



Douglas Electrical Components

Ductorseal® Hermetic Feedthrus



CONDUCTOR FEEDTHRU SEALS FOR

Applications

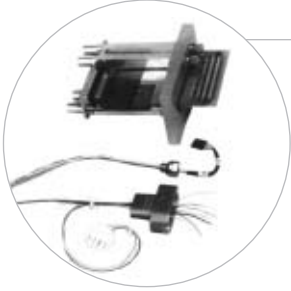
- Semiconductor Manufacturing Equipment
- Vacuum Systems
- Space Simulation
- Transducers & Controls
- Fluid Filled Devices
- Pressurized Devices

ISO Registered



Certificate No. 3415

Our versatile and complete line of **Conductor Feedthru Seals** offers many useful features and reliable products for the following applications:



Semiconductor Manufacturing Equipment

Including wafer and flat panel display fabrication

Requirements

Process chamber diagnostics and power (Low out-gassing materials)

Water transfer drive and motor system

Optical detention of wafer cassette position in load lock

Support customer's JIT inventory systems and purchasing cost control goals

Hivac (Low-out gassing) containment for a beam mask writing tool

Products

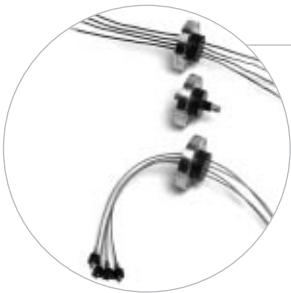
Sealed thermocouple and shielded cable feedthrus to monitor temperature and critical process gases, sealed high current studs to 750 amps.

Sealed connector/harness subassemblies communicate low level power and sensor signals through a single, compact penetration.

Multiple or single optical fiber feedthrus.

Supply "Turn-Key" assemblies incorporating sealed connectors, cable harnesses and other discreet components shipped to stock.

Quick turnaround sealing of customer supplied complex flanges using epoxy sealing technologies.



Vacuum Systems

High vacuum chambers, equipment, research facilities

Requirements

Multi-circuit cables

Thermocouples

Shielded wires or coax cables

Heavy currents or high voltages

Fiberoptic cables

Products

Standard vacuum flange harness feedthrus can seal up to 128 wires, 10ft. long. Custom units are available.

Unlimited number of pairs, E, J and K in flanges, lead lengths to 10 ft. are standard, custom units are readily available.

All types of shielded conductors can be sealed directly to any vacuum flange. Multiple cable assemblies are easily accommodated.

Stud feedthrus to 250 amps, 10KV; special units to 25 KV.

Fiberoptic cables can be hermetically sealed to virtually any flange.



Space Simulation

Satellite and black box tests, high altitude chambers, wind tunnels

Requirements

Multi conductor harnesses

Fiberoptic Cables

Thermocouples

Shielded and coaxial cables

Disconnect at the bulkhead

Complete multi harness

Products

Custom harness feedthrus of virtually any length in a wide variety of housings for direct mounting to your port plate.

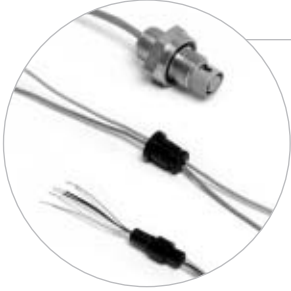
Zero attenuation feedthrus (complete with connectors) can be provided.

Direct seals on all T/C alloys, no need for disconnects at the port plate.

All types of shielded conductors may be sealed, allowing direct connection of sensitive circuits.

We can provide a sealed assembly using virtually any connector set.

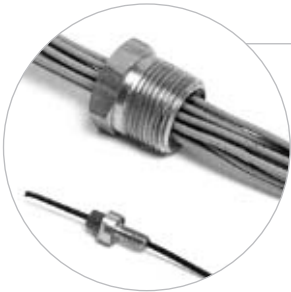
Lead lengths to 150 ft. or more with 8,000 wires thru a single flange is an example of our custom capacity.



