

108 Series Submarine Hull Penetrators

RELIABLE TO FULL OCEAN DEPTH

This series incorporates our pressure hull penetrators for manned submarines around the world. These submarine hull penetrators are used to bring a circuit (electric, fiber optic and/or RF) from outside a submarine pressure hull to the inside, while assuring under all operating and failure modes there is no leak path to the inside of the submarine. The 108 series incorporates glass-to-metal sealing into the penetrator for the maximum protection of the sailors inside.

The product line offers a complete arrangement of electrical penetrators, custom cable assemblies and more. They feature dual o-rings into the hull insert sealing. Specifically, electrical cable assembly designs are geared for a fully integrated system consisting of hull penetrators, dip loops and mast receptacles. These assemblies provide complete design integration from the inboard equipment to the outboard sensor for submarine applications. Other designs are also available in turret style and bottle style penetrators.

The optic cables range from single mode optic connections to multiple mode connections, specifically 1-15 channels for a variety of solutions. Insertion loss is less than 1.0 dB and return loss is less than -35 dB. The fiber optic cables are set to be designed to accommodate multimode fiber sizes 50/125 μ or 62.5/125 μ and single mode fiber size of 9/125 μ .



108 Series Connector

PRODUCT FEATURES

- Three-phase power
- 1-361 conductors
- Electrical and optical systems
- Sonar, communication and towed array systems



TELEDYNE MARINE
Everywhere you look™

108 Series Connector

Hull Penetrator Products

TECHNICAL SPECIFICATIONS*

GENERAL SPECIFICATIONS	
Max Operational Pressure	2,000 psi (~4,500ft), for molded assemblies
Material Options	Stainless Steel, Monel, Nickel Aluminum Bronze, per NES-832 specification
ELECTRICAL SPECIFICATIONS	
Operational Current	3-8 Amps (depending on wire size)
Max Operating Voltage	625 VRMS
Insulation Resistance	5 Ghoms at 500VDC
Frequency Range	0-18 Ghz

*Performance values generally based on historical application requirements



TELEDYNE MARINE
Everywhere you look™

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