

# SCHOTT Eternaloc™ Electrical Terminal Headers

Proven in more than 6,000 Cryogenic Submerged Pumps and Expanders since 1985

## Product Information

Electrical terminal headers serve as the hermetic feedthroughs for electrical power, and as the control and instrumentation conductors in expanders, compressors and submerged LNG pumps.

As safety-critical components, terminal headers have to maintain the pressure boundary integrity of the containment and remain absolutely leak tight, even in case of an accident. Their quality and reliability is of utmost importance.

## Advantages of SCHOTT Eternaloc™ Terminal Headers

### Extensive reference list

Eternaloc™ terminal headers are performing maintenance-free in more than 6,000 LNG pumps and turbine expanders worldwide since 1985, in both on- and offshore applications.

### Experience in explosion-proof certification

Eternaloc™ terminal headers comply with ATEX and IECEx standards as well as local regulations such as KOSHA.

### Superior technology

Using SCHOTT's unique, compression glass-to-metal sealing technology, Eternaloc™ terminal headers provide:

- **Enhanced safety** in cases of accidents or explosions
- **Superior resistance** against mechanical stress, high pressure, temperature cycling, extreme temperatures and radiation
- **Longer lifetime** as non-aging glass-to-metal seals are maintenance-free, thereby reducing recalls and replacements as well as the total cost of ownership.

Other sealing technologies that use organic polymers or ceramics could compromise the integrity of the seal and result in leakage and electrical malfunction. Hence, SCHOTT's glass-to-metal sealing technology is deemed to be the safest available today.

### Standard and customized solutions

Our in-house engineering capabilities, including materials science, simulations and type tests as well as certification know-how, enable us to provide both standard as well as fully customized designs of electrical penetrators, connectors and complete electrical system solutions.



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Product Details	
Temperature resistance	Resistant to thermo-shocks, thermo-cycling, and temperature ranges from -196 °C to +100 °C or -321 °F to +212 °F
Pressure resistance	Each product is tested at one-and-a-half times the maximum design pressure, up to 390 bar
Electrical rating	Designed for up to 13,800 volts and 1,500 amperes as well as for instrumentation purposes
Quality assurance	<ul style="list-style-type: none"> <li>• 100% final inspection of all products</li> <li>• In-house testing capabilities:                             <ul style="list-style-type: none"> <li>- Current / Voltage (up to high voltage)</li> <li>- Hermeticity (helium mass spectrometer)</li> <li>- Insulation resistance</li> <li>- Non-destructive tests / investigations (PMI)</li> <li>- Pressure Tests up to 160 MPa</li> <li>- Cryogenic tests</li> </ul> </li> </ul>
Installation	<ul style="list-style-type: none"> <li>• Minimum space impact</li> <li>• Easy and low cost installation utilizing a connector</li> <li>• Detailed installation instructions, supervision as well as training support</li> </ul>
Lifetime	Unlimited lifetime of the non-aging pressure barrier
Certifications	SCHOTT Eternaloc™ Terminal Headers comply with ATEX and IECEx standards, as well as local regulations such as KOSHA.



Eternaloc™ Terminal Headers are proven in both on- and offshore applications.

## About SCHOTT Electronic Packaging

SCHOTT's Business Unit Electronic Packaging is a worldwide leading supplier of hermetic packaging solutions for the reliable, long-term protection of sensitive electronic devices. Since the 1930s, we have been developing, manufacturing and optimizing hermetic packaging solutions by using specialized glass, glass-to-metal and today also ceramic-to-metal sealing technology.

With 1,500 employees at five production locations in Germany, the Czech Republic, Singapore, U.S.A. and Japan as well as competence centers worldwide, local customer support and co-developments are at the heart of the business.

## About SCHOTT

SCHOTT is an international technology group with more than 130 years of experience in the areas of specialty glasses and materials and advanced technologies. The SCHOTT Group maintains close proximity to its customers with manufacturing and sales units in 35 countries and a workforce of around 15,400 employees worldwide.



00000 ENGLISH-USA 031 40.0 all/xx Printed in Germany

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