MISSION-CRITICAL
INTERCONNECT SOLUTIONS

Glenair®

Glenair SIGNATURE SERIES

Underwater Connectors

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

AUGUST 2020

Glenair®

OIL & GAS INDUSTRY INTERCONNECT SOLUTIONS

- High-pressure, 10K psi open-face subsea
- Ruggedized serial and high-speed electrical connectors
- Power and fiber optic interconnects
- Hazardous zone ATEx explosion-proof
- Ultra high-density solutions for ROVs

TOP SIDE | SHALLOW WATER | DOWN HOLE | DEEP WATER

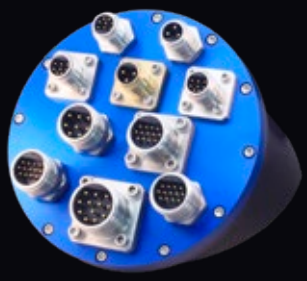
High-performance, high-pressure interconnect technologies with proven sealing performance in shipboard, downhole and underwater applications

SeaKing SEVEN HUNDRED · SUPER G55™ · ITS-Ex™ · Geo-Marine® · AQUA MOUSE™ · DURALECTRIC™ · MICRO-PSI™ · SeaKing Junior · Well-Master 260®

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

SeaKing™ 10K PSI subsea connectors and cables:
SeaKing 700 · SeaKing Fiber Optic · SeaKing Power

SeaKing Junior high-density
small form-factor subsea connector



SuperG55™ dry-mate
10K PSI subsea electrical connectors

PIPELINE INSPECTION / ULTRAMINIATURE SUBSEA

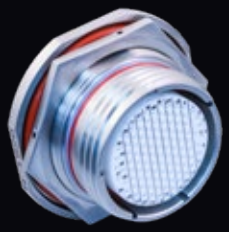
Micro PSI microminiature high-pressure
connectors and cables

SHALLOW WATER SUBSEA CONNECTORS

AquaMouse™ 3500 PSI miniature connectors
and overmolded cables

Geo-Marine® 5000 PSI connectors and
overmolded cables

DOWNHOLE HIGH-TEMPERATURE / HIGH PRESSURE CONNECTORS



ThermaRex high-temperature
connectors

High Temperature/High Pressure (HTHP)
penetrators and feedthroughs

Well-Master® high temperature
Micro-D connectors

TOPSIDE OR SHIPBOARD CONNECTORS

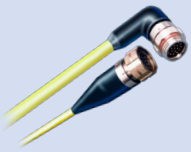
SeaCrow Marine Bronze topside
power and signal connector

ITS-Ex ATEx-qualified
explosive zone connectors

CABLE AND PBOF ASSEMBLIES

Harsh-environment
overmolded cable assemblies

Dry-mate Underwater/Subsea Connector Selection Guide

SIZE	CONNECTOR SERIES	RUGGEDNESS LEVEL	OPEN-FACE SEALING	DEPTH RATING
Large	SeaKing POWER 	3 Mission-Critical	Yes	10K PSI (700 Bar)
Standard	SeaKing SEVEN HUNDRED 	3 Mission-Critical	Yes	10K PSI (700 Bar)
	G55 SUPER 	2 High-Reliability	Yes	10K PSI (700 Bar)
	Geo-Marine® 	2 High-Reliability	No	5K PSI (450 Bar)
Miniature	SeaKing Junior 	2 High-Reliability	No	10K PSI (700 Bar)
	aquamate 	1 General Duty Harsh-Environment	No	3.5KPSI (240 Bar)
Micro	MICRO-PSI 	3 Mission-Critical	Yes	10K PSI (700 Bar)

Dry-mate Underwater/Subsea Connector Selection Guide

SHELL MATERIALS	ELECTRICAL RATING	SHELL OD RANGE	CABLE / CONTACT TYPES	APPLICATIONS	NOTES
Super Duplex Stainless Steel or Titanium	5kV 350A Max	2.34" to 3.64"	Overmolded Solder	High-Voltage Power	API 16D and 17E-Compliant
Stainless Steel, Titanium, or PEEK	600VDC 3–10A,	1.15" to 2.14"	PBOF, Overmolded Solder	High-Speed Datalink, RF, Fiber Optic, Serial Databus, Low-Voltage Power	Glass-Sealed Contacts Dual O-Ring Sealing
Stainless Steel or PEEK Rubber Keyway	600VDC 5–18A	1.12" to 1.50"	PBOF, Overmolded Crimp, Solder	Serial Databus, Low-Voltage Power	55 Series Intermateable Full-Mate Inspection Port
Stainless Steel	500VDC 5–23A	1.03" to 2.03"	Overmolded Solder	Serial Databus, Low-Voltage Power	Arctic Coupling Nuts HTHP Pipeline Inspection
Stainless Steel or Titanium	500VDC 5–23A	.875" to 1.95"	Overmolded Crimp, Solder	High-Speed Datalink, RF, Serial Databus, Low-Voltage Power	High-Density From #12 to #30 AWG Wire Support
Stainless Steel or Marine Bronze	750VDC–1800VDC 5–23A	.5" to 1.562"	Overmolded Crimp, Solder	High-Speed Datalink, RF, Serial Databus, Low-Voltage Power	From 1 –130 Glass-Sealed Contacts
Stainless Steel or Titanium	300VDC 3A	.25" to .32"	Prewired Pigtails, Cables Solder	High-Speed Datalink, Serial Databus, Low-Voltage Power	Glass- and Piston O-Ring Sealed Ethernet-Ready

10K PSI OPEN-FACE

SeaKing™ 700 Dry-Mate Underwater Connectors

SeaKing™ SEVEN HUNDRED

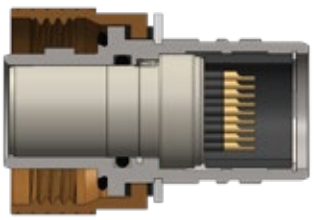
10K PSI / 700 Bar / 7000m open-face or mated, dual O-ring equipped, high-density, high-voltage, fiber optic and hybrid electrical/optical subsea connectors

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.

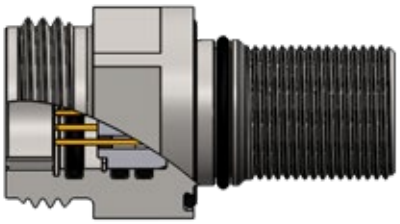
Ideally suited for deep water offshore oil & gas, military/defense, oceanographic research, and other harsh-environment subsea applications, the dry-mate connector series is built for optimal durability and reliability. Tested to 15,000 PSI (open face and mated), and equipped with integrated dual O-ring 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.

- **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**

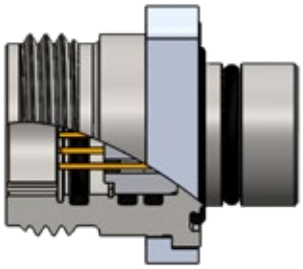
STANDARD CONFIGURATIONS



Cable Connector Plug (CCP)



Bulkhead Connector Receptacle (BCR)



Flange Connector Receptacle (FCR)

SERIES 700 10K PSI / 700 BAR / 7000 M

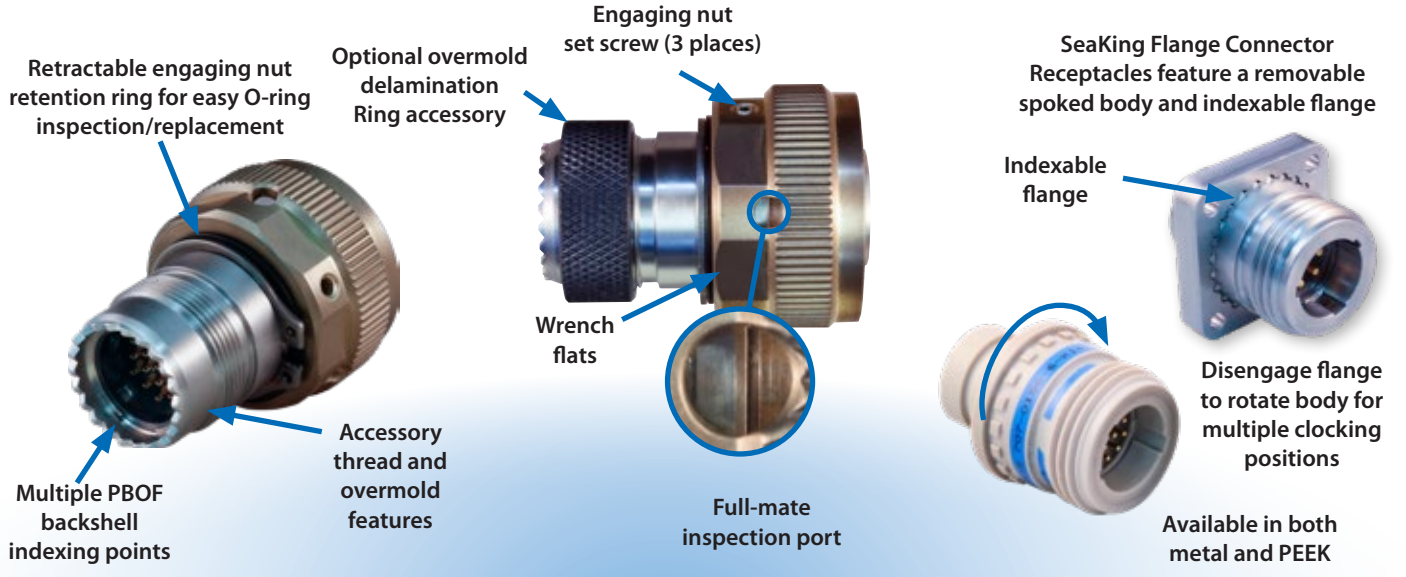
SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies

Key mechanical and environmental features

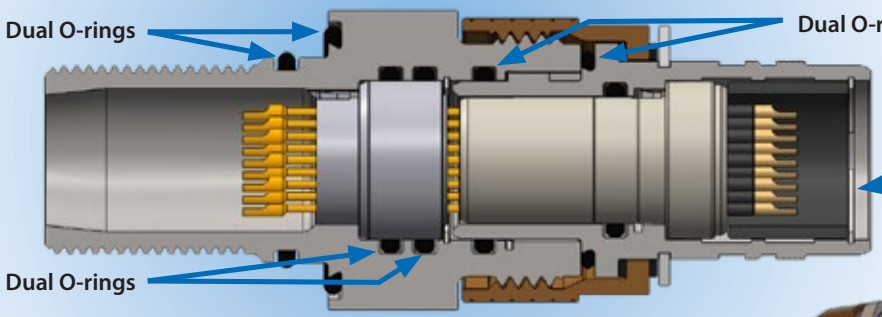
Sealing: SeaKing 700 is the best-sealed subsea connector on the market. All critical interfaces, including bulkhead seals, glass-to-metal insert seals, mating interface bore seals, and face seals are fully redundant ensuring 10K PSI protection, even in the event of a single-seal failure.

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 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.

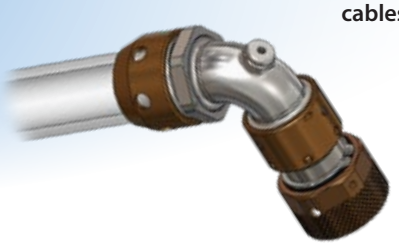


Replaceable Nitrile or Buna-N (NBR) O-ring seals facilitate fast and trouble-free field replacement



BCR showing keyway-assisted mating and polarization feature and wrench flats for reliable, secure attachment to pressure bulkheads

SeaKing™ 700 cable assemblies are available from the factory with special 10,000 psi overmolded cable-to-plug connector environmental sealing.



Revolutionary PBOF swivel assembly features kink-proof hose swivel, straight, 45° and 90° routing, and superfast assembly

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

700 Series connectors CCP, FCR and BCR

700-001 CABLE CONNECTOR PLUG (CCP) WITH SOLDER CUP TERMINATION

SeaKing - How To Order						
Sample Part Number	**700**	**-001**	**-K19**	**-Z1**	**S**	**N**
Product Series	**700** = SeaKing™					
Shell Style	**001** = cable connector plug (CCP)					
Shell Size-Insert Arrangement	(see sales drawing for details)					
Shell Material	**Z1** = 316 stainless steel **TC** = titanium					
Contact Style	**S** = socket					
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

SeaKing - How To Order						
Sample Part Number	**700**	**-006**	**-O19**	**-Z1**	**P**	**N**
Product Series	**700** = SeaKing™					
Shell Style	**006** = GTMS flange connector receptacle (FCR) **026** = GRE flange connector receptacle (FCR)					
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)					

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

SeaKing - How To Order						
Sample Part Number	**700**	**-007**	**-K19**	**-Z1**	**P**	**N**
Product Series	**700** = SeaKing™					
Shell Style	**007** = GTMS bulkhead connector receptacle (BCR) **027** = GRE bulkhead connector receptacle (BCR)					
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)					

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

SeaKing - How To Order								
Sample Part Number	**700-010**	**-M12**	**-Z1**	**P**	**N**	**P**	**N**	**-2**
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 **S** = socket							
Side A, Polarization	**A**, **B**, **C**, **N** = normal (see polarization table, pgs. 6-7)							
Side B, Contact Type	**P** = pin **S** = socket							
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							

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

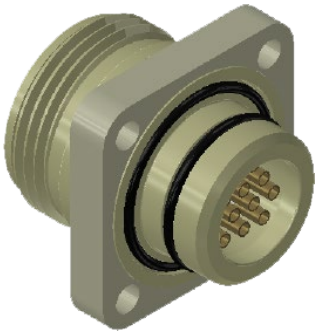
700 Series, non-metallic PEEK connectors

700-201 CABLE CONNECTOR PLUG (CCP), PEEK

SeaKing PEEK - How To Order						
Sample Part Number	**700 -201**	**-1**	**-M12**	**-K**	**S**	**N**
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)					

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

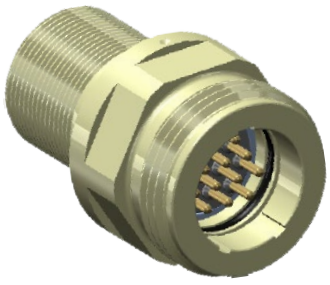
700-206 GLASS REINFORCED EPOXY OR GLASS HERMETIC SEAL INSERT, FLANGE CONNECTOR RECEPTACLES (FCR), PEEK



SeaKing PEEK - How To Order						
Sample Part Number	**707 -206**	**-6**	**-E4**	**-K**	**P**	**N**
Product Series	**700** = SeaKing™ FCR, non-metallic PEEK					
Shell Style	**206** = Glass Hermetic Seal Insert (GHS) **226** = Glass Reinforced Epoxy Insert (GRE)					
Shell Size-Insert Arrangement	(see sales drawing for details)					
Shell Material	**K** = 30% 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	**707**	**-207**	**-E4**	**-K**	**P**	**N**
Product Series	**700** = SeaKing™ BCR, non-metallic PEEK					
Shell Style	**207** = Glass Hermetic Seal Insert (GHS) **227** = Glass Reinforced Epoxy Insert (GRE)					
Shell Size-Insert Arrangement	(see sales drawing for details)					
Shell Material	**K** = 30% glass reinforced peek					
Contact Style	**P** = pin					
Polarization	**A**, **B**, **C**, **N** = normal (see sales drawing for details)					

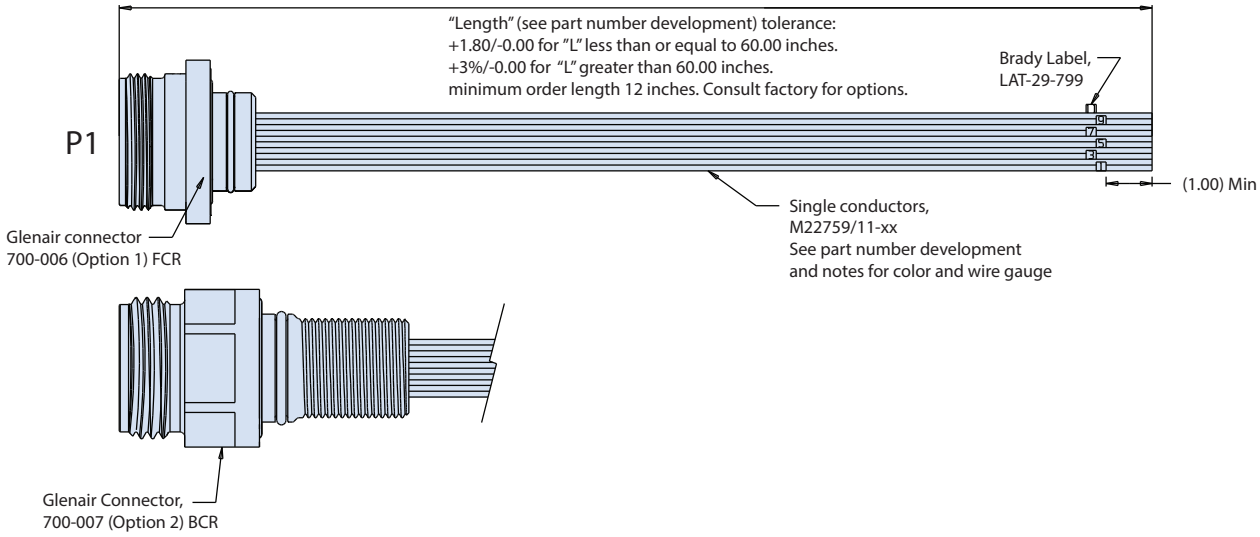
10K PSI available in smaller shell sizes. Contact factory for details.

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

Single-ended connector receptacle pigtail assembly

7071-0012 FLANGE OR BULKHEAD CONNECTOR RECEPTACLE PIGTAIL ASSEMBLY

SeaKing - How To Order							
Sample Part Number	**7071-0012**	**-1**	**M12**	**-Z1**	**-12**	**A**	**N**
Product Series	**7071-0012** = SeaKing™						
Receptacle Style	**1** = 700-006 (GTMS FCR) **2** = 700-007 (GTMS BCR) **3** = 700-026 (GRE FCR) **4** = 700-027 (GRE 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)						



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

NOTES

1. 100% electrically tested for shorts, dielectric withstanding voltage (500Vac 5 seconds max) and insulation resistance (conductor to conductor and conductor to shell at 500Vdc/200 megohms min. (IAW-STD-202, Method 302)
2. Quantity and gauge 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.

SERIES 700 10K PSI / 700 BAR / 7000 M

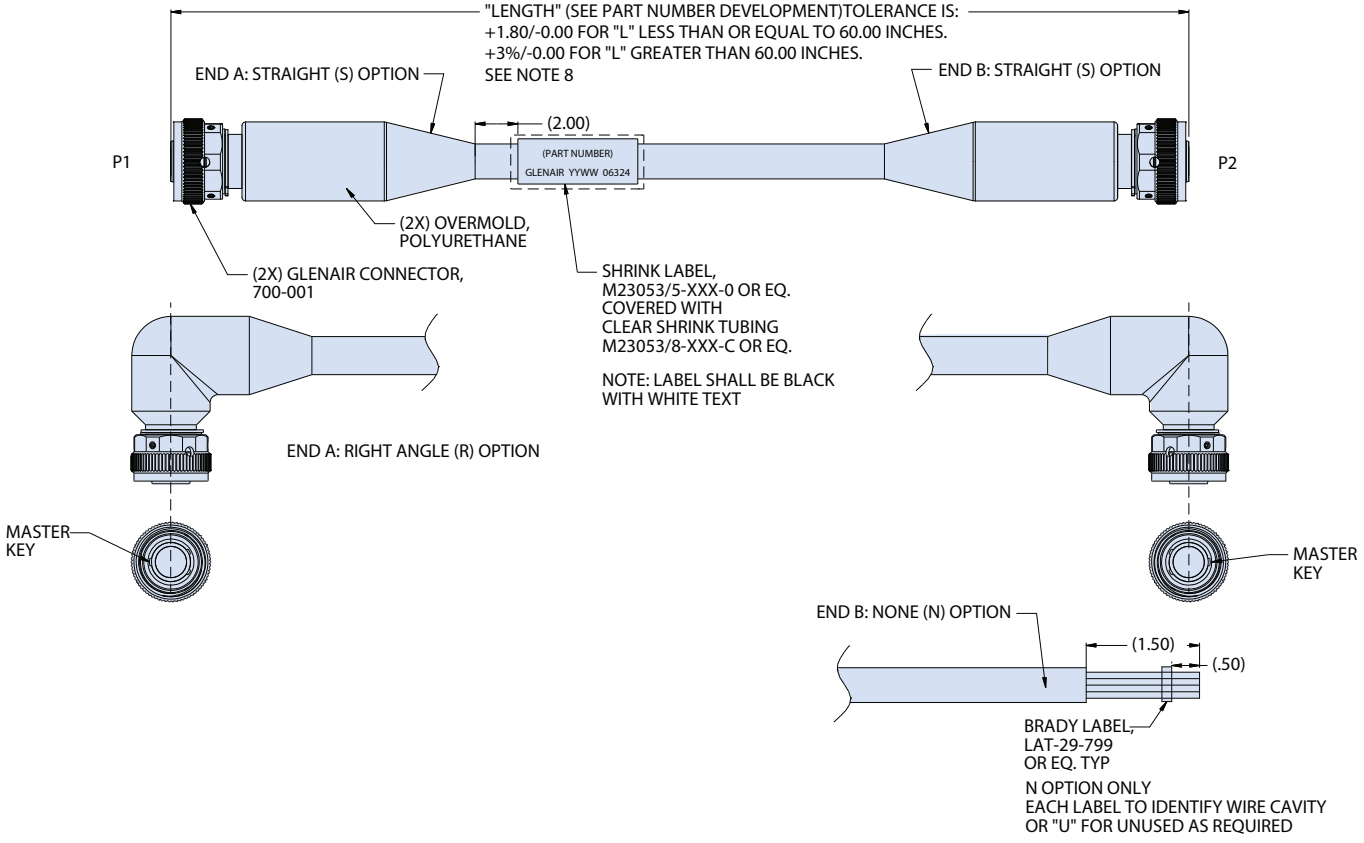
SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies

Single ended or back-to-back, overmolded cable

SeaKing - How To Order								
Sample Part Number	**7071-0007**	**-S**	**R**	**Z1**	**-K19**	**N**	**-24**	**11**
Series	**7071-0007** = SeaKing™ cable connector plug (CCP) assembly							
P1	**R** = right angle **S** = straight							
P2	**R** = right angle **N**=none **S** = 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							

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

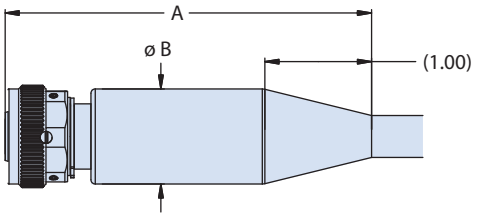
Cap Options	
Sym	Description
10	Protective cap, no lanyard
11	Protective cap, with lanyard
20	Pressure cap, no lanyard
21	Pressure cap, with lanyard

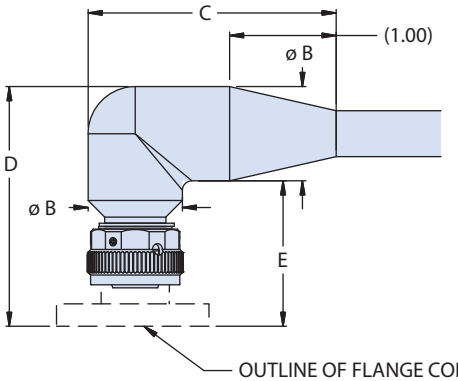


SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies

Single ended or back-to-back, overmolded cable

SIZE	A	B	C	D	E
E	4.55	0.765	2.88	2.93	2.165
G	4.55	0.875	2.94	3.11	2.235
K	4.55	1.00	3.00	3.16	2.105
L	4.55	1.125	3.00	3.29	2.165
M	5.05	1.250	3.38	3.43	2.18
O	5.05	1.500	3.5	3.55	2.05
P	5.05	1.625	3.68	3.75	2.125
Q	5.05	1.750	3.88	3.93	2.18
R	5.05	1.875	3.94	3.99	2.115





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

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. IAW MIL-STD-202, Method 302).
2. Unit pack: 1 ea. In poly bag, heat-sealed. Include dust cap. Tag and bag per illustration.
3. Max pressure rating 10000 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 cordsets are wired one to one (ex. pin 1 to pin 1, 2 to 2 etc).
7. Quantity and gauge of conductos determined by insert arrangement. All cavities to be pupulated with largest gauge wire.
8. Marker label, M23053/5 or equivalent. Covered with clear tubing M@3053/18 or equivalent tubing shall be white with black text.
9. Single conductors shall be identified with cavity indentifier or "U" for unused marker label, M23053/ 5 or equivalent convered with clear tubing M23053/18 or equivalent tubing shall be white with text.
10. Minimum order length is 24.00 inches. Consult fatory for orders longer 1200 inches (100ft)
11. All configurations are wired one to one.
12. Pressure rated cable. Polyurethane jacket wire AWG shall be per contact size.

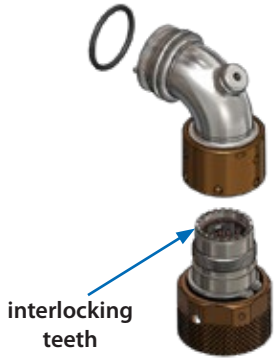
SeaKing™ High-Pressure Underwater Connectors, Cables, and PBOF Assemblies

PBOF assembly fittings and accessories

REVOLUTIONARY PBOF SWIVEL HOSE ATTACHMENT ACCESSORIES

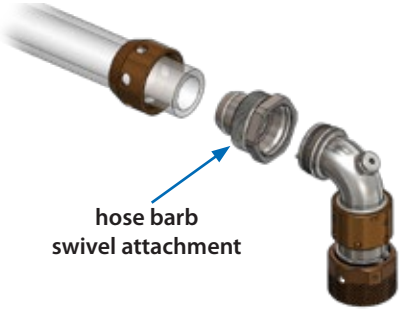
Hose barb fittings for PBOF assemblies are the perennial weak link in subsea oil & gas applications. Kinked and twisted hoses, leaky fittings, corroded hose clamps, and other performance problems characterize most existing solutions. The Glenair PBOF swivel hose attachment for SeaKing™ connectors solves 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**

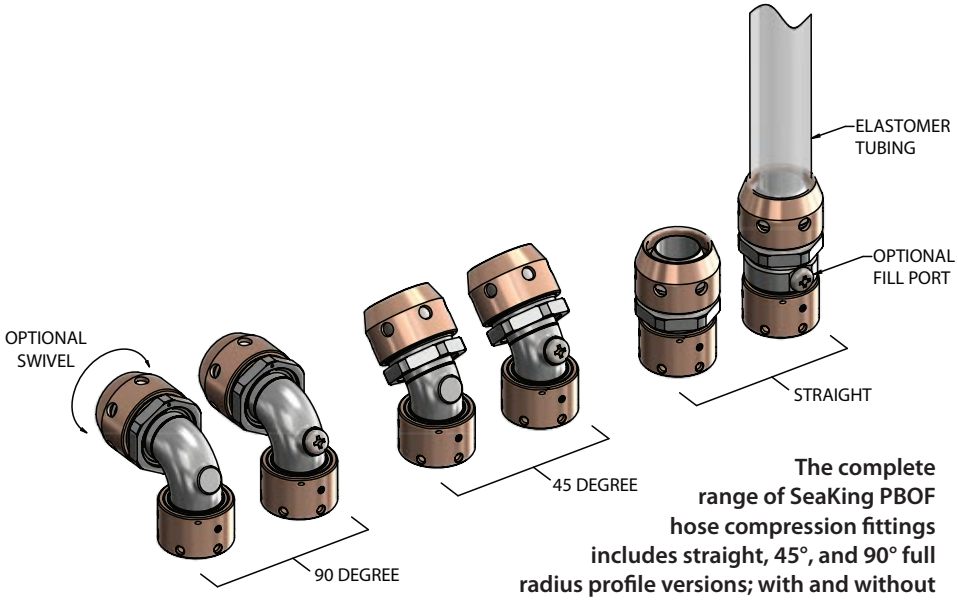


Interlocking teeth on SeaKing™ plug connectors interface with corresponding teeth on the PBOF swivel hose attachment to facilitate easy indexing and routing of hose assemblies

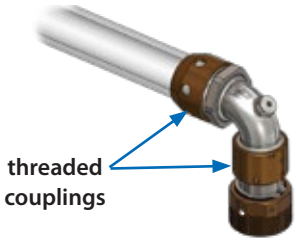
SeaKing PBOF Attachment Accessory Kits - How To Order					
Sample Part Number	**709-003**	**K**	**-L**	**1**	**S**
Product Series	**709-003** = SeaKing™ PBOF accessory				
Shell Size	**E, G, K, L, M, O, P, Q, R**				
Angular Function	**L** = Straight **M** = 45° **N** = 90°				
Fill Port Option	**0** = No fill port **1** = With fill port				
Swivel/Fixed Option	**S** = Swivel **F** = Fixed				



Revolutionary swivel hose barb compression attachment eliminates twisting and damage in PBOF assemblies



The complete range of SeaKing PBOF hose compression fittings includes straight, 45°, and 90° full radius profile versions; with and without integrated oil fill ports



Threaded PBOF compression nut and connector coupling nut (with additional safety set screw) provide for fast and easy assembly and prevent leaks and assembly decoupling

DEEP WATER

SERIES 701

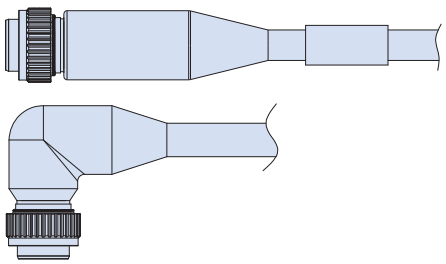
SeaKing™ Junior

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

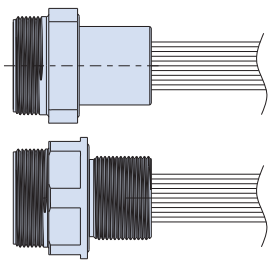
High-density Series 701 SeaKing Junior connectors are the perfect choice for harsh-environment oil & gas industry equipment. All designs are equipped with piston seal nitrile O-rings to withstand exposure to corrosive chemicals and high-temperature environments. These 10,000 psi pressure rated (mated 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**

