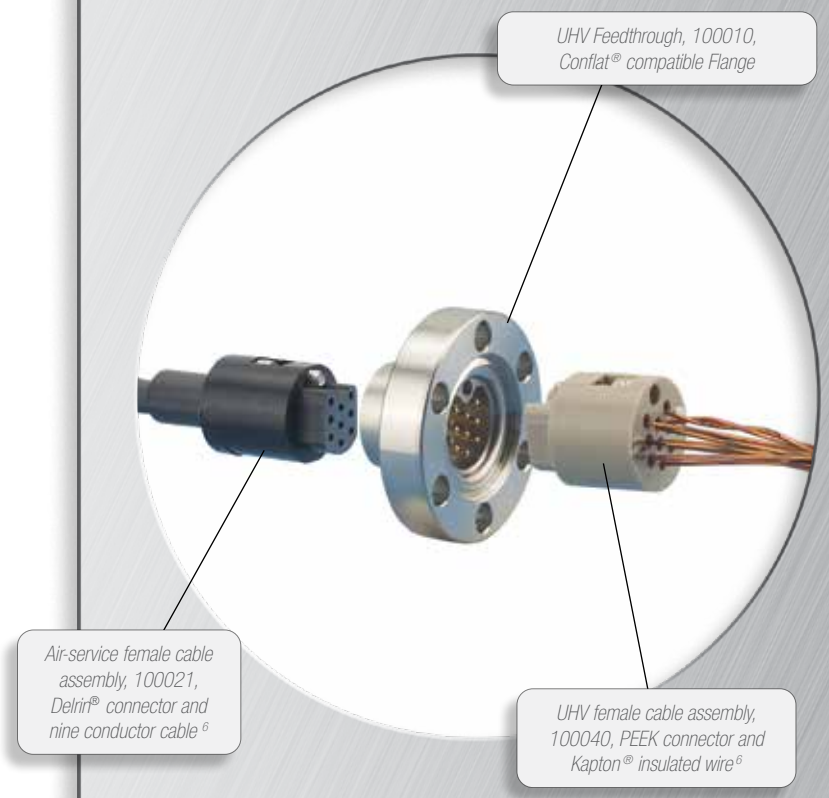
Subminiature-C™

Accu-Glass 9-Pin Feedthrough



Subminiature-C™ Interface

Accu-Glass Products Subminiature-C™ multipin hermetic feedthroughs are designed for applications where space is limited or where Subminiature-D connections will not fit. This compact and unique 9-pin design allows installation into 1.33 inch CF metal seal and ISO NW16 KF elastomer seal flanges.
Nine gold-plated pins are arranged in a straight through pin-to-pin design and are hermetically sealed and electrically insulated in a stainless steel shell using the latest in glass-ceramic bonding technology.

Subminiature-C™ feedthroughs and cables are sold individually or as kits, where each kit contains a feedthrough and both vacuum and air side cable assemblies.

Air and vacuum side connectors are fitted with captured stainless steel socket head screws that provide a means of securely locking them to their mating feedthroughs. On the vacuum side, Kapton® insulated cable assemblies fitted with PEEK connectors are available to meet the rigorous demands of ultrahigh vacuum environments. In-vacuum connector screws are vented where required and the feedthrough's screw-boss functions as a connection polarizing key. Air to vacuum pin position is identified with a permanent surface mark, which clearly locates pin assignments.

Features

- Subminiature-C™ 9-Pin Interface
- High temperature rated to 250°C
- UHV compatible construction
- Conflat® and ISO NW compatible mounts
- Kapton® Insulated Vacuum Cables
- PEEK or Macor® Connectors with Locking Screws
- Air Service Cables / Connectors
- Custom Solutions on Request

Specifications

Electrical

Voltage [1], Maximum	500 VDC
Current [2], Per Pin Maximum @ 20°C	5 A

Material

Shell	304 Stainless Steel
Pins	Au plated, Ni-Fe alloy
Seal / Insulator	Glass-Ceramic
Connector, Air	Delrin®
Connector, Vacuum [3]	PEEK
Connector, Vacuum, High Temperature	Macor® Ceramic

Vacuum Range [4]

