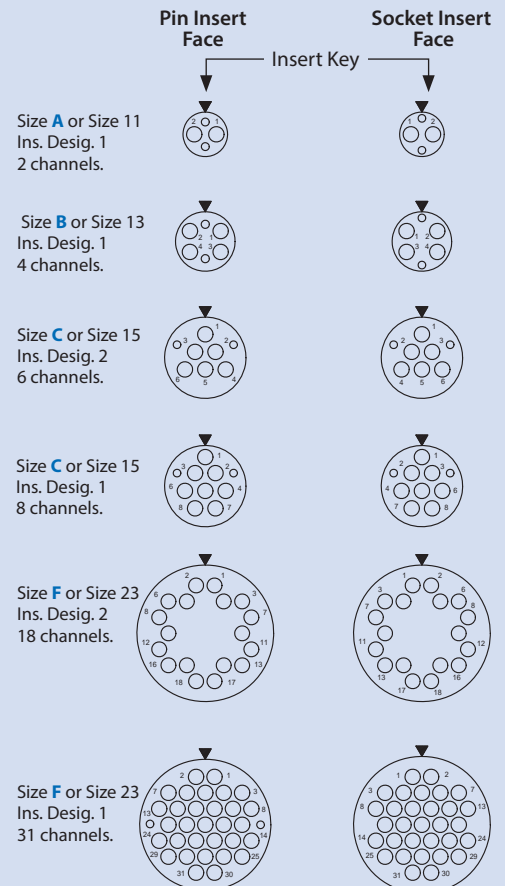


Terminated and tested MIL-PRF-28876 fiber optic cable assembly

Test Description	Performance Requirements/Specifications
Optical Insertion Loss, Multimode	-0.3 dB Typical (62.5/125)
Optical Insertion Loss, Singlemode	-0.3 dB Typical (9/125)
Optical Back Reflection, Singlemode	Better than -40 dB - PC Polish • Better than -50 dB - Enhanced PC Polish
Operating Temperature	-28°C to +65°C (MIL-Spec Epoxy and Cable) -55°C to +125°C (alternative Epoxy and Cable)
Temperature (Thermal) Shock	-40°C to +70°C, 5 Cycles
Temperature Cycling	-28°C to +65°C, 5 Cycles
Temperature/Humidity Cycling	-10°C to +65°C, 10 Cycles, 240 hours, 98% RH
Temperature Life Aging	+110°C, 240 hours, Dry Air
Mating Durability	500 cycles
Vibration - Sinusoidal	10 g Peak, 5-500 Hz sin./10.2 g RMS, 50-2000 Hz random
Impact	8 Drops from 8 feet
Crush Resistance	281 lbs, 7 Cycles
Cable Pull Out Force - Termini	Termini: 22 lbs min for 1 minute Connector: 162 lbs min for 10 minutes
Fluid Immersion	Turbine Fuel, Isopropyl Alcohol, Hydraulic Fluid, Lubricating Oil, Coolant, Tap- and seawater, 24 hrs
Water Pressure	32 feet for 48 hours at +10°C to +35°C
Mechanical Shock (High Impact)	MIL-S-901, Grade A, Type B, Class I
Corrosion Resistance (Salt Spray)	500 hours
Sand and Dust	12 hours
Flammability	0.75 inch flame for 10 sec. mated, 1.50 inch flame for 60 sec. unmated

\*Performance Specifications/Requirements based on the use of MIL-PRF-24792 Epoxy and MIL-PRF-85045 Simplex and Breakout Shipboard Optical Fiber.

### Insert Arrangements





## FIBER OPTIC CONNECTION SYSTEM

# Next Generation High-Density (NGCON) Sea and Air

The Glenair Next Generation MIL-PRF-64266 (NGCON) fiber optic connection system is a high-performance solution for air, sea, and space applications. Developed with the NGCON design consortium, the system combines proven technology from standard MIL-PRF-28876 and MIL-DTL-38999 Series III designs with new innovations including rear-release genderless contacts, high-density packaging, and removable alignment sleeve retainers (ASR).

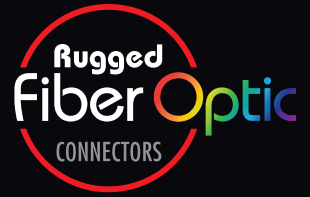


NGCON fiber optic connectors in a non-environmental "inside-the-box" cable assembly, terminated to commercial fiber optic connectors

- Conforms to MIL-PRF-64266 (NGCON) military standard.
- M28876 Double-start ACME mating threads, D38999 Series III style rear accessory threads.
- Multimode and singlemode capable
- Removable alignment sleeve retainer (ASR) for easy maintenance
- Rear release precision genderless termini, IAW MIL-PRF-29504/18, /19, /20
- 1.25 mm diameter ceramic ferrules and alignment sleeves
- Environmental o-ring sealing on terminus
- Receptacles compatible with M28876 panel cutouts
- Anti-decoupling (ratchet) mechanism on plug connector
- Keyed connectors and termini available for singlemode APC



# MIL-PRF-64266 COMPLIANT NGCON Next Generation Fiber optic connection system



Rear-release precision genderless terminus IAW MIL-PRF-29504 with integral environmental O-ring



Plug, wall-mount, and jam-nut receptacle configurations

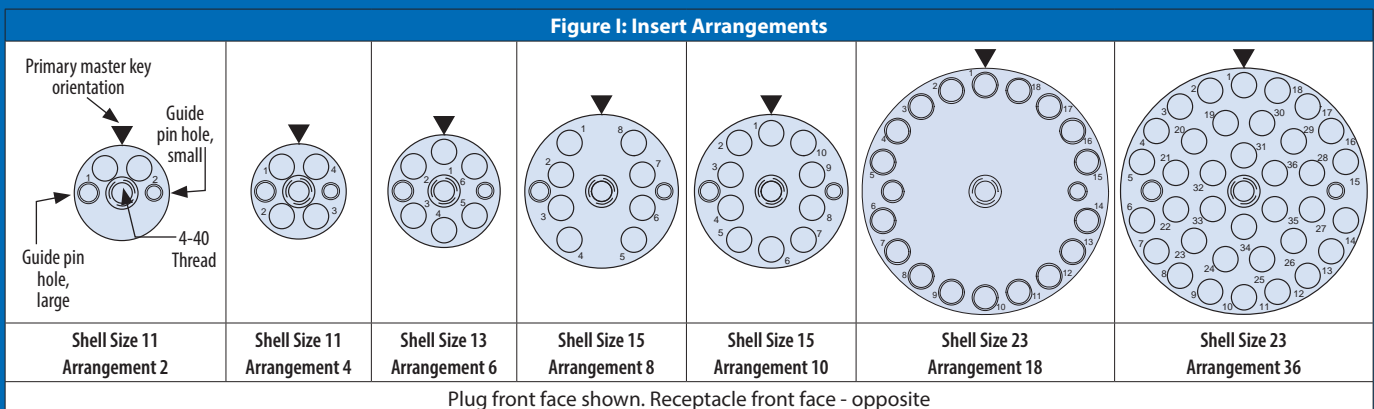


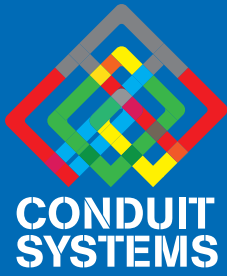
Removable alignment sleeve retainer (ASR) for easy maintenance with integrated guide pins for superior axial alignment

Genderless Termini IAW MIL-PRF-29504 and Supported Fiber Media						
P/N Non-Keyed	P/N Keyed	ØA (Micron)	Typical Fiber Type	Typ. Fiber Size (Core/Cladding/Coating) [Micron]	Ref. M29504/18 Non-Keyed	Ref. M29504/20 Keyed
181-043-1250C	181-043K-1250C	125.0	SM	9/125	M29504/18-01Y	M29504/20-01Y
181-043-1255C	181-043K-1255C	125.5	SM	9/125	M29504/18-02Y	M29504/20-02Y
181-043-1265C	181-043K-1265C	126.0	SM/MM	9/125, 50/125, 62.5/125	M29504/18-03Y	M29504/20-03Y
181-043-126C	181-043K-126C	126.0	MM	50/125, 62.5/125	M29504/18-26Y	M29504/20-26Y
181-043-127C	181-043K-127C	127.0	MM	50/125, 62.5/125	M29504/18-27Y	M29504/20-27Y
181-043-142C	181-043K-142C	142.0	MM	100/140	M29504/18-42Y	M29504/20-42Y
181-043-145C	181-043K-145C	145.0	MM	100/140	M29504/18-45Y	M29504/20-45Y
181-043-156C	181-043K-156C	156.0	MM	62.5/125/155	M29504/18-56Y	M29504/20-56Y
181-043-157C	181-043K-157C	157.0	MM	62.5/125/155	M29504/18-57Y	M29504/20-57Y
181-043-173C	181-043K-173C	173.0	MM	100/140/172	M29504/18-73Y	M29504/20-73Y
181-043-175C	181-043K-175C	175.0	MM	100/140/172	M29504/18-75Y	M29504/20-75Y

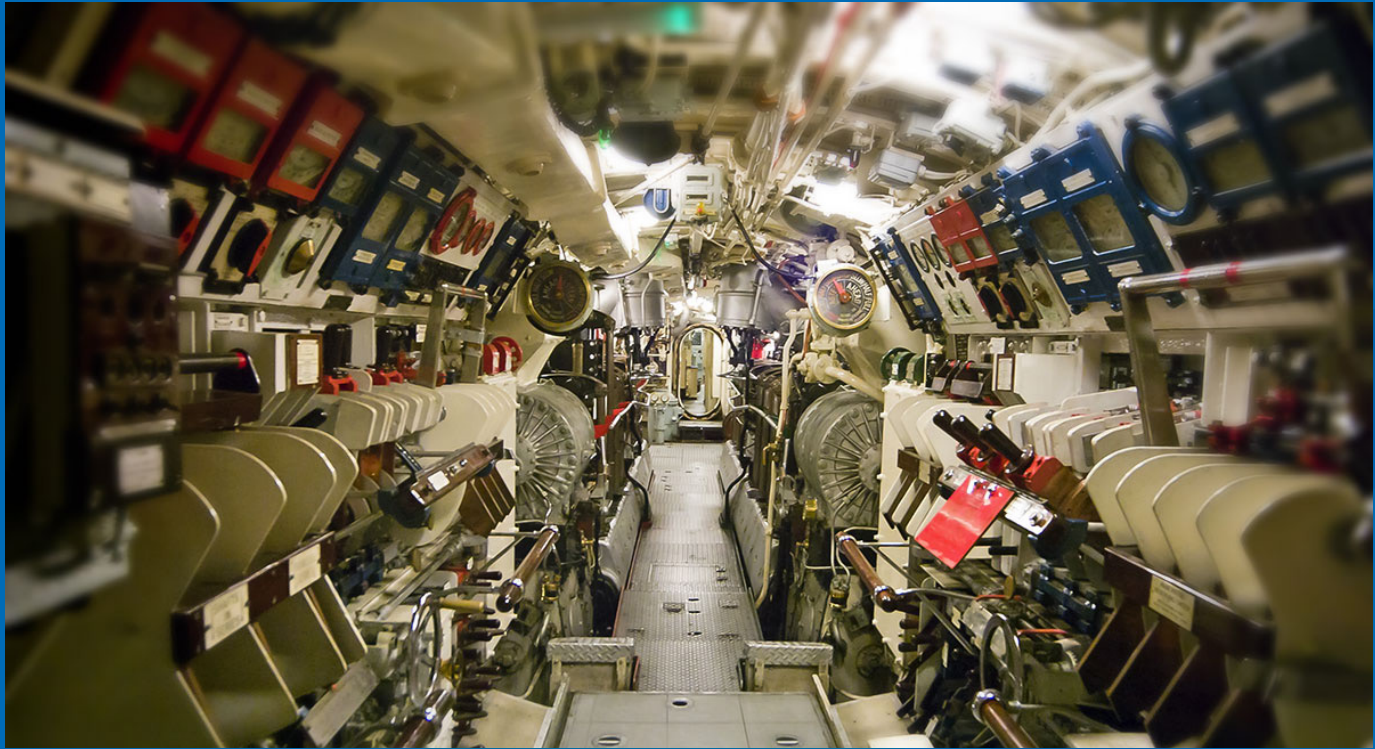
NGCON Materials and Finishes		
Code	Material	Description
ME	Aluminum Alloy	Electroless Nickel
MT		Nickel-PTFE, Grey
ZN		Zinc-Nickel, Olive Drab
ZR		Zinc-Nickel, Black
Z1	Stainless Steel	Passivate