SEAKING™ JUNIOR OVERMOLDED CABLES AND PIGTAIL ASSEMBLIES



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

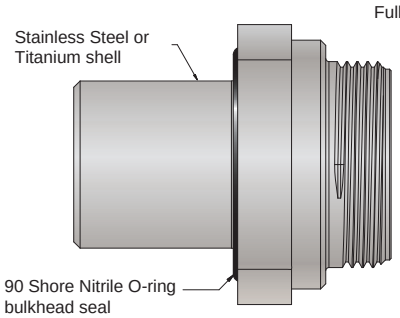
All featured insert arrangements tooled and available now including high-density and combo layouts for Coax, Twinax, and El Ochito® octaxial contacts

SERIES 701 SeaKing™ Junior

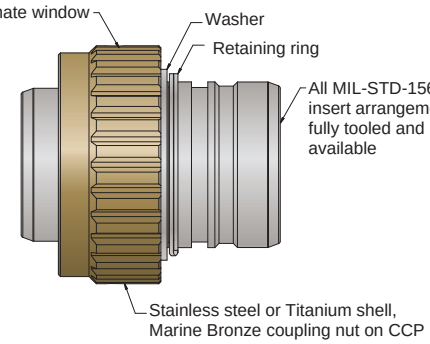
Harsh-Environment Dry-Mate Connectors

10K psi high-density overmolded cable connectors

SERIES 701 SEAKING™ JUNIOR MECHANICAL FEATURES AND CONFIGURATIONS



Flange Connector Receptacle



Cable Connector Plug

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 701-011 Cable Connector Plug (CCP)

Series 701-016 Flange Connector Receptacle (FCR)

Series 701-017 Bulkhead Connector Receptacle (BCR)

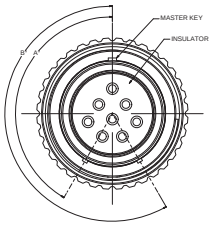
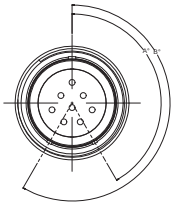
SEAKING™ JUNIOR CONTACT SPECIFICATIONS, MATERIALS AND FINISHES, AND CRIMP TOOLS

Service Ratings			
Service Rating	Sea Level DWV (VAC)	Operational	
		VAC	VDC
M	1300	433.3	612.8
N	1000	333.3	471.4
I	1800	600.0	484.5
II	2300	766.7	1084.2

Current Rating		
Contact Size	Amps	Wire Size
#8	46.0	8 AWG
#10	33.0	10 AWG
#12	23.0	12-14 AWG
#16	13.0	16-20 AWG
#20	7.5	20-24 AWG
#22D	5.0	22-28 AWG

Performance Specifications	
Insulation Resistance	5000 megohms at 500 VDC
Operating Temperature	-65° C to +175° C
Hydrostatic Pressure	10,000 PSI mated condition, tested per ISO 13628-6
Durability	300 mating cycles

Series 701 Polarization

Plug	Receptacle
	

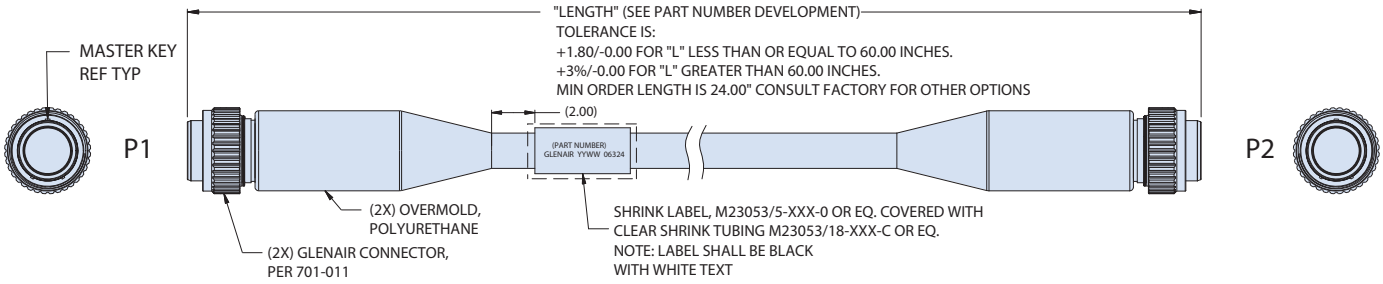
Key Position	Key Rotation	
	A°	B°
Normal (N)	150°	210°
A	75°	210°
B	95°	230°
C	140°	275°

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

Contact Crimp Tools		
Contact Size	Crimp Tool	Positioner
#12	809-136	809-137
#16	809-136	809-137
#20	809-136	809-137
#22D	809-015	K42 Pin
		K40 Skt

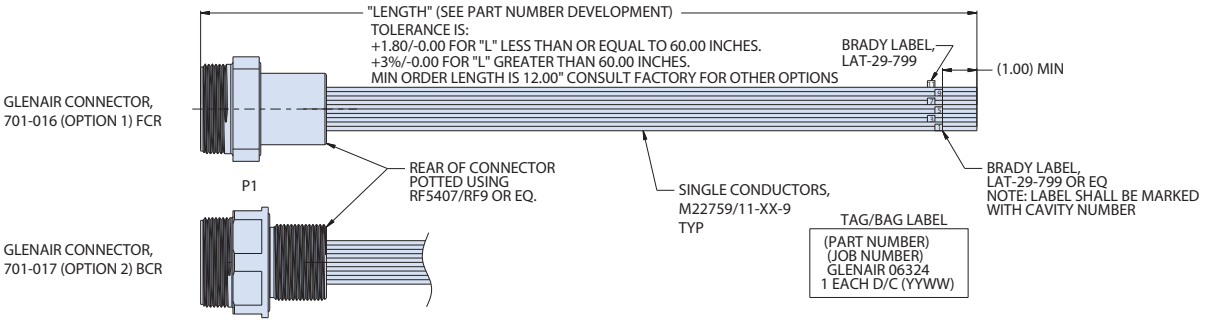
SEAKING™ JUNIOR POINT-TO-POINT OVERMOLDED CABLE

SeaKing Junior - How To Order							
Sample Part Number	**7071-0067**	**9-35**	**Z1**	**S**	**N**	**36**	
Series	**7071-0067** = SeaKing Junior Cable Assembly						
Insert Arrangement	See contact arrangement table pages 14-19						
Material / Finish	**Z1** = Stainless Steel Body and Marine Bronze Coupling Nut **TC** = Titanium						
Contact Style	**S** = Socket						
Polarization	**N** = Normal, **A**, **B**, **C** (see Polarization Table, page 14)						
Cable Length	**Length** = in inches; ie 36 = 36 inches						



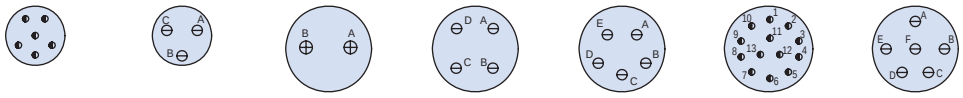
SEAKING™ JUNIOR SINGLE-ENDED RECEPTACLE ASSEMBLY

SeaKing Junior - How To Order							
Sample Part Number	**7071-0068**	**1**	**9-35**	**Z1**	**P**	**N**	**36**
Series	**7071-0068** = SeaKing Junior Cable Assembly						
Receptacle Style	**1** = Flange Connector Receptacle (701-016) **2** = Bulkhead Connector Receptacle (701-017)						
Insert Arrangement	See contact arrangement table pages 14-19						
Material / Finish	**Z1** = Stainless Steel Body and Marine Bronze Coupling Nut **TC** = Titanium						
Contact Style	**P** = Pin						
Polarization	**N** = Normal, **A**, **B**, **C** (see Polarization Table, page 14)						
Cable Length	**Length** = in inches; ie 36 = 36 inches						



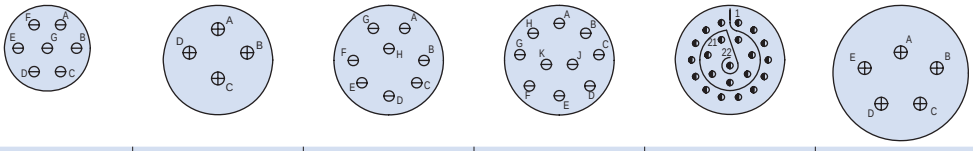
SEAKING™ JUNIOR TOOLED INSERT ARRANGEMENTS (STANDARD LAYOUTS)

Contact Legend
#22D ● #16 ⊕
#20 ⊖ #12 ◒



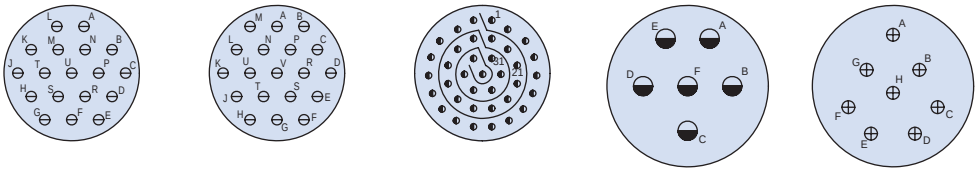
Insert Arrangement	9-35	9-98	11-2	11-4	11-5	11-35	11-98
No. of Contacts	6	3	2	4	5	13	6
Contact Size	#22D	#20	#16	#20	#20	#22D	#20
Service Rating	M	I	I	I	I	M	I

Contact Legend
#22D ● #16 ⊕
#20 ⊖ #12 ◒



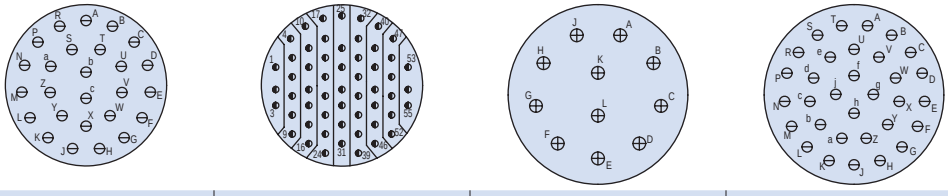
Insert Arrangement	11-99	13-4	13-8	13-98	13-35	15-5
No. of Contacts	7	4	8	10	22	5
Contact Size	#20	#16	#20	#20	#22D	#16
Service Rating	I	I	I	I	M	II

Contact Legend
#22D ● #16 ⊕
#20 ⊖ #12 ◒



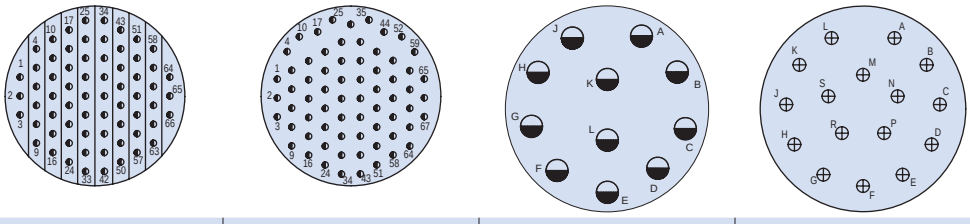
Insert Arrangement	15-18	15-19	15-35	17-6	17-8
No. of Contacts	18	19	37	6	8
Contact Size	#20	#20	#22D	#12	#16
Service Rating	I	I	M	I	II

Contact Legend
#22D ● #16 ⊕
#20 ⊖ #12 ◒



Insert Arrangement	17-26	17-35	19-11	19-32
No. of Contacts	26	55	11	32
Contact Size	#20	#22D	#16	#20
Service Rating	I	M	II	I

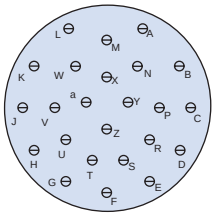
Contact Legend
#22D ● #16 ⊕
#20 ⊖ #12 ◒



Insert Arrangement	19-35	19-45	21-11	21-16
No. of Contacts	66	67	11	16
Contact Size	#22D	#22D	#12	#16
Service Rating	M	M	I	II

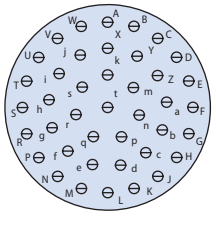
SEAKING™ JUNIOR TOOLED INSERT ARRANGEMENTS (STANDARD LAYOUTS)

Contact Legend
#22D ● #16 ⊕
#20 ⊖ #12 ◒



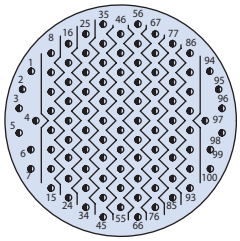
Insert Arrangement	21-24	21-25	21-27	21-35
No. of Contacts	24	25	27	79
Contact Size	#20	#20	#20	#22D
Service Rating	I	I	I	M

Contact Legend
#22D ● #16 ⊕
#20 ⊖ #12 ◒



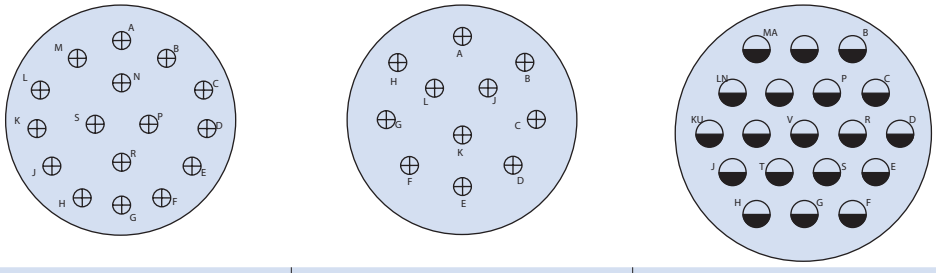
Insert Arrangement	21-41	23-21	23-32	23-34
No. of Contacts	41	21	32	34
Contact Size	#20	#16	#20	#20
Service Rating	I	II	I	I

Contact Legend
#22D ● #16 ⊕
#20 ⊖ #12 ◒



Insert Arrangement	23-35	23-36	23-53	23-55
No. of Contacts	100	36	53	55
Contact Size	#22D	#20	#20	#20
Service Rating	M	I	I	I

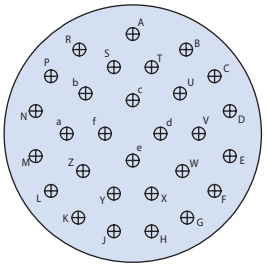
Contact Legend
#22D ● #16 ⊕
#20 ⊖ #12 ◒

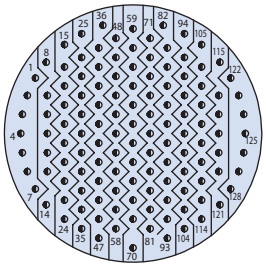


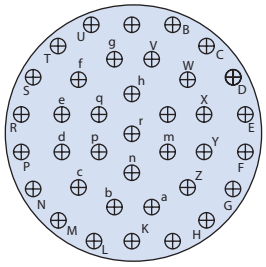
Insert Arrangement	23-97	23-99	25-19
No. of Contacts	16	11	19
Contact Size	#16	#16	#12
Service Rating	I	II	I

SEAKING™ JUNIOR TOOLED INSERT ARRANGEMENTS (STANDARD LAYOUTS)

Contact Legend
#22D • #16 ⊕
#20 ⊖ #12 ◒

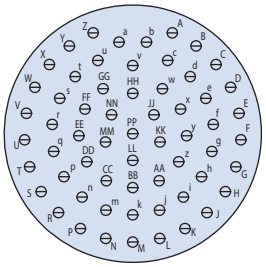






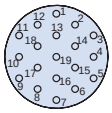
Insert Arrangement	25-29	25-35	25-37
No. of Contacts	29	128	37
Contact Size	#16	#22D	#16
Service Rating	I	M	II

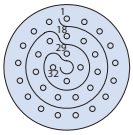
Contact Legend
#22D • #16 ⊕
#20 ⊖ #12 ◒

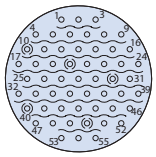


Insert Arrangement	25-61
No. of Contacts	61
Contact Size	#20
Service Rating	I

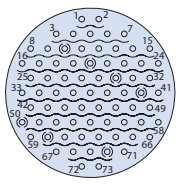
SEAKING™ JUNIOR TOOLED INSERT ARRANGEMENTS (HIGH-DENSITY LAYOUTS)

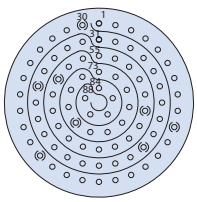


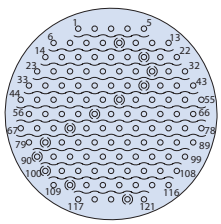




Insert Arrangement	9-23	11-23	13-23	15-23
No. of Contacts	9	19	32	55
Contact Size	#23	#23	#23	#23
Service Rating	N	N	N	N





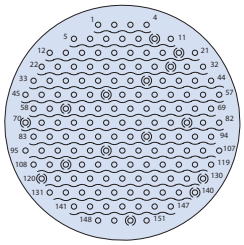


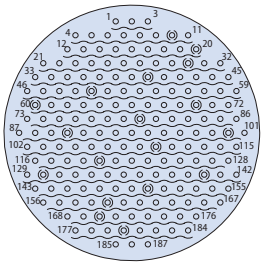
Insert Arrangement	17-23	19-23	21-23
No. of Contacts	73	88	121
Contact Size	#23	#23	#23
Service Rating	N	N	N

Harsh-Environment Dry-Mate Connectors

Insert arrangements

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

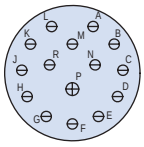


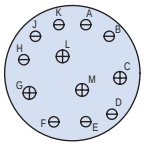


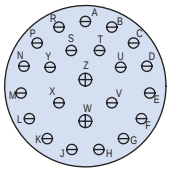
Insert Arrangement	23-23	25-23
No. of Contacts	151	187
Contact Size	#23	#23
Service Rating	N	N

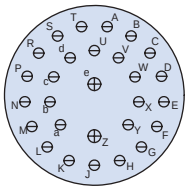
SEAKING™ JUNIOR TOOLED INSERT ARRANGEMENTS (COMBO LAYOUTS)

Contact Legend
#22D ● #20 ⊖ #16 ⊕
#12 ◒ #10 ◉



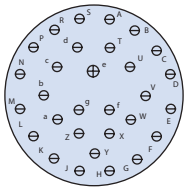


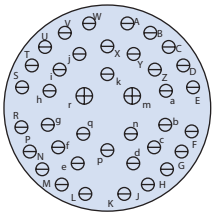


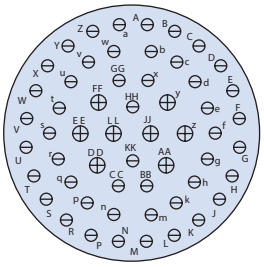


Insert Arrangement	15-15		15-97		17-99		19-28	
No. of Contacts and Size	1X #16	14X #20	4X #16	8X #20	2X #16	21X #20	2X #16	26X #20
Service Rating	I		I		I		I	

Contact Legend
#22D ● #20 ⊖ #16 ⊕
#12 ◒ #10 ◉

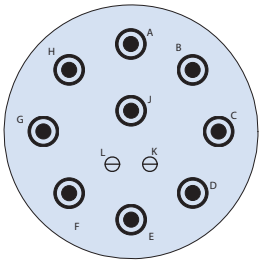


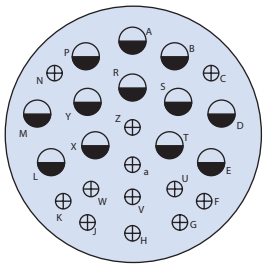


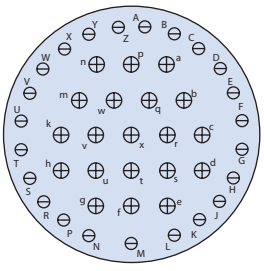


Insert Arrangement	19-30		21-39		25-4	
No. of Contacts and Size	1X #16	29X #20	2X #16	37X #20	8X #16	48X #20
Service Rating	I		I		I	

Contact Legend
#22D ● #20 ⊖ #16 ⊕
#12 ◒ #10 ◉



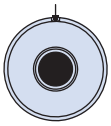




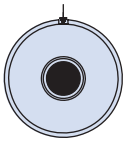
Insert Arrangement	25-11		25-24		25-43	
No. of Contacts and Size	9X #10	2x #20	12X #12	12X #16	20X #16	23X #20
Service Rating	N		I		I	

SEAKING™ JUNIOR TOOLED INSERT ARRANGEMENTS (SPECIAL SHIELDED LAYOUTS)

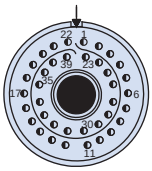
Contact Legend
#22D #16
#20 #12
#8



Shell Size - Insert Arrangement	9-1
No. of Contacts	1x #8

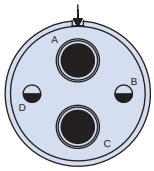


Shell Size - Insert Arrangement	11-1*
No. of Contacts	1x #8

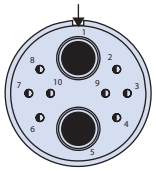


Shell Size - Insert Arrangement	17-2	
No. of Contacts	1x #8	38x #22D

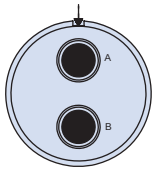
Contact Legend
#22D #16
#20 #12
#8



Shell Size - Insert Arrangement	17-22	
No. of Contacts	2x #8	2x #12

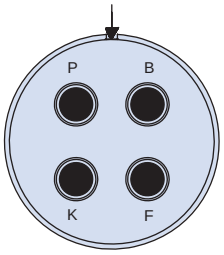


Shell Size - Insert Arrangement	17-60	
No. of Contacts	2x #8	8x #22

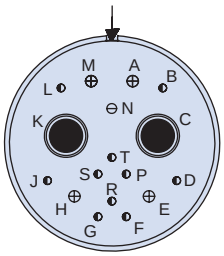


Shell Size - Insert Arrangement	17-75
No. of Contacts	2x #8

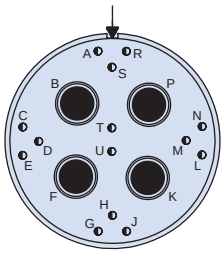
Contact Legend
#22D #16
#20 #12
#8



Shell Size - Insert Arrangement	19-4
No. of Contacts	4x #8

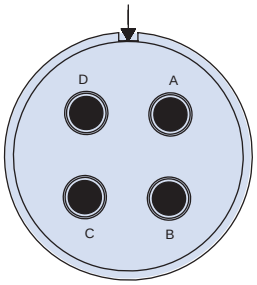


Shell Size - Insert Arrangement	19-17			
No. of Contacts	2x #8	4x #16	1x #20	10x #22D

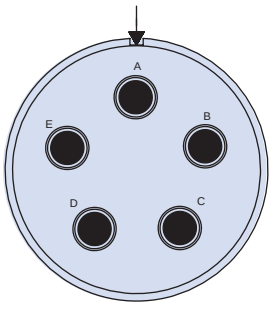


Shell Size - Insert Arrangement	19-18	
No. of Contacts	4x #8	14x #22D

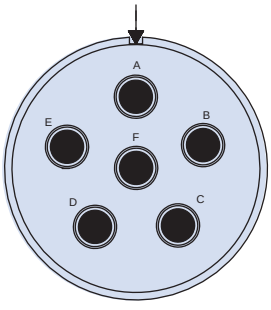
Contact Legend
#22D #16
#20 #12
#8



Shell Size - Insert Arrangement	21-75
No. of Contacts and Size	4x #8



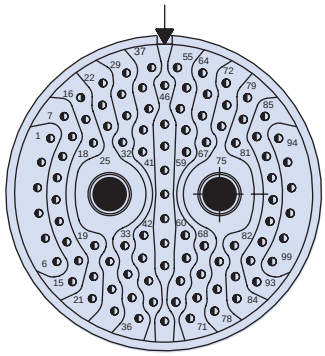
Shell Size - Insert Arrangement	23-5
No. of Contacts and Size	5x #8

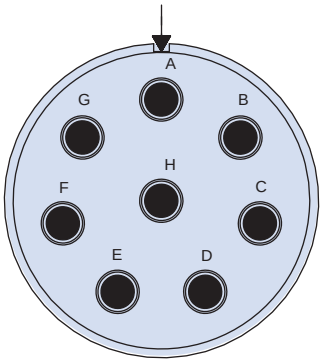


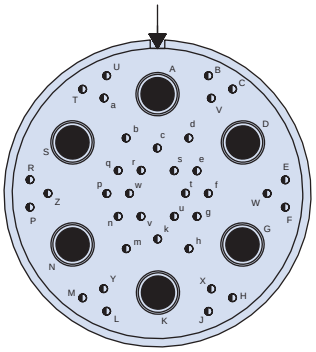
Shell Size - Insert Arrangement	23-6
No. of Contacts and Size	6x #8

SEAKING™ JUNIOR TOOLED INSERT ARRANGEMENTS (SPECIAL SHIELDED LAYOUTS)

Contact Legend
#22D ⊕ #16 ⊕
#20 ⊖ #12 ⊖
#8 ⊖

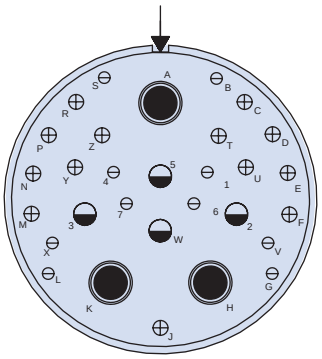


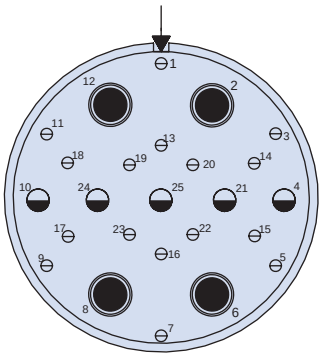




Shell Size - Insert Arrangement	25-7		25-8	25-17	
No. of Contacts and Size	2x #8	97x #22	8x #8	6x #8	36x #22

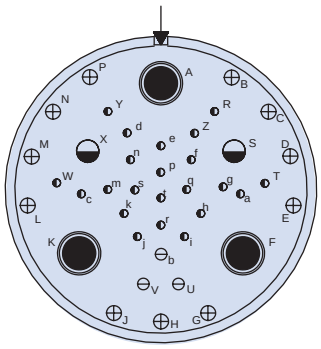
Contact Legend
#22D ⊕ #16 ⊕
#20 ⊖ #12 ⊖
#8 ⊖

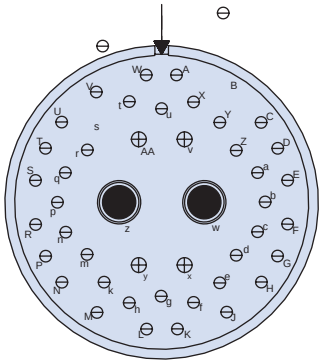




Shell Size - Insert Arrangement	25-20				25-26		
No. of Contacts and Size	3x #8	4x #12	13x #16	10x #20	4x #8	5x #12	16x #20

Contact Legend
#22D ⊕ #16 ⊕
#20 ⊖ #12 ⊖
#8 ⊖





Shell Size - Insert Arrangement	25-41					25-46		
No. of Contacts and Size	3x #8	2x #12	11x #16	3x #20	22x #22D	2x #8	4x #16	40x #20

DEEP WATER

SeaKing™ Fiber Optic

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

SeaKing™ Fiber

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.