Transducers, Sensors and Controls

Environmental containment, pressure, vacuum and moisture barriers for sensitive electronics

Requirements	Products
<i>Sealing the electronics cavity</i>	Easy to install, sealed single or multi lead feedthrus in NPT plugs or nipples.
<i>Sensor power or signal lead seals</i>	Sealed leads in easy to install housings with 2, 3 or 7 leads (AWG #22 thru AWG #28).
<i>Custom feedthru mounting schemes</i>	Proprietary process allows direct seal-casting of leads to thin wall housings.
<i>Sealed connectors</i>	Connectors of any type can be sealed. We can also provide sealed/harness connectors.



Fluid Filled Devices

Transformers, switchgear, X-ray heads, super-computers

Requirements	Products
<i>High voltage switchgear</i>	Custom designed penetrators for 100% SF6 containment. Multi-conductor (30+) cables require hermetic seals at both ends using custom or standard housings.
<i>CT Leads thru wall of oil filled transformer</i>	We offer a standard line of 5, 10 and 15 wires, AWG #12 for CT outlets in a 1" NPT housing.
<i>Temperature, alarm and control circuits</i>	Single and multi wire feedthrus (including thermocouples) in standard NPT fittings or in custom housings of any type.
<i>Truly reliable sealing of lead wires thru the wall of x-ray heads</i>	Single wire or multi wire 1/4" or 3/8" straight thread fittings.
<i>Multi conductor feedthrus</i>	Custom designed harness feedthrus in special housings designed to fit your enclosure.
<i>Fluid filled, sealed transducers</i>	Metal housings with a wide variety of wires for permanent weld or 'o' ring mounting on sensors to 5,000 PSI.



Pressurized Devices

Undersea, explosion containment, well head, submersed or sealed motors

Requirements	Products
<i>High Pressure Capabilities</i>	We can seal and test virtually any connector(s) to 10,000 PSI.
<i>Undersea applications</i>	Water tight, high pressure, wire and cable penetrations can include connector assemblies.
<i>Fiberoptic cables</i>	Our OptiSeal™ line of pressure seal fiberoptic cables are readily available in any length with multiple channels.
<i>Multi conductor cables</i>	Easily accommodate and thoroughly sealed in our broad range of housings.
<i>Heavy current studs</i>	Capacity to 750 amps for hermetically sealed compressors.

We welcome inquiries on new or unusual applications. **Challenge us!**

Vacuum or Pressure Feedthru Products



Ductorseal Hermetic Feedthrus offer standard or custom wires hermetically sealed to a wide variety of housing designs and sizes. They are easy to specify solutions to pressure or vacuum penetration problems and can include from 1 to 1,000's of individual conductors, from vacuum to 10,000+ PSI.



PotCon™ Feedthrus incorporate standard connectors and/or wire harnesses in a single fully sealed housing. Virtually any connector may be specified and sealed to the housing for reliable mounting for vacuum or pressure use.



OptiSeal™ Feedthrus now allow you to specify a hermetic seal on your fiber optic cable(s) or connectors for vacuum or pressure use in any of our standard housings or in special housings. Multiple channel feedthrus are available.



StudSeal™ Hermetic Stud Feedthrus seal large copper studs in three housing configurations and in a wide range of sizes. They are useful for vacuum or pressure applications where heavy current or high voltages penetrate a barrier.



Vacuum Flange Hermetic Feedthrus seal virtually any conductor (including fiber optics, thermocouples, shielded wires, etc.) in standard vacuum fittings. These units are suitable for use to 10^{-7} mm Hg.

Custom Interconnect Cables or Assemblies are also available to provide a fully engineered solution for one-stop vacuum or pressure penetration requirements.

Additional Capabilities to our standard lines of hermetically sealed feedthrus, we also offer:

- Standoffs
- Splash proof feedthrus
- Strain reliefs
- Dust proof feedthrus
- Custom application specific designs with special housings, conductors or environments



Douglas Electrical Components

14 Beach Street
Rockaway, NJ 07866
T 973.627.8230 F 973.627.5798
www.douglaselectrical.com