NGCON Connector Sizes, Insert Arrangements, Thread Specifications				
Shell Size	Shell Size Code (Ref)	Insert Arrangement	AA Thread	BB Thread
11	B	2 or 4	M15 x 1.0-6g 0.100R	.7500-.1P-.2L-DS
13	C	6	M18 x 1.0-6g 0.100R	.8750-.1P-.2L-DS
15	D	8 or 10	M22 x 1.0-6g 0.100R	1.0625-.1P-.2L-DS
23	H	18 or 36	M34 x 1.0-6g 0.100R	1.5000-.1P-.2L-DS





# US Navy Qualified MIL-PRF-24758A Helical Metal-Core Conduit, Fittings, and Adapters for Above- and Below-Deck Shipboard Wire Routing Applications



## Improved sealing and shielding: the ultimate in highly flexible, crush-proof EMI/EMP wire protection

- Hermetically sealed, flexible metal-core conduit and fittings for shipboard wire interconnect applications
- UV-resistant "BlueJacket" insulation over Brass, Stainless Steel, or Nickel Iron Alloy conduit
- Turnkey, factory-terminated assemblies for fast-turnaround dockside maintenance cycles
- All materials deliver superior EMC performance as well as crush resistance and environmental sealing compared to legacy systems

*Glenair*  
SIGNATURE SERIES



**Part Number**  
**750-098**



### Select for superior crush resistance and corrosion protection

Highly flexible crush-proof metal conduit in stainless steel with Viton, Neoprene, or Bluejacket protective covering

**Part Number**  
**750-192**



### Select for low-frequency EMC protection in and around motors and control equipment

Nickel-iron conduit material plus shielding and jacketing

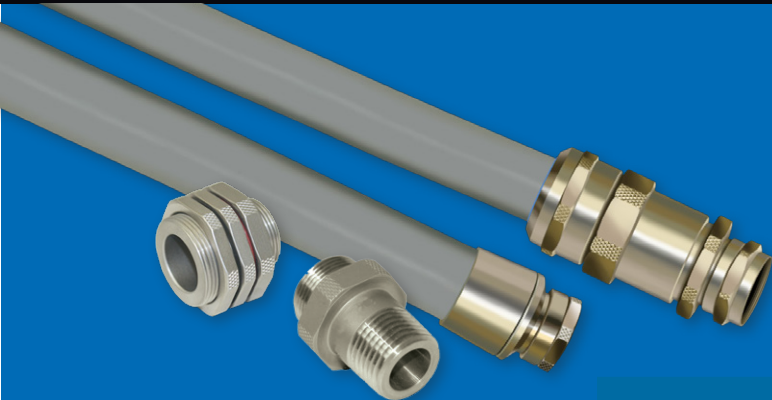


MIL-PRF-24758A NAVSEA-APPROVED

# Metal-Core Conduit Wire Protection Systems

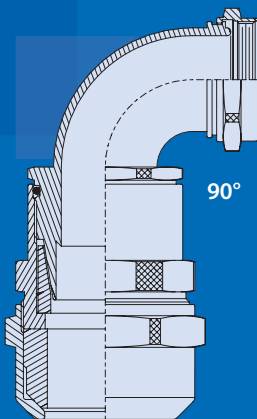


US Navy Qualified Brass, CRES, and Nickel-Iron,  
with Glenair Signature “BlueJacket” jacketing

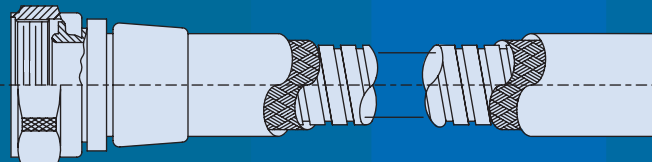


- Qualified to MIL-PRF-24758A(SH)
- User-installable and factory-terminated fitting and adapter configurations
- Innovative fitting design with advanced environmental sealing, EMI shield termination and rotatable coupling nut
- Adapters for all shipboard interfaces—fully compatible with legacy MIL-C-24758 conduit system components

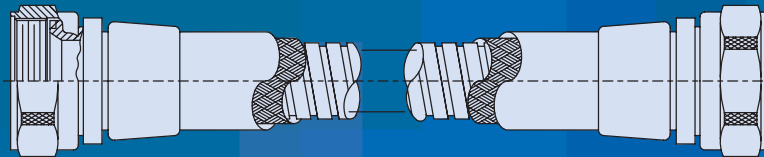
Do it once, do it right with Glenair Signature MIL-PRF-24758A wire protection conduit systems—in-stock and ready for shipment



90°

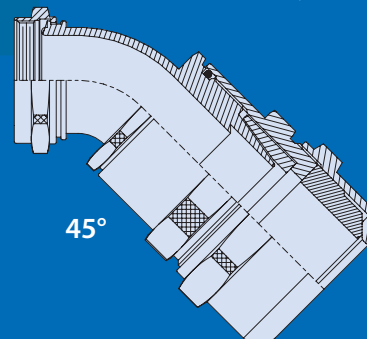
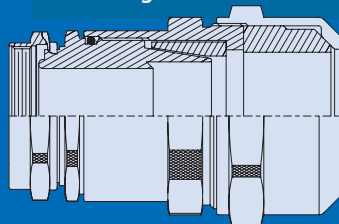


759-840 Single Ended Assembly



759-861 Double Ended Assembly

Straight



45°

MIL-PRF-24758A Configuration Options: Choose from high-performance user-installable fittings or lighter-weight factory terminated assemblies



## FITTINGS AND ADAPTERS FOR USER-INSTALLED APPLICATIONS



Composite conduit splice fitting



Stainless steel conduit feed-thru fitting



Low-Profile RP Plus System


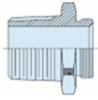



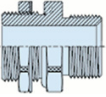
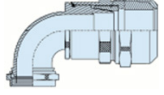
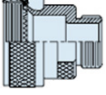


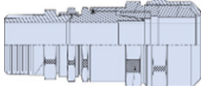
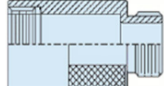
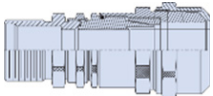

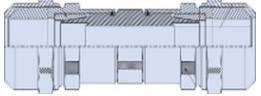
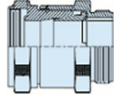

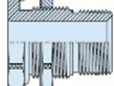
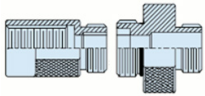
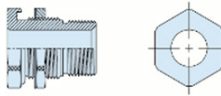

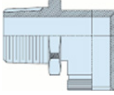
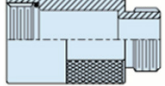

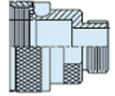
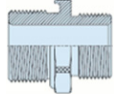
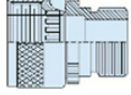
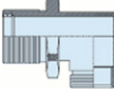






Heavy-duty environmental conduit-to-panel fitting



Heavy-duty environmental conduit-to-connector fitting

## AVAILABLE M24758 CONDUIT, FITTINGS, AND ADAPTERS—IN-STOCK FOR IMMEDIATE SHIPMENT

	<b>MIL-PRF-24758-*</b>	EMI/EMP Shielding Conduit with Glenair BlueJacket		<b>MIL-PRF-24758-17</b>	Adapter for Tapered Pipe Thread
	<b>MIL-PRF-24758-2</b>	Straight Conduit Fitting		<b>MIL-PRF-24758-18</b>	Adapter for Straight Pipe Thread
	<b>MIL-PRF-24758-3</b>	45° Conduit Fitting		<b>MIL-PRF-24758-19</b>	Adapter for Panel Termination
	<b>MIL-PRF-24758-4</b>	90° Conduit Fitting		<b>MIL-PRF-24758-20</b>	Adapter for MIL-DTL-38999 Connectors
	<b>MIL-PRF-24758-5</b>	Straight Conduit to Panel Fitting		<b>MIL-PRF-24758-21</b>	Adapter for MIL-DTL-22992 Connectors
	<b>MIL-PRF-24758-6</b>	Straight Conduit to Tapered Pipe Thread Fitting		<b>MIL-PRF-24758-22</b>	For Glenair 22 Series Adapters
	<b>MIL-PRF-24758-7</b>	Straight Conduit to Stuffing Tube		<b>MIL-PRF-24758-23</b>	Union Fitting
	<b>MIL-PRF-24758-8</b>	Straight Conduit-to-Conduit Fitting		<b>MIL-PRF-24758-24</b>	Individual Termination Adapter
	<b>MIL-PRF-24758-9</b>	Adapter for MS3100 Series MIL-DTL-5015 Connectors		<b>MIL-PRF-24758-25</b>	Adapter for Panel Termination
	<b>MIL-PRF-24758-10</b>	Adapter for Triaxial Connectors		<b>MIL-PRF-24758-26</b>	Adapter for Panel Termination
	<b>MIL-PRF-24758-11</b>	Adapter for Coaxial Connectors		<b>MIL-PRF-24758-27</b>	90° Adapter for Tapered Pipe Thread
	<b>MIL-PRF-24758-12</b>	Adapter for MIL-C-26482 Solder Type Series I Connectors		<b>MIL-PRF-24758-28</b>	Straight Conduit Fitting to PEEK Conduit
	<b>MIL-PRF-24758-13</b>	Adapter for MS-3155 Type Connectors		<b>MIL-PRF-24758-29</b>	Adapter for Miscellaneous Termination
	<b>MIL-PRF-24758-14</b>	Adapter for MIL-DTL-28840 Connectors		<b>MIL-PRF-24758-30</b>	90° Elbow for MIL-S-24235 Stuffing Tubes
	<b>MIL-PRF-24758-15</b>	Adapter for MIL-S-24235 Stuffing Tubes		<b>MIL-PRF-24758-31</b>	Adapter for PG Thread
	<b>MIL-PRF-24758-16</b>	Adapter for Miscellaneous Fittings		<b>MIL-PRF-24758-32</b>	90° Transition



