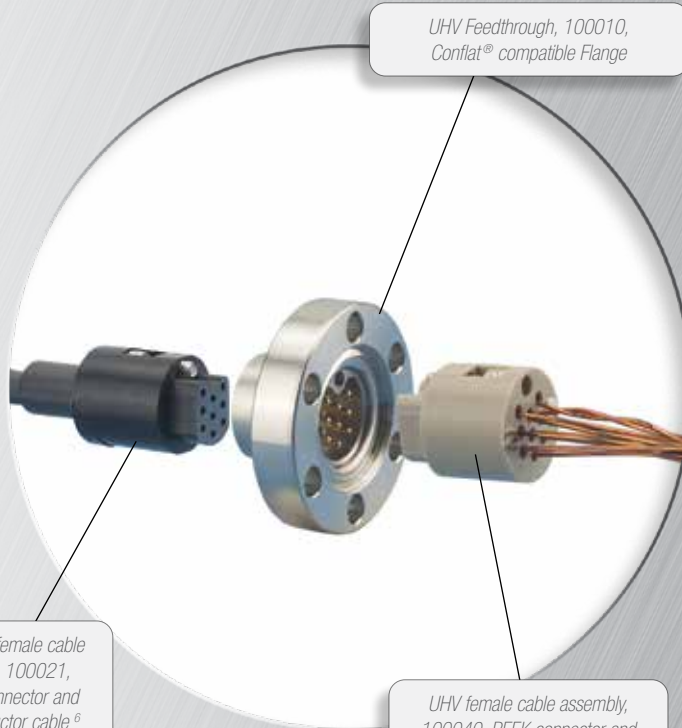




Subminiature-C™

Accu-Glass 9-Pin Feedthrough



UHV Feedthrough, 100010, Conflat® compatible Flange

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

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.



100150 / Female PEEK Connector
(Contacts sold separately)



100140 / Male PEEK Connector
(Contacts sold separately)



112700 / Female Ceramic Connector
(Contacts sold separately)



112701 / Male Ceramic Connector
(Contacts sold separately)



100180 / Female Contacts
110908 / High Duty Cycle Contacts

Ultrahigh Vacuum Connectors and Contacts

PEEK and Macor® ceramic connectors do not include contacts and must be purchased separately. High-use stainless steel Type-T1 contacts are recommended for use in connectors where plug-in cycles will exceed 3 cycles per day.

Macor® ceramic connectors are designed for high temperature and extreme environments not suitable for our standard PEEK connectors. Note that wires must be threaded through connector back-piece before crimping contacts.

Connectors¹ — 9-Pin Circular / UHV to 1x10⁻¹⁰ Torr

Number Contacts	Connector			Use Type-T1 Contacts	Model Number	Part Number
	Gender	Dia.	Length			

PEEK — Polymer Shell / 250°C

9	M	0.61	0.64	Male	9C-PKP	100140
9	F	0.61	0.74	Female	9C-PKS	100150

Macor® — Ceramic Shell / 400°C

9	M	0.61	0.64	Male	9C-MCP	112701
9	F	0.61	0.74	Female	9C-MCS	112700

1. Note temperature rating differences

Contacts, Type-T1^{1,2} — 250°C / UHV to 1x10⁻¹⁰ Torr

Number Contacts	Contact		Wire	Model Number	Part Number
	Gender	Dia.	Dia. / Gauge		

Contacts, Type-T1 — Standard / 10 per Pack

1 Pack	M	0.04	.043-.046 / 20-24 AWG	GP-10	100170
1 Pack	M	0.04	.023-.027 / 26-30 AWG	GP2-10	100171
1 Pack	F	0.04	.043-.046 / 20-24 AWG	GS-10	100180
1 Pack	F	0.04	.023-.027 / 26-30 AWG	GS2-10	100181

Contacts³, Type-T1 — High Duty Cycle / 10 per Pack

1 Pack	F	0.04	.043-.046 / 20-24 AWG	GS-10-S	110908
1 Pack	F	0.04	.023-.027 / 26-30 AWG	GS2-10-S	110909

1. For use in air or vacuum service connectors. 2. See page 109 for bulk packs. 3. High duty cycle stainless steel contacts require positioner DCT-P-2 on DCT-1 crimp tool. See Tools on page 13