

Compressor Feedthroughs

Fusite manufactures premium glass-to-metal (GTM) hermetic seals, connectors, feedthroughs, and related components for air conditioning and refrigeration applications.

When high reliability throughout the lifecycle of a compressor or pump is needed, Fusite is one of the world's most trusted sources, ensuring consistent quality no matter what size the order.

In environments where refrigerants or other compressed materials are contained in a sealed system, our GTM hermetic feedthroughs allow a secure and reliable means to pass electrical power from an outside source to the motor inside.

We produce feedthroughs for everything from fractional 1/4 horsepower electric motors (up to 300 volts), all the way up to large 40 horsepower commercial integral motors (up to 600 volts).

Primary Applications

As a worldwide leader in glass-to-metal hermetic seals for refrigerator, freezer, and air conditioning compressor applications, Fusite manufactures hundreds of millions of compressor feedthroughs each year. Our feedthroughs are also used in vending machines, heat pumps, and other pressurized systems.

Other Application Areas

In addition to feedthroughs that meet a variety of commonly used refrigerants (such as R22, R134a, R410a), Fusite has developed products for higher pressure applications such as CO₂.

Typical Specifications

- Hermeticity: $< 1 \times 10^{-7}$ standard cc/sec helium
- Insulation resistance: $> 10,000$ megohm @ 500 VDC
- Dielectric voltage: Min. 2500 volts @ < 0.5 mA leakage
- Burst pressure: Typical GTM seals meet or exceed 2,250 psi pressure test, but should be verified in customer specific applications.
- Regulatory: UL Recognition

Customization

We also custom design compressor and pump feedthroughs for a variety of applications, with specialized features such as:

- Solid pin and high-conductivity copper core pins (produced in-house by Fusite)
- Molded silicone rubber for outside electrical over-surface
- Heavy duty ceramic insulators for inside electrical over-surface
- Glass pre-forms are produced from Fusite's proprietary custom smelted glass
- Straight pin, flags, and connector block connections
- Single-pin and multi-pin configurations
- Resistance-welded and bolt-on attachment styles