**AVAILABLE M24758 CONDUIT, FITTINGS, AND ADAPTERS—IN-STOCK FOR IMMEDIATE SHIPMENT**

	<b>MIL-PRF-24758-33</b>	90° Elbow for Panel Termination		<b>MIL-PRF-24758-49</b>	User Installable Backshell with Band Termination Porch to MIL-PRF-24758 Conduit
	<b>MIL-PRF-24758-34</b>	45° Transition		<b>MIL-PRF-24758-50</b>	Cable Shield Grounding Adapter
	<b>MIL-PRF-24758-35</b>	90° Elbow for Connectors Listed in Table I		<b>MIL-PRF-24758-51</b>	Adapter for Tapered Pipe Thread
	<b>MIL-PRF-24758-36</b>	45° Elbow for Connectors Listed in Table I		<b>MIL-PRF-24758-52</b>	Adapter for MIL-C-22992 Connectors User Installable for Glenair MIL-PRF-25758 Conduit
	<b>MIL-PRF-24758-37</b>	Adapter for VG94234 Reverse Bayonet Connector		<b>MIL-PRF-24758-53</b>	Adapter for MIL-C-26482 Series I Connectors User Installable for Glenair MIL-PRF-25758 Conduit
	<b>MIL-PRF-24758-38</b>	Straight MIL-S-24235 Stuffing Tube Adapter to NPT Pipe Thread		<b>MIL-PRF-24758-54</b>	Adapter for MIL-C-28840 Connectors User Installable for Glenair MIL-PRF-25758 Conduit
	<b>MIL-PRF-24758-39</b>	45° Elbow • Conduit to Stuffing Tube		<b>MIL-PRF-24758-55</b>	Straight, 90° or 45° Adapter for Tapered Pipe Thread
	<b>MIL-PRF-24758-40</b>	90° Elbow • Conduit to Stuffing Tube		<b>MIL-PRF-24758-56</b>	90° Adapter for MIL-C-26482 Series I Connectors EMI/RFI to Glenair MIL-PRF-25758-* Conduit
	<b>MIL-PRF-24758-41</b>	90°, 45° or Straight User Installable Connector Adapters for Glenair MIL-PRF-24758 Series Conduit		<b>MIL-PRF-24758-57</b>	90° Adapter for MIL-C-26482 Series I Connectors Per Table I, EMI/RFI to M24758-* Conduit
	<b>MIL-PRF-24758-42</b>	Straight Adapter for Metric Thread		<b>MIL-PRF-24758-58</b>	Adapter for Series 80 Mighty Mouse Connectors To M24758-2, -3, or -4 Conduit Fittings
	<b>MIL-PRF-24758-43</b>	Straight Adapter • Conduit to Panel Termination		<b>MIL-PRF-24758-59</b>	Adapter for Series 802 AquaMouse Connectors To M24758-2, -3, or -4 Conduit Fittings
	<b>MIL-PRF-24758-44</b>	45° Elbow • Conduit To Panel Termination		<b>MIL-PRF-24758-60</b>	Adapter with EMI/RFI Shield Termination Drop-In for MS-3155 Type Connectors and MIL-DTL-38999 Series III and Series IV Connectors
	<b>MIL-PRF-24758-45</b>	90° Elbow • Conduit To Panel Termination		<b>MIL-PRF-24758-61</b>	Environmental Adapter for MIL-C-28876 Connectors for coupling with M24758-2, -3, or -4 fittings
	<b>MIL-PRF-24758-46</b>	45° Elbow • Conduit to Tapered Pipe Thread		<b>759-840</b>	Conduit Assembly
	<b>MIL-PRF-24758-47</b>	90° Elbow • Conduit to Tapered Pipe Thread		<b>759-861</b>	Connector-to-Connector Factory-Terminated Conduit Assembly
	<b>MIL-PRF-24758-48</b>	Mighty Mouse Connector Adapter User Installable for Glenair MIL-PRF-25758 Conduit		<b>759-862</b>	Connector-to-Adapter Factory-Terminated Conduit Assembly



## SUPERSEAL™ M28840

# Ruggedized USB and RJ45 Connectors

## Optimized for Naval applications

MIL-DTL-28840 type connectors available with USB or RJ45 inserts offer superior IP67 sealing in both mated and unmated condition compared to other shipboard connectors of this type. In addition, the series offers superior EMI/RFI shielding and grounding, as well as a broader range of wire and contact termination options. Corrosion resistant shells—made from aluminum, stainless steel and marine bronze—and popular finishes including cadmium olive drab over electroless nickel, black cadmium over nickel, Nickel-PTFE, and RoHS-compliant Tin-Zinc are available to meet the requirements of your specific application. Connectors are available in shell size 15 for USB and size 15 or 17 for RJ12 and size 15 or 17 for RJ45.



Rugged, shielded, and sealed RJ45 and USB designs deliver increased life cycle and rugged vibration and shock performance

- Mating and backshell interface IAW MIL-DTL-28840
- Rugged shipboard connector series incorporating commercial USB, RJ12, and RJ45 connectors
- Advanced shielding and grounding performance
- Multiple wire termination options
- IP67 sealing, unmated condition (USB, RJ12, and RJ45 receptacles) and IP68 in mated condition
- RoHS-compliant plating options including Nickel-PTFE
- -40°C to +120°C operating temperature
- Shielded/grounded RJ45 coupler designs in both plug and receptacle connectors
- Crimp-removable contacts conform to M39029/58-360 (RJ45)
- Crimp removable contacts conform to M39029/56-348





# RJ12, RJ45, AND USB 2.0 TYPE A SuperSeal™ M28840 Type Connectors



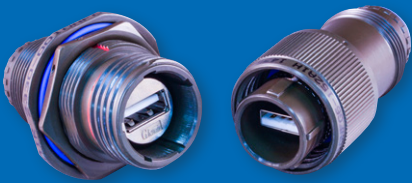
SuperSeal™ Coupler with Accessory Threads and RJ12 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle).



SuperSeal™ Coupler with Accessory Threads and RJ45 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle).



SuperSeal™ Connector with Accessory Threads and RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts.



SuperSeal™ Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle).



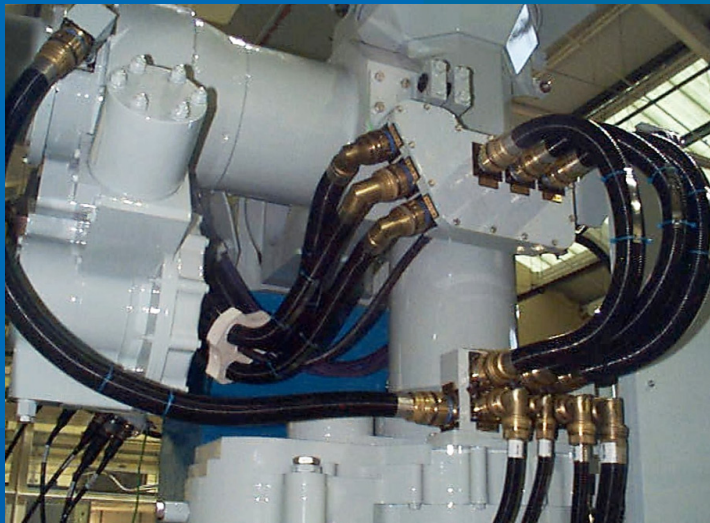
SuperSeal™ Connector with Accessory Threads and USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts.



# MARINE BRONZE Seacrow Connectors

For harsh-environment above deck and port facility applications

In addition to NAVSEA-qualified solutions, Glenair manufactures connectors qualified to NATO VG96929, VG95234 and VG95328 standards. These connectors are mostly used in harsh-environment military applications with systemic exposure to salt spray. These Marine Bronze series connectors may be successfully used in all severe environment navy port installations, as well as on commercial above-deck fleet maintenance ships and offshore platforms.



- Marine bronze alloy for superior corrosion resistance in seawater and other harsh environments
- Ideal for both shipboard and port facility 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 MARINE BRONZE Topside / Shipboard Environmental Connectors

## Series overview

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### ITS-MB MIL-C-5015 TYPE REVERSE-BAYONET CONNECTORS



#### 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.

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### IT-MB MIL-C-5015G 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.

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### IPT-MB MIL-DTL-26482 TYPE HIGH DENSITY BAYONET CONNECTORS



#### VG95328 Equivalent Marine Bronze Series

IPT-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-SE 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.

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### IGE-MB MIL-C-5015 TYPE REVERSE-BAYONET SINGLE-POLE POWER CONNECTORS



#### VG96929 Equivalent Marine Bronze Series

IGE-MB High Power Single Pole Connectors are used with cables from 16 to 240 mm<sup>2</sup>. 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.



## NAVSEA-Approved Navy / Shipboard Corrosion-Free Junction Boxes



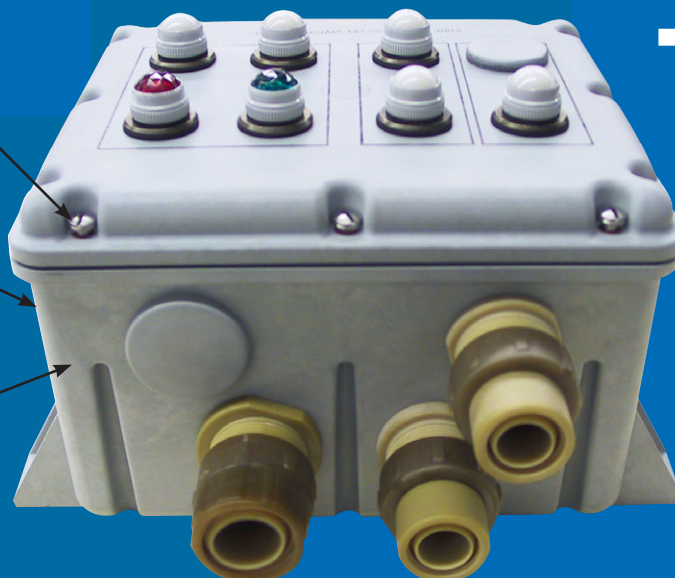
**Durable, lightweight corrosion-free EMI/RFI shielded composite junction boxes NAVSEA standard drawing 803-6983506 Rev. B**

- Over a dozen different tooled sizes and shapes.
- Extremely durable, corrosion-free, high temperature engineering composite thermoplastic
- Tested and qualified to U.S. Navy, UK MOD and hundreds of commercial aircraft and marine applications

Series 316 stainless steel hardware provides long-term durability

Unlimited corrosion resistance compared to metal junction boxes reduces repair and maintenance costs.

Glass reinforced composite thermoplastic material is strong and durable, yet extremely lightweight.