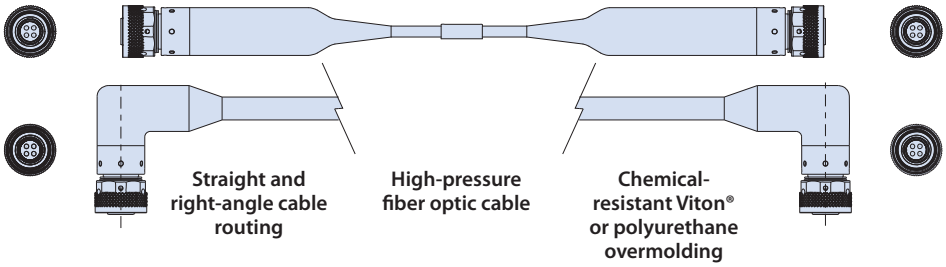
- **Overmolded and PBOF butt-joint assemblies**
- **Full hydrostatic qualification test report available**
- **Wide range of fiber and hybrid fiber/electric layouts**
- **Singlemode and multimode**
- **<1.0db data loss for singlemode**

DEEP WATER

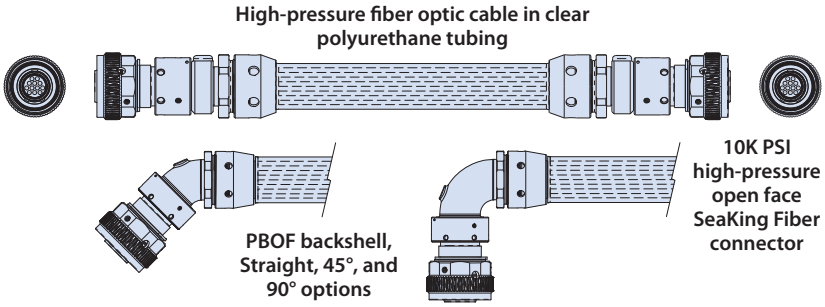
SeaKing™ Fiber Optic

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

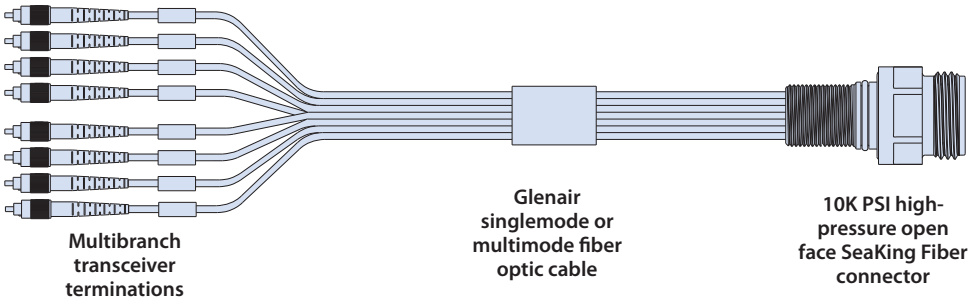
ENVIRONMENTAL OVERMOLDED FIBER OPTIC JUMPERS



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

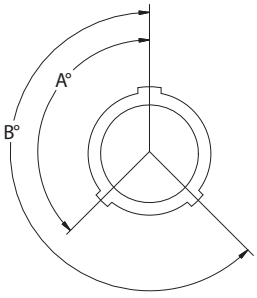


SEAKING™ BCR OR FCR TO COMMERCIAL FIBER OPTIC PIGTAIL ASSEMBLY FOR I/O-TO-BOARD MODULE APPLICATIONS

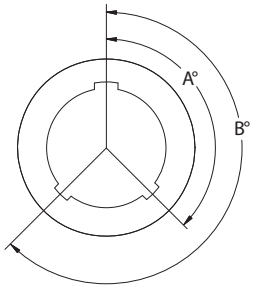


KEY AND KEYWAY POSITONS

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



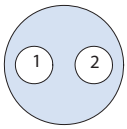
Plug (Key)

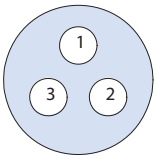


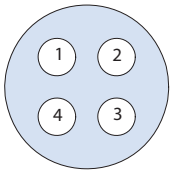
Receptacle (Keyway)

Fiber optic insert arrangements

Fiber Only

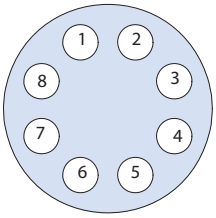


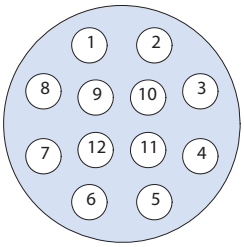




Shell Size	K	L	M
Insert Arrangement	KF2	LF3	MF4
No. of Contacts	2 FO	3 FO	4 FO

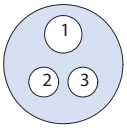
Fiber Only

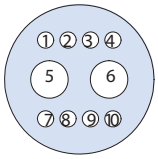


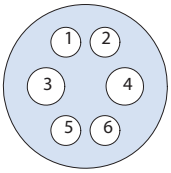


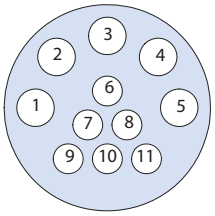
Shell Size	O	P
Insert Arrangement	OF8	PF12
No. of Contacts	8 FO	12 FO

Copper/Fiber



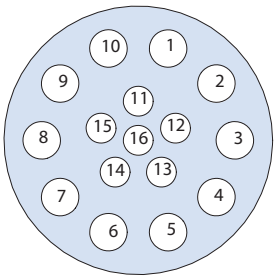


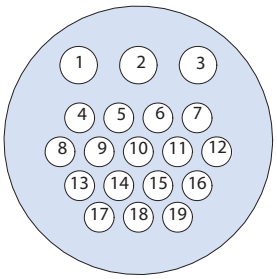




Shell Size	K	L	M	O
Insert Arrangement	KH12	LH28	MH24	OH56
No. of Fiber Contacts	1 FO	2 FO	2 FO	5 FO
No. of Copper Contacts	2 #16	8 #22	4 #16	6 #16

Copper/Fiber





Shell Size	Q	Q
Insert Arrangement	QH106	QH316
No. of Fiber Contacts	10 FO	3 FO
No. of Copper Contacts	6 #16	16 #16

Contact Specifications		
Contact Size	#22	#16
Amps	3	10
Wire Gage Accommodation	22	16

All contact arrangements are rated for 600 volts.

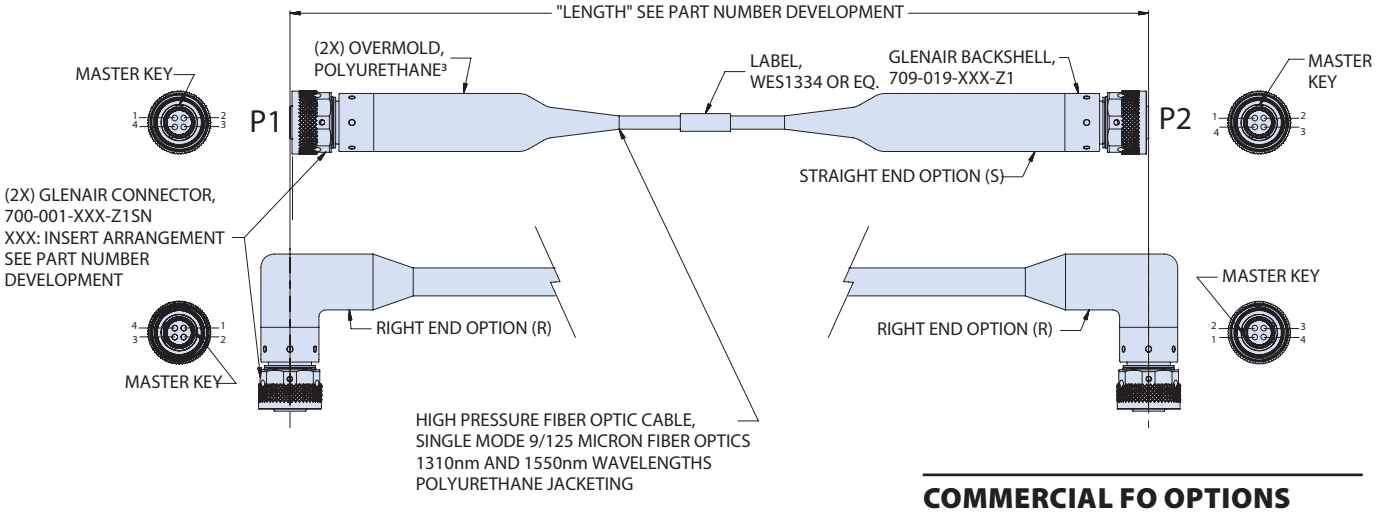
Contact arrangements are shown as face view of receptacle insert. Contact arrangements of plug inserts are reverse.

DEEP WATER

SeaKing™ Fiber Optic

Overmolded assemblies with SeaKing™ connectors or SeaKing™ to commercial fiber optic connectors

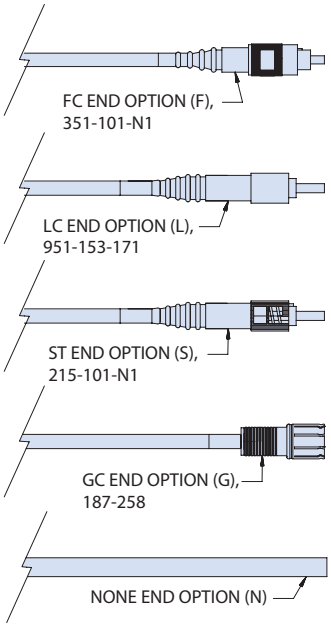
SeaKing Fiber - How To Order									
Sample Part Number	**7071-0037**	**-C**	**C**	**Z1**	**-0F8**	**N**	**-24**	**C**
Basic Number	**7071-0037**							
End 1 Option	**C** = CCP **R** = right angle CCP							
End 2 Option	**C** = CCP **R** = right angle CCP **N** = none **F** = FC leads **L** = LC leads **S** = ST leads **G** = GC Leads							
Shell Material	**TC** = titanium **Z1** = 316 stainless steel							
Insert Arrangement	See page 24; insert body material 316 SST							
Polarization	**N** = normal, A, B, C; see page 23							
Length	In inches							
Pressure Cap Option	**C** = pressure cap, same size and material will be provided (709-001); omit for none							



NOTES

1. Optical performance:
   Insertion loss shall be <1.0dB when measured @ 1310nm wavelength.
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. See PBOF assembly fittings, part number 709-003 for more information.
5. 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.
6. Cables over 240" (20ft) shall be shipped on a reel.
7. Kit GBS1000-00033 shall be used for inspection/cleaning.
8. Recommended SeaKing terminus cleaning tool: GCLT-H160.
9. Fiber optic terminus: 1.58 mm ferrule id, single O-ring.
10. 10Kpsi open-face and mated

COMMERCIAL FO OPTIONS

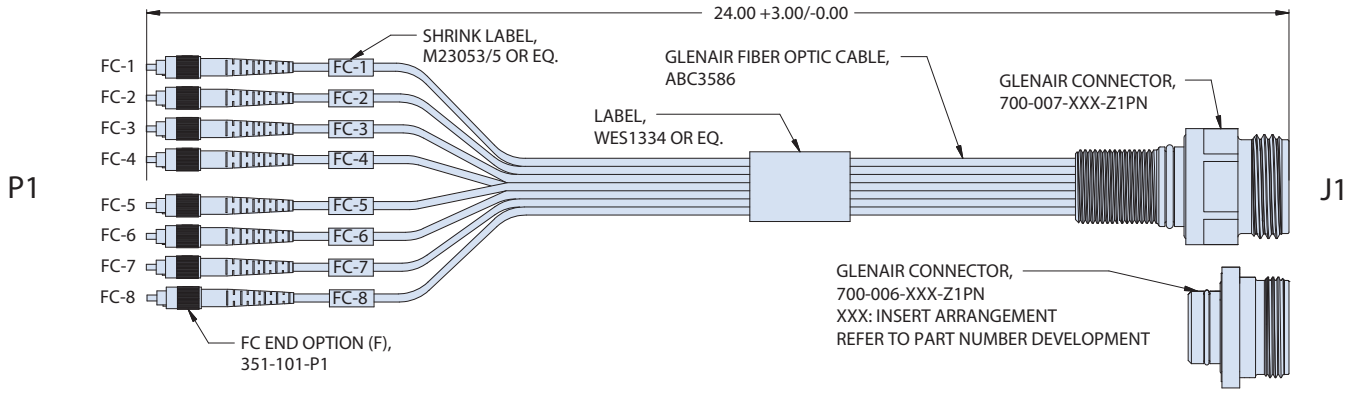


DEEP WATER

SeaKing™ Fiber Optic

SeaKing™ BCR or FCR to commercial fiber optic pigtail assembly for I/O-to-board module applications

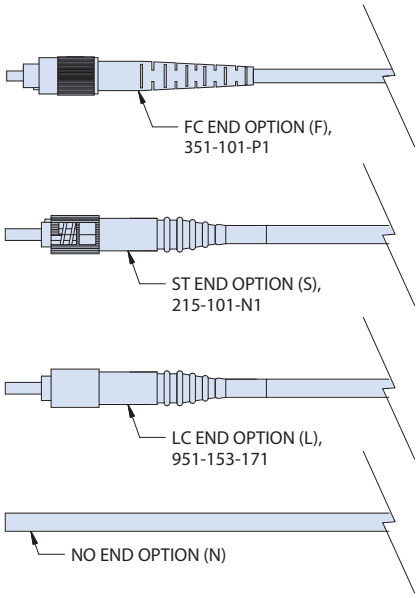
SeaKing Fiber - How To Order									
Sample Part Number	**7071-0038**	**-B**	**F**	**Z1**	**-0F8**	**N**	**-24**	**C**
Basic Number	**7071-0038**								
End 1 Option	**B** = BCR **F** = FCR								
End 2 Option	**F** = FC leads **S** = ST leads **L** = LC leads **N** = none								
Shell Material	**TC** = titanium **Z1** = 316 stainless steel								
Insert Arrangement	See page 24; insert body material 316 SST								
Polarization	**N** = normal, **A**, **B**, **C**; see page 23								
Length	In inches								
Pressure Cap Option	**C** = pressure cap, same size and material will be provided (709-002); omit for none								



NOTES

1. Optical performance: 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 GBS1000-00033 shall be used for inspection/cleaning.
6. Recommended seaking cleaning tool: GCLT-H160.
7. Fiber optic terminus: 1.58 mm ferrule id, single O-ring.

COMMERCIAL FO OPTIONS

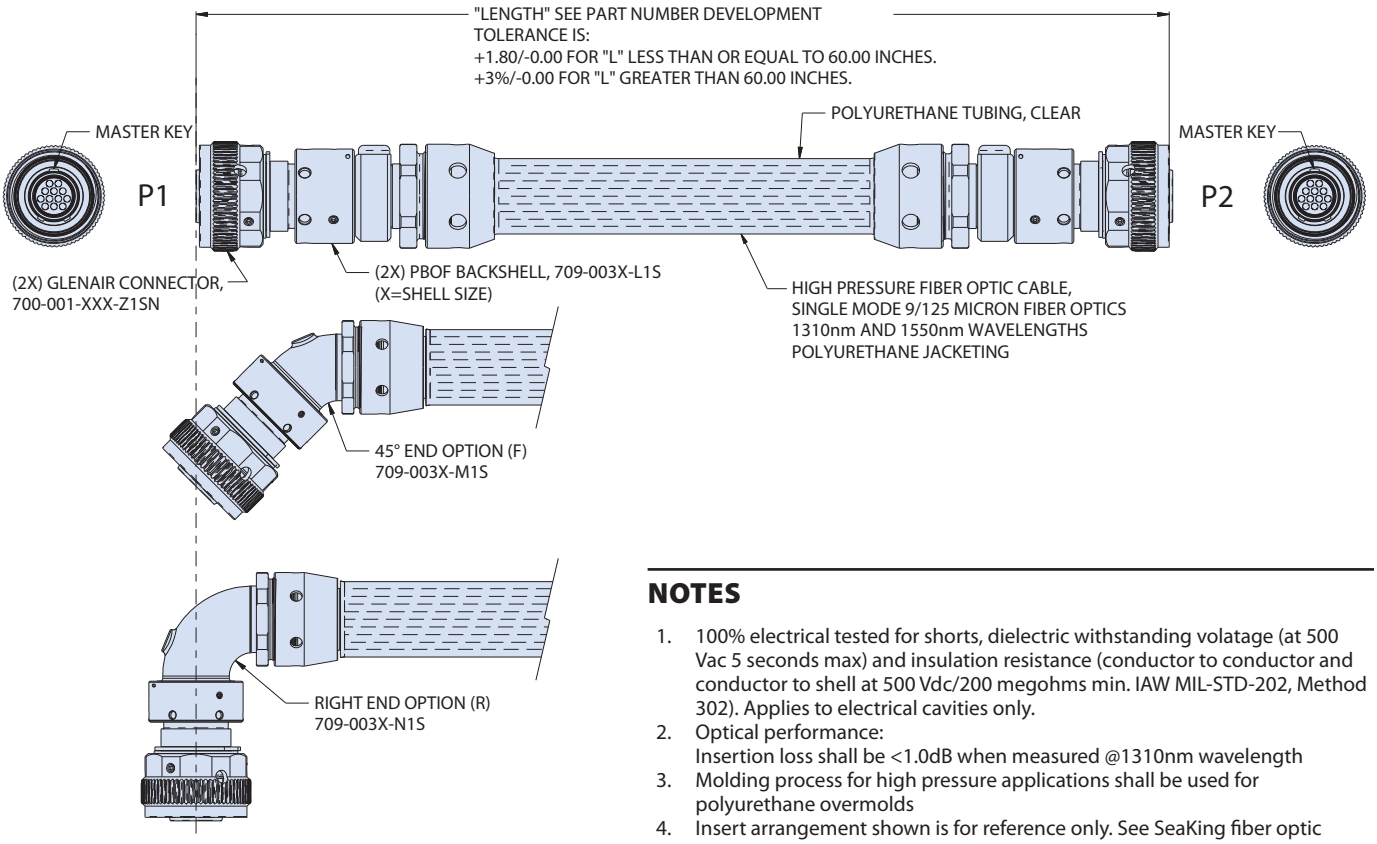


DEEP WATER

SeaKing™ Fiber Optic

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

SeaKing Fiber - How To Order							
Sample Part Number		**7071-0049**	**-S**	**S**	**MF4**	**-36**	**N**
Basic Number	**7071-0049**						
Backshell End Option (P1)	**S** = straight **R** = right **F** = 45°						
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						



NOTES

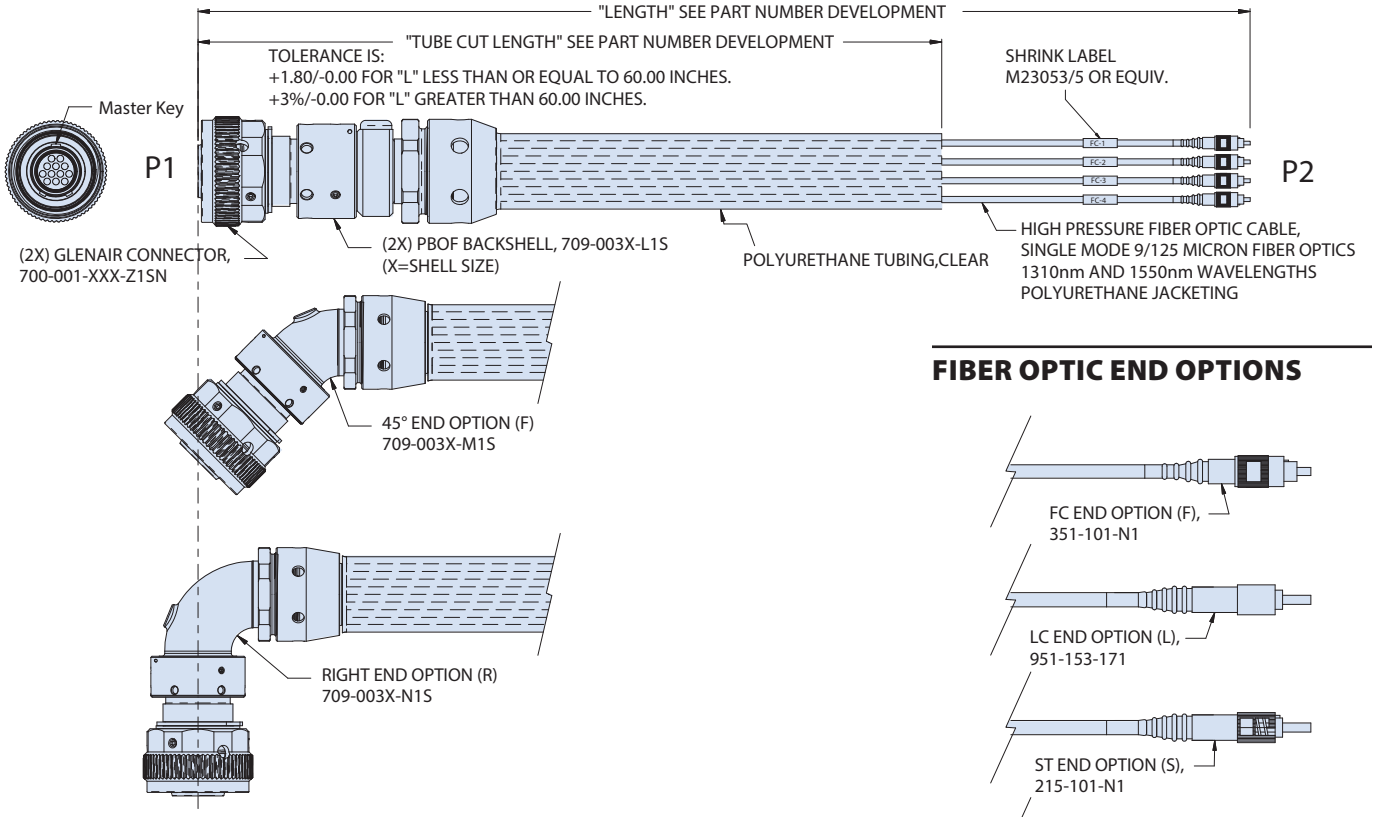
1. 100% electrical tested for shorts, dielectric withstanding volatage (at 500 Vac 5 seconds max) and insulation resistance (conductor to conductor and conductor to shell at 500 Vdc/200 megohms min. IAW MIL-STD-202, Method 302). Applies to electrical cavities only.
2. Optical performance:
   Insertion loss shall be <1.0dB when measured @1310nm wavelength
3. Molding process for high pressure applications shall be used for polyurethane overmolds
4. Insert arrangement shown is for reference only. See SeaKing fiber optic insert arrangements on page 24.
5. Wiring shall be one-to-one for all insert arrangements
6. Cables over 240" (20ft) shall be shipped on a reel.
7. Kit GBS1000-00033 shall be used for inspection/cleaning.
8. Recommended SeaKing cleaning tool: GCLT-H160.
9. All solder cup cavities are isolated with M23053/8 heat shrink tubing.
10. See drawing 700-001 for connector dimensions, materials, and finishes. See PBOF assembly fittings (709-003) for more information.
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.

DEEP WATER

SeaKing™ Fiber Optic

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

SeaKing Fiber - How To Order							
Sample Part Number	**7071-0050**	**-S**	**F**	**MF4**	**-XX**	**-XX**	**N**
Basic Number	**7071-0050**						
Backshell End Option (P1)	**S** = Straight **R** = Right **F** = 45°						
Fiber End Option	**F, L, S, G, N**						
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						



FIBER OPTIC END OPTIONS

NOTES

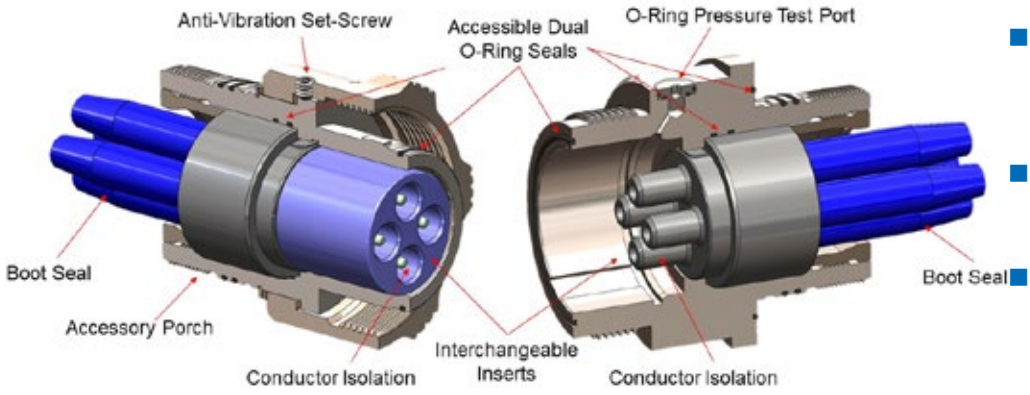
1. Optical performance:
   Insertion loss shall be <1.0dB when measured @ 1310nm wavelength. (See note 4)
2. Insert arrangement shown is for reference only. See SeaKing fiber optic insert arrangements on page 24.
3. See drawing 700-001 for connector dimensions, materials, and finishes. See PBOF assembly 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 GBS1000-00033 shall be used for inspection/cleaning.
6. Recommended SeaKing cleaning tool: GCLT-H160.
7. Fiber optic terminus: 1.58 mm ferrule id, single O-ring.

DEEP WATER

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**

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)

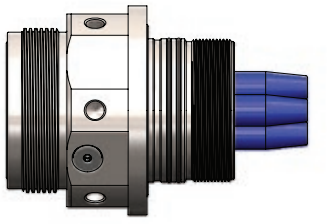
- PBOF and overmold compatible cable connector plug
- Super duplex stainless steel or titanium construction with glass-reinforced thermoplastic insulator
- Accepts various backshell accessories
- Aggressive coupling nut knurling for easy field mating
- Inspection ports, spanner wrench holes, and coupling 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)

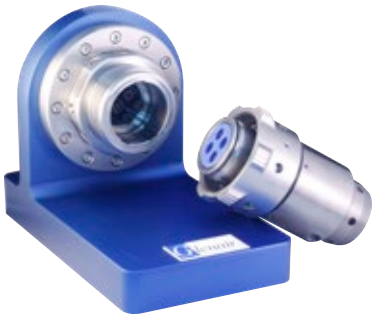
SeaKing™ Power
API 16D and 17E-Compliant
Flange Connector Receptacle (FCR)

- 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	1–3kV, 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

SeaKing™ Power connectors for underwater primary power junctions

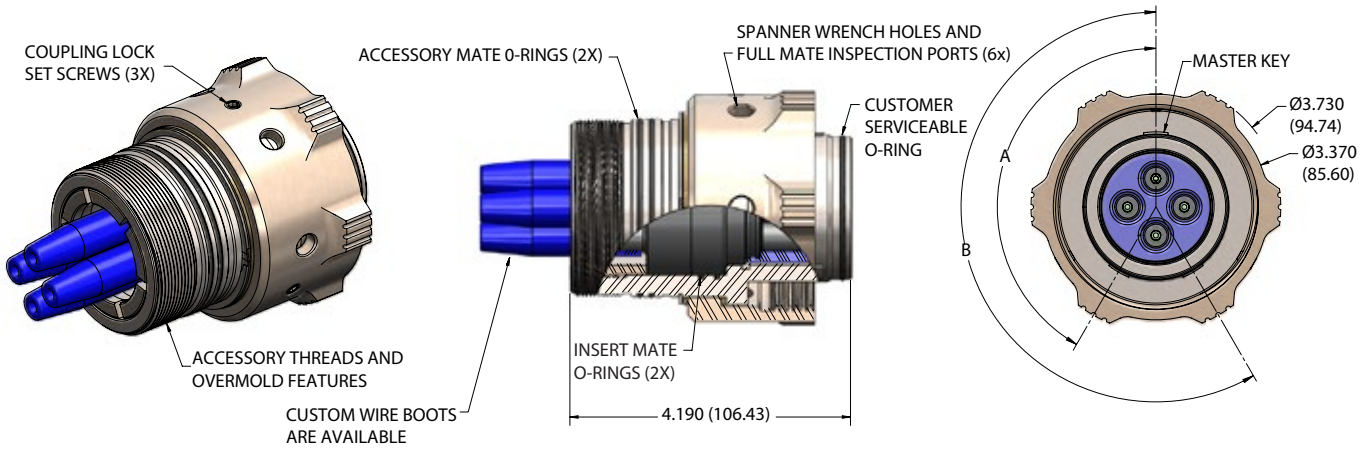
Size 48, 4-way #8 HV contacts, 3kV, 50 amps/contact

700-101-48 SEAKING POWER, CABLE CONNECTOR PLUG (CCP), SIZE 48, 4-WAY #8 HV CONTACTS*

How to Order						
Sample Part Number		**700-101**	**-48HV4**	**Z1**	**S**	**N**
Series	**700-101** = cable connector plug					
Shell Size / Insert Arrangement	**-48HV4** = shell size 48 / layout HV4					
Shell Material	**Z1** = SS super duplex	**TC** = titanium				
Contact Style	**P** = pins	**S** = sockets				
Polarization	**N** = normal, **A**, **B**, **C**; see key positions table at right					

*Mates only with 700-106 BCR or FCR

Key Positions		
Position	A	B
N	150°	210°
A	75°	210°
B	95°	230°
C	140°	275°



SeaKing™ Power connectors for underwater primary power junctions

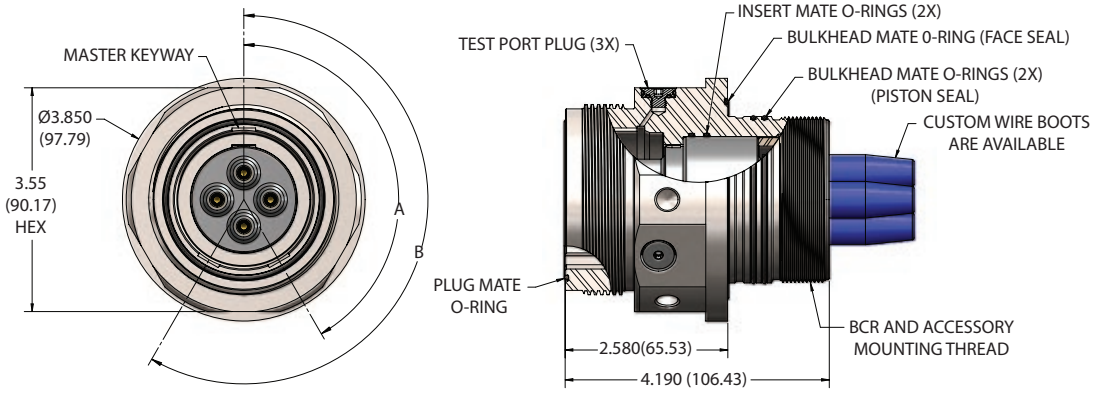
Size 48, 4-way #8 HV contacts, 3kV, 50 amps/contact

700-106-48 SEAKING POWER, FLANGE OR BULKHEAD CONNECTOR RECEPTACLE (FCR OR BCR), SIZE 48, 4-WAY #8 HV CONTACTS*

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

*Mates only with 700-101 Cable Connector Plug

Key Positions		
Position	A	B
N	150°	210°
A	75°	210°
B	95°	230°
C	140°	275°



SeaKing™ Power connectors for underwater primary power junctions

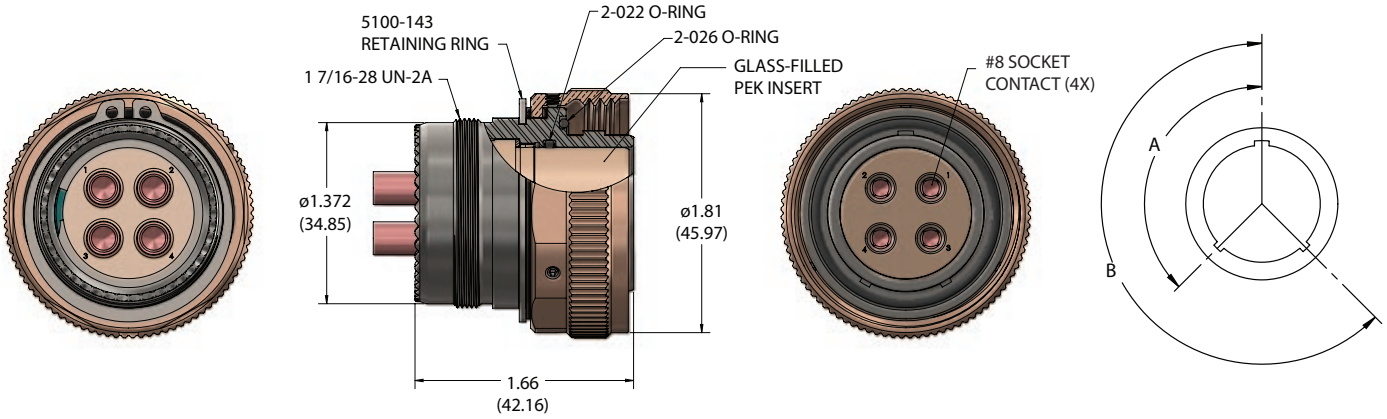
Size P, 4-way #8 HV contacts, 1kV, 50 amps/contact

