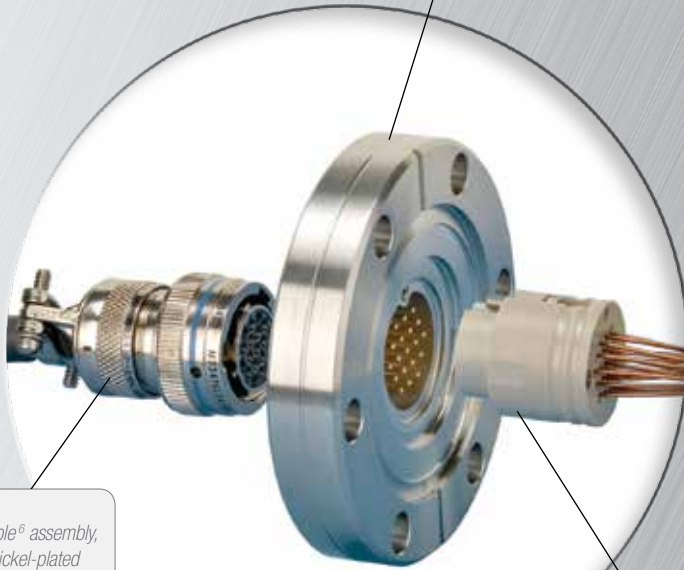




Mil-DTL-26482

Accu-Glass 19-Pin Feedthrough

UHV Feedthrough, 110210
Conflat® compatible flange



Air-service cable⁶ assembly,
110232, nickel-plated
female aluminum connector
and PVC insulated cable.

UHV female cable⁶ assembly,
110230, PEEK connector and
Kapton® insulated wire

Mil-DTL-26482 Interface

Accu-Glass Products 19-Pin circular instrumentation feedthroughs are constructed with pin arrangement per Mil-DTL-26482 specification. Nineteen gold-plated pins are arranged in a straight through pin-to-pin design, hermetically sealed and electrically insulated into a stainless steel shell using the latest in glass-ceramic bonding technology.

Mil-DTL-26482 feedthroughs and cable assemblies are sold individually or as complete kits, where each kit contains a feedthrough and both vacuum and air side cable assemblies.

Vacuum compatible cable assemblies are fitted with PEEK polymer connectors and Kapton® insulated ribbon cable to meet the demands of ultrahigh vacuum environments. Vacuum connector includes a captured stainless steel socket head screw that securely locks it to a mating feedthrough. Captured in-vacuum screws are vented where required and the feedthrough's screw-boss doubles as a polarizing key. Feedthrough's air-to-vacuum pin position is identified with a permanent surface mark to aid pin assignment.

Air-service cable assemblies have standard bayonet type Mil-DTL-26482 connectors. Custom in-vacuum and air-service cable assemblies are available on request.

See pages 34-37 for Mil-DTL-5015 circular 3-pin and 6-pin feedthroughs.

Features

- Mil-DTL-26482 19-Pin Interface
- High temperature rated to 250°C
- Conflat® and ISO NW compatible mounts
- Kapton® insulated vacuum cables
- PEEK connector with locking screws
- Air Service Cables / Connectors
- UHV compatible construction
- 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	Ni plated Al
Connector, Vacuum ³	PEEK

Vacuum Range⁴

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

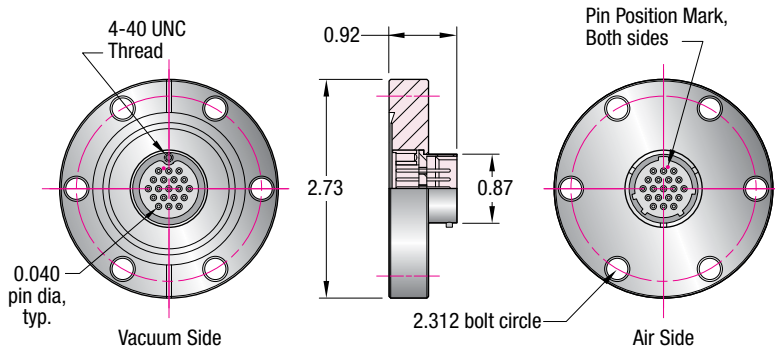
Temperature Range⁵

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
Thermal Gradient	25°C / Minute Maximum