IP67 rated seals and gaskets protect equipment from moisture and dust

◀ Example box shown: one of a series of NAVSEA-approved signal, switch, sound power, control boxes designed to eliminate corrosion damage and reduce maintenance cost on Navy ships



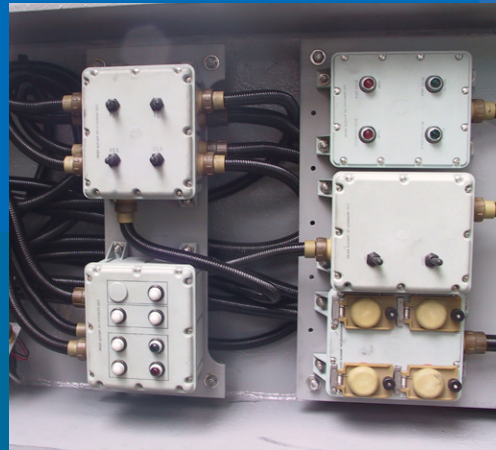
NAVSEA-APPROVED  
**Composite Junction Boxes**  
 for Naval applications



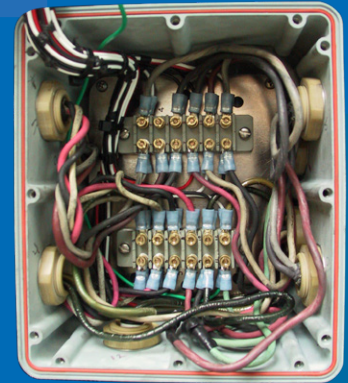
**TESTED AND QUALIFIED THROUGHOUT THE FLEET: GLENAIR CORROSION-FREE COMPOSITE BOXES**



Broad range of sizes and shapes



Complex installations fully supported with feed-thru fittings and wire protection conduit



Discrete components or turnkey wired and connectorized systems

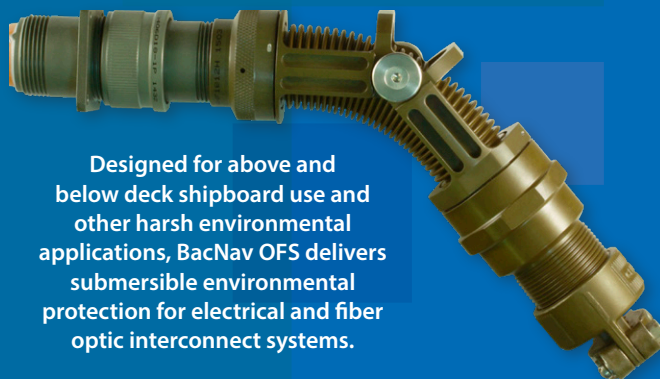
Glenair Composite Box Product Specifications		
Description/Test Report	Requirement	Procedure
<b>Plating Adhesion</b> <i>Glenair #9-44-18/TN94-159</i>	Should not exhibit any blistering, peeling or other separation of the units plating.	Tested IAW MIL-DTL-38999.
<b>Vibration</b> <i>NTS #973-7369-2</i>	Should not exhibit loosening of component parts or evidence of damage.	Tested IAW MIL-STD-167 Type 1 for box units and MIL-STD-1344, Method 2004 Condition II for fittings and accessories.
<b>Shock</b> <i>MOD #BR8470 Grade C and F</i>	There shall be no loosening of parts or evidence of damage.	Tested IAW MOD BR 8470 Grade C and F.
<b>Salt Spray</b> <i>Glenair #9-44-18/TN94-159</i>	Should exhibit no exposure of underplate or base material.	Tested IAW MIL-STD-1344, Method 1001.
<b>Dust</b> <i>NTS #973-7369-1</i>	Should conform to required torque limits and functional requirement within 25%.	Tested IAW MIL-STD-202.
<b>UV Light Resistance</b> <i>GE RDM88050255-6042</i>	No degradation of the mechanical properties defined in the specification after testing.	Tested IAW ASTM D2565.
<b>Impact</b> <i>MIL-STD-1344, Method 2018</i>	No evidence of breaking or cracking of components or other damage that could affect the product performance.	Tested IAW MIL-STD-1344, Method 2018.
<b>Temperature Cycling</b> <i>NTS #575-9249</i>	No cracking, peeling or separation of plating or other functional damage.	Tested IAW MIL-STD-1344, Method 1003 at -65°C to 200°C.
<b>Hydrolytic Stability</b> <i>NTS #878-536</i>	No evidence of increased weight greater than 1% and no evidence of cracking, breaking or loosening of component parts.	Tested IAW ASTM D570-81.
<b>Flammability</b> <i>MIL-STD-1344, Method 1012, Smoke Index, NES 711 Issue 2, NES 713 Issue 3 and ISO 4589</i>	The item flame and after flow extinguishing time shall not exceed the defined limits.	Tested IAW Table II of MIL-STD-1344, Method 1012, Smoke Index, NES 711 Issue 2, NES 713 Issue 3. Burning behavior by Oxygen Index, ISO 4589.
<b>Water Tightness</b> <i>EA #OC13513-039514</i>	Water tightness and internal pressurization is maintained.	Tested IAW EA #OC13513-039514.
<b>Outgassing</b> <i>JPL #081892</i>	Maximum allowable weight loss is 10%.	Tested IAW ASTM E 595.
<b>Electromagnetic Shielding</b> <i>TRW/ABQ-55C-1186-0</i>	Should demonstrate shielding effectiveness and transfer impedance conforming to military industry standards and specific customer requirements.	Tested IAW TRW/ABQ-55C-1186-0.



## BacNav OFS repositionable backshell for harsh-environmental applications plus QPL feedthroughs and boots



**D**esigned for use in rugged shipboard applications as well as military ground systems such as armored vehicles, the Glenair BacNav OFS delivers outstanding mechanical, electrical, and environmental performance. The innovative design incorporates an environmentally-sealed, EMI shielded core with a locking pivot that facilitates cable routing and eliminates the need to stock discrete straight, 45° and 90° variants of standard wire sealing, strain relief, and EMI shield termination backshells. Built to withstand the handling abuse that topside and below-deck electrical and fiber optic interconnect systems are routinely subjected to by ham-fisted sailors and marines, the BacNav OFS is purpose-designed to deliver life-of-ship and life-of-system performance and durability. Available for the broad range of power, signal, and fiber optic connector systems—including MIL-PRF-28876 and MIL-PRF-64266 (fiber optics) to MIL-DTL-28840, AS50151, and more—BacNav OFS meets every current requirement for backshell-equipped connectorized cabling.



Designed for above and below deck shipboard use and other harsh environmental applications, BacNav OFS delivers submersible environmental protection for electrical and fiber optic interconnect systems.

- **Easy repositioning from straight, 45° and 90° cable-exit orientations**
- **Submersible performance without the need for shrink boots**
- **Durable, flexible EMI/RFI and environmentally-sealed core with locking-pivot Swing-Arm™ frame**
- **Accommodates power, signal and fiber optic jacketed cables**
- **Reposition terminated cables with no impact on signal integrity or system performance**
- **Easy repeatable assembly process using standard tools**



SERIES 390

# BacNav OFS repositionable harsh-environment backshell

Outstanding, flexible performance

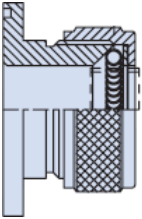
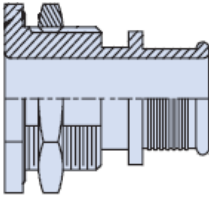
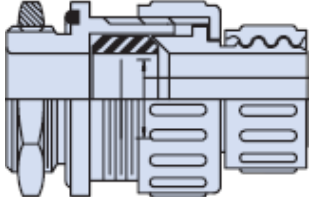



BacNav OFS is the only fully-sealed EMI/RFI backshell and strain relief device that delivers fast and easy cable angle configuration in the field—using a common 7/64" hex wrench, and without decoupling from the connector and/or cable. The sealed, flexible connector backshell adjusts to straight, 45° and 90° cable angles with zero impact on signal integrity or system performance.

PERFORMANCE DATA		
DESCRIPTION	REQUIREMENT	STANDARD
Magnetic permeability	Less than 2.0μ	EIA-364-54
Shell conductivity	< 2.5 milliohms <sup>(2)</sup>	EIA 364-83
Salt spray (corrosion)	No exposure of basis material as defined in AIR4789 for 500 hours <sup>(2)</sup>	EIA 364-26
Vibration	CIT <0.5dB No discontinuities <sup>(1)</sup> No damage	MIL-STD-167-1A (SHIPS), paragraph 5.1.2.4.6 (endurance test)
Shock	CIT <0.5dB No discontinuities <sup>(1)</sup> No damage	MIL-S-901D, grade A, Class 1
Water pressure	10 meters for 48 hours (IP68)	QTP-384
Cable pullout	No slippage exceeding 1/8" CIT <0.5dB <sup>(1)</sup>	EIA 364-38 TIA-455-6
Coupling thread strength	No damage at 3X magnification	AS85049 (Heavy Duty)
External bending moment	300-750 in-lbs (size dependant)	AS85049 (Heavy Duty) QTP-384
Fluid immersion	No changes detrimental to performance <sup>(2)</sup>	EIA 364-10
Insertion loss	MIL-STD-1678-2 Appendix C, Table 2101 C-I	TIA-455-34 Method A
Cable seal flexing	100 cycles/axis	TIA-455-1
Twist	50 cycles • No damage/leaks	TIA-455-36
Impact	8 drops • No damage detrimental to performance	TIA-455-2 Method B
Crush	7 cycles 1,250 N (281 lbs)	TIA-455-26
Thermal Shock	5 cycles -40°C to +85°C (-40°F to +185°F)	TIA-455-71
Temp/humidity cycling	No damage detrimental to performance	TIA-455-5 Method B
Temperature cycling	No damage detrimental to performance	TIA-455-3
Life Aging	10 cycles	QTP-384-F
Freezing water immersion	No damage detrimental to performance	TIA-455-98
Sand and dust	No damage detrimental to performance	TIA-455-35
Modified SO2/salt spray	240 hours • No damage detrimental to performance <sup>(2)</sup>	ASTM G85 + Annex A4

<sup>(1)</sup> Tested with MIL-PRF-28876 Multi-mode Fiber-Optic connectors <sup>(2)</sup> Tested with Cadmium/Olive-Drab finish option (code NF)

## NAVSEA-QUALIFIED SHIPBOARD WIRE AND CABLE FEED-THRU AND ZERO-HALOGEN BOOTS

			
Electrical and Fiber Optic Bulkhead Feed-Thru Fittings	Band Adapter Feed-Thru Fittings	Composite Conduit and Shrink Boot Feed-Thru Adapters	NAVSEA Heavy-Wall Zero-Halogen Polyolefin Shrink Boot



## CSGA

# NAVSEA-Qualified Cable Shield Grounding Assemblies and **ARMORLITE™** Lightweight Braided EMI/RFI Shielding

**G**lenair Cable Shield Grounding Assemblies are available in male, female and split versions and provide completely reliable 360° grounding of shielded cables to above-deck stuffing tubes and swage tubes.

Glenair's CSGA are designed to ensure both reliable EMI/EMP shielding as well as strict environmental protection. Glenair's CSGA meet MIL-STD 1310 grounding requirements and NAVSEA 803-5001-27 sealing requirements. Glenair CSGA are available in 18 sizes to accommodate stuffing tube sizes A through V.

Supplied in kit form, each CSGA includes the complete grounding assembly as well as an adhesive-coated heat shrinkable sleeve and Permatex 133A antisieze compound. Products meet NAVSEA requirements.

