



Epoxy Feedthroughs for Transmission & Distribution

Douglas Electrical Components designs and manufactures standard and custom hermetic connectors, feedthroughs and seals for transmission and distribution. With reliability and stability foundational elements of the power gen industry, we focus on the value of high-quality connections and product availability. We design custom electrical feedthrough harnesses for a variety of applications to ensure a hermetic seal at the bulkhead, regardless of conductor size or length. We can work with any electrical component, whether its wire, cable, fiber, or connectors. Additionally, Douglas Electrical Components manufactures hermetic solutions and integrate end-to-end hermetic connectors, perform hipot and leak tests to customer specifications, and work to an aggressive schedule to deliver on-time to our customer needs. We work with customers to design turn-key solutions that drop into existing systems.

APPLICATIONS

- Liquid/Oil Immersed Transformers
- SF₆ & SF₆-Free Gas Insulated Switchgear
- Step voltage regulators
- Network Protectors
- Magnetic Bearing Flywheels
- Condition Monitoring
- Turboexpanders

OPERATING CONDITIONS

- -200°F to 400°F
- 15,000 psi
- 1x10⁻⁸ Torr
- Chemical/Gas/Radiation/Salt water compatibility is excellent

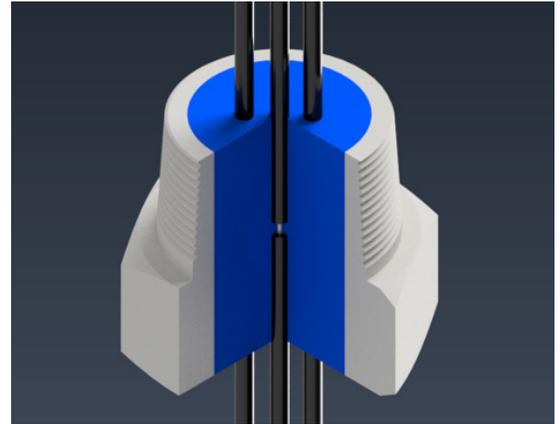
QUALITY

- 100% quality control testing
- Leak Rate testing: <1x10⁻⁹ cc-He/sec (std atm temp)
- Electrical testing to customers specifications including point-to-point continuity, insulation resistance, and High pot testing



OUR TECHNOLOGY

Hermetic sealing combines epoxy resin and a housing material such as stainless steel to encapsulate an electrical conductor such as a pin, stranded wire, or threaded stud. The conductor feeds through the opening with the epoxy curing to create a hermetic seal. Various types of epoxies can be used, which can yield varying results in hermetic performance, chemical compatibility, and outgassing. Our designs enable customers to increase signal density, mix conductor types, and integrate connectors and terminals for a hermetically sealed connection for power or signal.



TECHNICAL ADVANTAGES

- Power solutions up to 30,000V AC
- Industrial hermetic circular connector solutions using any manufacturer or series (M8, M12, etc.) provide both waterproof connectorization and hermetic mounting
- 100% quality control testing on all shipments, including Helium leak, pressure, and electrical tests
- Robust, long-term sealing producing decades of reliable performance
- Epoxy-based hermetic seals are chemically compatible with a variety of liquids and gases.
- Bulkhead fittings are available in standard off-the-shelf configurations or custom designed and utilize materials including brass, aluminum, plated steel, and stainless steel
- Ability to use variety of cable materials, wire conductor types, AWG's, and lengths and customize to customer specifications
- Full cable harnessing with hermetic properties for turn-key, plug-and-play installation
- Integrate hermetic seals directly into active sensing elements.



VALUE ADDED CAPABILITIES

- Connectorized wire feedthrough assemblies and harnesses
- Custom materials and machining
- Directly integrate existing connectors, wires, cables, and termination boxes

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