



**HIGH-RELIABILITY**

# Glass-sealed Hermetic Connectors



Resolve gas, moisture and particle ingress problems with advanced-performance glass-sealed hermetic connectors

## Helium Leak Testing

All hermetic connectors are 100% tested prior to shipment. A helium leak test is performed to certify the hermetic seal. This test is conducted by inducing a 1 ATM vacuum on one side of the connector. Helium gas is released on the other side, and a mass spectrometer "counts" the number of helium molecules that penetrate the connector seal. Helium leak testing takes advantage of the small size of a helium molecule compared to air or water vapor. Helium is inert, rare in our atmosphere, and is easy to detect with a mass spectrometer.

## VITREOUS GLASS TECHNOLOGY ADVANTAGES

- Superior pressure resistance to 32,000+ PSI
- Higher resistance to extreme operating temperatures to 260°+ C
- Superior mechanical strength
- No material breakdown or aging over time
- Helium leak rate <math>1 \times 10^{-7}</math> cc/sec to <math>1 \times 10^{-10}</math>

Std cc/sec Approximate	Approximate Bubble Equivalent
1 x 10 <sup>-1</sup>	1 cc/10 sec
1 x 10 <sup>-2</sup>	1 cc/100 sec
1 x 10 <sup>-3</sup>	1 cc/hour
1 x 10 <sup>-4</sup>	1 cc/3 hours
1 x 10 <sup>-5</sup>	1 cc/24 hours
1 x 10 <sup>-6</sup>	1 cc/2 weeks
1 x 10 <sup>-7</sup>	3 cc/year
1 x 10 <sup>-8</sup>	1 cc/3 year
1 x 10 <sup>-9</sup>	1 cc/30 years
1 x 10 <sup>-11</sup>	1 cc/3000 years

## CIRCULAR GLASS-SEALED HERMETIC CONNECTORS AVAILABLE WITH ACCELERATED LEAD TIMES



MIL-DTL-26482



MIL-DTL-83723



MIL-DTL-38999 (QPL)



MIL-DTL-5015



Series 80 Mighty Mouse

# MIL-DTL-38999 AND OTHER Glass-Sealed Hermetic Connectors



## GEOPHYSICAL AND OFFSHORE CONFIGURATIONS



GeoMarine® double-start hermetic connector



Hermetic power connector



Single-way tool joint hermetic connector



Hermetic probe connector



Hermetic bulkhead penetrator

## HIGH-SPEED/SHIELDED DESIGNS



Triax hermetic



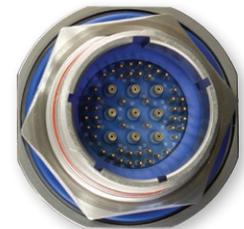
Hybrid coax/signal hermetic



Quadrax hermetic



MT ribbon fiber optic hermetic



Hybrid coax/signal hermetic

## RECTANGULAR PACKAGES



MIL-DTL-24308 QPL hermetic



Series 79 Micro-Crimp hermetic



MIL-DTL-83513 type micro-D hermetics



Sealed panel-mount micro-D hermetic

## MIL-DTL-38999 QPL PIN AND SOCKET HERMETICS



Series I Scoop-proof 3 Point Bayonet Coupling



Series II Low-profile 3 Point Bayonet Coupling



Series III Scoop-proof Triple Start, Self-Locking



Series IV Scoop-proof Breech Lock