### CSGA FEATURES

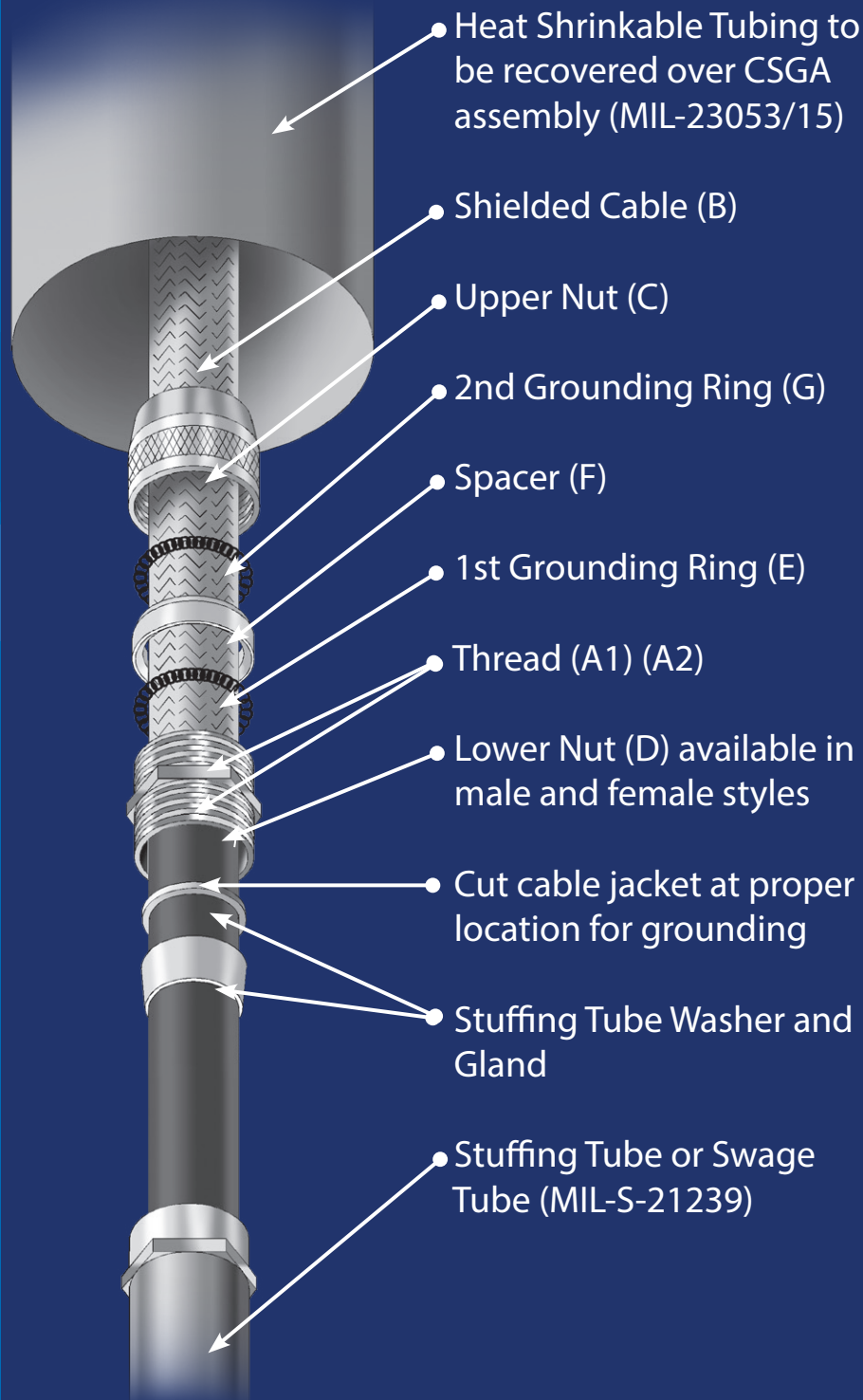
- Reliable 360° EMI/EMP grounding
- Temperature rating: -55°C to 90°C
- Minimum shrink temperature: 121°C
- CSGA Material: 6061-T6 Aluminum with electroless nickel finish, or passivated stainless steel
- Supplied adhesive shrink boots meet NAVSEA 803-5001-27 sealing requirements



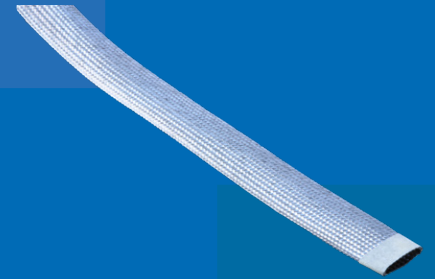
CSGA

# Cable Shield Grounding Assemblies and Lightweight EMI/RFI Cable Shielding

## CSGA EXPLODED-VIEW DIAGRAM



## ARMORLITE™ CF



### 103-126 ARMORLITE™ CF MICROFILAMENT BRAID

ArmorLite™ microfilament stainless steel braid saves pounds compared to standard QQ-B-575/A-A-59569 EMI/RFI shielding. ArmorLite™ is an expandable, flexible, high-strength, conductive stainless steel microfilament braid material designed for use as EMI/RFI shielding in high-performance wire interconnect systems. ArmorLite CF is a special corrosion-free configuration, ideally suited for use in shipboard applications.

- **ArmorLite™ CF lightweight, corrosion-free, temperature-tolerant EMI/RFI braided shielding**
- **Stainless steel over copper configuration**
- **Broad temperature tolerance, -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**

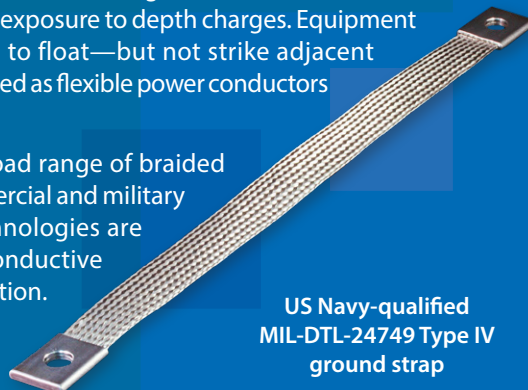
SERIES 107

# Mil-Spec Braided Ground Straps

## for submarine equipment grounding and bus bar applications

**B**raided ground straps are utilized in submarine applications for equipment grounding. Equipment is affixed to X-brace shock mounts and grounded to the submarine's hull. This prevents damage in the event of exposure to depth charges. Equipment is safely electrically grounded, and able to float—but not strike adjacent equipment. Ground straps can also be utilized as flexible power conductors connected to bus bars.

Glenair has designed and supplied a broad range of braided ground strap technologies to both commercial and military naval customers. Our ground strap technologies are exactly designed with appropriate conductive and dissipative materials for each application.



US Navy-qualified  
MIL-DTL-24749 Type IV  
ground strap



- Durable conductive braided straps for equipment grounding
- Highly flexible and conductive for bus bar power connections
- Exotic metal-clad microfilament braided solutions
- Heavy-duty variants for electrical potential grounding from engines, starters, and power units
- Fast turnaround on requests for unusual and build-to-print requirements

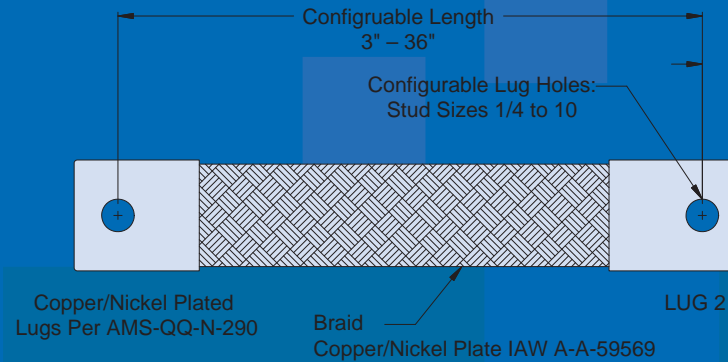


# Braided Ground Straps

Lightweight or heavy-duty—Glenair keeps you grounded!

## 107-086 GROUND STRAPS FOR SUBMARINE APPLICATIONS

- Materials and design in accordance with Commercial Item Description A-A-59569 for grounding bonds
- Low-profile nickel-plated copper lugs with configurable mounting hole size options
- Nickel-plated copper braid material conforms to ASTM B355

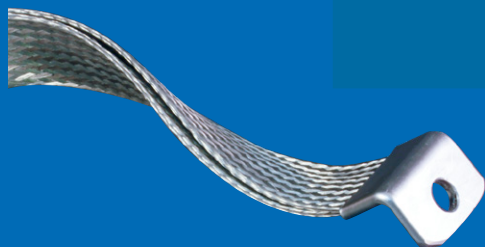


## M24749 TYPE IV MIL-SPEC AND GLENAIR SIGNATURE “BETTER THAN QPL” CONFIGURATIONS

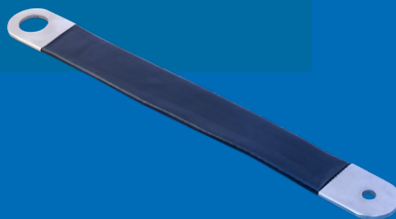


- Meets the rigorous specifications of MIL-DTL-24749 Rev. C with width, length, and lug configuration options beyond standard mil-spec straps
- Tested to survive 1000 hours salt spray
- Unique Stainless Steel/Nickel hybrid braid
- Lightweight, durable, configurable crimp lugs: square, radiused, straight, single- and double-right-angle versions

## VARIABLE LUG / HOLE / STRAP CONFIGURATION OPTIONS AVAILABLE ON ALL STYLES



Choose single-layer straps or dual-layer for strength and electrical performance

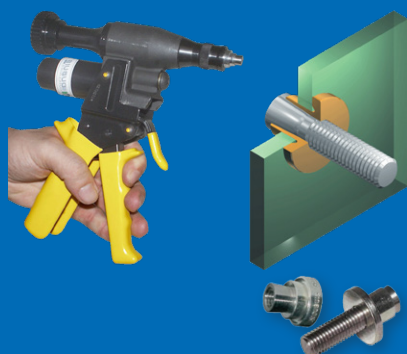


Available black or clear sleeving over strap. Square or radiused lugs and variable hole sizes



Straight, single right-angle, and dual right-angle configurable lugs

## GROUND CONTROL EARTH BOND SYSTEM



The Ground Control Earth Bonding system is an efficient, easy-to-use method to create an electrical bond between structures and equipment for the secure passage of high intensity current in case of electrical short circuit.

How To Order	
600-120	Hydraulic Setting Tool for 1/4" Earth Bonds
600-123	Hydraulic Setting Tool for 3/8" Earth Bonds
600-124	Hydraulic Setting Tool for M6 Earth Bonds
600-125	Hydraulic Setting Tool for M10 Earth Bonds

The tools feature one hand operation and ram retract mechanism actuated by release trigger. Consult factory for control gauges and earth bond part numbers for each material type and size.



# turboflex

THE ULTRA FLEXIBLE RUGGED POWER CABLE

TurboFlex™ power distribution cables are constructed from highly flexible conductors and high-performance insulation to produce cables ideally suited for applications where flexibility, durability, and weight reduction are required. Amazingly durable and flexible—especially in cold weather—the 16 AWG to 450 MCM TurboFlex cable features high strand count rope lay inner conductors made with tin-, nickel- and silver-plated copper. TurboFlex is jacketed with Glenair’s unique Duralectric™ compound that provides outstanding flexibility and resistance to environmental and chemical exposure. Duralectric is also low smoke, zero halogen.

Long life and performance are critical in power distribution applications. TurboFlex, with its flexible conductors and durable jacket delivers both.



Ultra flexible rope lay construction



Available in a broad range of gages, 16 AWG to 450 MCM



◀ Duralectric™ is the high-performance TurboFlex™ jacketing material perfectly suited for immersion, chemical or caustic fluid exposure, temperature extremes, UV radiation and more—available in a broad range of colors including safety orange



Many sizes In-stock and available for immediate, same-day shipment. No minimums!



TURBOFLEX CABLE WITH

# DURAELECTRIC™ High-Performance Jacketing

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.