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

How to Order					
Sample Part Number	**707-0065**	**-P4**	**-Z1**	**S**	**N**
Series	**707-0065** = cable connector plug (CCP)				
Shell Size / Insert Arrangement	**P4**				
Shell Material	**Z1** = stainless steel **TC** = titanium				
Contact Style	**P** = pin (707-0066 only) **S** = socket (707-0065 only)				
Polarization	**N** = Normal, **A**, **B**, **C**; see key positions table at right				

*Mates only with 707-0066 BCR

Key Positions		
Position	**A**	**B**
N	150°	210°
A	75°	210°
B	95°	230°
C	140°	275°

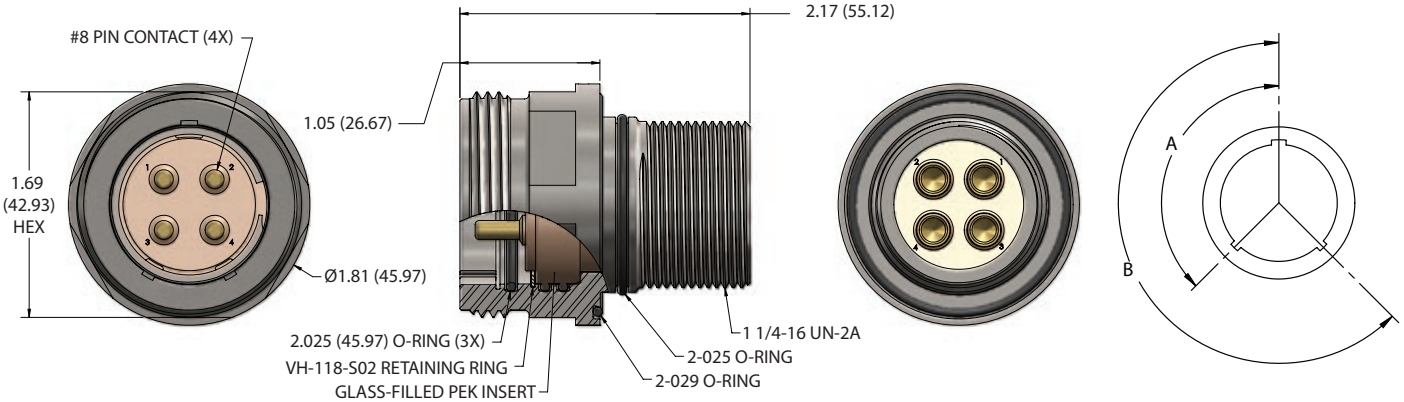


707-0066-P4 SEAKING POWER, BULKHEAD CONNECTOR RECEPTACLE (BCR)*

How to Order					
Sample Part Number	**707-0066**	**-P4**	**-Z1**	**S**	**N**
Series	**707-0066** = bulk head receptacle (BCR)				
Shell Size / Insert Arrangement	**P4**				
Shell Material	**Z1** = stainless steel **TC** = titanium				
Contact Style	**P** = pin (707-0066 only) **S** = socket (707-0065 only)				
Polarization	**N** = Normal, **A**, **B**, **C**; see key positions table				

*Mates only with 707-0065 CCP

Key Positions		
Position	**A**	**B**
N	150°	210°
A	75°	210°
B	95°	230°
C	140°	275°



SeaKing™ Power connectors for underwater primary power junctions

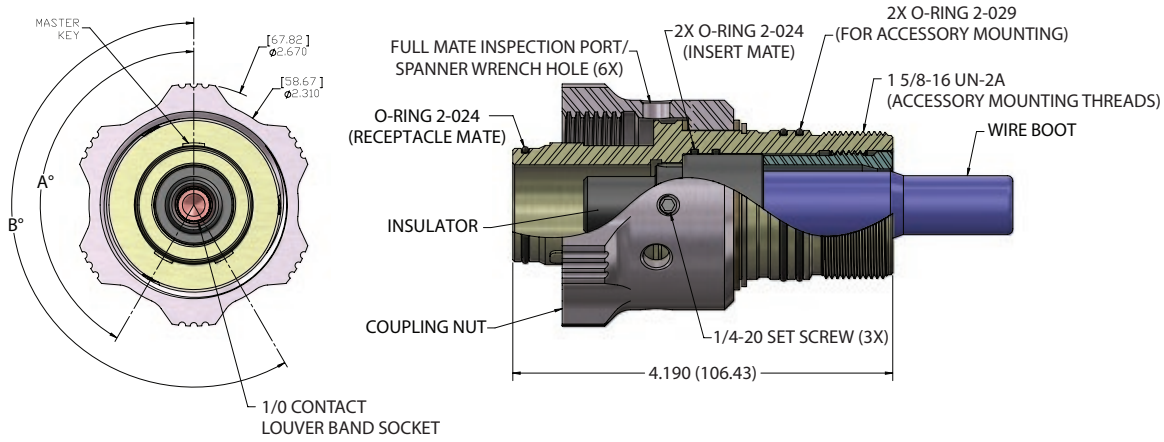
Size 32, 1-way #1/0 HV contact, 1kV, 150 amps/contact

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

How to Order				
Sample Part Number	**707-0088**	**Z1**	**P**	**N**
Series	**707-0088** =cable connector plug			
Shell Material	**Z1** = stainless steel **TC** = titanium			
Contact Style	**P** = pin **S** = socket			
Polarization	**N** = normal, **A**, **B**, **C**; see key positions table at right			

Key Positions		
Position	A	B
N	150°	210°
A	75°	210°
B	95°	230°
C	140°	275°

*Mates only with 707-0089 FCR or BCR

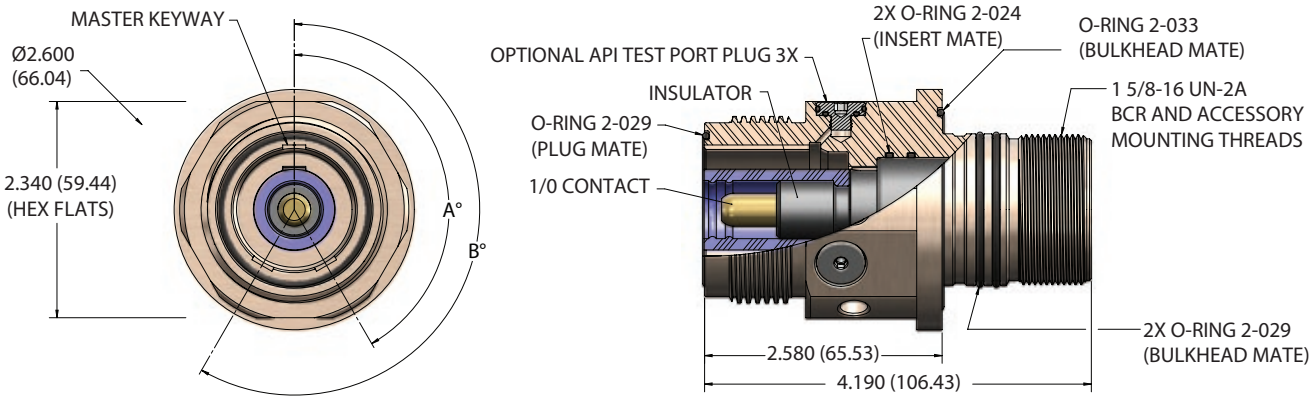


707-0089 SEAKING POWER, FCR / BCR, SIZE 32, 1-WAY #1/0 CONTACTS*

How to Order						
Sample Part Number	**707-0089**	**Z1**	**P**	**N**	**-N**	**-API**
Series	**707-0089** = flange connector receptacle or bulkhead connector receptacle					
Shell Material	**Z1** = stainless steel **TC** = titanium					
Contact Style	**P** = pin **S** = socket					
Polarization	**N** = normal, **A**, **B**, **C**; see key positions table at right					
Mounting Option*	**B** = BCR option and includes bulkhead nut and washer **F** = FCR option and includes indexable mounting flange **N** = none, receptacle is mountable to a threaded bulkhead					
Shell Option*	**API** = test ports; omit for none					

Key Positions		
Position	A	B
N	150°	210°
A	75°	210°
B	95°	230°
C	140°	275°

*Mates only with 707-0088 CCP



SeaKing™ Power connectors for underwater primary power junctions

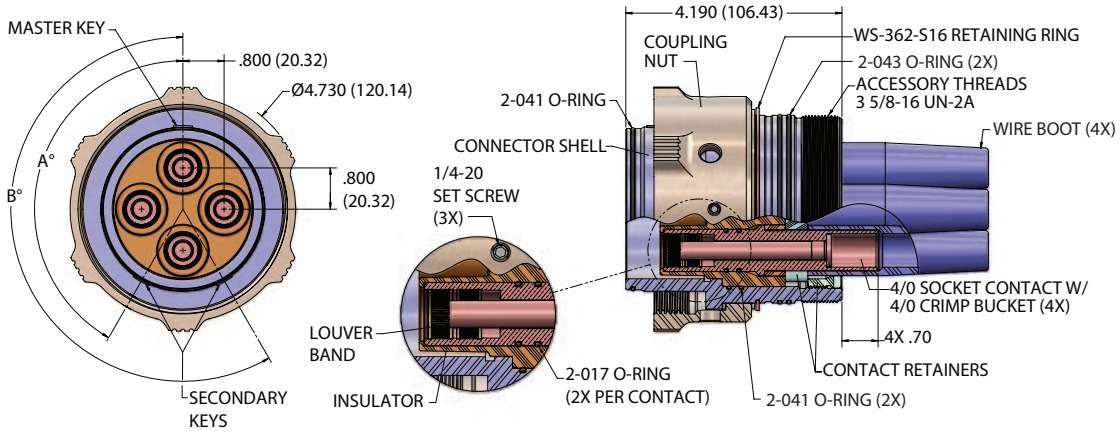
Size 64, 4-way #4/0 HV contact, 1kV, 350 amps/contact

How to Order			
Sample Part Number	**707-0142**	**1**	**N**
Series	**707-0142** = SeaKing Power		
Connector Style	**-1** = cable connector plug (CCP) **-6** = flange connector receptacle (FCR) **-7** = bulkhead connector receptacle (BCR)		
Key Position	**N** = normal, **A**, **B**, **C;** see key positions table		

Key Positions		
Position	**A**	**B**
N	150°	210°
A	75°	210°
B	95°	230°
C	140°	275°

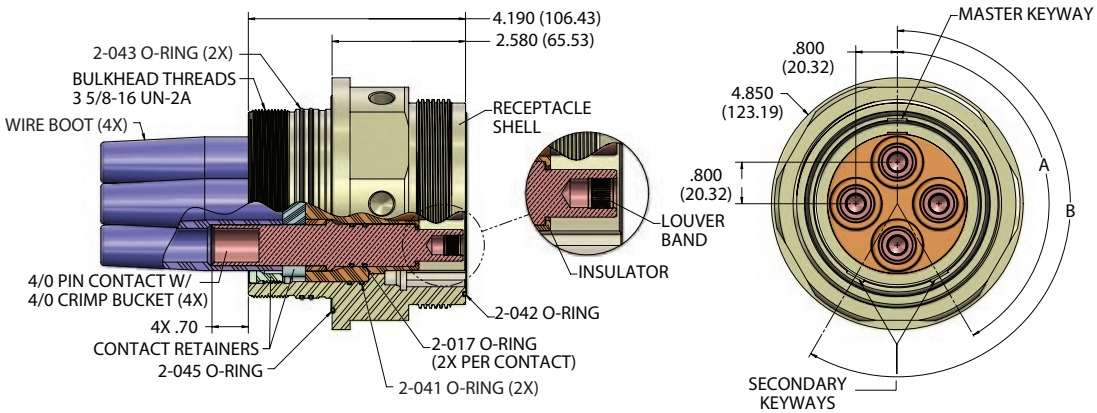
707-0142-1 SEAKING POWER, CABLE CONNECTOR PLUG (CCP), SIZE 64, 4-WAY #4/0 HV CONTACTS*

*Mates only with 707-0142-6 FCR or 707-0142-7 BCR



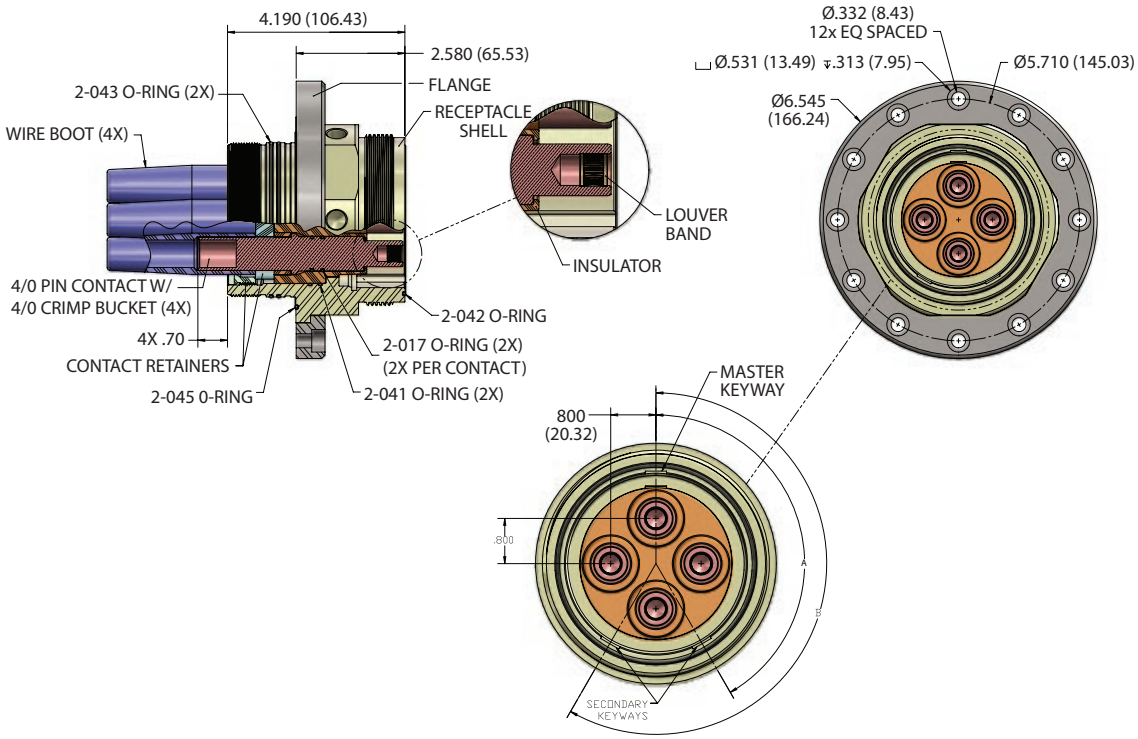
707-0142-7 SEAKING POWER, BULKHEAD CONNECTOR RECEPTACLE (BCR), SIZE 64, 4-WAY #4/0 HV CONTACTS*

*Mates only with 707-0142-1 CCP



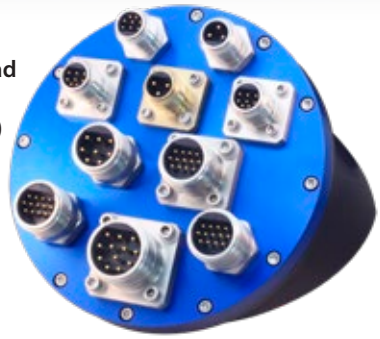
707-0142-6 SEAKING POWER, FLANGE CONNECTOR RECEPTACLE (FCR), SIZE 64, 4-WAY #4/0 HV CONTACTS*

*Mates only with 707-0142-1 CCP



UNDERWATER 10K PSI DRY MATE ELECTRICAL

SuperG55™



High-pressure open face bulkhead (BCR) and flange receptacles (FCR)

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.

Bulkhead Connector Receptacle (BCR)

Factory-terminated overmolded Cable Connector Plug (CCP)

Flange Connector Receptacle (FCR)

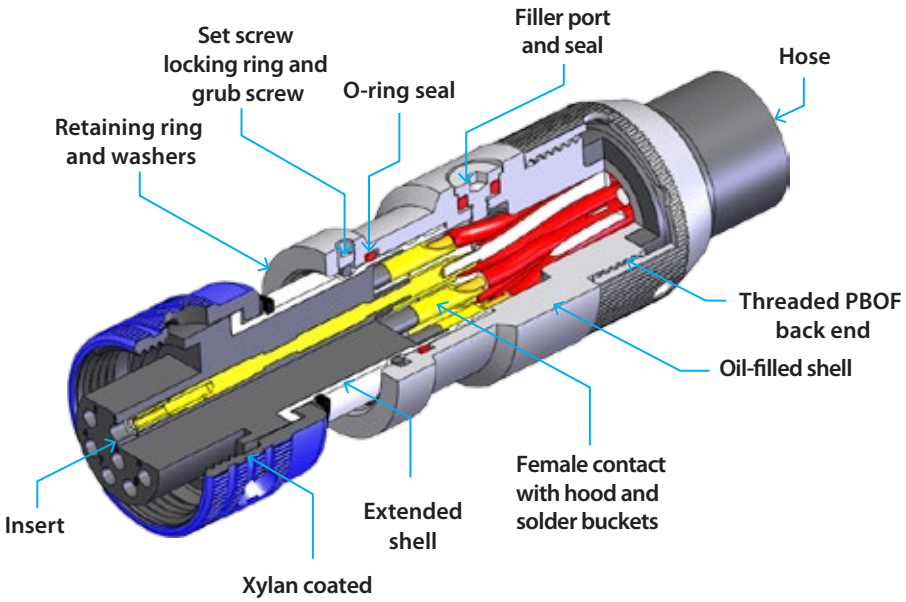
- **10,000 psi mated/ unmated (approx. 22,500ft/7,000m)**
- **Recessed socket contacts in plugs for electrical safety**
- **Intermateable and intermountable with other "55" series connectors**
- **4 shell sizes — 15, 20, 24 and 32 with 3 to 39 contacts**
- **PBOF versions available**
- **600 VDC, 5 to 18 Amps (dependent on conductor and cable size and make-up)**

10K PSI / 700 BAR / 7000M

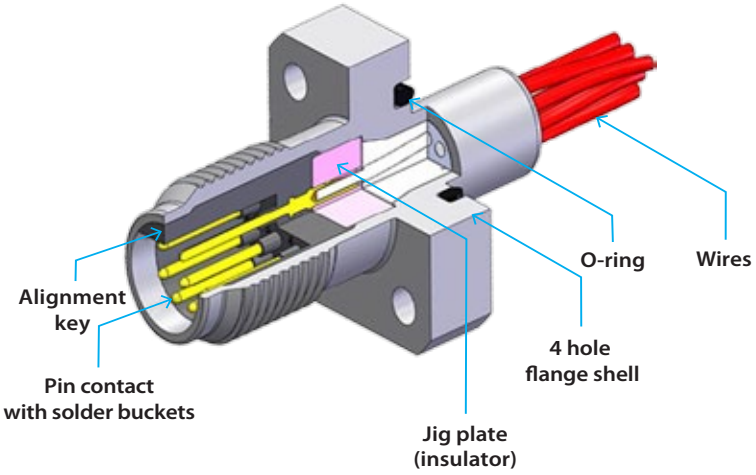
SuperG55™ High-Pressure, Dry-Mate Underwater Connectors

Key mechanical and environmental features

SUPERG55™ PRESSURE-BALANCED OIL-FILLED CABLE CONNECTOR PLUG (CCP)



SUPERG55™ FLANGE CONNECTOR RECEPTACLE (FCR)



Material Finish Codes			
Code	Material/Finish	Code	Material/Finish
	Anodized Aluminum	PK	Composite Thermoplastic (PEEK)
NAB2	Aluminum Bronze	B	Brass
T	Titanium	Alternative materials available, contact factory	

SuperG55™ Performance Specifications	
Mating Cycles	500
Pressure	689 Bar (10,000 PSI) Mated and Un-mated
Operating Temperature	-20°C to +90°C
Voltage Rating	600 VDC / 440 Vac
Current (max.)	5 to 18 Amps (dependant on contact and cable conductor sizes)

SuperG55™ Material/Finish	
Shells	316L Stainless Steel/ Passivated
Insulator	PEEK/NA
Insert	Neoprene/NA
Contacts	Copper Alloy/Gold Plated
O-rings	Nitrile/NA
Overmold and Cable	Polyurethane or Neoprene/NA
Coupling Nut	316L Stainless Steel/ Protective Coating Blue
Bulkhead Receptacle Tails	PTFE Insulated 16 AWG Wire/NA
Cable	Polyurethane or Neoprene Jacketed/NA

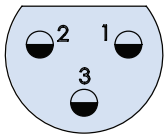
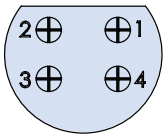
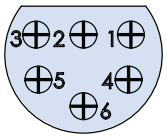
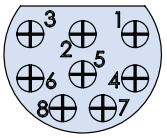
NON-STANDARD MATERIALS: Other material options are available as part of our non-catalog offerings including anodized aluminum, titanium, and aluminum bronze. Glenair is also able to supply SuperG55™ interconnects in composite thermoplastic (PEEK) to meet application requirements for reduced cathodic 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.

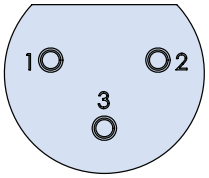
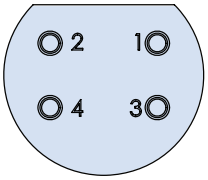
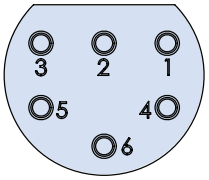
SuperG55™ High-Pressure, Dry-Mate Subsea Connectors

Insert arrangements

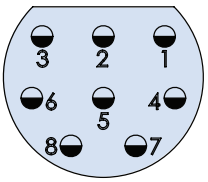
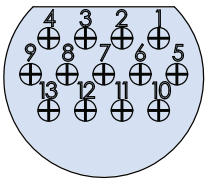
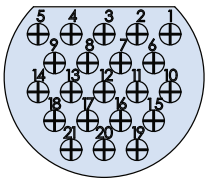
SUPERG55™ INSERT ARRANGEMENTS Mating face view of pin insert (socket insert IDs are reversed)

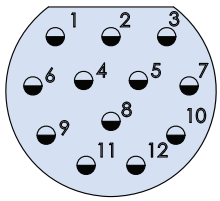
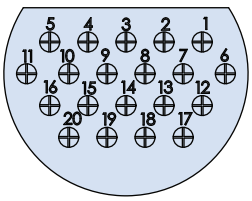
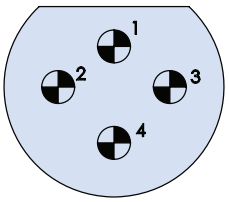
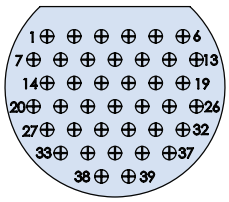
Shell Size 15			
1503	**1504**	**1506**	**1508***
3 Size #12 AWG Contacts	4 Size #16 AWG Contacts	6 size #16 AWG Contacts	8 size #16 AWG Contacts

Shell Size 20		
2003	**2004**	**2006**
3 Size #10 AWG Contacts	4 Size #10 AWG Contacts	6 Size #10 AWG Contacts

Shell Size 20		
2008*	**2013***	**2021***
8 Size #12 AWG Contacts	13 Size #16 AWG Contacts	21 Size #16 AWG Contacts

Shell Size 24		Shell Size 32	
2412	**2420**	**3204*** **	**3239****
12 Size #12 AWG Contacts	20 Size #16 AWG Contacts	4 Size #6 AWG Contacts	39 Size #16 AWG Contacts

Bulkhead Mounting Torque (Values are for dry non-lubricated threads)	Size 15 - 14.12NM (125LB. INS.) Size 20 - 18.64NM (165LB.INS.) Size 24 - 25.42NM (225LB.INS.) Size 32 - TBD

*Compatible with high-speed Ethernet
**3239 is not intermateable with any other brand of connector. Contact factory for details
*** Contact factory for availability
Custom insert arrangements available, contact factory.

G55 A1 ATTACHABLE CABLE CONNECTOR PLUG (CCP)

SuperG55™ - How To Order					
Sample Part Number	**G55A1**	**-1508**	**-0000**		
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 Option	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)

SuperG55™ - How To Order						
Sample Part Number	**G5501**	**-1508**	**-0004**			
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 Option	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					

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

SuperG55™ - How To Order						
Sample Part Number	**G55R1**	**-1508**	**-0004**			
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 Option	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™ High-Pressure, Dry-Mate Subsea Connectors

Super G55 Series connectors

G55 OF1 STRAIGHT OIL-FILLED CABLE CONNECTOR PLUG (CCP)

SuperG55™ - How To Order				
Sample Part Number		**G55OF1**	**-1508**	**-0010**
Series	**SuperG55™** = Underwater dry-mate, straight oil-filled CCP			
Shell Size/Insert Arrangement	See shell size / insert arrangements (page 40)			
Overall Length	In feet (**0000** = no cable, no hose **0001** = one foot, etc.)			
Back-to-Back*	**B2B** = back-to-back (min. 7ft hose length); omit if not required			

*Consult factory for additional back-to-back options

G55 OFR1 RIGHT ANGLE OIL-FILLED CABLE CONNECTOR PLUG (CCP)

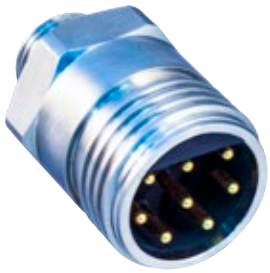
SuperG55™ - How To Order				
Sample Part Number		**G55OFR1**	**-1508**	**-0010**
Series	**SuperG55™** = Underwater dry-mate, right angle oil-filled CCP			
Shell Size/Insert Arrangement	See shell size / insert arrangements (page 40)			
Overall Length	In feet (**0000** = no cable, no hose **0001** = one foot, etc.)			
Back-to-Back*	**B2B** = back-to-back (min. 7ft hose length); omit if not required			

*Consult factory for additional back-to-back options

G55 06 FLANGE CONNECTOR RECEPTACLE (FCR)

SuperG55™ - How To Order				
Sample Part Number		**G5506**	**-2013**	**-0004**
Series	**SuperG55™** = underwater dry-mate, flange connector receptacle (FCR)			
Shell Size/Insert Arrangement	See shell size / insert arrangements (page 40)			
Cable Length	In feet (**0001** = 1 foot, **0004** = 4 feet, standard length)			
Material Option	Omit for stainless steel **B** = brass coupling nut and barrel		**PK** = peek coupling nut and barrel See material options on page 37	

G55 07 BULKHEAD CONNECTOR RECEPTACLE (BCR)



SuperG55™ - How To Order				
Sample Part Number	**G5507**	**-1508**	**-0004**	
Series	**SuperG55™** = underwater dry-mate, bulkhead connector receptacle (BCR)			
Shell Size/Insert Arrangement	See shell size / insert arrangements (page 38)			
Cable Length	In feet (**0001** = 1 foot, **0004** = 4 feet, standard length)			
Material Option	Omit for stainless steel **B** = brass coupling nut and barrel	**PK** = peek coupling nut and barrel See material options on page 40		

G55 A2 ATTACHABLE CABLE CONNECTOR RECEPTACLE (CCR)

SuperG55™ - How To Order				
Sample Part Number	**G55A2**	**-1508**	**-0000**	
Series	**SuperG55™** = underwater dry-mate, attachable cable connector receptacle (CCR)			
Shell Size/Insert Arrangement	See shell size / insert arrangements (page 38)			
Cable Length	In feet (**0000** = no cable, **0001** = one foot, etc.)			
Material Option	Omit for stainless steel **B** = brass coupling nut and barrel	**PK** = peek coupling nut and barrel See material options on page 40		

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

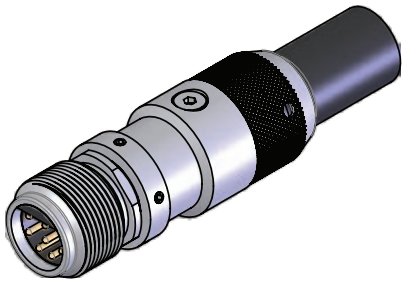
G55 02 STRAIGHT OVERMOLDED CABLE CONNECTOR RECEPTACLE (CCR)

SuperG55™ - How To Order						
Sample Part Number	**G5502**	**-1508**	**-0004**			
Series	**SuperG55™** = underwater dry-mate, straight overmolded CCR					
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 Option	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					

G55 R2 RIGHT ANGLE OVERMOLDED CABLE CONNECTOR RECEPTACLE (CCR)

SuperG55™ - How To Order						
Sample Part Number	**G55R2**	**-1508**	**-0004**			
Series	**SuperG55™** = underwater dry-mate, right angle overmolded CCR					
Shell Size/Insert Arrangement	See shell size / insert arrangements (page 40)					
Cable Length	In feet (**0001** = one foot, **0002** = two feet etc.)					
Inch Increments	**3**, **6** or **9** inches; omit for whole feet lengths					
Material Option	Omit for stainless steel **B** = brass coupling nut and barrel			**PK** = peek coupling nut and barrel See material options on page 37		
Back-to-Back	**B2B** = back-to-back; omit if not required					

G55 OF2 STRAIGHT OIL-FILLED CABLE CONNECTOR RECEPTACLE (CCR)



SuperG55™ - How To Order				
Sample Part Number	**G55OF2**	**-1508**	**-0010**	
Series	**SuperG55™** = Underwater dry-mate, straight oil-filled CCR			
Shell Size/Insert Arrangement*	See shell size / insert arrangements (page 40)			
Overall Length	In feet (**0000** = no cable, no hose, **0001** = one foot, etc.)			
Back-to-Back**	**B2B** = back-to-back (min. 7ft hose length); omit if not required			

*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)