UHV, Ultrahigh vacuum	$1x10^{-10}$ Torr
HV, High vacuum	$1x10^{-8}$ Torr

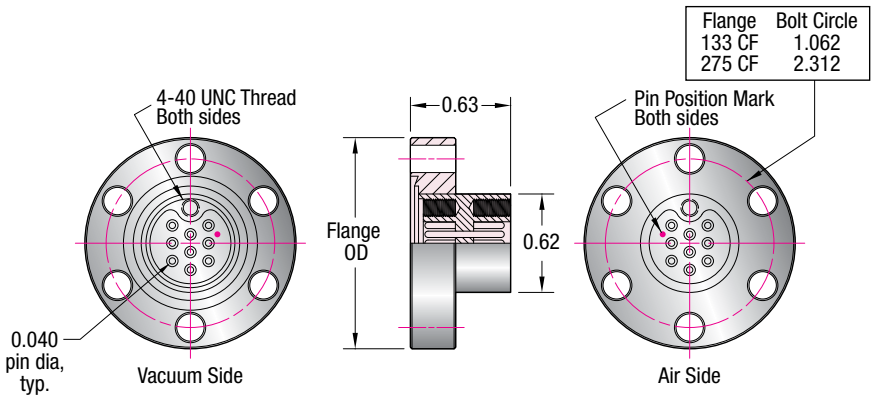
Temperature Range [5]

Feedthrough	-200 to 250°C
Flange Mount, Conflat®	-200 to 450°C
Flange Mount, ISO	-26 to 150°C
Connector / Cable, Air	80°C
Connector / Cable, Vacuum	250°C
Connector, Ceramic	400°C
Thermal Gradient	25°C / Minute Maximum

Notes

1. Electrical ratings are maximum test values, with feedthrough's vacuum side at ≤ $1x10^{-4}$ Torr. Feedthroughs are intended for instrumentation applications carrying low level signal voltage and current.
2. For proper heat dissipation, a maximum of 20% of the pins on a feedthrough may carry the maximum pin current at any given time.
3. PEEK is a polyether ether ketone thermoplastic.
4. Leak tested to $5x10^{-10}$ Standard cc/sec of He.
5. Overall assembly ratings must be adjusted to that of its lowest rated component. For cryogenic service, the lowest recommended temperature is -200°C
6. Unless designated a 'kit,' connectors and cable assemblies are not included with feedthrough and must be purchased separately.

§ Unless specified otherwise, dimensional units in all sections of this catalog are expressed in inches.

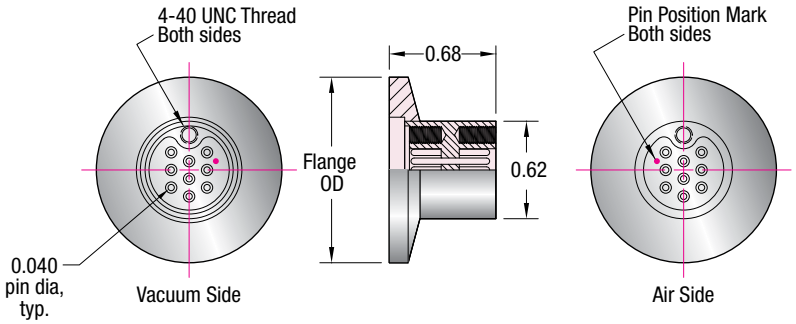


• Pin position mark reverses position from vacuum side to air side.

CF Flange — 9-Pin Circular / 500 VDC, 5 Amp / 250°C / UHV to 1x10^{-10} Torr

Number Contacts	Flange Type	OD	Kit Cable Lengths	Model Number	**Part Number**
Kit — Feedthrough with Female Cable Assemblies					
9	133 CF	1.33	96 Inch Air / 19 Inch Vacuum	9C-KIT-133	**100000**
Feedthrough — Feedthrough without Cables					
9	133 CF	1.33	—	9C-133	**100010**
9	275 CF	2.73	—	9C-275	**100013**
18	275 CF	2.73	Two 9-Pins on 0.750 Centers	9C2-275	**100012**

Compatible with Conflat® flanges and hardware



• Pin position mark reverses position from vacuum side to air side.

ISO KF Flange — 9-Pin Circular / 500 VDC, 5 Amp / 150°C / HV to 1x10^{-8} Torr

Number Contacts	Flange Type	OD	Kit Cable Lengths	Model Number	**Part Number**
Kit — Feedthrough with Female Cable Assemblies					
9	NW16 KF	1.18	96 Inch Air / 19 Inch Vacuum	9C-KIT-K16	**100001**
Feedthrough — Feedthrough without Cables					
9	NW16 KF	1.18	—	9C-K16	**100011**
9	NW25 KF	1.57	—	9C-K25	**100016**
9	NW40 KF	2.16	—	9C-K40	**100015**
18	NW40 KF	2.16	Two 9-Pins on 0.710 Centers	9C2-K40	**100014**

Compatible with ISO 2861/1 specification flanges and hardware

100000 / UHV CF 9-Pin
Complete Kit

100012 / UHV CF 2 x 9-Pin Feedthrough
(Vacuum Side)

100001 / HV ISO-KF 9-Pin
Complete Kit

100011 / HV ISO-KF 9-Pin Feedthrough
(Vacuum Side)