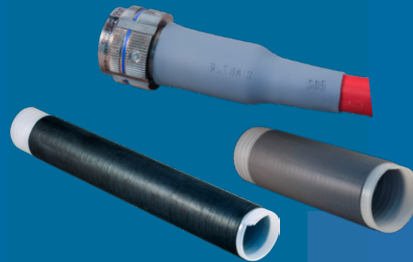
## NOTABLE ATTRIBUTES

- 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 D518
- Moldable and extrudable

## DURAELECTRIC® APPLICATION SHOWCASE



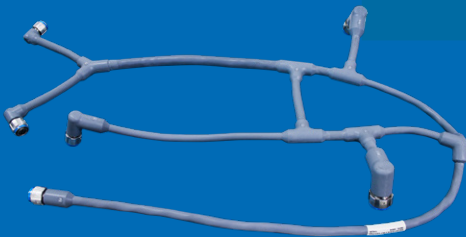
Bulk jacketed Duralectric® cable for harsh-environment power applications



Duralectric® Autoshrink™ employed in environmental boots and sleeves



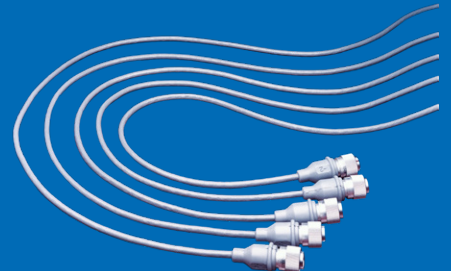
Duralectric jacketing employed as conduit covering in topside naval applications



Aerospace overmolded cable assembly with rugged Duralectric® jacketing



Shipboard application with Duralectric® jacketing and overmolding



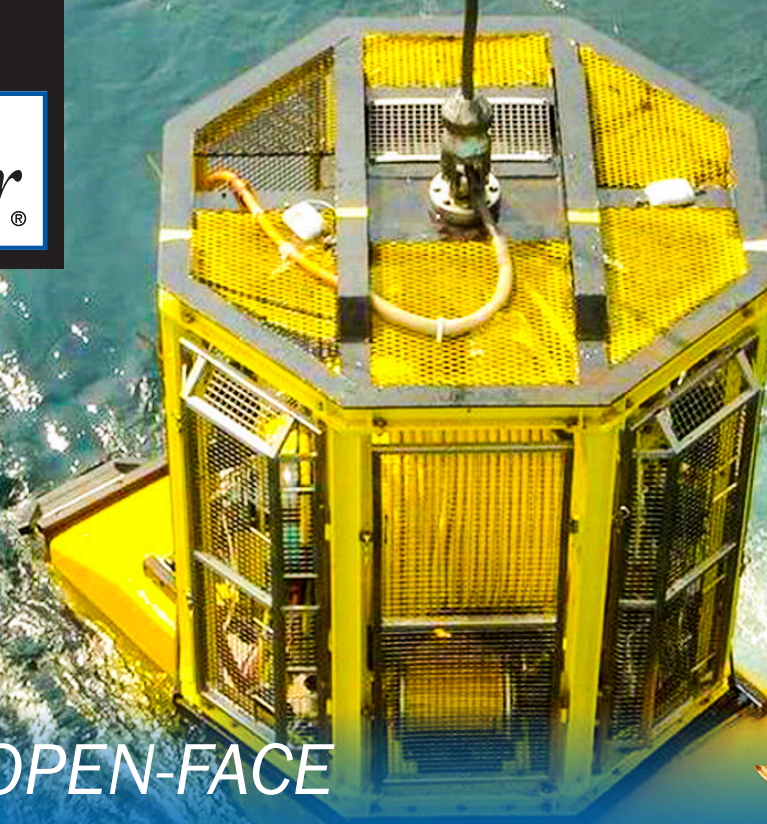
Duralectric® jacketing employed in environmental commercial application



TurboFlex® with Duralectric® jacketing ideally suited for equipment grounding



Turboflex® power pylon cable assembly with Duralectric® jacketing

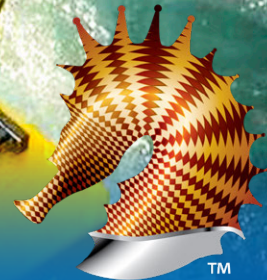


# 10K PSI OPEN-FACE SeaKing™ 700 Dry-Mate Underwater Connectors

10K PSI / 700 Bar / 7000m open-face or mated, dual O-ring equipped, high-density, high-voltage, fiber optic and hybrid electrical/optical subsea connectors

SeaKing is an innovative underwater connector series that eliminates a broad range of mechanical design weaknesses found in many of today's high-pressure subsea connector families. From its double O-ring seals and retractable engaging nut, to its multi-keyed mating interface, the SeaKing underwater connector represents a far more reliable approach to subsea power and signal connectivity.

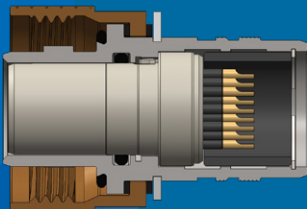
Ideally suited for deep water offshore oil & gas, military/defense, oceanographic research, and other harsh-environment subsea applications, the dry-mate connector series is built for optimal durability and reliability. Tested to 15,000 PSI (open face and mated), and equipped with integrated dual O-ring seals, marine bronze coupling nuts, corrosion-resistant stainless steel shells and high-pressure contact inserts with gold-plated signal contacts, special RF and fiber optic solutions, the Series 700 SeaKing is today's most advanced high-density signal and standard-density power underwater connector.



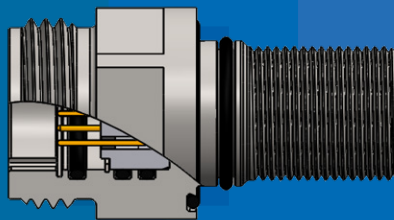
**SeaKing**  
SEVEN HUNDRED

- High density, small form-factor connector
- Dual O-ring seals ensure high-pressure performance for every leak path
- Signal, power, RF and optical insert arrangements
- Stainless steel with anti-galling marine bronze engaging nut, or cathodic delamination-free PEEK
- Full-mate inspection ports
- Easy O-ring replacement
- Key and keyway polarization

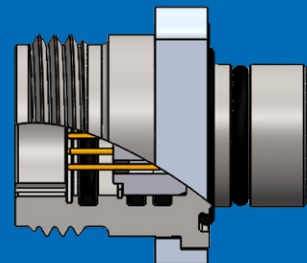
## STANDARD CONFIGURATIONS



Cable Connector Plug (CCP)



Bulkhead Connector Receptacle (BCR)



Flange Connector Receptacle (FCR)





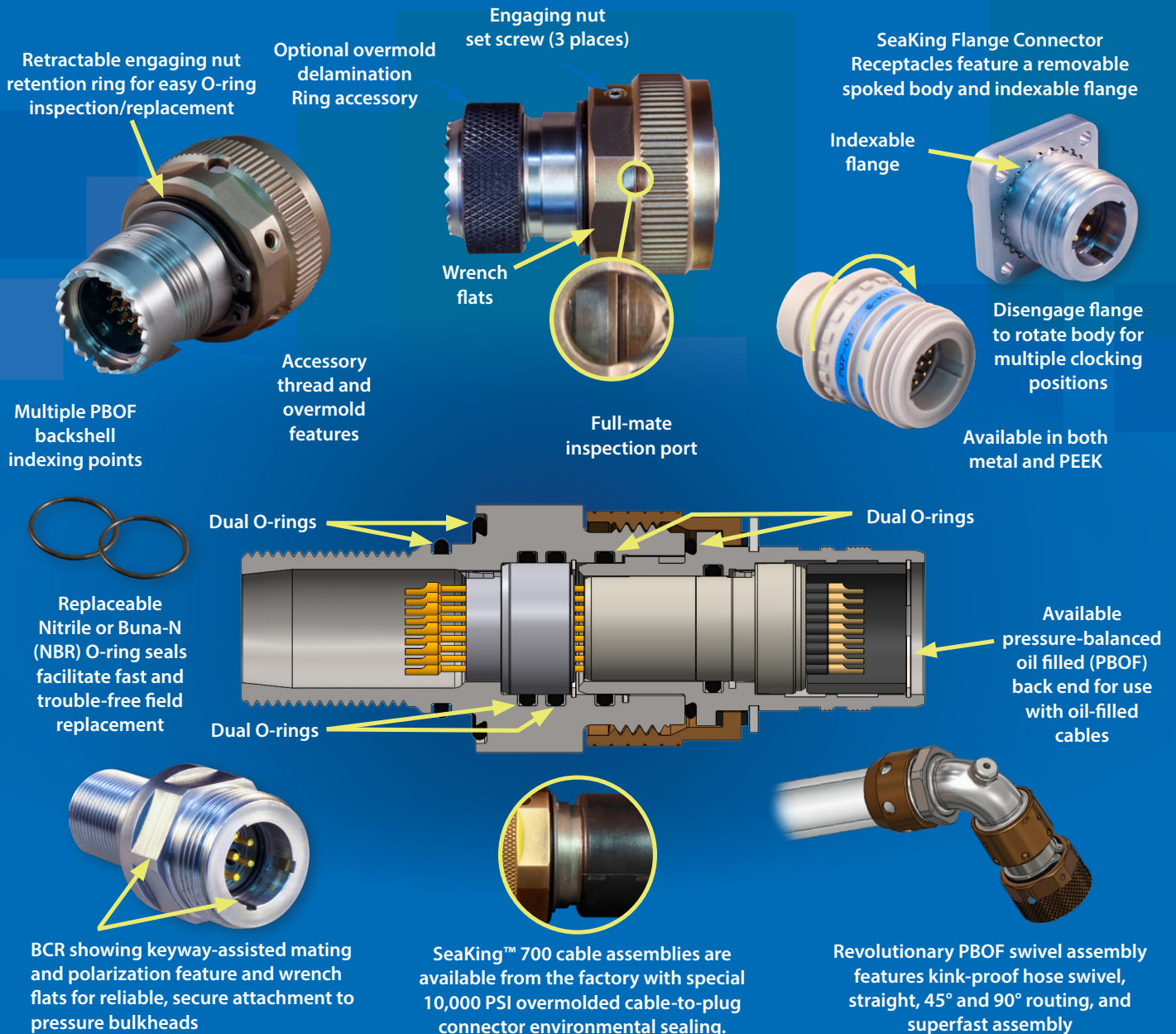
# SERIES 700 10K PSI / 700 BAR / 7000 M SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies

## Key mechanical and environmental features

**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 mismatching.

**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.





# COMPOSITE THERMOPLASTIC SeaKing™ PEEK

Glenair SeaKing Series 700 with 30% glass-filled PEEK composite thermoplastic shells for use in anti-cathodic delamination applications

SeaKing 700 is an innovative underwater connector series that eliminates a broad range of mechanical design weaknesses found in many of today's high-pressure subsea connector families. From its double O-ring seals and retractable engaging nut, to its multi-keyed mating interface, the SeaKing underwater connector represents a far more reliable approach to subsea power and signal connectivity. The series is available in stainless steel, titanium, and PEEK composite plastic shell materials designed for galvanic compatibility in mixed material applications, and superior corrosion resistance durability and immunity from cathodic delamination. The SeaKing PEEK series shares all the same insert arrangements, wire support, cabling, and PBOF capabilities as metal versions.