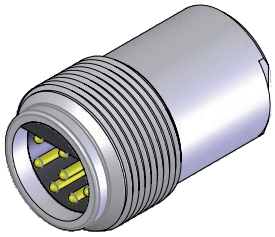
SuperG55™ - How To Order				
Sample Part Number	**G55OFR2**	**-1508**	**-0010**	
Series	**SuperG55™** = Underwater dry-mate, right angle oil-filled CCR			
Shell Size/Insert Arrangement*	See shell size / insert arrangements (page 40)			
Overall Length	In feet (**0000** = no cable, no hose, **0001** = one foot, etc.)			
Back-to-Back*	**B2B** = back-to-back (min. 7ft hose length); omit if not required			

*Currently only 1504, 1506, 1508, 2013, 2021, and 2420 insert arrangements are available
**Consult factory for additional back-to-back options

G55 D1 DUMMY SEALING PLUG (DSP)

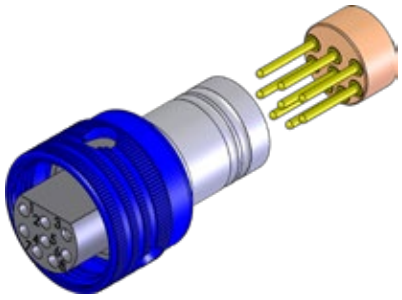
SuperG55™ - How To Order				
Sample Part Number		**G55D1**	**-1508**	**-0000**
Series	**SuperG55™** = dummy sealing plug (DSP)			
Shell Size/Insert Arrangement	See shell size / insert arrangements (page 38)			
Cable Length	**0000** = no cable			
Material Option	Omit for stainless steel **B** = brass coupling nut and barrel	**PK** = peek coupling nut and barrel See material options on page 40		

G55 D2 DUMMY SEALING RECEPTACLE (DSR)



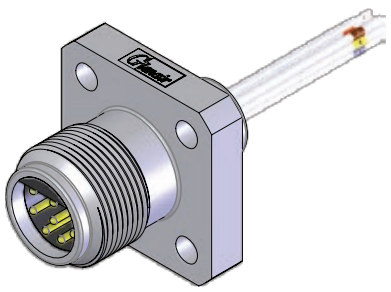
SuperG55™ - How To Order				
Sample Part Number		**G55D2**	**-1508**	**-0000**
Series	**SuperG55™** = dummy sealing receptacle (DSR)			
Shell Size/Insert Arrangement	See shell size / insert arrangements (page 38)			
Cable Length	**0000** = no cable			
Material Option	Omit for stainless steel **B** = brass coupling nut and barrel	**PK** = peek coupling nut and barrel See material options on page 40		

G55 M1 SOCKET TO SOCKET (CCP)



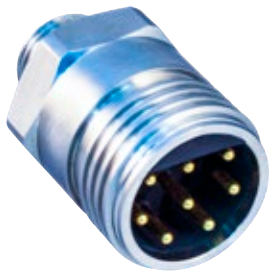
SuperG55™ - How To Order				
Sample Part Number		**G55M1**	**-1508**	**-0001**
Series	**SuperG55™** = underwater dry-mate, back-to-back socket CCP			
Shell Size/Insert Arrangement	See shell size / insert arrangements (page 38)			
Cable Length	In feet (**0000** = no cable, **0001** = one foot, etc.)			
Material Option	Omit for stainless steel **B** = brass coupling nut and barrel	**PK** = peek coupling nut and barrel See material options on page 40		

G55 06 FLANGE CONNECTOR RECEPTACLE (FCR) WITH EARTH LEAD



SuperG55™ - How To Order					
Sample Part Number		**G5506**	**-1508**	**-0004**	**-EL**
Series	**SuperG55™** = underwater dry-mate, FCR with earth lead				
Shell Size/Insert Arrangement	See shell size / insert arrangements (page 40)				
Cable Length	In feet (**0001** = 1 foot, **0004** = 4 feet, standard length)				
Earth Lead	**EL** = earth lead (ground)				
Material Option	**T** = titanium; omit for stainless steel				

G55 07 BULKHEAD CONNECTOR RECEPTACLE (BCR) WITH EARTH LEAD



SuperG55™ - How To Order					
Sample Part Number		**G5507**	**-1508**	**-0004**	**-EL**
Series	**SuperG55™** = underwater dry-mate, BCR with earth lead				
Shell Size/Insert Arrangement	See shell size / insert arrangements (page 40)				
Cable Length	In feet (**0001** = 1 foot, **0004** = 4 feet, standard length)				
Earthing Lead	**EL** = earth lead (ground)				
Material Option	**T** = titanium; omit for stainless steel				

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

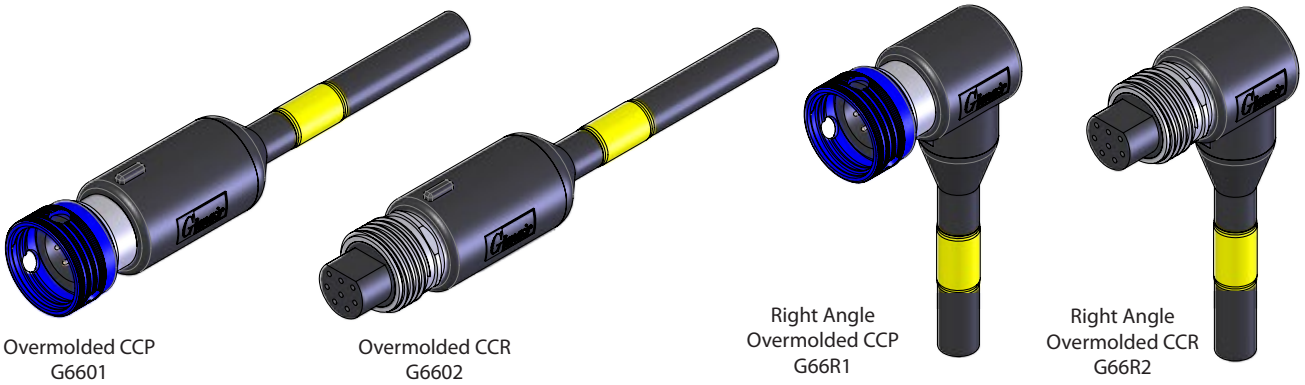
SuperG55™ - How To Order				
Sample Part Number		**G5506IF**	**-1508**	**-0004**
Series	**SuperG55™** = underwater dry-mate, flange connector receptacle (FCR) with indexable flange			
Shell Size/Insert Arrangement	See shell size / insert arrangements (page 40)			
Cable Length	In feet (**0001** = 1 foot, **0004** = 4 feet, standard length)			
Material Option	Omit for stainless steel **B** = brass coupling nut and barrel	**PK** = peek coupling nut and barrel See material options on page 37		

10K PSI / 700 BAR / 7000M

SuperG66™ High-Pressure, Dry-Mate Subsea Connectors

Super G66 reverse-gender connectors

G66 OVERMOLDED CABLE CONNECTOR PLUGS AND RECEPTACLES



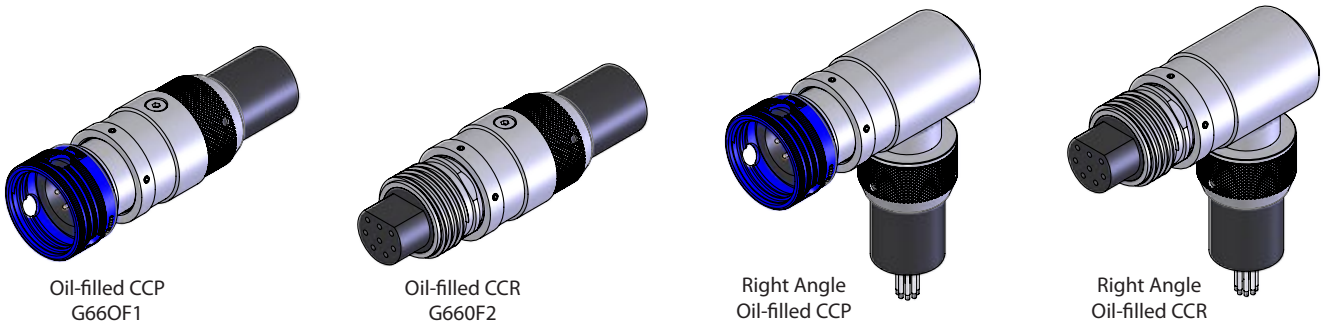
Overmolded CCP
G6601

Overmolded CCR
G6602

Right Angle
Overmolded CCP
G66R1

Right Angle
Overmolded CCR
G66R2

G66 OIL-FILLED CABLE CONNECTOR PLUGS AND RECEPTACLES



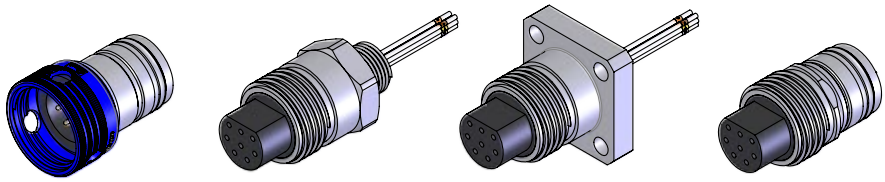
Oil-filled CCP
G66OF1

Oil-filled CCR
G660F2

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

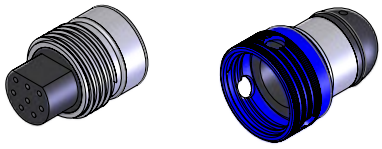
Bulkhead Connector
Receptacle
G6607

Flange Connector
Receptacle
G6606

Cable Connector
Receptacle
G66A2

COMING SOON: SuperG66™ - Consult factory for availability					
Sample Part Number		**G66A1**	**-2008**	**-0000**	
Series	**SuperG66™** = underwater dry-mate, cable connector plug (CCP)				
Shell Size/Insert Arrangement	See shell size / insert arrangements (page 38)				
Cable Length	**0000** = no cable; also available in specified lengths for test purposes				
Material Option	Omit for stainless steel **PK** = peek coupling nut and barrel **B** = brass coupling nut and barrel Reference material options on page 40				
Potting Boot	**PB** = potting boot; omit if not required. Not required if changed to OFR1				

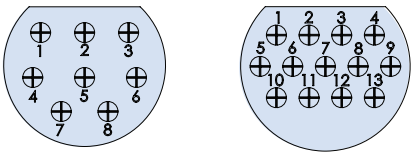
DUMMY SEALING PLUG AND RECEPTACLE



Dummy Sealing
Receptacle
G66D2

Dummy Sealing
Plug
G66D1

INSERT ARRANGEMENTS



2008
8 x #16

2013
13 x #16

Additional insert arrangements can be engineered, contact factory

DEEP WATER

Series 707 Micro-PSI affords PIG designers the opportunity to design out legacy large form-factor connectors (such as shown in this picture) with a dramatically smaller interconnect solution.

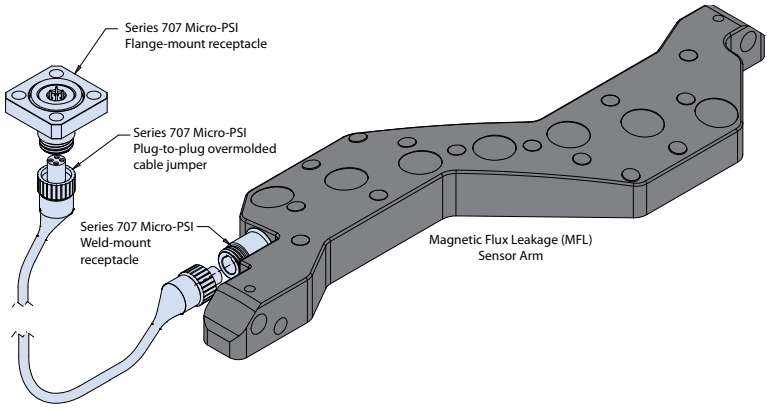
10K PSI SOLUTION

Micro-PSI

Microminiature high-pressure connectors and cables

Actual size!

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 cordsets 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.



Application example shows the 707 Micro-PSI used to interconnect an MFL sensor to on-board PIG data storage.

- **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 (.050" contact spacing) intelligent inspection (PIG) connector series**
- **3 Amp high-speed Gigabit Ethernet-ready**
- **-20° to +150°C temperature range**
- **High-density, small form-factor**

MICRO PSI HOW TO ORDER, SPECIFICATIONS, MATERIALS AND FINISHES

MIcro-PSI - How To Order						
Sample Part Number	**707-0264**	**-7**	**ME4**	**Z1**	**S**	**N**

Series / Basic P/N	**707-0264** = Series and Basic Part Number	
Connector Style	**1** = CCP (Cable Connector Plug) **6** = FCR (Flange Mount Receptacle)	**5** = CCR (Cable Connector Receptacle) **7** = BCR (Bulkhead Mount Receptacle)
Shell Size / Layout	See Insert Arrangements	
Shell Material	**Z1** = Stainless Steel	
Contact Type and Termination Style	**Plugs** **P** = Pin / Solder Cups **B** = Pin / Flying Leads (6 inches long) **C** = Pin / PCB Terminals	**Receptacles** **S** = Socket / Solder Cups **F** = Socket / Flying Leads (6 inches long) **D** = Socket / PCB Terminals
Clocking Position	**N** = Normal, **A**, **B**, **C** (See Key and Keyway Positions table below)	

Performance Ratings

Connector Pressure Ratings:
10,000 PSI (Open face receptacle)
10,000 PSI (Mated CCP)

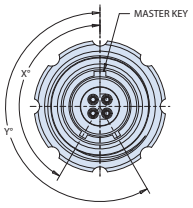
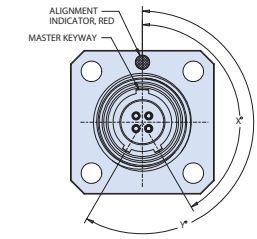
Pressure Tested To:
10,000 PSI per ISO 13628-6

Electrical Performance:
Insulation Resistance: 1000 Meghohms at 100 VDC per EIA-364-21
Coax Performance: DC to 5 GHz
Temperature Range: -20°C to +150°C

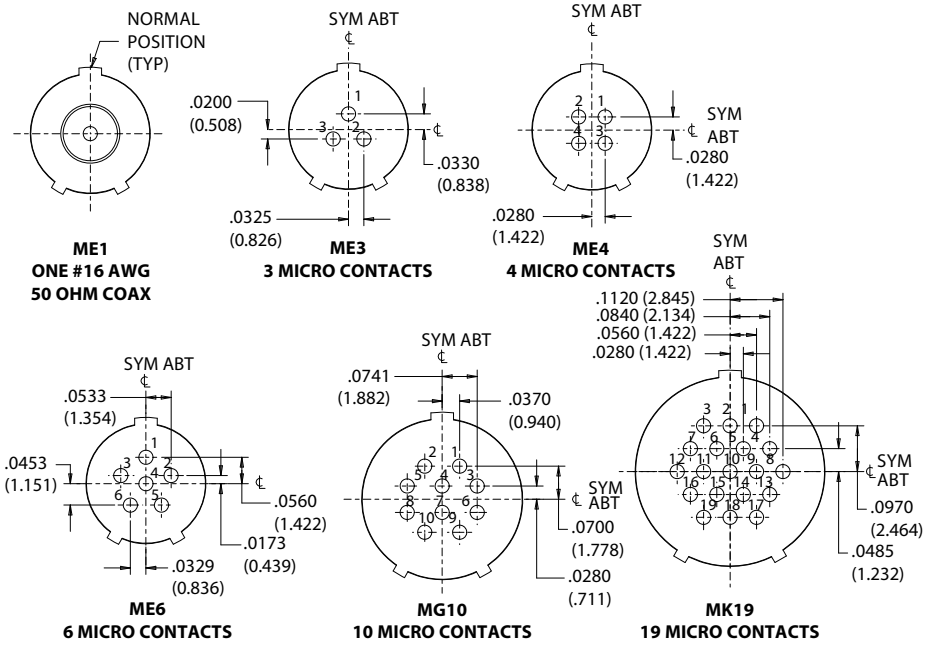
Hermeticity:
<1 x 10^-7 scc He / sec @ 1 ATM pressure differential; receptacles only

Connector Material / Finish

Connector Shell: 316L SST / passivated
Coupling Ring: nickel bronze / None
O-rings: Viton 90 durometer / none
Contacts: nickel-iron alloy / gold over nickel
Hermetic Seal: vitreous glass / none

MicroPSI Key and Keyway Positions				
	Key Rotation			
Key Position	X°	Y°	Plug	Receptacle
Normal (N)	150°	210°		
A	75°	210°		
B	95°	230°		
C	140°	275°		

INSERT ARRANGEMENTS



ME1
ONE #16 AWG
50 OHM COAX

ME3
3 MICRO CONTACTS

ME4
4 MICRO CONTACTS

ME6
6 MICRO CONTACTS

MG10
10 MICRO CONTACTS

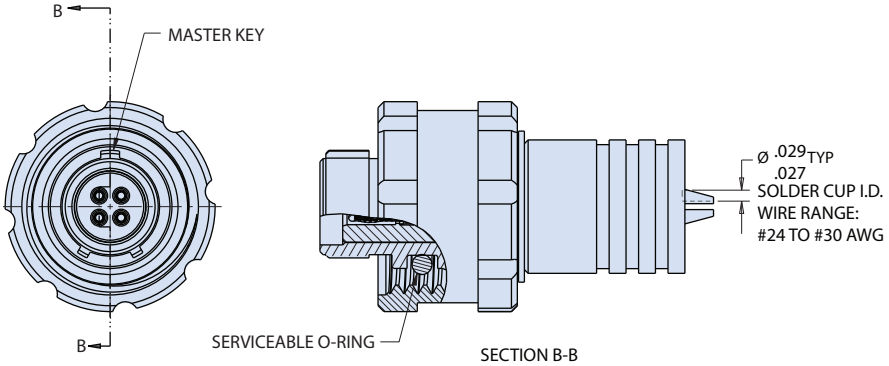
MK19
19 MICRO CONTACTS

NOTES

- Plug connectors typically supplied as prewired factory cable assemblies with Viton® overmolding for caustic chemical resistance
- Receptacle connectors commonly supplied as prewired pigtails or flex jumpers for direct connection to printed circuit boards and / or data drives
- High-speed Ethernet up to 1Gbps

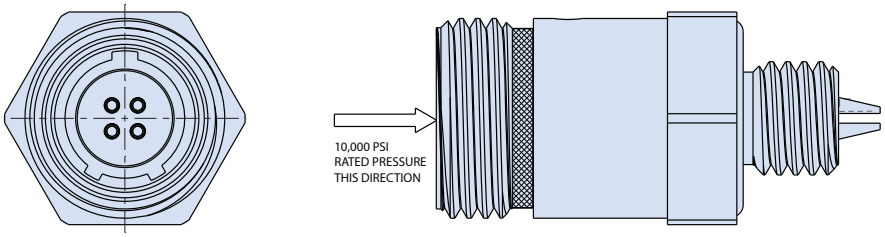
707-0264-1 MICRO-PSI CABLE CONNECTOR PLUG

- 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



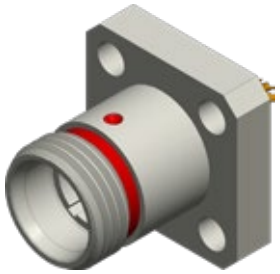
707-0264-5 MICRO-PSI CABLE CONNECTOR RECEPTACLE

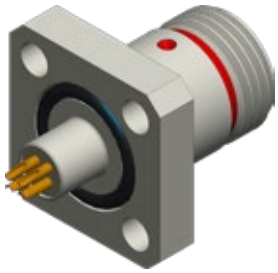
- 10K psi open-face rated
- Vitreous glass sealed, <1X10^{-7} scc He/sec hermeticity
- Operating temperature -20° to +150° C
- Alignment and full-mate indicators
- Ultra small form-factor
- Flying lead option available
- Mates with 707-0264-1 CCP Plugs

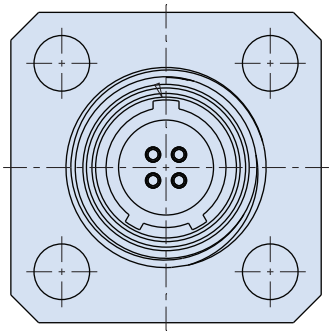


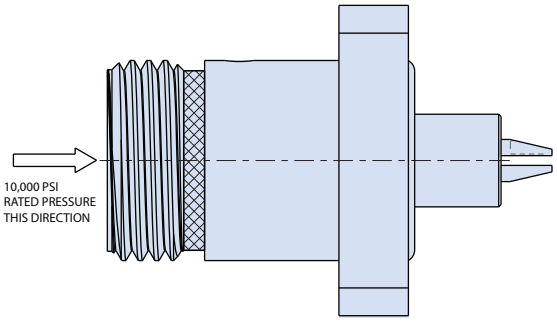
707-0264-6 MICRO-PSI FLANGE MOUNT RECEPTACLE

- 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



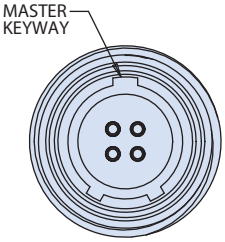


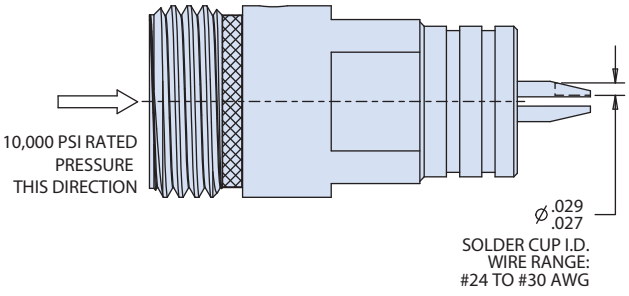




707-0264-7 MICRO-PSI BULKHEAD MOUNT RECEPTACLE

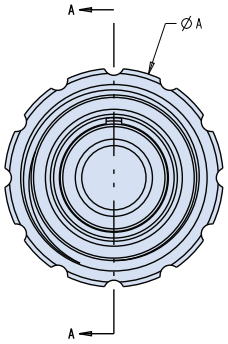
- 10K psi open-face rated
- Vitreous glass sealed, <1X10^{-7} scc He/sec hermeticity
- Operating temperature -20° to +150°C
- Fail-safe piston and mounting face O-rings
- Alignment and full-mate indicators
- Flying lead option available
- Mates with 707-0264-1 CCP Plugs

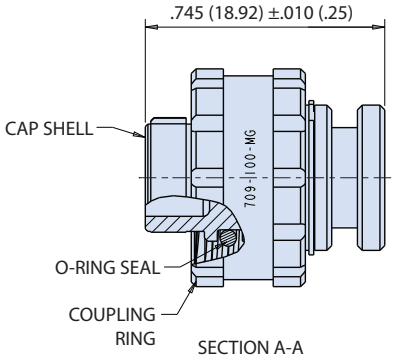




709-100 MICRO-PSI PLUG PRESSURE

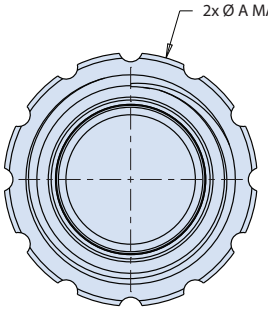
- **10K psi rated, mated condition**
- **Red alignment indicator for accurate mating**
- **Serviceable O-ring for reliable sealing and easy maintenance**

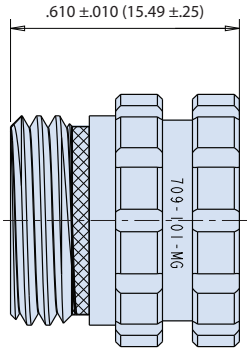




709-101 MICRO-PSI RECEPTACLE PRESSURE

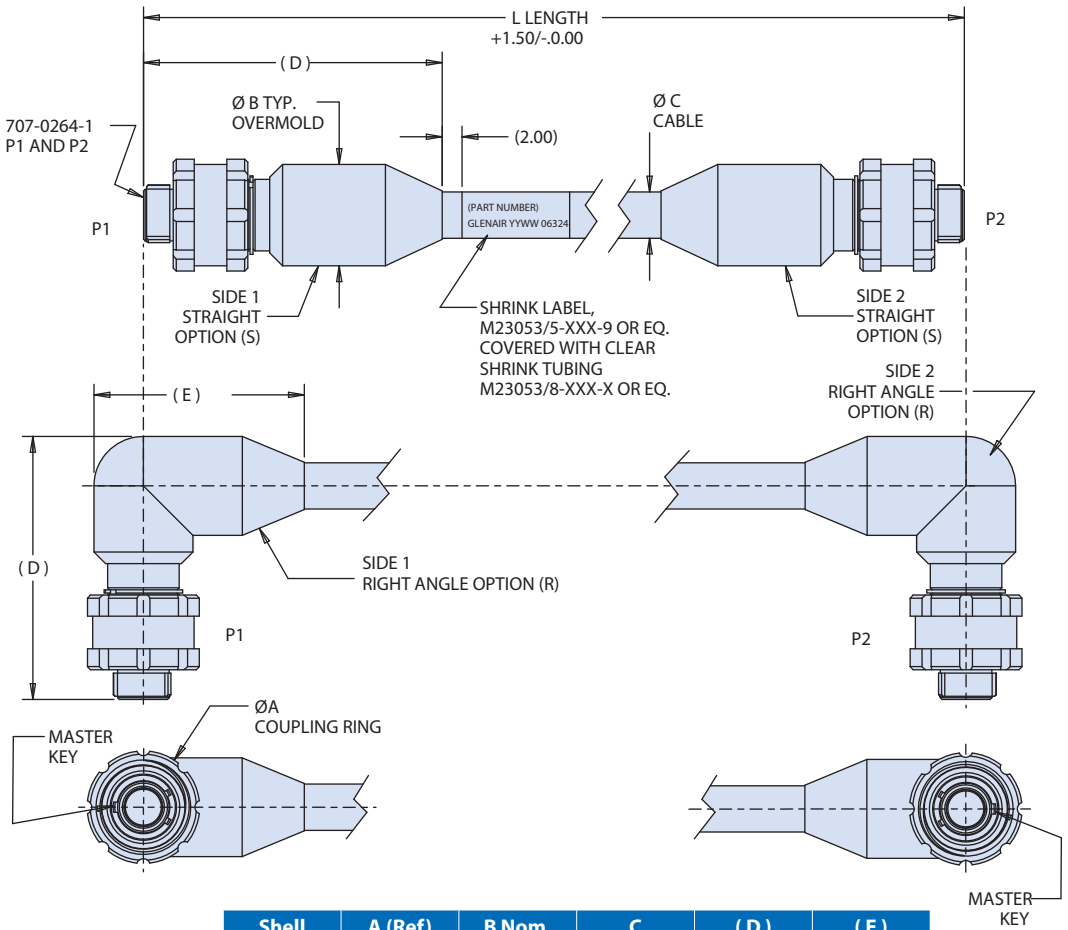
- **10K psi rated, mated condition**
- **Red alignment indicator for accurate mating**
- **Serviceable O-ring for reliable sealing and easy maintenance**





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

MIcro-PSI - How To Order								
Sample Part Number	**7071-0069**	**-S**	**R**	**-ME4**	**-Z1**	**U**	**N**	**-4**
Series / Basic P/N	**7071-0069** = Back-to-Back or Pigtail Plug Cable Assembly							
Overmold Style (P1)	**R** = Right Angle **S** = Straight							
Overmold Style (P2)	**R** = Right Angle **S** = Straight **N** = None (pigtail assembly)							
Shell Size / Contact Layout	See page 50							
Plug Shell Material	**Z1** = Stainless Steel **TC** = Titanium							
Overmold and Jacket Mtrl	**V** = Viton **U** = Polyurethane							
Clocking Position	**N** = Normal, **A**, **B**, **C** (See page 50)							
Length (inches)	**Length** in inches, i.e. 4 equals 4 inches							



Shell Size	A (Ref) Cplg Ring	B Nom. Overmold	C Cable	(D) Overmold	(E) 90 Length
ME	0.550	0.470	0.265	1.50	1.00
MG	0.685	0.585	0.342	1.50	1.13
MK	0.750	0.675	0.590	1.50	1.16

SHALLOW WATER

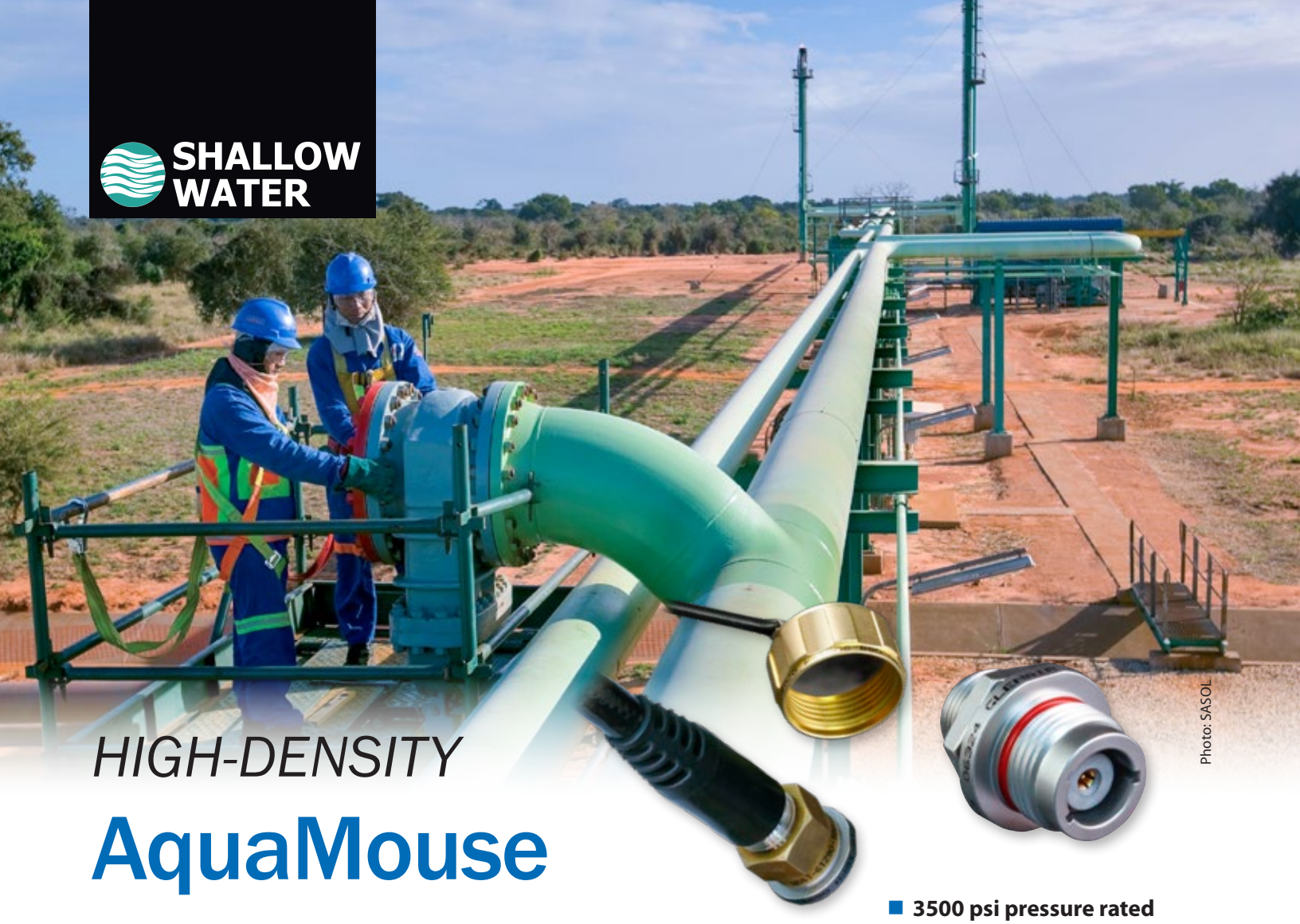


Photo: SASOL

HIGH-DENSITY

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 and a piston O–ring for hydrostatic sealing. Series 802 insulated wire, panel mount receptacles can be ordered as square flange, in–line or jam–nut versions. Choose integral shield termination platform or accessory thread for use with a variety of strain relief options. Crimp style gold–plated crimp contacts accept #12–30 wire. Connectors are backfilled with epoxy potting compound. Hermetic glass–sealed connectors come with solder cup contacts (non-removable) or PC tails. 100% tested to meet 1 x 10-7 cc/sec helium leakage. Open face pressure rating 3500 PSI.