Notes

1. Electrical ratings are maximum test values, with 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.



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



110810 / UHV CF 19-Pin Complete Kit

CF Flange — 19-Pin Circular / 500 VDC, 5 Amp / 250°C / UHV to 1×10^{-10} Torr

Number Contacts	Flange Type	OD	Kit Cable Lengths	Model Number	Part Number	Unit Price \$
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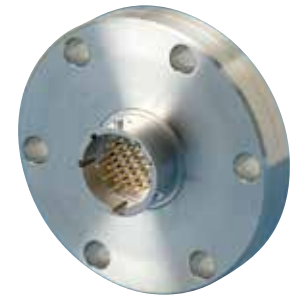
Kit — Feedthrough with Female Cable Assemblies

19	275 CF	2.73	96 Inch Air / 19 Inch Vacuum	19C-KIT-275	110810	715
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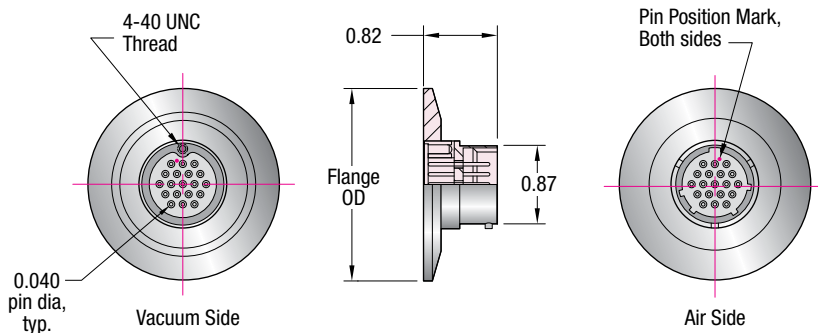
Feedthrough — Feedthrough without Cables

19	275 CF	2.73	—	19C-275	110210	315
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Compatible with Conflat® flanges and hardware



110210 / UHV CF 19-Pin Feedthrough (Air Side)



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



110811 / HV ISO-KF 19-Pin Complete Kit

ISO KF Flange — 19-Pin Circular / 500 VDC, 5 Amp / 150°C / HV to 1×10^{-8} Torr

Number Contacts	Flange Type	OD	Kit Cable Lengths	Model Number	Part Number	Unit Price \$
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Kit — Feedthrough with Female Cable Assemblies

19	NW40 KF	2.16	96 Inch Air / 19 Inch Vacuum	19C-KIT-K40	110811	715
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Feedthrough — Feedthrough without Cables

19	NW40 KF	2.16	—	19C-K40	110220	315
19	NW50 KF	2.95	—	19C-K50	113095	325

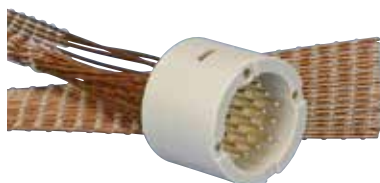
Compatible with ISO 2861/1 specification flanges and hardware



110220 / HV ISO-KF 19-Pin Feedthrough (Air Side)



110230 / UHV Female Connector Cable Assembly



110812 / UHV Male Connector Cable Assembly



110240 / UHV Female Connector (Contacts Sold Separately)



110250 / UHV Male Connector (Contacts Sold Separately)



110008 and 110009 / UHV Contacts

See page 14 for **Specifications**

Ultrahigh Vacuum Ribbon Cable Assemblies

Connector to Cable UHV ribbon cable assemblies are terminated with male or female PEEK polymer connectors (Mil-DTL-26482 19-pin arrangement) on one end and bare Kapton® insulated ribbon cable at the other. PEEK female connectors mate to the vacuum side of Mil-DTL-26482 type feedthroughs, and can be locked in place with a single captured socket-head screw. Ribbon cable consists of 19 conductors held together with a PEEK monofilament outer weave. Individual leads are stranded 7 x 0.005 inch, 28 AWG silver plated copper conductors with Kapton® insulation.

Ribbon Cable Assemblies — 19-Pin Circular / 250°C / UHV to 1x10⁻¹⁰ Torr

Number Contacts	Cable		Connector			Model Number	Part Number	Unit Price \$
	Length	Width x Thk.	Gender	OD	Length			

Connector to Cable

19	19	0.93 x 0.05	M	0.98	0.77	KAP-R19-19PC	110812	295
19	39	0.93 x 0.05	M	0.98	0.77	KAP-R19-39PC	110813	380
19	19	0.93 x 0.05	F	0.98	1.12	KAP-R19-19SC	110230	295
19	39	0.93 x 0.05	F	0.98	1.12	KAP-R19-39SC	110231	380

Connectors, Contacts and Tools

Individual connection components such as connector shells, contacts and tools are available from the table below. Note that these connectors do not include contacts (available in two different wire gauge sizes) and must be purchased separately.