Discrete connectors, overmolded cables, and PBOF assemblies available

- Superior corrosion resistance, durability, and immunity from cathodic delamination
- Same high-pressure performance as stainless steel
- Lighter weight with lower deployment costs
- Zero magnetic signature
- Galvanically compatible with all metal materials





SERIES 700 10K PSI / 700 BAR / 7000 M

# SeaKing™ PEEK Composite Thermoplastic 10K PSI Connectors

700 Series with non-metallic PEEK shells

## 700-201 CABLE CONNECTOR PLUG (CCP), PEEK



SeaKing PEEK - How To Order						
Sample Part Number	700	-201	-M12	-K	S	N
Product Series	700 = SeaKing™					
Shell Style	201 = non-metallic PEEK cable connector plug (CCP)					
Shell Size-Insert Arrangement	(see sales drawing for details)					
Shell Material	K = glass-reinforced PEEK					
Contact Style	S = socket					
Polarization	A, B, C, N = normal (see sales drawing for details)					

10K PSI available in smaller shell sizes. Contact factory for details.

## 700-206 GLASS REINFORCED EPOXY OR GLASS HERMETIC SEAL INSERT, FLANGE CONNECTOR RECEPTACLES (FCR), PEEK



SeaKing PEEK - How To Order						
Sample Part Number	700	-206	-E4	-K	P	N
Product Series	700 = SeaKing™					
Shell Style	206 = non-metallic PEEK FCR, Glass Hermetic Seal Insert (GTMS) 226 = non-metallic PEEK FCR, Glass Reinforced Epoxy Insert (GRE)					
Shell Size-Insert Arrangement	(see sales drawing for details)					
Shell Material	K = glass-reinforced PEEK					
Contact Style	P = pin					
Polarization	A, B, C, N = normal (see sales drawing for details)					

10K PSI available in smaller shell sizes. Contact factory for details.

## 700-207 GLASS REINFORCED EPOXY OR GLASS-TO-METAL SEAL INSERT, BULKHEAD CONNECTOR RECEPTACLE (BCR), PEEK



SeaKing PEEK - How To Order						
Sample Part Number	700	-207	-E4	-K	P	N
Product Series	700 = SeaKing™					
Shell Style	207 = non-metallic PEEK BCR, Glass Hermetic Seal Insert (GTMS) 227 = non-metallic PEEK BCR, Glass Reinforced Epoxy Insert (GRE)					
Shell Size-Insert Arrangement	(see sales drawing for details)					
Shell Material	K = glass-reinforced PEEK					
Contact Style	P = pin					
Polarization	A, B, C, N = normal (see sales drawing for details)					

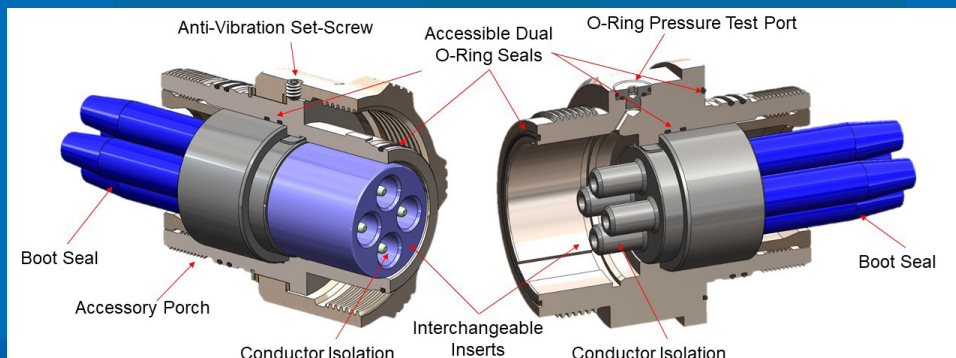
10K PSI available in smaller shell sizes. Contact factory for details.

# SeaKing™ Power

## 1–6.6kV 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 (1–6.6kV) 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 reports 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 mismatch prevention







HIGH VOLTAGE SUBSEA

# SeaKing™ Power connectors for underwater primary power junctions

Available configurations and applications

## CABLE CONNECTOR PLUG (CCP)



SeaKing™ Power  
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)



SeaKing™ Power  
API 16D and 17E-Compliant  
Flange Connector Receptacle (FCR)

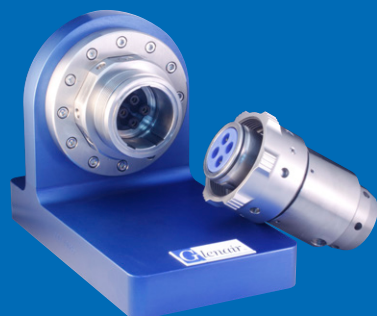
- FCR delivers 10K PSI sealing in both mated and open-face condition
- Indexable flange allows receptacle shell rotation for 360° routing flexibility of right-angle-mating cable plugs
- Available API O-ring pressure test ports ensure reliability prior to deployment to ocean floor
- Super duplex stainless 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)

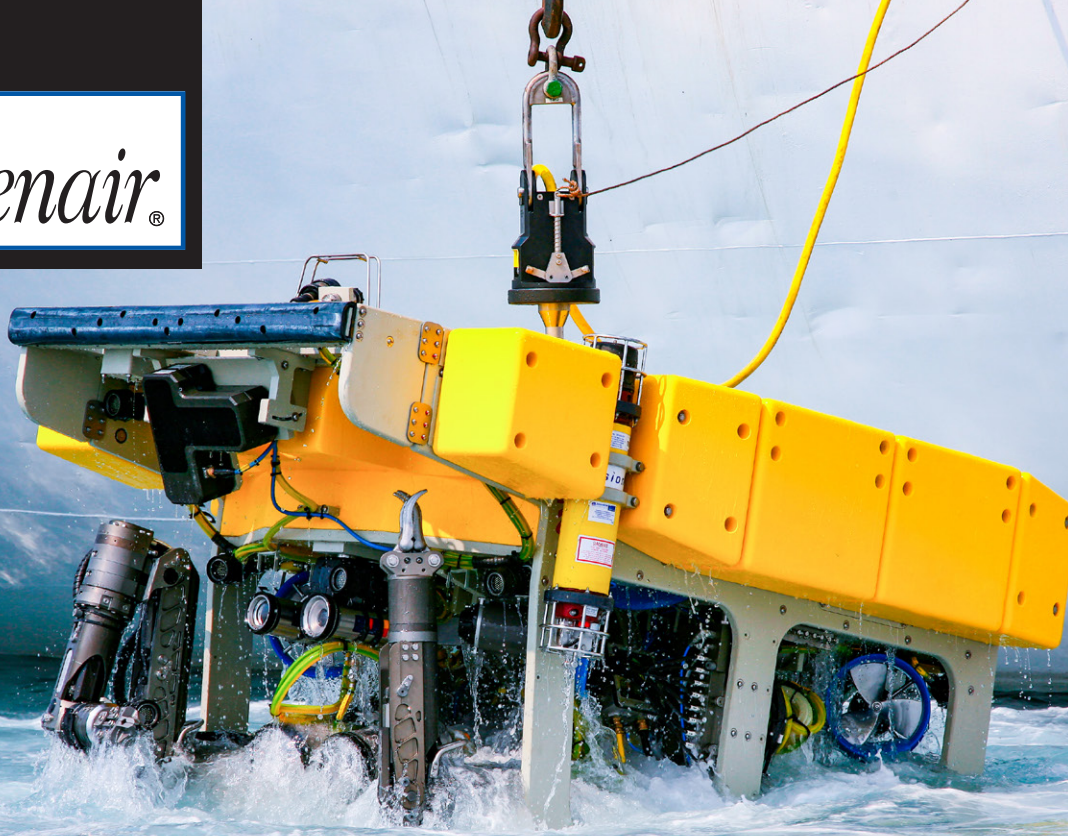


SeaKing™ Power  
API 16D and 17E-Compliant  
Bulkhead Connector Receptacle (BCR)

- 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		
Pressure Rating	Plug: 10,000 PSI, mated condition Receptacles: 10,000 PSI mated and open face	per ISO 13628-6
Electrical	1–6.6kV, 350 Amps max per contact	per MIL-STD-202, Method 301
Materials	Salt Spray (corrosion) Humidity (steady state) Thermal Cycle	MIL-STD-202, Method 101 MIL-STD-202, Method 103 ISO 13628-6
Power Ratings	3kV, 50 Amp / contact 1kV, 50 Amp / contact 1kV, 150 Amp / contact 1kV, 350 Amp / contact	P/N 700-101-48, 700-106-48 P/N 707-0065, 707-0066 P/N 707-0088, 707-0089 P/N 707-0142



DEEP WATER

# SeaKing™ Fiber Optic

10K PSI open-face pressure rated fiber optic connectors, cables and jumpers—singlemode and multimode with low dB data loss

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

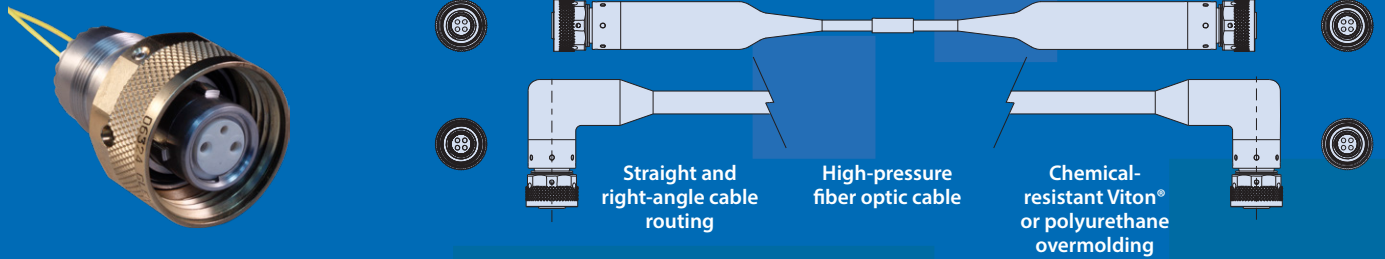




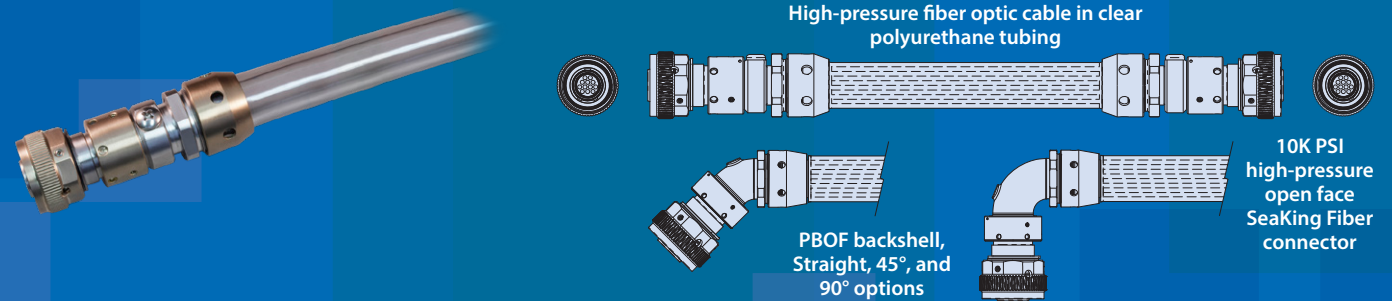
# DEEP WATER SeaKing™ Fiber Optic

## 10K PSI open-face pressure-rated fiber optic connectors and cables

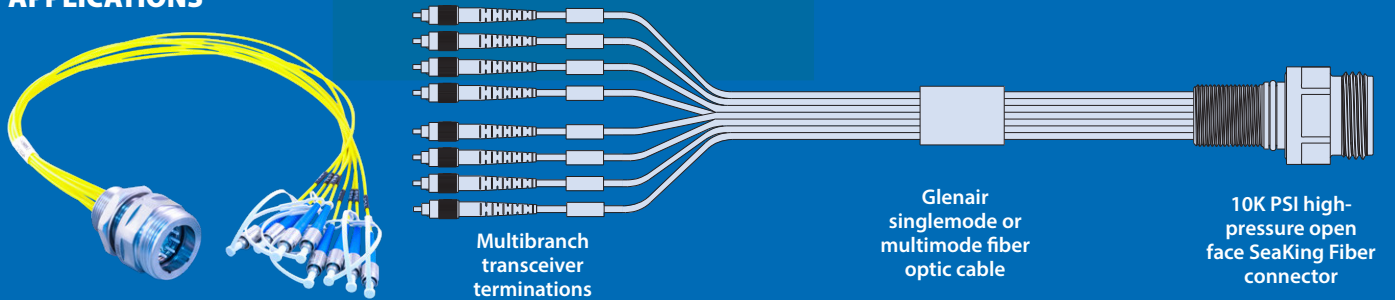
### ENVIRONMENTAL OVERMOLDED FIBER OPTIC JUMPERS