- **3500 psi pressure rated**
- **High-temperature and corrosive chemical-resistant Viton® or Nitrile O-rings**
- **Ultraminiature #23 contacts**
- **Size #20, #20HD, #16, #12, #8 signal, power, fiber optic and shielded contacts**
- **Discrete connectors and turnkey cable assemblies**

AQUAMOUSE CONNECTOR CONFIGURATIONS AND CLASSES

Series 802 Plugs

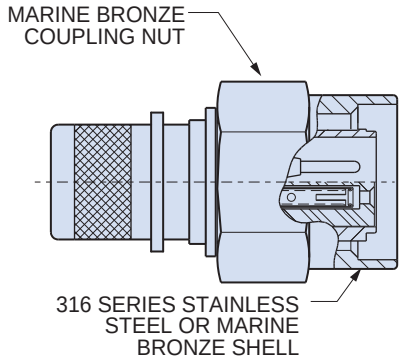
Series 802 Jam Nut Mount

Series 802 Square Flange Receptacle

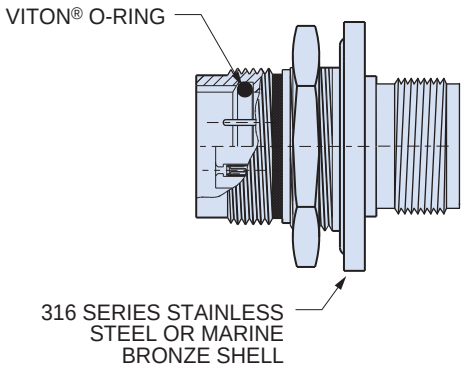
Series 802 Hermetic

Series 802 Hermetic Bulkhead Feed-Thru

Glenair Series 802 AquaMouse™ Delivers High-Pressure Sealing and Rugged Design in a Miniature Package



Series 802 Plug



Series 802 Receptacle

Stainless Steel or Marine Bronze

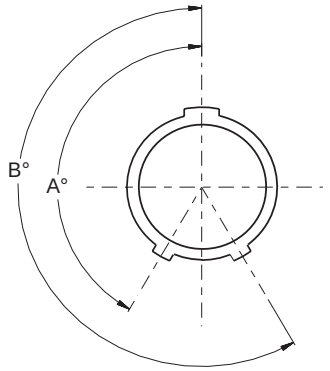
Available in ten sizes from 1 to 130 contacts, Series 802 connectors feature 316 stainless steel or marine bronze shells. Viton® o-rings resist high temperature and corrosive chemicals.

3500 psi

These connectors withstand up to 3500 PSI hydrostatic pressure in a mated condition. Hermetic versions withstand 1000 PSI open face pressure.

AQUAMOUSE SPECIFICATIONS AND PLUG KEY POSITIONS

Series 802 Plug Key Positions



Key Position	Key Rotation	
	A°	B°
Normal (A)	150°	210°
B	75°	210°
C	95°	230°
D	140°	275°
E	75°	275°
F	9°	210°

Performance Specifications	
Current Rating	#23–5 A, #20–7.5 A, #16–13 A, #12–23 A
Dielectric Withstanding Voltage	#23–750 VAC, #20HD–1000VAC, #16 and #12–1800 VAC
Insulation Resistance	5000 megohms minimum
Operating Temperature	-65° C. to +175° C.
Hydrostatic Pressure	3500 PSI mated, 1000 PSI open face (hermetic)
Shock	300 g.
Vibration	37 g.
Durability	2000 mating cycles

Material and Finish	
Shells, Jam Nuts	316 stainless steel or marine bronze
Coupling Nuts	Marine bronze, unplated
Contacts	Copper alloy, 50 µInch gold plated. Socket hood: stainless steel, passivated. Hermetic pin contacts: Nickel-Iron alloy per ASTM-F-30, 50 µInch gold plated.
Insulators	Liquid crystal polymer (LCP) , 30% glass-filled
Contact Retention Clip	Beryllium copper alloy
Interfacial Seal, O-rings	Viton Rubber
Interfacial seal, rear grommet	Fluorosilicone rubber, blue
O-rings	Viton®

SHALLOW WATER

PROVEN-PERFORMANCE

Geo-Marine®

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®

- **5000 psi pressure rated**
- **Marine Grade 316 stainless steel machined shells and Naval Bronze coupling rings**
- **High-pressure environmental and hermetically sealed receptacles for field applications**
- **Power and signal insert arrangements from 2 to 128 contacts**
- **Anti-vibration ratcheted coupling nuts with castellated knurling**
- **Available Viton® overmolded cable assemblies**

PROVEN-PERFORMANCE

Geo-Marine® Connectors

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

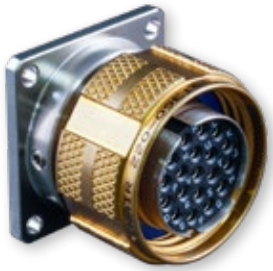
Range of Offerings

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 in-line single-pin HTHP glass fused contacts also available.

WIDE RANGE OF PLUG CONFIGURATIONS WITH ANTI-GALLING ARCTIC COUPLING NUTS

Cable plug with accessory threads

Cable plug with overmold adapter



Panel-mounted plug

Factory overmolded plug

HIGH-PRESSURE ENVIRONMENTAL AND FUSED-GLASS RECEPTACLE CONFIGURATIONS

Jam Nut

In-Line

Square Flange

Solder-Mount

Bulkhead Feed-Thru

Single-pin HTHP

RUGGEDIZED STAINLESS STEEL BACKSHELLS AND OTHER CONNECTOR ACCESSORIES

Environmental strain relief backshell

Overmolding adapter

Right-angle strain relief backshell

Environmentally sealed protective covers

Performance Specifications	
Hydrostatic Pressure Rating:	5,000 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	1,000 to 5,000 PSI
Hermeticity	Less than 1 X 10^{-6} sccHe/second @ 1 atmosphere

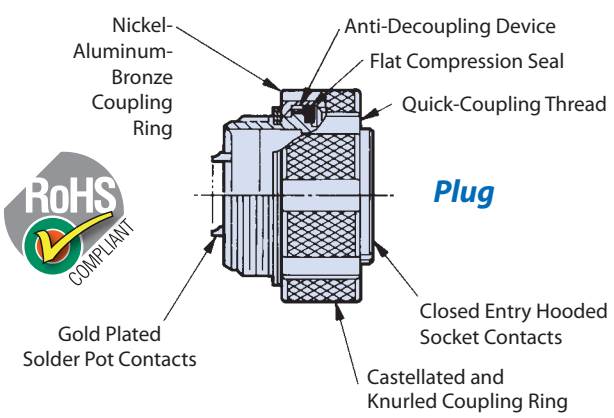
Current Rating		
Current Rating	Environmental	Hermetic
Size 22 Contact	500 VDC, 5 amps	500 VDC, 3 amps
Size 20 Contact	500 VDC, 7.5 amps	500 VDC, 5 amps
Size 16 Contact	750 VDC, 13 amps	750 VDC, 10 amps
Size 12 Contact	750 VDC, 23 amps	750 VDC, 17 amps

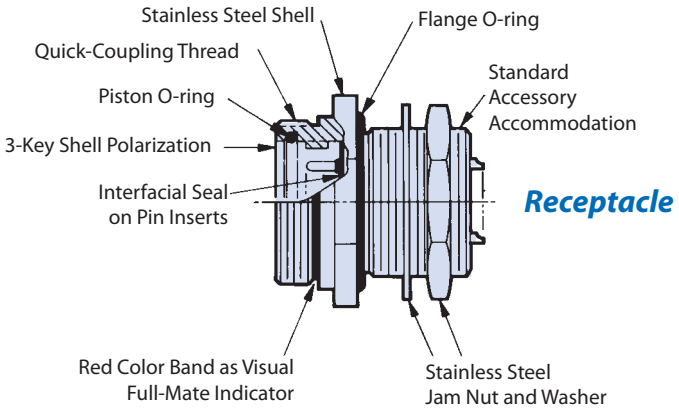
Service Rating			
Contact Size	Suggested Operational Voltage (Sea Level)		Test Voltage (Sea Level)
	AC(RMS)	DC	
22 GA	400	550	1300 VDC
20 GA	600	850	1800 VDC
16 GA	900	1250	2300 VDC
12 GA	300	450	2300 VDC

Depth/Pressure Conversion							
Feet	Meters	P.S.I.	Bar	Feet	Meters	P.S.I.	Bar
1	.3	.4	.0296	1,000	304.8	433.0	29.8543
10	3.1	4.3	.2965	1,500	457.2	649.5	44.7814
50	15.2	21.7	1.4962	2,500	762.0	1082.5	74.6357
100	30.5	43.3	2.9854	5,000	1524.0	2165.0	149.2715
250	76.2	108.3	7.4670	10,000	3048.0	4330.0	298.5430
500	152.4	216.5	14.9271	11,547	3519.35	5000.0	344.7379

Cable/Wire D.C. Resistance			
Copper Conductors at Room Temperature			
AWG	Ohms per 1000 feet	AWG	Ohms per 1000 feet
28	66.2 Max	20	10.4 Max
26	41.6 Max	18	6.5 Max
24	26.2 Max	16	4.1 Max
22	16.5 Max	14	2.6 Max
		12	1.6 Max

Geo-Marine® Connector Anatomy





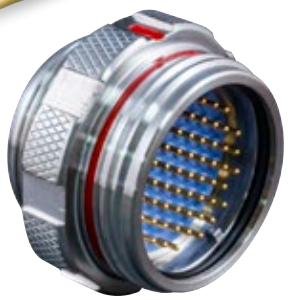
PROVEN-PERFORMANCE

Geo-Marine® Connectors

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

Connector Materials and Potting		
Item	**Material**	**Potting**
Connector Shells	CRS 316 SAE-AMS-QQ-S-763	Stycast 2651/Catalyst 9
Protective Covers	CRS 316 SAE-AMS-QQ-S-763	
Solder Mount Receptacle	CRS 316 SAE-AMS-QQ-S-763	
Plug Coupling Nut	Marine Bronze SAE AMS-4640	
Molding Adapters and Backshells	See individual product pages	
Insulators, Class "E"	Epiall 1908, Diallyl Phthalate or Hysol CP2-4289	
Insulators, Class "H"	Fused Vitreous Glass	
Contacts, Pin - Class "E"	Leaded Nickel Copper, CA 7021	
Contacts, Pin - Class "H"	Nickel-Iron Alloy 52 - MIL-I-23011, Class 2	
Contacts, Socket	Copper Alloy, CA7021	
Contacts, Socket Hood	CRS, SAE-AMS-QQ-S-763 AISI 305	
O-Rings	Nitrile (Buna-N) Rubber MIL-G-21569	
Interfacial and Peripheral Seals	Flourosilicone Rubber MIL-DTL-25988	

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.*



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.

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.
- 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, the following other dimensional tolerances apply:

  .xx = ± .03 (0.8)
  .xxx = ± .015 (0.4)
  Lengths = ± .060 (1.52)
  Angles = ± 5°

EXTREME TEMPERATURE

ThermaRex™ Interconnect Solutions

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

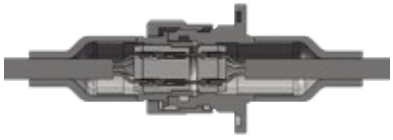
ThermaRex™ CONNECTORS

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 ThermaRex 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

EXTREME-TEMPERATURE TOLERANT

ThermaRex Interconnect Solutions

Cryogenic and high-temperature connector and accessory product showcase

-150°C THERMAREX CRYO CONNECTOR

ThermaRex™ CRYO

- Dynamic cryogenic connector
- Vibration at -150°C
- Ultra low-temperature Duralectric K seals

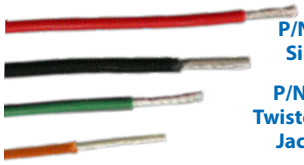
THERMAREX HIGH-TEMPERATURE HERMETIC

- High-temperature sealing technology maintains 1X10^{-7} leak-rate performance at 300°C

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

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

P/N 120-100, Material Code R

- 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

P/N 750-216, Jacket Code R

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

ARMORLITE CF

P/N 103-126

- 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

HIGH-TEMPERATURE TOLERANT

ThermaRex HT SuperNine® Connectors

High-performance fast mate/demate solution

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

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 M1560. 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 (IAW MIL-DTL-38999 Series III)						

MATERIAL / FINISH NOTES

Plug and receptacle shells, coupling nut - Passivated CRES

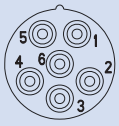
Insulator - high-grade ceramic dielectric

Grommet, interfacial, and peripheral seals - high-temp silicone

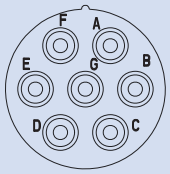
Contacts - copper alloy, gold plated, CRES hood and crown ring on socket contacts

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

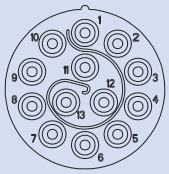
Suggested high-availability contact arrangements show. Most MIL-STD-1560 arrangements are available, consult factory.



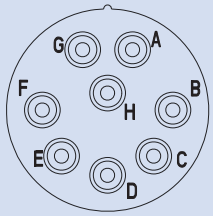
9-35
Contact Size : 22D Qty.: 6
Service Rating: M



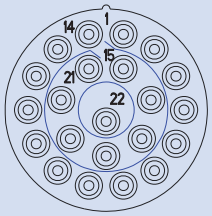
11-99
Contact Size : 20 Qty.: 7
Service Rating: I



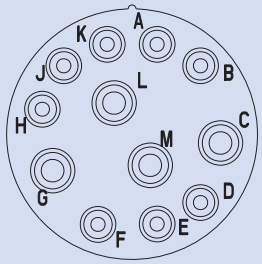
11-35
Contact Size : 22D Qty.: 13
Service Rating: M



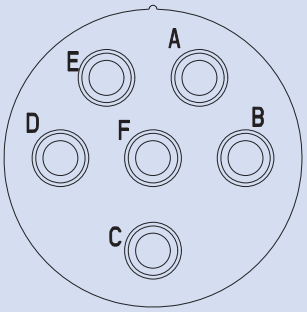
13-8
Contact Size : 20 Qty.: 8
Service Rating: I



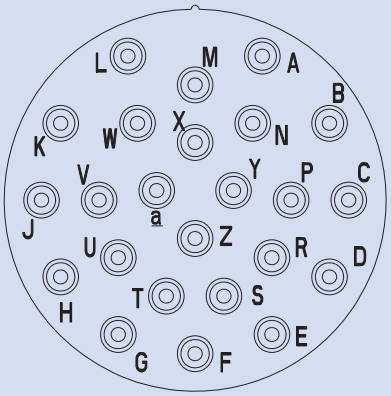
13-35
Contact Size : 22D Qty.: 22
Service Rating: M



15-97
Contact Size : 20 / Quantity: 8
Contact Size : 16 / Quantity: 4
Service Rating: I

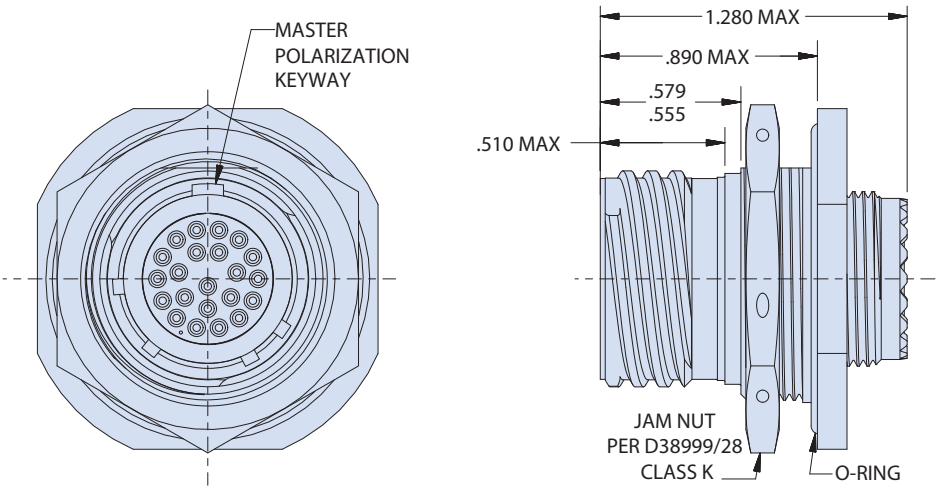


17-6
Contact Size : 12 Qty.: 6
Service Rating: I

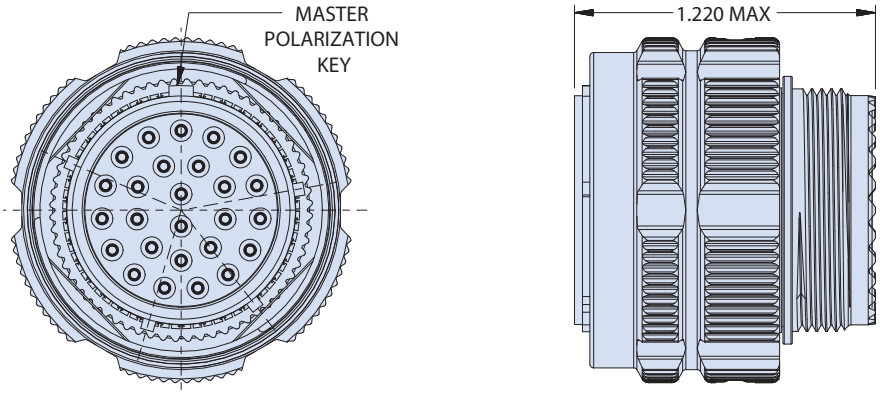


21-24
Contact Size : 20 Qty.: 24
Service Rating: I

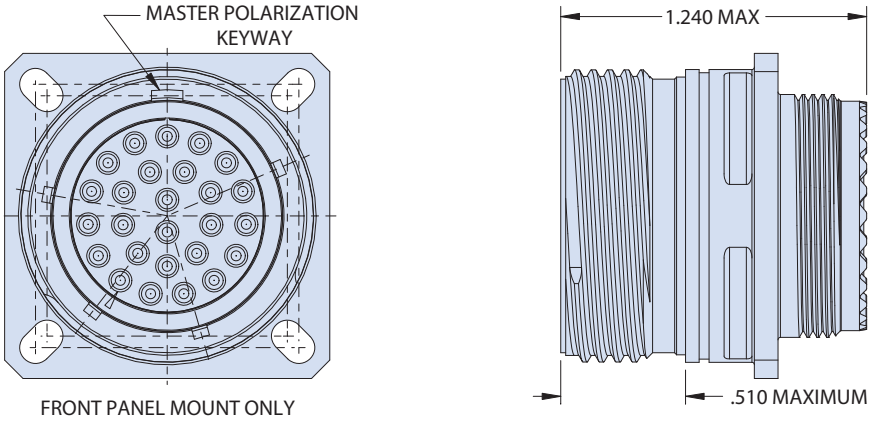
233-273-24 THERMAREX SUPERNINE RECEPTACLE, JAM NUT



233-273-26 THERMAREX SUPERNINE PLUG



233-273-20 THERMAREX SUPERNINE RECEPTACLE, SQUARE FLANGE-MOUNT



HIGH-TEMPERATURE TOLERANT

ThermaRex HT
Series 806 Mil-Aero Connectors

Micro-miniature triple-start stub ACME solution

SERIES 806 MIL-AERO

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

MATERIAL / FINISH NOTES

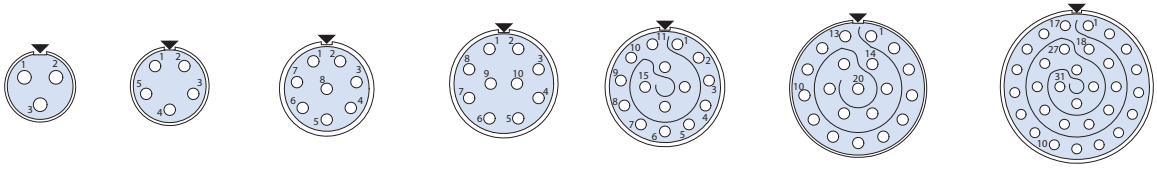
Plug and receptacle shells, barrel, coupling nut, jam nut, hex nut - Passivated CRES

Insulator - high-grade ceramic dielectric

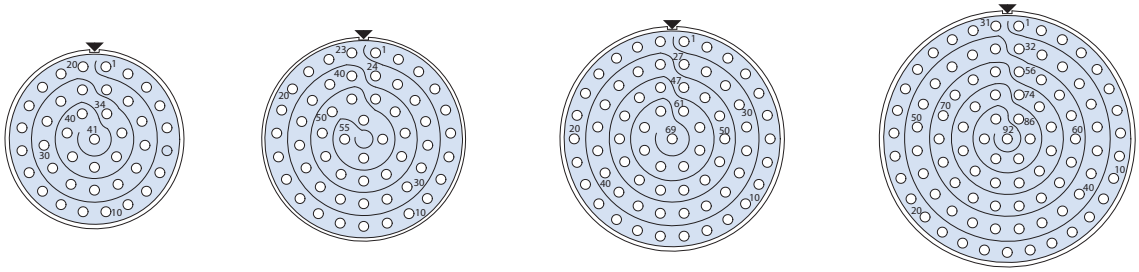
Grommet, interfacial seals - high-temp silicone

Contacts - copper alloy, gold plated, CRES hood and crown ring on socket contacts

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

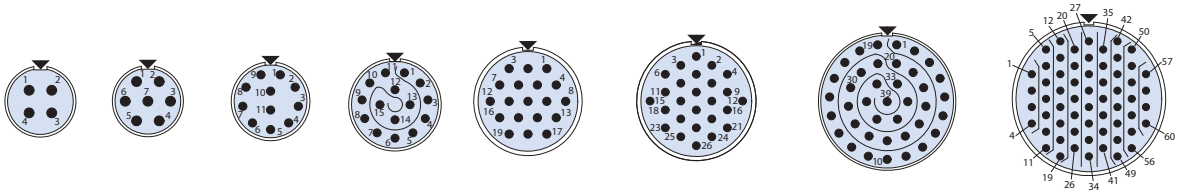


Arrangement No.	8-3	9-5	10-8	11-10	12-15	14-20	16-31

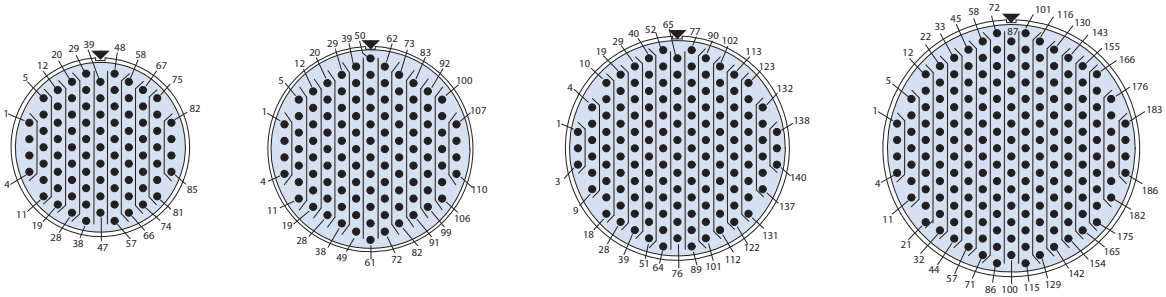


Arrangement No.	18-41	20-55	22-69	24-92

Series 806 Arrangements with #22HD Contacts (1300 Vac, 5 A, pin mating face shown)



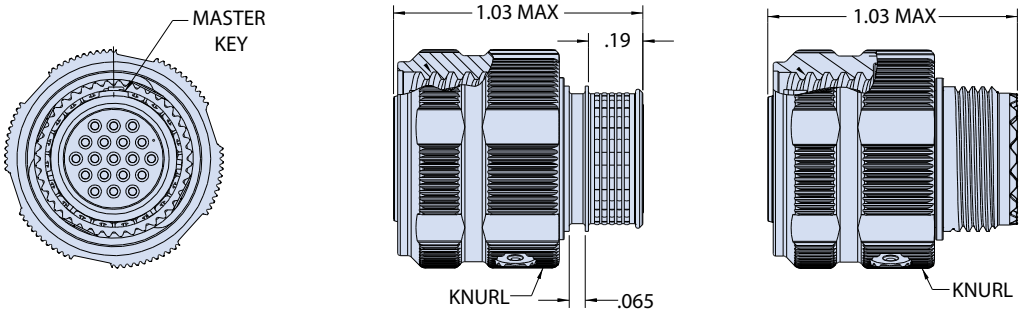
Arrangement No.	8-4	8-7	9-11	10-15	11-19	12-26	14-39	16-60



Arrangement No.	18-85	20-110	22-140	24-186

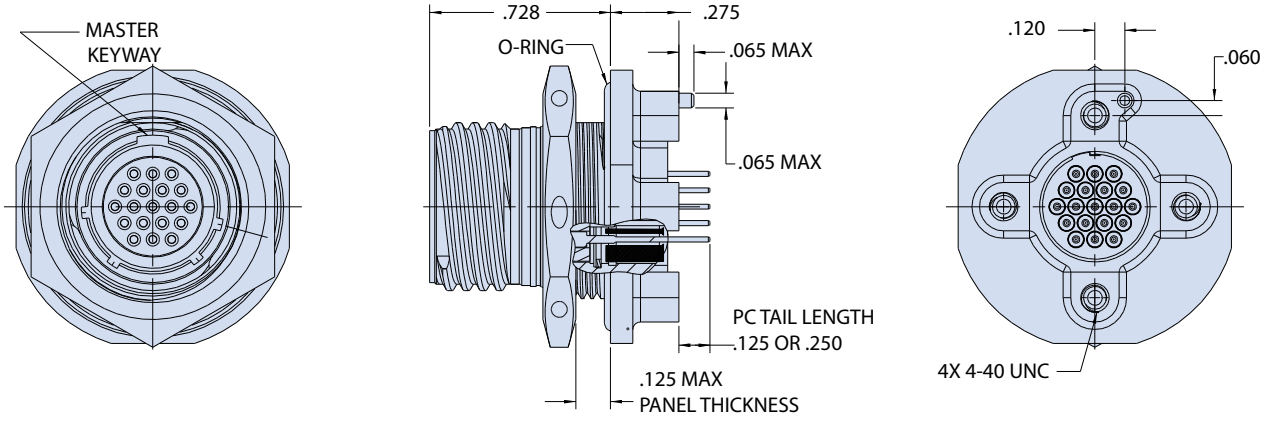
SERIES 806 MIL-AERO PLUG

How To Order ThermaRex Series 806 Mil-Aero Jam Nut Receptacle						
Sample Part Number	**806-042**	**Z1**	**11-19**	**S**	**M**	**A**
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 **S** = Socket **B** = Socket connector, less contacts					
Shell Style	**M** = Metric accessory thread **B** = Banding platform					
Polarization Keyway Code	**A, B, C, D, E, F**					



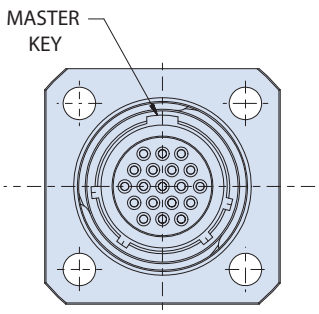
SERIES 806 MIL-AERO JAM NUT RECEPTACLE WITH PCB STANDOFF

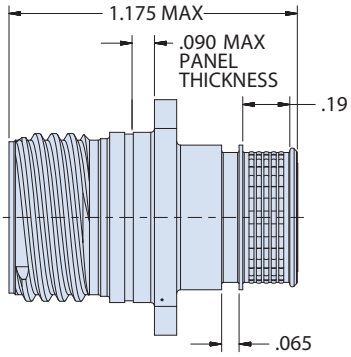
How To Order ThermaRex Series 806 Mil-Aero Jam Nut Receptacle					
Sample Part Number	**806-041**	**Z1**	**11-19**	**P**	**N**
Series / Basic Part No.	**806-041** High-temperature ThermaRex Series 806 jam nut receptacle with PCB standoff				
Material/Finish	**Z1** = Passivated CRES				
Shell Size/Insert Arr.	Per 806-015, See tables				
Contact Style	**P** = PIn contacts only				
Polarization Keyway Code	**A, B, C, D, E, F**				

