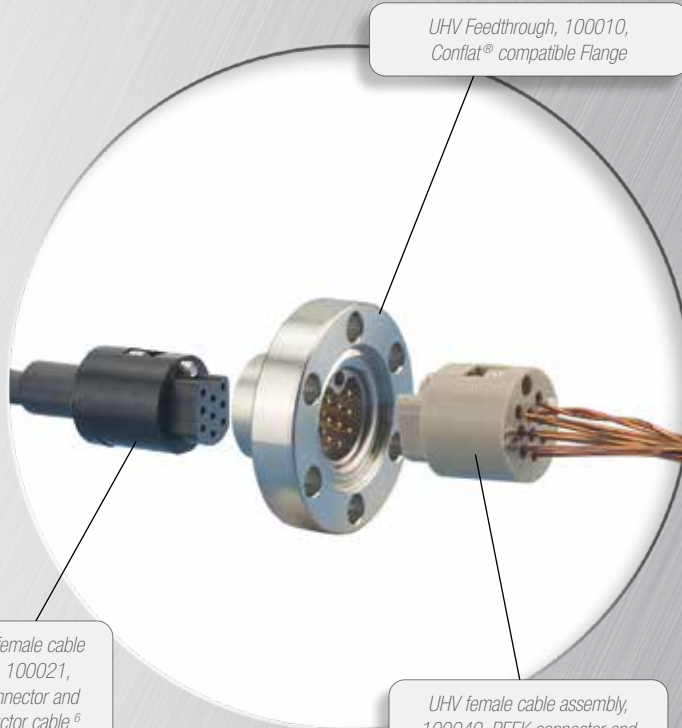




Subminiature-C™

Accu-Glass 9-Pin Feedthrough



Air-service female cable assembly, 100021, Delrin® connector and nine conductor cable⁶

UHV Feedthrough, 100010, Conflat® compatible Flange

UHV female cable assembly, 100040, PEEK connector and Kapton® insulated wire⁶

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 Range⁴

UHV, Ultrahigh vacuum	1x10 ⁻¹⁰ Torr
HV, High vacuum	1x10 ⁻⁸ Torr

Temperature Range⁵

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 $\leq 1 \times 10^{-4}$ 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 5×10^{-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.

Ultrahigh Vacuum Ribbon Cable Assemblies

Connector to Cable UHV ribbon cable assemblies are fitted with PEEK Subminiature-C™ female or male connectors at one end and nine, non-terminated, Kapton® insulated ribbon cable at the other. The female cable connectors mate directly onto the vacuum-side of nine-pin Subminiature-C™ feedthroughs shown on page 9, or with the male in-vacuum cable connectors. The ribbon cable jacket is a PEEK weave with a 0.04 x 0.40 inch nominal cross-section. The nine wires are 28 AWG silver plated copper conductors, stranded 7 x 0.005.

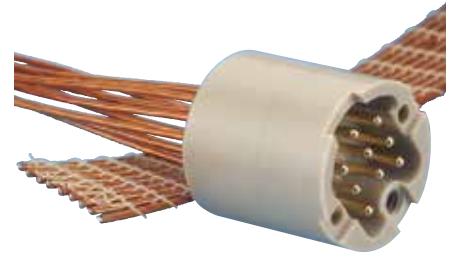
Contact to Cable UHV ribbon cable assemblies include male or female contacts on one end and nine, non-terminated, Kapton® insulated ribbon cable at the other.

Connector to Connector Extension cables are fitted with PEEK Subminiature-C™ female connectors on both ends of a 19-inch UHV ribbon cable.

Ribbon Cable Assemblies — 9-Pin Circular / 250°C / UHV to 1x10⁻¹⁰ Torr

Number Contacts	Wire		Connector			Model Number	Part Number
	Length	Dia.	Gender	OD	Length		
Connector to Cable							
9	19	7x 0.005	M	0.60	0.65	CKAP-R9-19PC	100100
9	39	7x 0.005	M	0.60	0.65	CKAP-R9-39PC	100101
9	19	7x 0.005	F	0.60	0.75	CKAP-R9-19SC	100110
9	39	7x 0.005	F	0.60	0.75	CKAP-R9-39SC	100111
Contact to Cable¹							
9	19	7x 0.005	M	—	—	KAP-R9-19P	100240
9	39	7x 0.005	M	—	—	KAP-R9-39P	100241
9	19	7x 0.005	F	—	—	KAP-R9-19S	100250
9	39	7x 0.005	F	—	—	KAP-R9-39S	100251
Connector to Connector Extension							
9	19	7x 0.005	F / F	0.60	0.75	CKAP-R9-192SC	100130

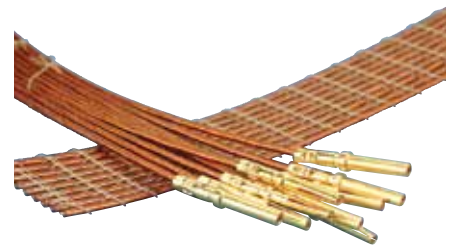
1. They do not include PEEK connectors and will not allow subsequent connector installation. Wires must be threaded through the connector back-piece before crimping contacts



100100 / Male Pin UHV
Connector to Cable



100110 / Female Socket UHV
Connector to Cable



100250 / Female Socket UHV
Contact to Cable