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

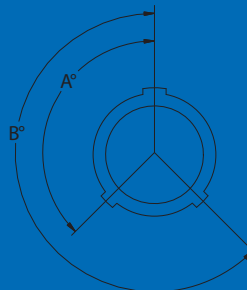


### SEAKING™ BCR OR FCR TO COMMERCIAL FIBER OPTIC PIGTAIL ASSEMBLY FOR I/O-TO-BOARD MODULE APPLICATIONS

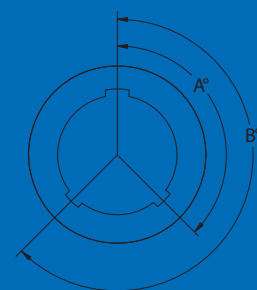


### KEY AND KEYWAY POSITIONS

Alternate Keyway Positions		
Key Position	Key Rotation	
	A°	B°
Normal (N)	150°	210°
A	75°	210°
B	95°	230°
C	140°	275°



Plug (Key)



Receptacle (Keyway)

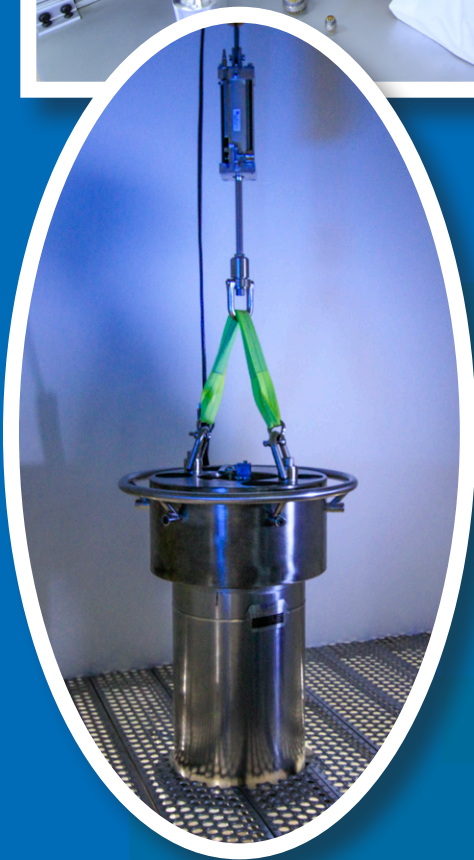
# Hydrostatic Test Lab

**GLENDALE, CALIFORNIA**

Sneak peek inside Glenair's hydrostatic test lab for high-pressure subsea electrical and fiber optic interconnects

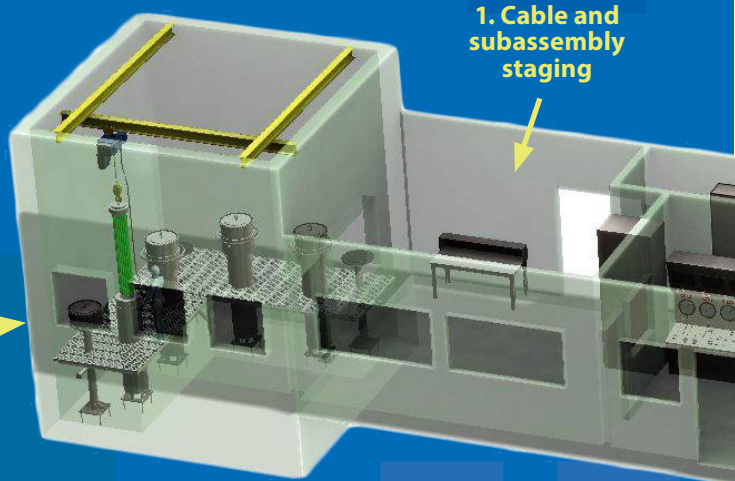


**DISCRETE CONNECTOR TESTING:** All Glenair subsea interconnects are subjected to 100% inspection and test



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

**2. Large cable and subassembly pressure test bunker**



**1. Cable and subassembly staging**



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



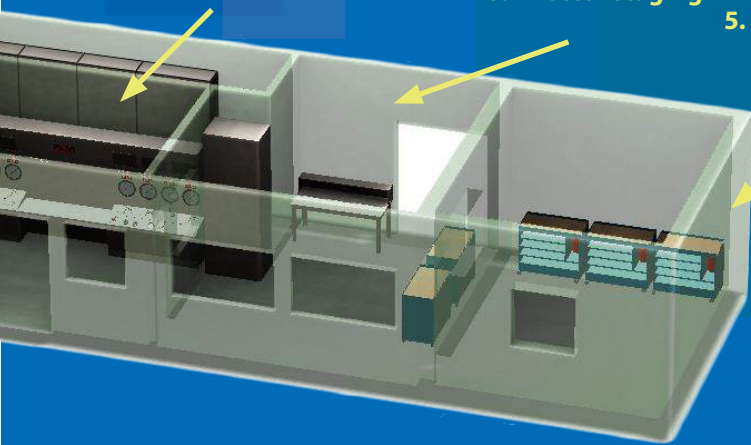
**CONTROL ROOM:** The modular consoles in the control room provide for up to 8 pressure circuits, operating in Manual mode or Automated. Each circuit is capable of a maximum of 16.5K psi. Monitors display: Automated Test Profiles, Data Acquisition, remote viewing of Test rooms and more. System is network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



3. Hydrostatic test lab control room

4. Production connector staging

5. Small connector pressure test bunker



**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	
Pressure test profiles	Automated or manual
Maximum test pressure	16.5K psi
Data acquisition types	Pressure, time, temperature, and electrical performance
Performance monitoring under pressure	I/R, continuity, insertion loss, and backreflection (optical)
Industry profiles	All major oil & gas standards
Custom profiles	Yes, including customer-supplied subassemblies
Capacity (large pressure vessels)	Working volume = 12" diameter x 72" depth; Test specimen weight up to 1500 lbs.

# Glenair Mil-Spec Interconnect Technologies



**Qualified Products:** Glenair is a Mil-Aero connector supplier. Our product quality begins in engineering (the largest team in the high-performance interconnect business) and is realized in our “made in the USA” vertically-integrated manufacturing cells. One of the key ways we ensure both areas are functioning smoothly is to submit designs and manufactured specimens into the military QPL process administered by NAVSEA and the Defense Logistic Agency of the US government. These certification exercises are multi-year activities that test every aspect of an interconnect component’s performance.



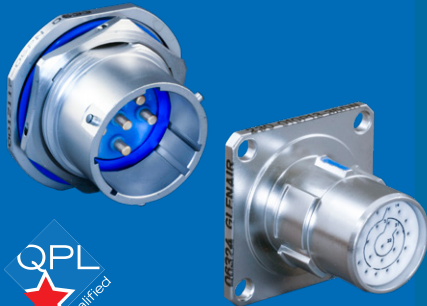
MIL-DTL-38999 Series III Environmental Connectors



MIL-DTL-38999 Series IV Environmental Connectors



MIL-DTL-28840 Shipboard Connectors and Accessories



MIL-DTL-38999 Series I, II, III, and IV Hermetic Connectors



MIL-DTL-24308 Hermetic Connectors



MIL-DTL-28876 Shipboard Fiber Optic



MIL-DTL-83513 Micro-D Connectors and Accessories



MIL-DTL-32139 Nanominiature Connectors and Accessories



MIL-DTL-29504 Fiber Optic Termini and AS39029 Electrical Contacts





MIL-DTL-55116 Radio / Audio Connectors



807 NW Nett Warrior Qualified Tactical Connectors



STAR-PAN Power / Data Hubs and Tactical Cordsets



M85049 (AS85049) Backshells and Connector Accessories



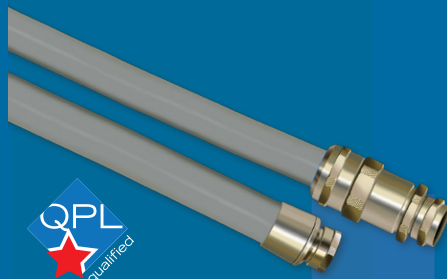
MIL-DTL-83723 Backshells and Connector Accessories



M81511 (AS81511) Protective Covers and Connector Accessories



M85049/140 TACOM-Approved and Navy-Qualified 5617649 Shrink Boots



MIL-PRF-24758 NAVSEA-Qualified Conduit and Fittings



M85049 Composite Backshells and Covers for MIL-DTL-38999

## GLENAIR'S COMMITMENT TO QUALITY

Glenair is proud of the quality and reliability we build into our broad range of mission-critical interconnect solutions—from discrete connectors to complex cable assemblies and embedded systems. Glenair is the biggest “made in the USA” interconnect supplier in the high-reliability industry, but we also operate factories in the UK, Italy, and Germany to serve the unique requirements of those markets. Glenair’s Worldwide Quality System is ISO 9001 and AS9100 certified and registered. We also hold many discrete product and operations certifications for specialty, high-performance markets including space, nuclear power, and rail. In addition to world-class quality, we are laser-focused on customer service and committed to being the easiest manufacturer in our industry to do business with. Here are just some of our key customer service principles:



- Lightning-fast turnarounds on quotes and special orders
- Worldwide sales and technical support in every major market
- Full-spectrum, “no gap” product lines
- No dollar or quantity minimums

- ISO 9001 and AS9100 certified
- Huge same-day shipment inventory
- Generous NRE, RMA, and sample request policies
- Abundant engineering and technical support
- No attitudinal constraints when it comes to customer convenience and service



# MISSION-CRITICAL INTERCONNECT SOLUTIONS

## Glenair, Inc.

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Telephone: 818-247-6000 • Fax: 818-500-9912 • sales@glenair.com

[www.glenair.com](http://www.glenair.com)

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Wallingford, CT  
06492

Telephone:  
203-741-1115  
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203-741-0053  
sales@glenair.com

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Telephone:  
+44-1623-638100  
Facsimile:  
+44-1623-638111  
sales@glenair.co.uk

### Glenair Microway Systems

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60712

Telephone:  
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Facsimile:  
847-679-8849

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### Glenair GmbH

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Germany

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