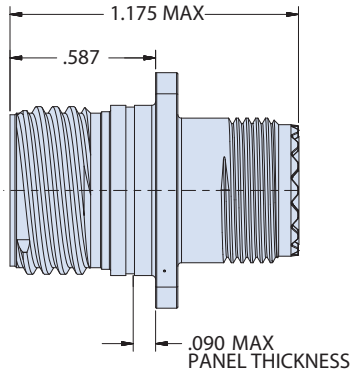


SERIES 806 MIL-AERO SQUARE FLANGE RECEPTACLE

How To Order ThermaRex Series 806 Mil-Aero Jam Nut Receptacle							
Sample Part Number	**806-052**	**Z1**	**11-19**	**S**	**M**	**T**	**A**
Series / Basic Part No.	**806-052** High-temperature ThermaRex Series 806 square-flange receptacle						
Material/Finish	**Z1** = Passivated CRES						
Shell Size/Insert Arr.	Per 806-015, See tables						
Contact Style	**P** = PIn **A** = Pin connector, less contacts **S** = Socket **B** = Socket connector, less contacts						
Shell Style	**M** = Metric accessory thread **B** = Banding platform						
Panel Mounting	**T** = Thru-hole						
Polarization Keyway Code	**A, B, C, D, E, F**						

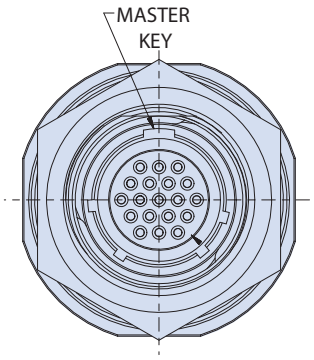


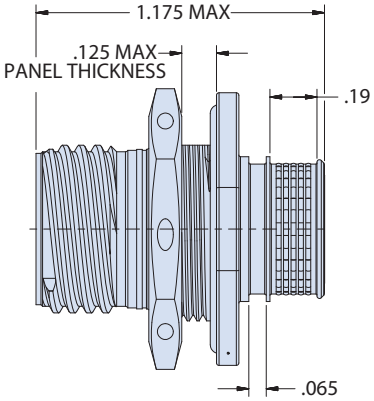


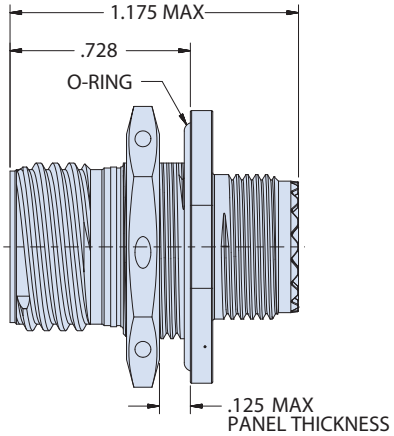


SERIES 806 MIL-AERO JAM NUT RECEPTACLE

How To Order ThermaRex Series 806 Mil-Aero Jam Nut Receptacle						
Sample Part Number	**806-053**	**Z1**	**11-19**	**S**	**M**	**A**
Series / Basic Part No.	**806-053** High-temperature ThermaRex Series 806 jam-nut receptacle					
Material/Finish	**Z1** = Passivated CRES					
Shell Size/Insert Arr.	Per 806-015, See tables					
Contact Style	**P** = Pln **A** = Pin connector, less contacts **S** = Socket **B** = Socket connector, less contacts					
Shell Style	**M** = Metric accessory thread **B** = Banding platform					
Polarization Keyway Code	**A, B, C, D, E, F**					







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

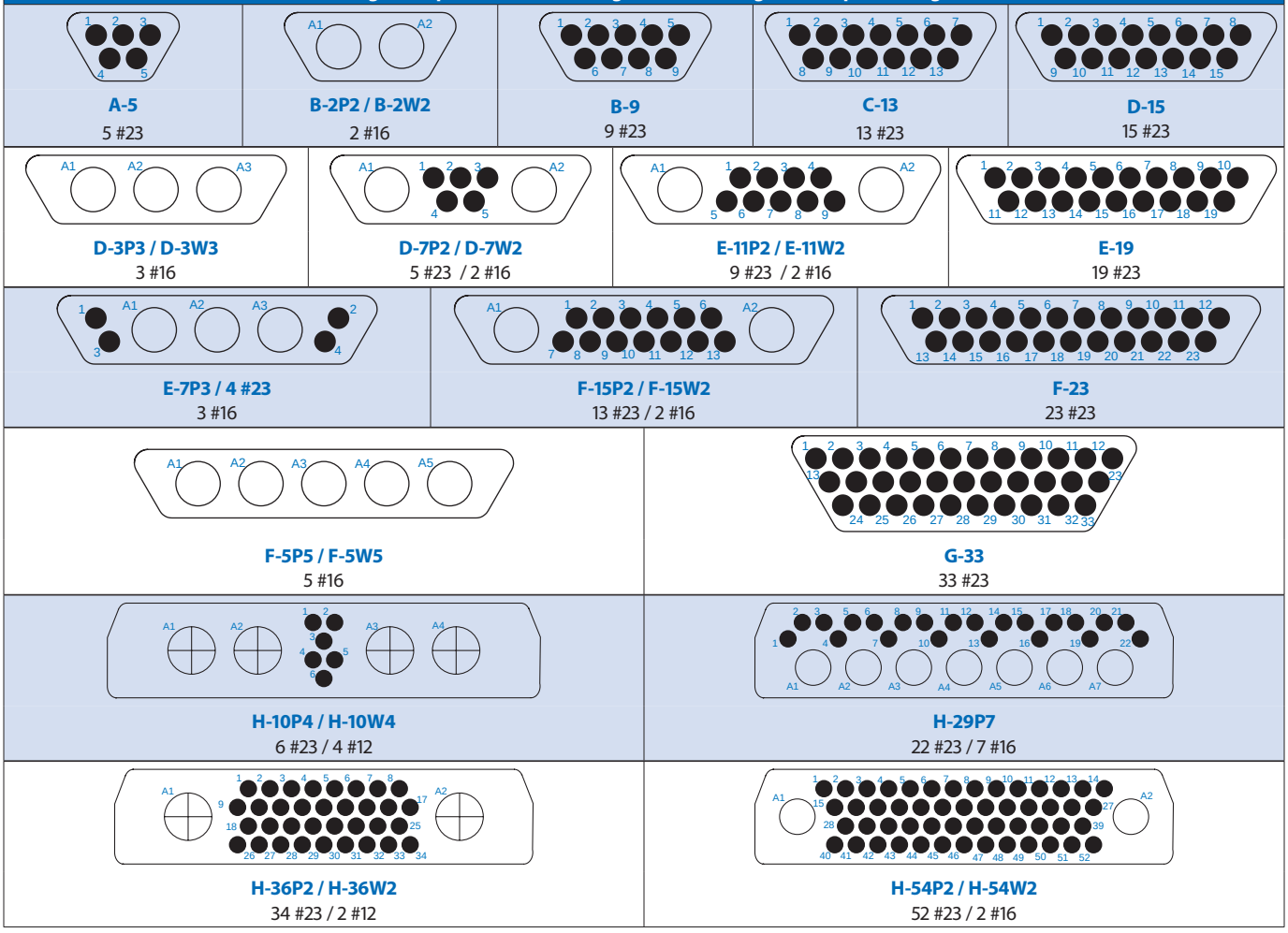
How To Order / Contact Arrangements

SERIES 79 SEVENTY-NINE™

How To Order ThermaRex Series 79 connectors				
Sample Part Number	**797**	**-756**	**S**	**H-29P7**
Series / Basic Part No.	**797** High-temperature ThermaRex Series 79 crimp-contact rectangular			
Connector Type	**-756** = Plug **-757** = Receptacle			
Contact Type	**S** = Socket (for -756 Plug connectors) **P** = Pin (for -757 Receptacle connectors)			
Insert Arrangement	Per 799-009. See insert arrangement tables below			

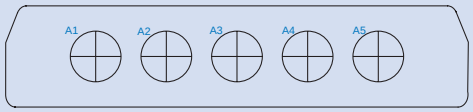
- **Service rating up to 300°C**
- **Vibration-resistant jackpost coupling**
- **High-temperature ceramic insulators and silicone seals**
- **Durable stainless steel construction**

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

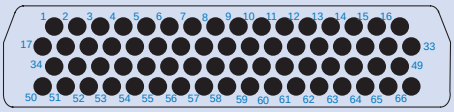


ThermaRex HT Series 79 Micro-D Connectors with Micro-Crimp Contacts

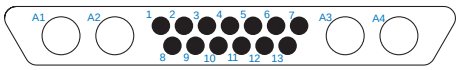
How To Order / Contact Arrangements



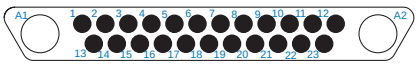
H-5P5 / H-5W5
5 #12



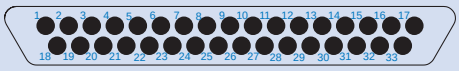
H-66
66 #23



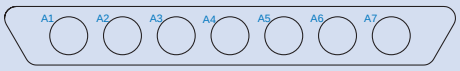
J-17P4 / J-17W4
13 #23/ 4 #16



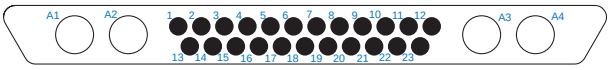
J-25P2 / J-25W2
23 #23 / 2 #16



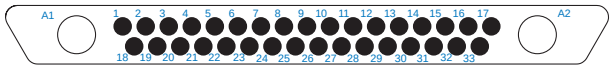
J-33
33 #23



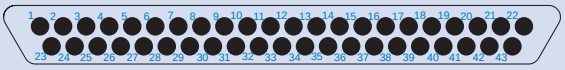
J-7P7 / J-7W7
7 #16



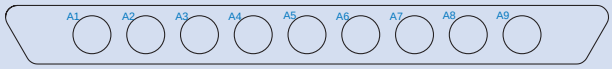
K-27P4 / K-27W4
23 #23 / 4 #16



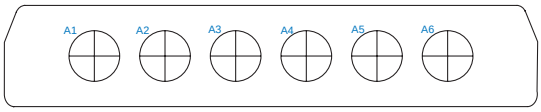
K-35P2 / K-35W2
33 #23 / 2 #16



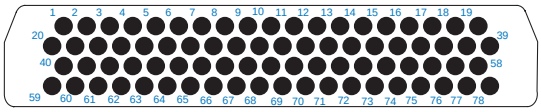
K-43
43 #23



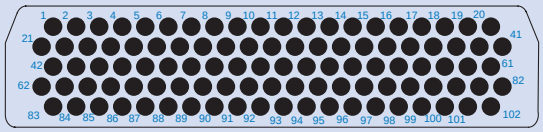
K-9P9 / K-9W9
9 #16



L-6P6 / L-6W6
6 #12



L-78
78 #23



M-102
102 #23

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 / N/A
EMI Spring - Stainless Steel / Gold Plated

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 Resistance - 5,000 Megohms Max.

Operating Temperature: -65°C to +300°C

BLIND MATE MISALIGNMENT ALLOWANCE

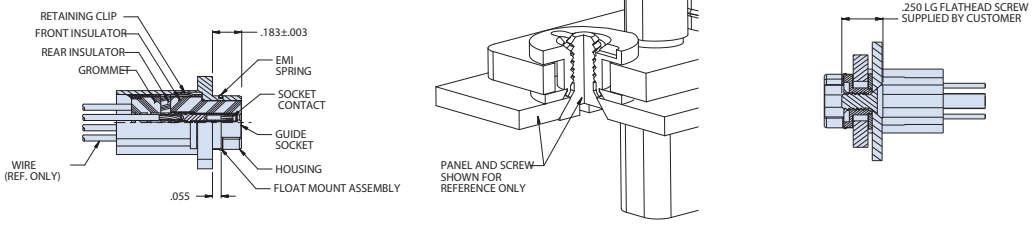
Shell Sizes A, B, C, D, E, F, G, J, K:
±.040 (1.02) Allowable misalignment from centerline

Shell Sizes H, L:
±.040 (1.02) Allowable misalignment from centerline

Shell Size M:
±.050 (1.27) allowable misalignment from centerline

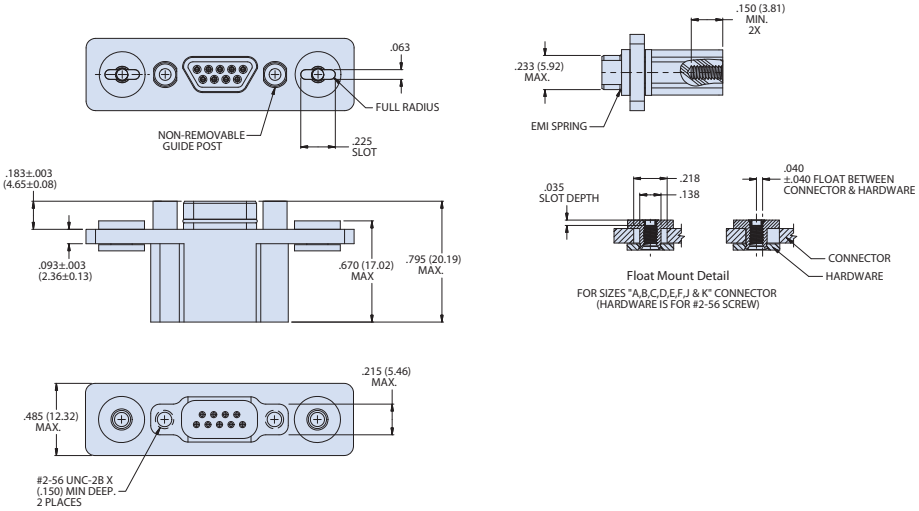
High-Performance Crimp-Contact Micro-D
797-756 Plug Details

CROSS-SECTIONAL VIEW AND HARDWARE

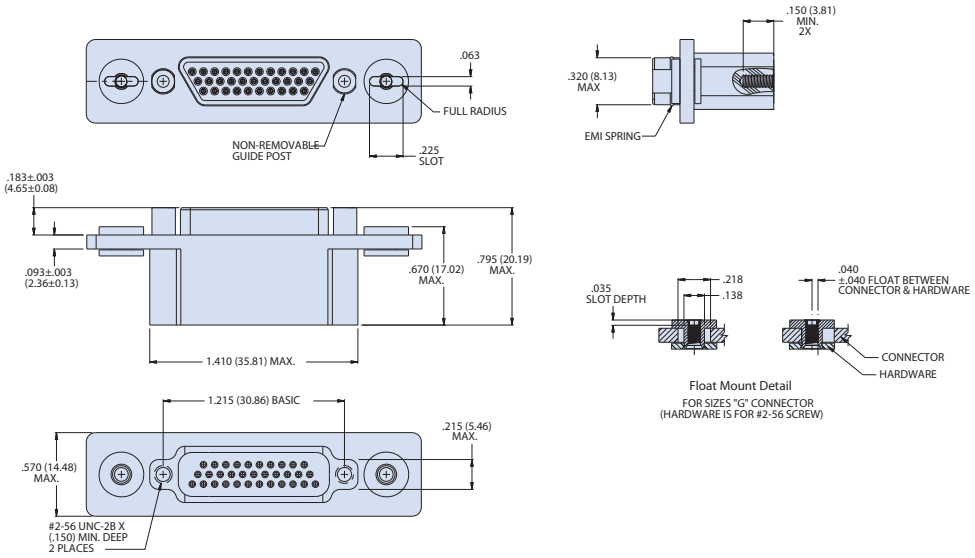


CONNECTOR SUPPLIED WITH NON-REMOVALBE GUIDE POST FOR BLIND MATE APPLICATION.
FLOAT MOUNT BUSHING HAS SHELL SIZES "M", "L" & "H" WITH #4-40 UNC-2B THREAD. ALL OTHER SIZES HAVE #2-56 UNC-2B THREAD.

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

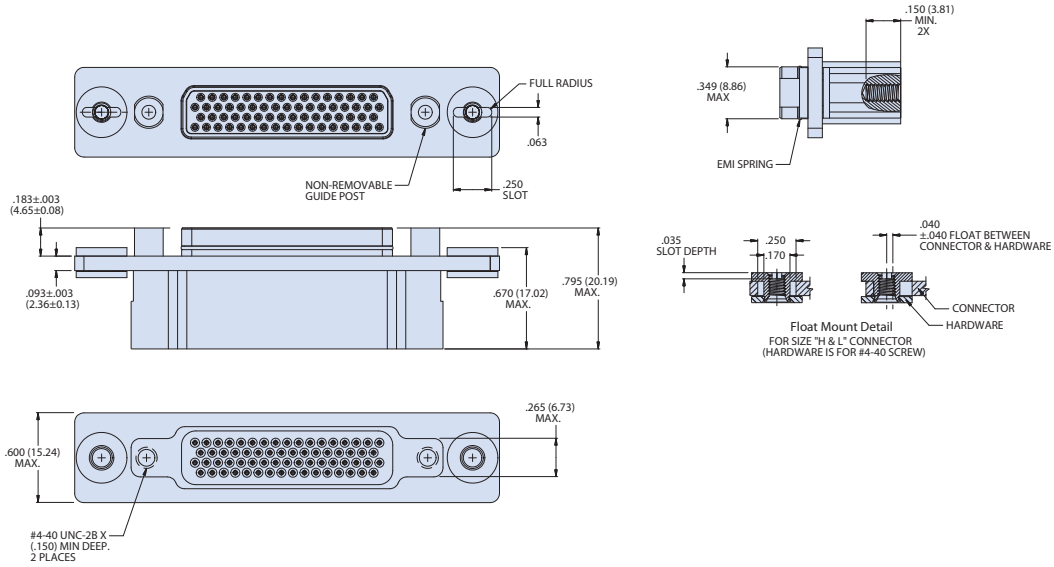


SHELL SIZE G

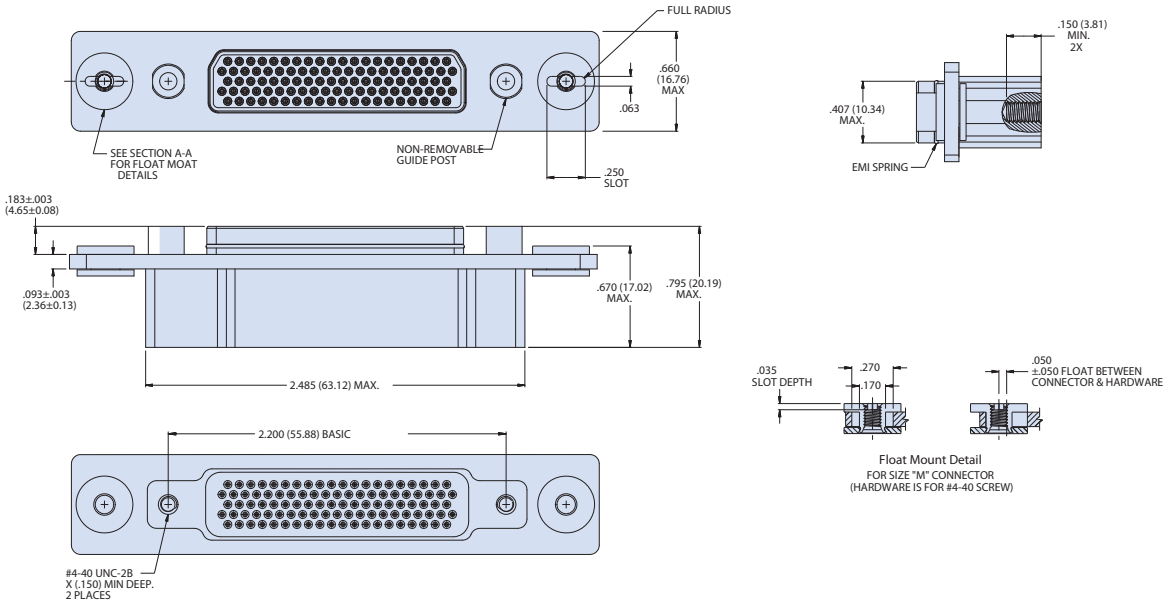


High-Performance Crimp-Contact Micro-D
797-756 Plug Details

SHELL SIZES H AND L

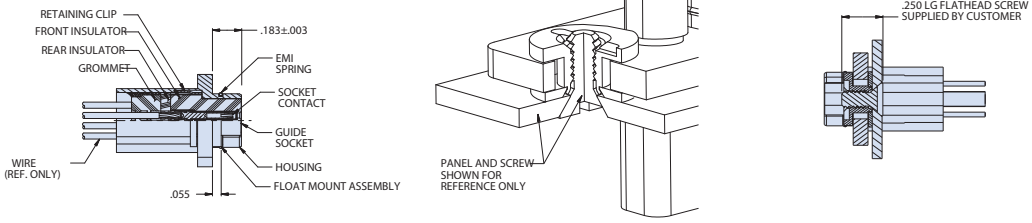


SHELL SIZE M



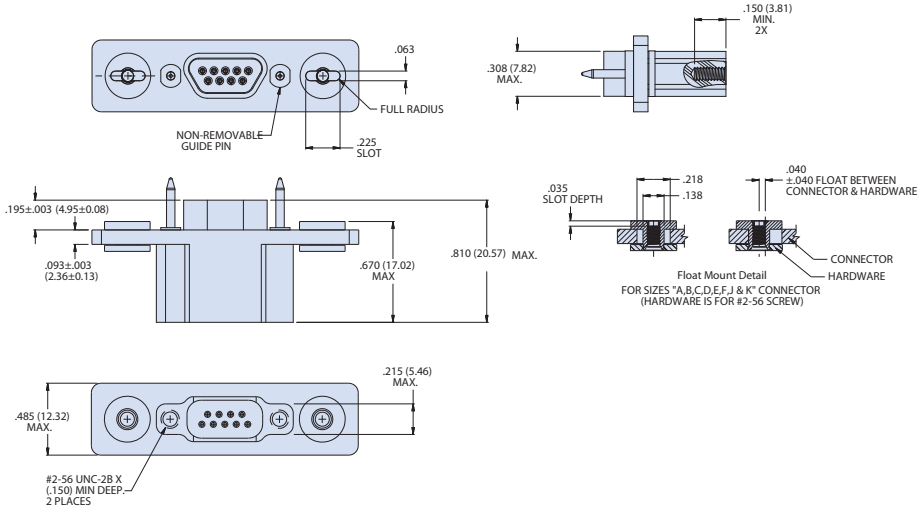
High-Performance Crimp-Contact Micro-D 797-757 Receptacle Details

CROSS-SECTIONAL VIEW AND HARDWARE

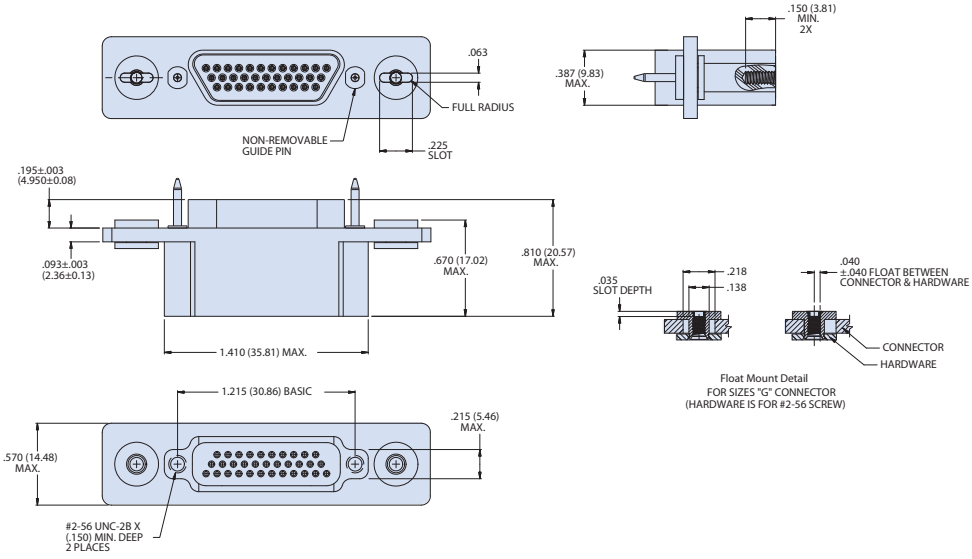


CONNECTOR SUPPLIED WITH NON-REMOVALBE GUIDE POST FOR BLIND MATE APPLICATION.
FLOAT MOUNT BUSHING HAS SHELL SIZES "M", "L" & "H" WITH #4-40 UNC-2B THREAD. ALL OTHER SIZES HAVE #2-56 UNC-2B THREAD.

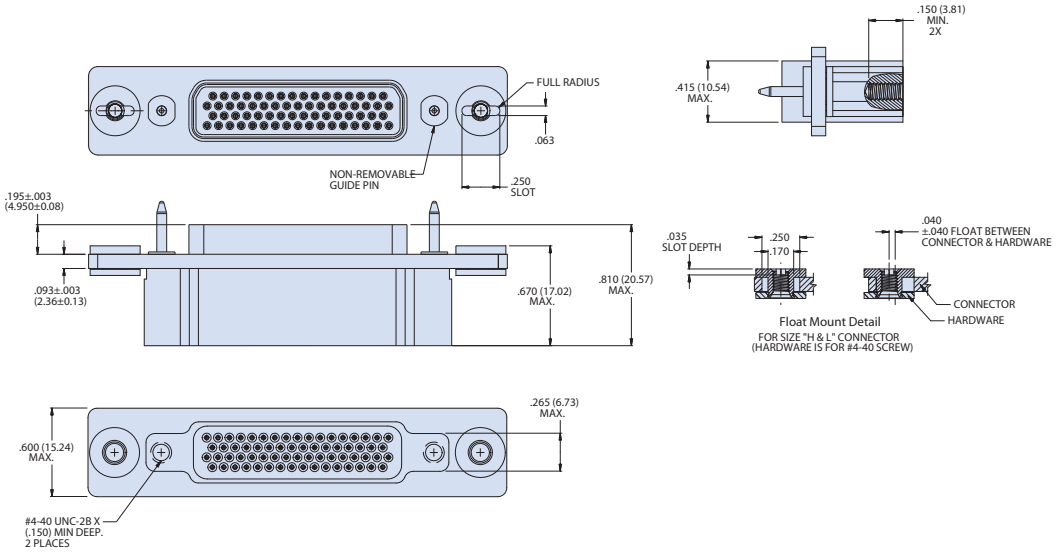
SHELL SIZES A, B, C, D, E, F, J, K



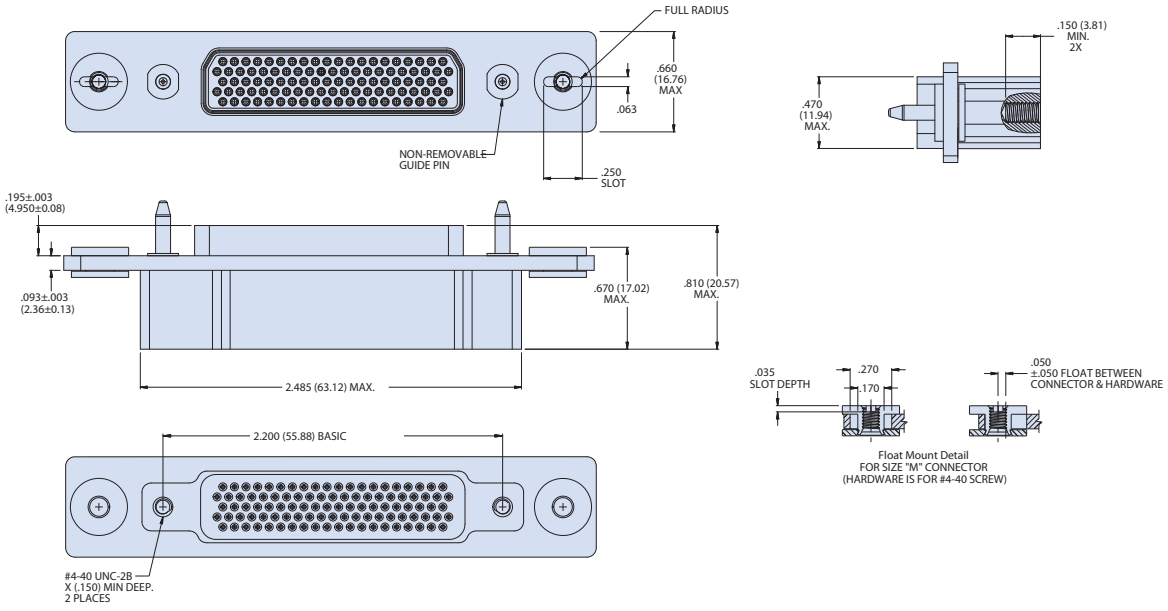
SHELL SIZE G



SHELL SIZES H AND L



SHELL SIZE M



DOWN HOLE

HIGH TEMPERATURE HIGH PRESSURE (HTHP)

Glass Sealed Penetrators and Feedthroughs

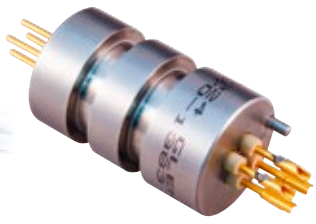
Glass sealed penetrators and feedthroughs provide sealed interconnect solutions for downhole applications such as logging while drilling (LWD) and measurement while drilling (MWD) applying methods such as near-balanced, underbalanced and overbalanced drilling. In these environments, conditions can reach 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**

MULTI-PIN AND SINGLE-PIN PENETRATORS, RECEPTACLES, AND FEED-THRUS

707-0015

707-0030

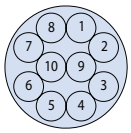
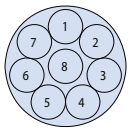
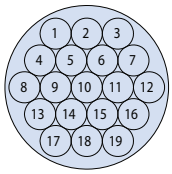
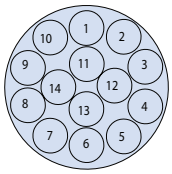
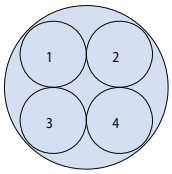
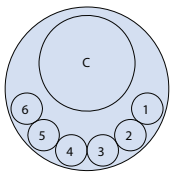


