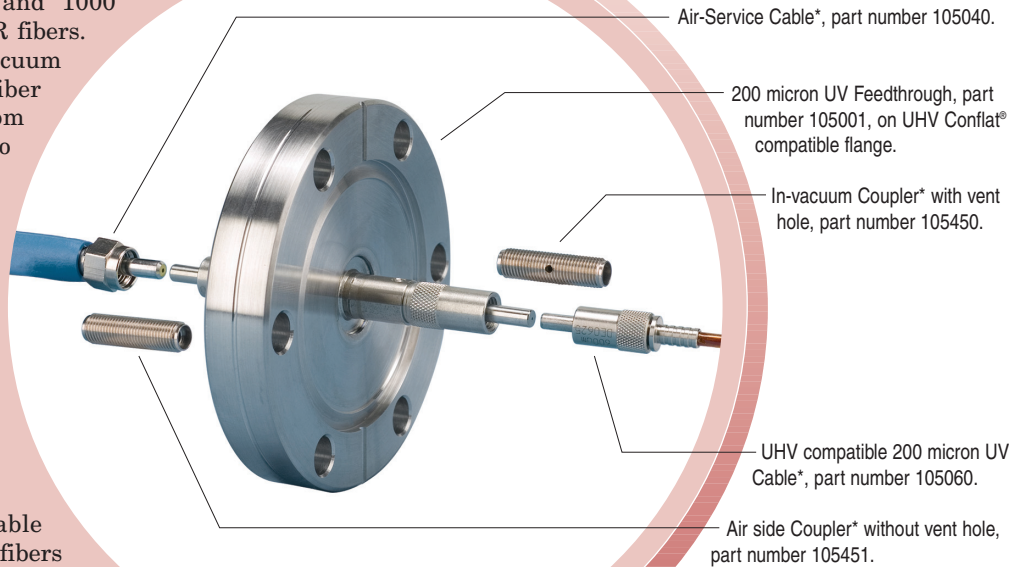


Fiber Optic feedthroughs are constructed with 200, 400, 600, and 1000 micron UV/VIS or VIS/NIR fibers. They are designed for vacuum applications requiring Fiber Optic connections from inside a vacuum system to external equipment. The fiber is hermetically sealed into a stainless steel shell, using the latest in glass bonding technology, and terminates on the vacuum and air side with standard SMA 905 terminations. FC and ST connections are also available.

Ultrahigh vacuum cable polyimide coated optical fibers are available to meet the demands of ultrahigh vacuum environments.

All Accu-Glass optical fiber is constructed as a core-and-cladding composite. The core, or the filament that guides the light, consists of a thin strand of high-transmission fused silica. The cladding consists of an outer layer of doped, lower-refractive-index fused silica. This two-layer design tightly confines the light to the central core of the fiber which in turn delivers a maximum amount of light at the far end. We also closely control the fiber diameter during the drawing process, allowing the fiber to center well in connectors and boast a low loss rate.

Typical Installation



*Vacuum and air side connectors, cables and couplers are not included with feedthrough and must be purchased separately.

Features

- UHV compatible construction
- 200, 400, 600, 1000 micron UV/ VIS or VIS/ NIR fiber
- SMA 905 connector interface
- High temperature rated to 250°C
- Conflat® compatible flange mounts
- ISO KF compatible flange mounts
- Polyimide coated vacuum rated optical cables

Specifications

Specifications Notes

1 Overall assembly ratings must be adjusted to that of the lowest rated component.

All dimensions are in inches unless specified otherwise.

Material	SST, Glass and Quartz
Vacuum Range	
UHV, Ultrahigh vacuum	1x10 ⁻¹⁰ Torr
HV, High vacuum	1x10 ⁻⁸ Torr
Temperature Range¹	
Feedthrough	250°C
Flange, CF Style	450°C
Flange, ISO and Bolt Style	150°C
Thermal gradient	25°C / minute maximum

Optical Fiber

Operating wavelength	
UV / VIS or High-OH fiber	200–800 nm
VIS / NIR or Ultra-low-OH fiber	400–2200 nm
Bare fiber	Pure fused-silica core, fluorine-doped silica cladding, and polyimide coating
Fiber profile	Step-index multimode
Numerical aperture	0.22 ± 0.02 or 24.8°
Core-to-cladding ratio	
core diameter ≥ 200 μm	1:1.1
Bend radius	
Momentary	200x core diameter
Long-term	400x core diameter