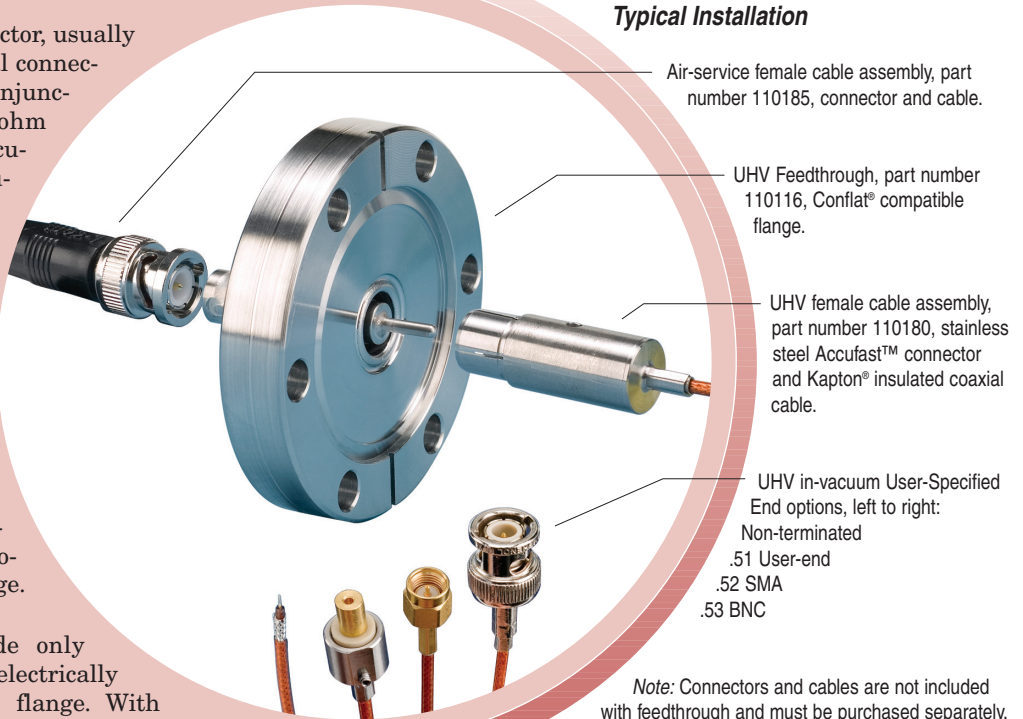


The Bayonet Naval Connector, usually referred to as a BNC coaxial connection, is commonly used in conjunction with low noise 50-ohm instrumentation lines. Accu-Glass BNC coaxial instrumentation feedthroughs are constructed with either floating shields or grounded shields.

Floating shields provide two concentric conductors: one outer metal tube or shield conductor concentric with, and enclosing, a cylindrical center conductor. Both electrical paths are electrically isolated from the vacuum flange.

Grounded shields provide only one electrical path that is electrically isolated from the vacuum flange. With grounded shields, the shield and vacuum flange are electrically common.

UHV compatible coaxial cable assemblies are available to meet the needs of most in-vacuum, low noise instrumentation cable applications. The vacuum side of a grounded and floating BNC feedthrough consists of a 0.094-inch (2.4-mm) diameter conductor pin that mates perfectly with Accu-Glass' grounded or floating Accufast™ connector interface.



### Typical Installation

Air-service female cable assembly, part number 110185, connector and cable.

UHV Feedthrough, part number 110116, Conflat® compatible flange.

UHV female cable assembly, part number 110180, stainless steel Accufast™ connector and Kapton® insulated coaxial cable.

UHV in-vacuum User-Specified End options, left to right:  
 .51 Non-terminated User-end  
 .52 SMA  
 .53 BNC

Note: Connectors and cables are not included with feedthrough and must be purchased separately.

### Features

- Grounded and floating shield designs
- Single and double ended BNC designs
- Kapton® insulated, vacuum compatible 50-Ohm coaxial cables
- High temperature rated to 250°C
- UHV compatible construction
- Conflat® compatible flange mounts
- ISO compatible flange mounts
- Air side connectors available

### Specifications Notes

- 1 Electrical ratings are maximum test values. Feedthroughs are intended for instrumentation applications carrying low level signal voltages and currents.
- 2 PEEK is a polyetheretherketone thermoplastic.
- 3 Overall assembly ratings must be adjusted to that of the lowest rated component.  
All dimensions are in inches unless specified otherwise.

### Specifications

<b>Voltage<sup>1</sup></b>	
Grounded shield	500VDC maximum
Floating shield	2500VDC maximum
<b>Current</b>	3A maximum at 20°C
<b>Material</b>	
Shell	SST
Pins	SST, Ni-plt
Insulation	Alumina Ceramic
Connector, Vacuum <sup>2</sup>	
Accufast™	SST & PEEK
BNC	Ni-plt brass & PEEK
SMA	Au-plt brass & PEEK

User-End Connector, Air	SST, Au-plt BeCu & PEEK Composite
Cable Insulation	Kapton® Type-F Film
<b>Vacuum Range</b>	
UHV, Ultrahigh vacuum	1x10 <sup>-10</sup> Torr
HV, High vacuum	1x10 <sup>-8</sup> Torr
<b>Temperature Range<sup>3</sup></b>	
Flange, CF Style	450°C
Flange, ISO Style	150°C
Connector, Air	165°C
Connector, Vacuum	250°C
Thermal gradient	25°C / minute maximum