2570-1383

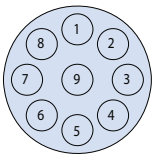
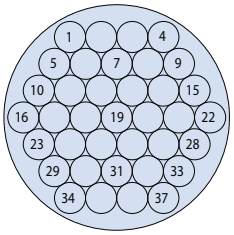
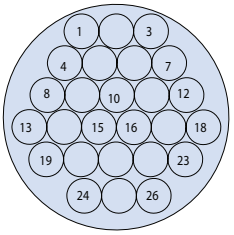
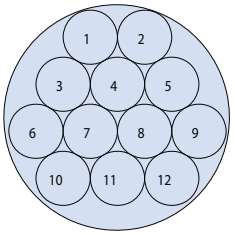
2570-1364

High Pressure/High Temperature Penetrators

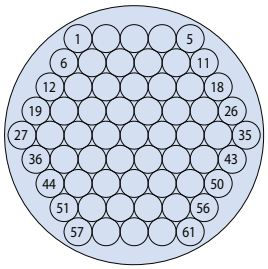
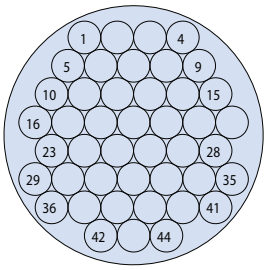
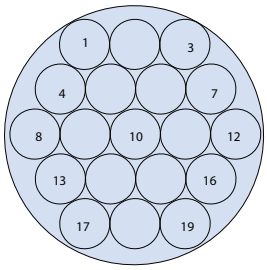
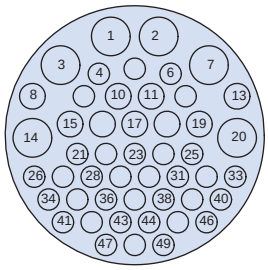
Glass sealed insert contact arrangements - Mating face view of pin insert (socket insert IDs are reversed)

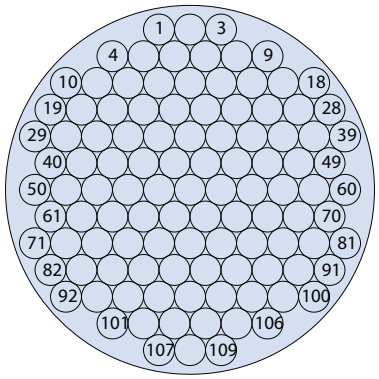
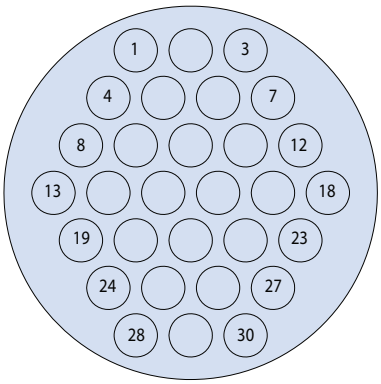
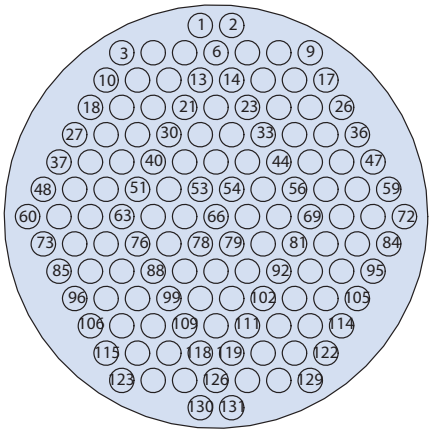
Size G		Size K			
G10	**G8**	**K19**	**K14**	**K4**	**KC6**
10 Size #22 Contacts	8 Size #20 Contacts	19 Size #22 Contacts	14 Size #20 Contacts	4 Size #16 Contacts	One 75 Ohm Coax, 6 #22

Size L	Size M		
L9	**M37**	**M26**	**M12**
9 Size #16 Contacts	37 Size #22 Contacts	26 Size #20 Contacts	12 Size #16 Contacts

Size O			
O61	**O44**	**O19**	**OX49**
61 Size #22 Contacts	44 Size #20 Contacts	19 Size #16 Contacts	49 Contacts 6 #16 • 9 #20 • 34 #22

Size Q		Size R
Q109	**Q30**	**Q131**
109 Size #22 Contacts	30 Size #16 Contacts	129 Size #22 Contacts

HIGH-TEMPERATURE

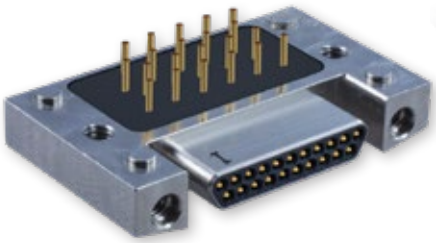
Well-Master® 260°

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**

Well-Master 260®



+260°C PCB Header

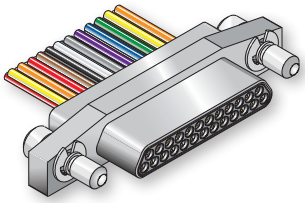
+260°C Cable Connector

Downhole Micro-D Connector

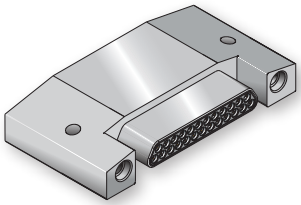
Reference information / insert arrangements

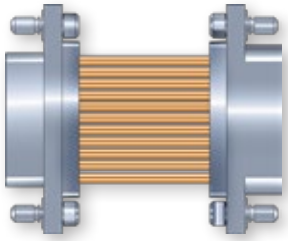
In addition to extreme high temperature tolerance, and demating resistance to vibration and shock, the Glenair Well-Master™ 260° Micro-D connector features unique shell packaging designed to conform with the cylindrical shape of instrument housings. Special angled mounting ears facilitate incorporation 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.

High Temperature Micro-D with insulated Wire Pigtails



High Temperature PCB Header





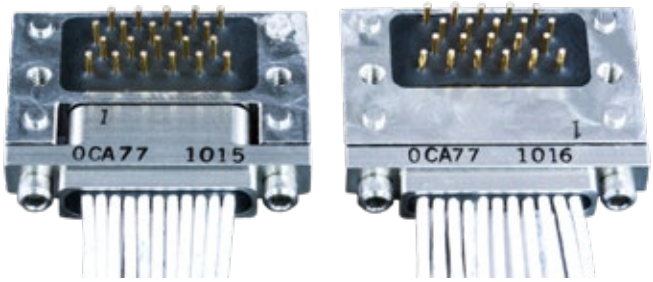
High Temperature Back-to-Back Micro-D

GHTM High Temperature Insert Arrangements (Pin Face View)

9	15	21	25
1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

31	37	51
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51

Mating face of pin connector. Socket connector contact numbers are reversed.



SERIES GHTM WELL-MASTER 260°

Downhole Micro-D Connector

Insulated wire connector with pin or socket contacts

GHTM PRE-WIRED CONNECTORS WITH +260°C MIL SPEC PTFE/POLYIMIDE WIRE

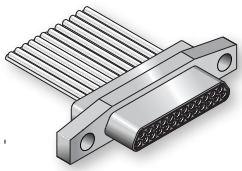
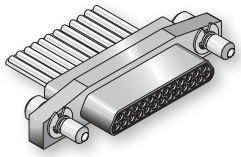
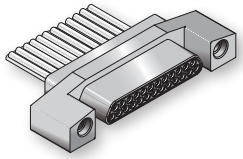
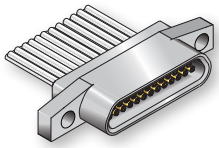
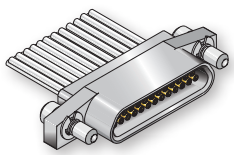
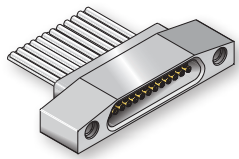
GHTM Well-Master™ 260° pre-wired Micro-D connectors withstand +260°C continuous operating temperature. These .050" pitch Micro-D connectors are terminated to #24 AWG insulated wire. Nickel-coated copper wire conforms to M22759/87, PTFE/polyimide insulation. Pin contacts are gold-plated high performance 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.

How To Order

Sample Part Number	GHTM	-31	S	-4	T	1	-18	B

Series	**GHTM** Glenair High Temperature Micro
Shell Size	**9**, **15**, **21**, **25**, **31**, **37**, **51**
Contact Type	**P** - Pin/Plug **S** - Socket/Receptacle
Wire Gage (AWG)	**4** – #24
Wire Type	**T** – PTFE/Polyimide Insulated Nickel Coated Copper
Wire Color	**1** – White
Wire Length (Inches)	**18** – Wire Length In Inches. "18" Specifies 18 Inches.
Mounting Hardware	**B** - Std. Thru-Hole (Ø.089/.095) **M** - Hex Head Jackscrew **S** - Slot Head Jackscrew **P** - Integral Jackpost See Mounting Hardware Table

GHTM Mounting Hardware

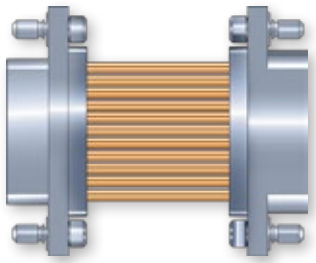
B **Std. Thru-Hole Mounting** **.096/.088 (2.43/2.23) Dia.**	**M and S** **#2-56 Jackscrews** **Slot head (S), Hex Head (M)**	**P** **Integral Jackpost** **#2-56**
		
Pin	Pin	Pin
		
Socket	Socket	Socket

SERIES GHTM WELL-MASTER 260°

Downhole Micro-D Connector

Back-to-back cable assemblies and right-angle PCB headers

GHTM BACK-TO-BACK CONNECTORS WITH +260°C MIL SPEC PTFE/POLYIMIDE WIRE



GHTM Well-Master® 260° back-to-back Micro-D cable assemblies withstand +260°C continuous operating temperature. These .050" pitch Micro-D connectors are terminated to #24 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.

How To Order

Sample Part Number	GHTM	-31	GS	-6	T	1	-18	B
Series	**GHTM** Glenair High Temperature Micro-D							
Shell Size	**9**, **15**, **21**, **25**, **31**, **37**, **51**							
Contact Type	**GP** - Pin Connector Both Ends **GS** - Socket Connector Both Ends **CS** - Pin Connector to Socket Connector							
Wire Gage (AWG)	**4** - #24							
Wire Type	**T** - PTFE/Polyimide Insulated Nickel Coated Copper							
Wire Color	**1** - White							
Wire Length (Inches)	**18** - Wire length in Inches (2" minimum for 2 rows, 3" minimum for 3 rows)							
Mounting Hardware	**B** - Std. Thru-Hole **M** - Hex Head Jackscrew **S** - Slot Head Jackscrew **P** - Integral Jackpost (See Mounting Hardware Table, opposite page)							

GHTM RIGHT ANGLE PRINTED CIRCUIT BOARD HEADERS

GHTM Well-Master® 260° right angle PCB Micro-D connectors withstand +260°C continuous operating temperature. These .050" pitch Micro-D connectors have .020 inch diameter (0.51mm)gold-plated PC terminals. Terminal spacing is .100 inch by .075 inch (2.54 by 1.91mm). 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 with integral jackpost. Glass-filled high temperature LCP thermoplastic insulators to withstand soldering heat. Meets performance requirements of MIL-DTL-83513. Available with 9 to 51 contacts. 3 A., 600 Vac, -55°C to +260°C.

How To Order

Sample Part Number	GHTM	-25	P	RA	P	-110
Series	**GHTM** Glenair High Temperature Micro-D					
Shell Size	**9**, **15**, **21**, **25**, **31**, **37**, **51**					
Gender	**P** = Pin/Plug **S** = Socket/Receptacle					
Termination Type	**RA** = Right Angle Board Mount					
Mounting Hardware	**P** - Integral Jackpost; See Mounting Hardware Table opposite page					
Terminal Length	All lengths ±.015 (.38) **.080**, **.110**, **.125**, **.140**, **.150**, **.175**, **.190**, **.205**					

SERIES ITS-Ex

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 IIC) 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 zone 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.

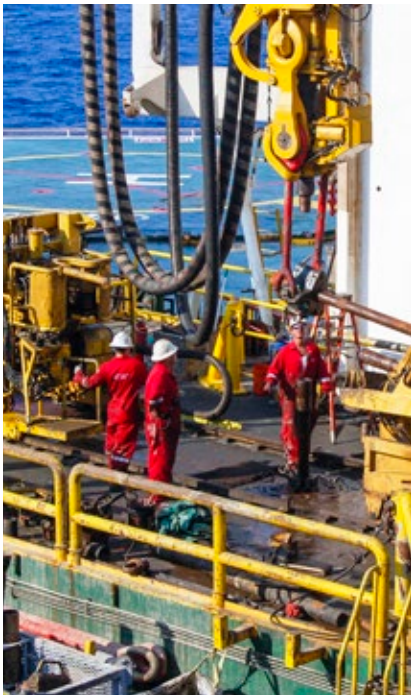
- **Utilizes all standard features of 5015 inserts, contacts, tools, etc.**
- **Grub nuts (set screw) to lock coupling nut**
- **Long plug barrels provide cooling zone**
- **Labyrinth gas exit port/ pathway augments cooling**
- **Accessory accommodation for potted glands**
- **Increased wall thickness**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

SERIES ITS-EX

IECEx/ATEx Qualified Explosive Zone Connectors

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



ATEX Marking

CE 2460 Ex

II 2 G Ex db IIC T6, T5 Gb
II 2 D Ex tb IIIC T80°C, T95°C Db IP68
-40°C ≤ Tamb ≤ +40°C (T6, T80°C) or +55°C (T5, T95°C)

IECEx Marking

Ex db IIC T6, T5 Gb
Ex tb IIIC T80°C, T95°C Db IP68
-40°C ≤ Tamb ≤ +40°C (T6, T80°C) or +55°C (T5, T95°C)

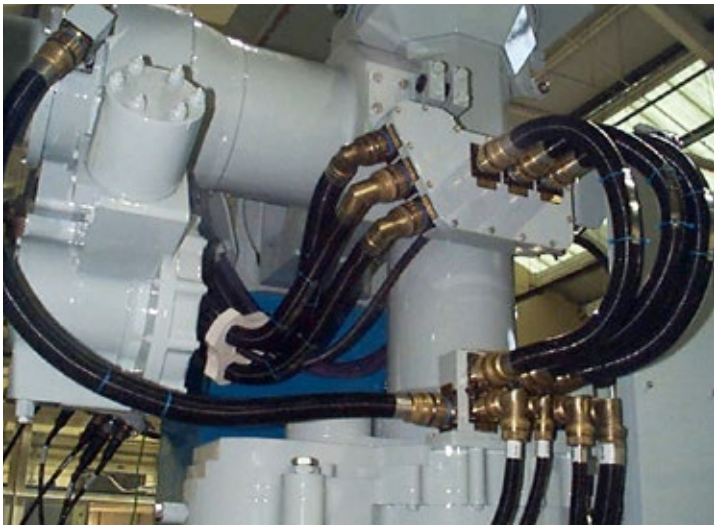
Glenair ITS-Ex series encompasses both in-line cable plugs and receptacles as well as fixed bulkhead-mountable designs

MARINE BRONZE

Seacrow 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**

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.

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.

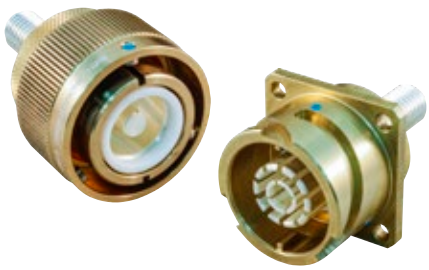
IPT-MB MIL-DTL-26482 TYPE HIGH DENSITY BAYONET CONNECTORS

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.

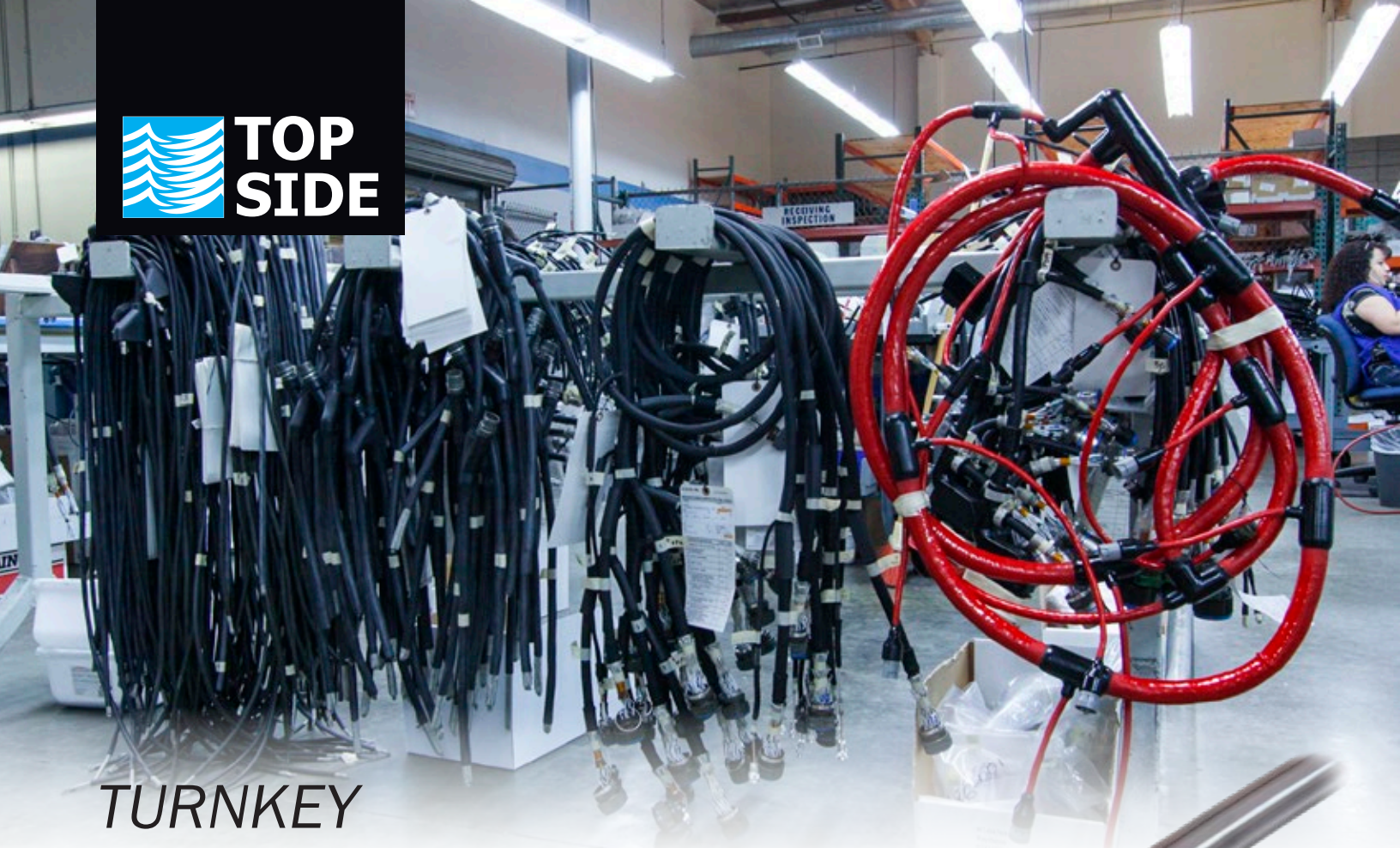
IGE-MB MIL-C-5015 TYPE REVERSE-BAYONET SINGLE-POLE POWER CONNECTORS



VG96929 Equivalent Marine Bronze Series

IGE-MB High Power Single Pole Connectors are used with cables from 16 to 240 mmq.

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.



TURNKEY

Overmolded and PBOF Assemblies

Terminated, tested, and ready for use

SeaKing PBOF assembly

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.

Rugged point-to-point overmolded assembly with Geo-Marine® connectors

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**

TURNKEY

Interconnect Cable Assemblies

with environmentally-resistant Duralectric™ jacketing

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**

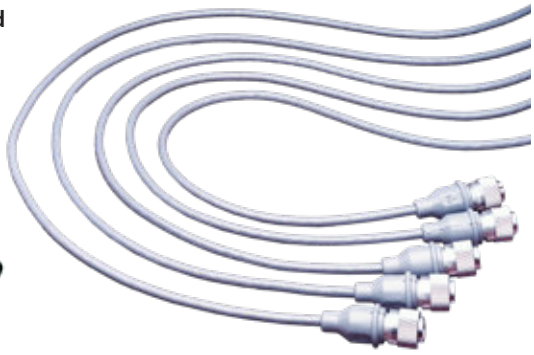
DURALECTRIC™ APPLICATION SHOWCASE

Bulk jacketed Duralectric™ cable with TurboFlex® flexible power cabling for harsh-environment power applications with cable routing challenges

Complex multibranch overmolded cable assembly with rugged Duralectric™ jacketing

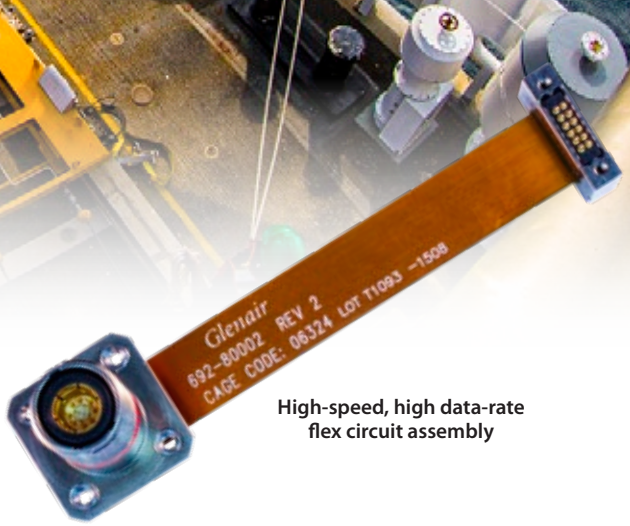
Shipboard application with Duralectric™ jacketing and overmolding

Turboflex® power pylon cable assembly with Duralectric™ jacketing



Duralectric™ jacketing employed in environmental commercial application

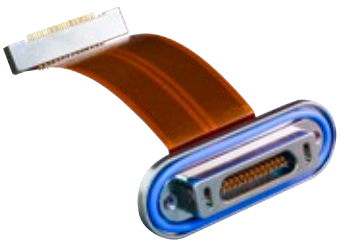
Connectorized Flex/PCB Circuit Assemblies



High-speed, high data-rate flex circuit assembly

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.

GLENAIR SIGNATURE PCB CONNECTOR TYPES AVAILABLE IN TURNKEY FLEX ASSEMBLIES



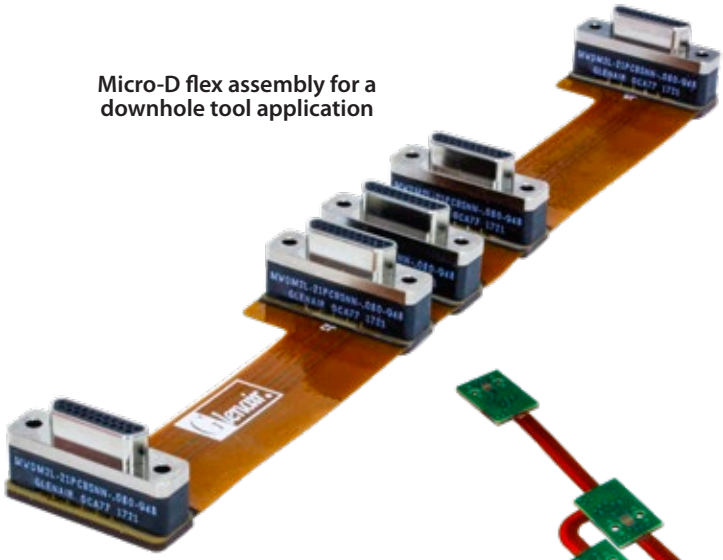
Series MWD Micro-D and innovative pogo-pin AlphaLink

Series 88 SuperFly

Series 79 Micro-Crimp

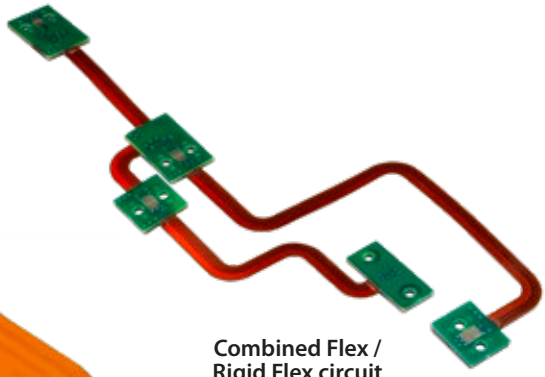
SuperSeal RJ45 and USB

MULIBRANCH FLEX / PCB ASSEMBLIES WITH GLENAIR SIGNATURE CONNECTORS

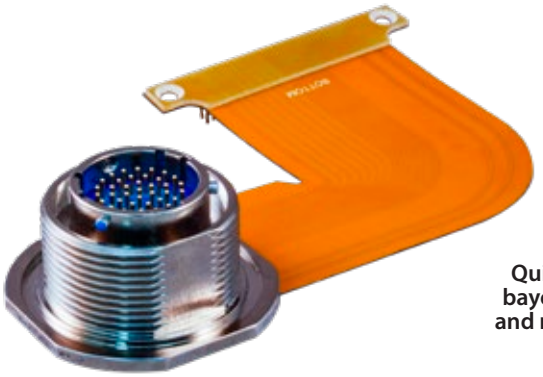


Micro-D flex assembly for a downhole tool application

High-shock matched-impedance ThermaRex assembly with flex circuit

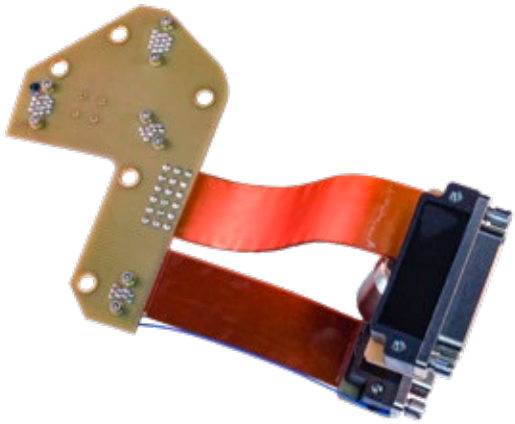


Combined Flex / Rigid Flex circuit assembly



Quick-disconnect bayonet receptacle and rigid flex header assembly

Hybrid flex/rigid flex multibranch Micro-D and Series 23 SuperNine flex assembly with discrete RF circuits



Stacked Micro-D I/O connectors with flex jumper to rigid PCB assembly

CONDUIT SYSTEMS

POLYMER AND METAL-CORE

Conduit Systems

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

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 Siltem, 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**

CONDUIT SYSTEMS

SERIES 72, 73 AND 74

Convoluted Tubing and Conduit

Wire protection conduit and cable routing fittings selection guide

Glenair

SERIES 72 CONVOLUTED TUBING PRODUCT SELECTION GUIDE

Convoluted Tubing

Factory Terminated Assemblies

Sentry system

Easy-to-Install Guardian system

SERIES 74 CONVOLUTED TUBING PRODUCT SELECTION GUIDE

Helical Convoluted Tubing

Factory Terminated Assemblies

Swivel-joint circular connector backshell

Easy Assembly Hat Trick System

Super Durable Internal Braid System

Ultra Lightweight Composite Hummer Nut System

SERIES 75 METAL-CORE HELICALLY-WOUND CONDUIT PRODUCT SELECTION GUIDE

Metal-Core Helical-Wound Conduit

Turnkey Factory Terminated Assemblies

Low-Profile RP Plus System

Heavy-Duty Environmental Metal System

Heavy-Duty Environmental Conduit System

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

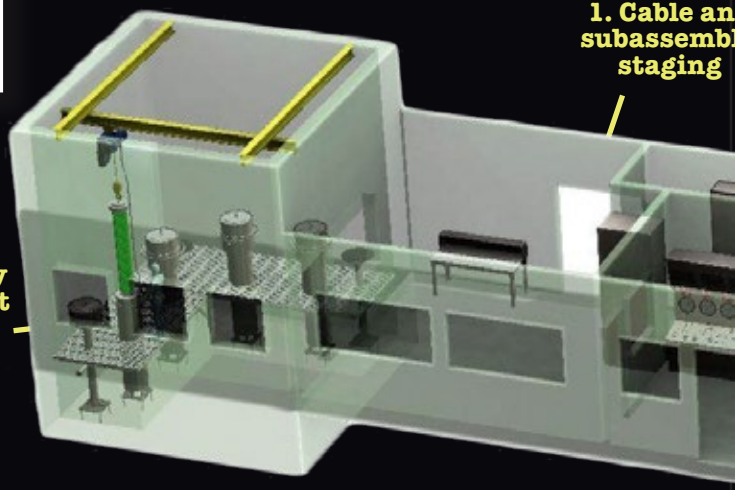
GLENDALE, CALIFORNIA

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

GLENAIR • GLENDALE FACTORY TOUR

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

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

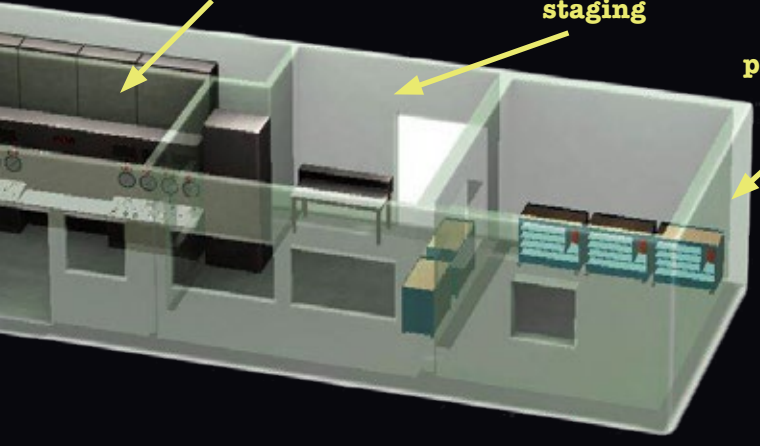


1. Cable an subassembl staging

2. Large cable and subassembly pressure test bunker

TECHNICAL STAFF: Knowledgable 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.



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.

MISSION-CRITICAL

INTERCONNECT SOLUTIONS

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