Connectors and Contacts — 19-Pin Circular / UHV to 1x10⁻¹⁰ Torr

Number Contacts	Connector / Contact / Wire			Model Number	Part Number	Unit Price \$
	Gender	Dia.	Length			

PEEK — Polymer Shell / 250°C

19	M	0.98	0.77	19C-PKP	110250	170
19	F	0.98	1.12	19C-PKS	110240	170

Contacts, Type-T2¹ — 10 per Pack Wire-well ID / Gauge

1 Pack	M	0.04	.043-.046 / 20-24 AWG	HVGP-10	110008	28
1 Pack	M	0.04	.023-.027 / 26-30 AWG	HVGP2-10	110036	28
1 Pack	F	0.04	.043-.046 / 20-24 AWG	HVGS-10	110009	28
1 Pack	F	0.04	.023-.027 / 26-30 AWG	HVGS2-10	110035	28

1. See Page 110 for bulk packs.

Tools — for Wiring 19-Pin Circular Vacuum Connectors

Contents	Description	Model Number	Part Number	Unit Price \$
1 Unit	Crimping tool for Type-T2 Contacts	DCT-2	100193	454
1 Unit	Wire Stripper, 26-36 AWG, .12-.40mm	2636AWG-STR	100191	95
1 Unit	Wire Stripper, 20-30 AWG, .25-.80mm	2030AWG-STR	100192	95
1 Set	Connector Screwdriver Set ¹	DRV-R-SET	112146	27

1. Includes one each flat, phillips and hex drivers

Air-service Round Cable Assemblies

Connector to Cable air-service round cable assemblies are terminated with an electroless-nickel plated aluminum shell, Mil-DTL-26482 19-pin female connector at one end, and 20 (color coded) PVC insulated leads at the other. Cables use stranded 24 AWG tinned-copper leads. One lead is not wired to Mil-DTL-26482 connector, but is available for grounding or any other purpose. Cable leads are shielded with an aluminum-polyester foil wrap and a 0.38 diameter gray PVC jacket, and rated to 300 volts.

Cable Assemblies — 19-Pin Circular / 80°C / Air Atmosphere

Number Contacts	Wires		Connector			Model Number	Part Number	Unit Price \$
	Length	Dia.	Gender	OD	Length			

Connector to Cable

19	48	0.35 max	F	1.18	2.05	AIR-CP19-48SC	110232	165
19	96	0.35 max	F	1.18	2.05	AIR-CP19-96SC	110233	185
19	180	0.35 max	Cable Only	—	—	AIR-CP19-15	112744	155

Air-service Connectors, Contacts and Tools

Mil-DTL-26482 connectors accept up to 20 AWG wire. Contacts are gold-plated and shell is made of electroless-nickel plated aluminum. Rear removable crimp contacts provide easy assembly. Connector shells, contacts and tools are available from tables below. Note that these connectors do not include contacts, which must be purchased separately.

Connectors and Contacts — 19-Pin Circular / 80°C / Air Atmosphere

Number Contacts	Connector / Contact / Wire			Strain Relief	Model Number	Part Number	Unit Price \$
	Gender	Dia.	Length				

Connectors *

19	F	1.18	2.05	Straight	19C-AIR	110234	72
19	F	1.18	2.46	90°	19C-AIR-90	112702	97

Contacts, Type-T5i — 10 per Pack Wire-well ID / Gauge

1 Pack	F	0.04	.048-.050 / 20-24 AWG		GS-M40-10	110235	28
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Tools — for Wiring 19-Pin Circular Air-Service Connectors

Contents	Description	Model Number	Part Number	Unit Price \$
1 Unit	Crimping tool for Type-T5 Contacts	DCT-5	110702	494
1 Unit	Extraction tool for Type-T5i Contacts	ET-M40	111612	57
1 Unit	Insertion Tool for Type-T5i Contacts	IT-M40	111611	52

*** Tip:** Dip contacts into isopropyl alcohol just prior to inserting into connector for smooth contact insertion.



110232 / Air-Service Female Cable Assembly



110234 / Air-Service Female Connector (Contacts Sold Separately)



110235 / Air-Service Female Contacts

↙ Set First Dial to #20 / Red



↙ Set Second Dial to #24

110702 / Contact Crimp Tool



111612 / Extraction Tool
111611 / Insertion Tool

See page 14 for **Specifications**