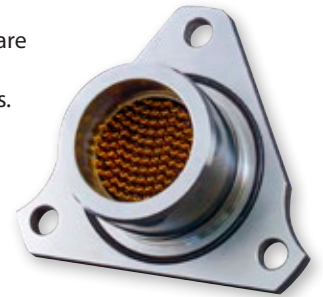


**High-pressure fused-glass underwater /
 harsh-environmental connectors**



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



PROVEN-PERFORMANCE Geo-Marine® Connectors

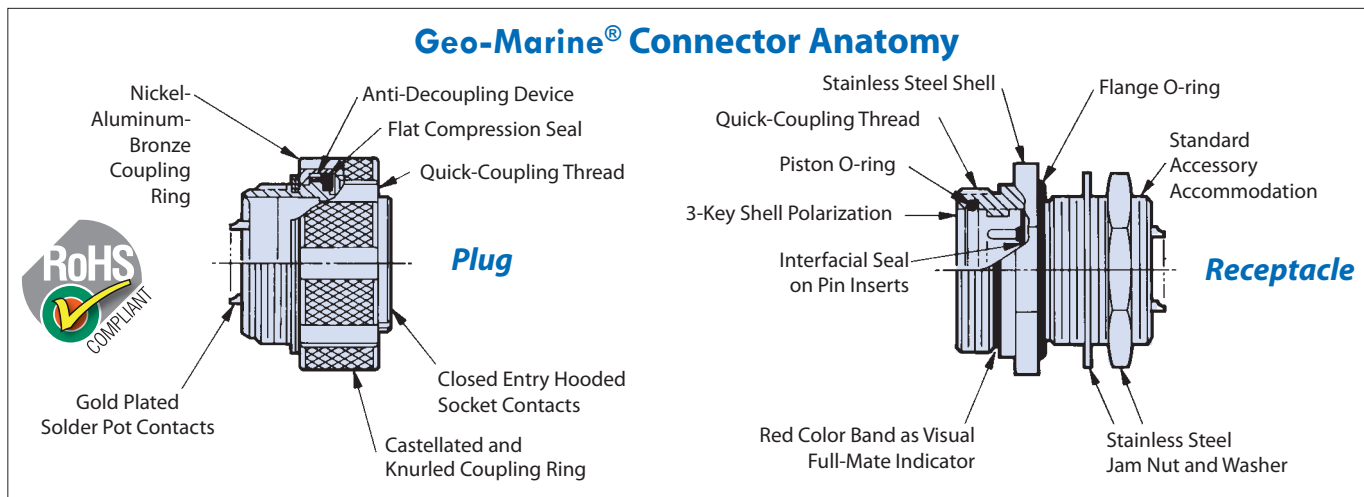


High-pressure fused-glass underwater / harsh-environmental connectors

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 1×10^{-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





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 $\pm .060$ 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 = $\pm .03$ (0.8)
 - .xxx = $\pm .015$ (0.4)
 - Lengths = $\pm .060$ (1.52)
 - Angles = $\pm 5^\circ$