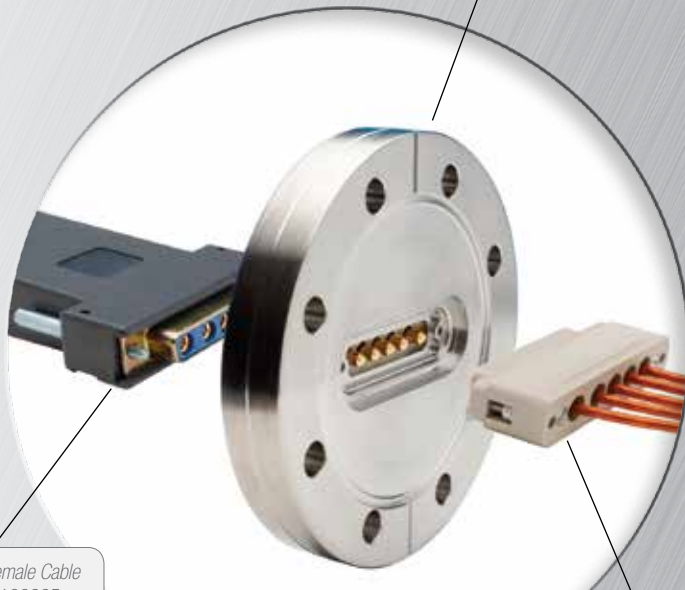


**Power-D™ High Current**
*3 and 5 Pin Subminiature-D Feedthroughs*
*UHV Feedthrough, 100945, Conflat®  
Compatible Flange*

*Air-Service Female Cable  
Assembly, 100965,  
Delrin® Connector and  
Cable<sup>4</sup>*
*UHV Female Cable Assembly,  
100955, PEEK Vacuum Side  
Connector and Kapton® Insulated  
Wire<sup>4</sup>*
**Power-D™ Interface**

Accu-Glass Power-D™ — hermetic, high-current power feedthroughs, are designed to IEC 807-2 and DESC 85039 combination subminiature-D interface specifications.

Three (3) and five (5) pin feedthroughs, with Au plated NiFe alloy pins, rated to 20 Amps per pin, are hermetically sealed and insulated into 304 stainless steel subminiature-D shells using the latest in glass-ceramic / metal bonding technology. Mating cable assemblies with PEEK polymer connectors and Kapton® insulated leads are also available to meet the rigorous demands of UHV environments.

Vacuum and air-side cable assemblies, individual connectors, contacts, wiring tools and other accessories can be found starting on page 40. Custom Power-D™ solutions are also available on request. Please contact factory for more information.

**Features**

- Subminiature-D 3 and 5 Pin Interface
- High temperature rated to 250°C
- UHV Compatible Construction
- Conflat® and ISO NW compatible mounts
- Kapton® Insulated Vacuum Cables
- PEEK Connector with Locking Screws
- Air Service Cables / Connectors
- Custom Solutions on Request

**Specifications**
**Electrical**

Voltage <sup>1</sup> , Maximum	500 VDC
Current, Per Pin Maximum @ 20°C	20 A

**Material**

Shell	304 Stainless Steel
Pins	Au plated, Ni-Fe alloy
Seal / Insulator	Glass-Ceramic
Connector, Air	Delrin® Polymer
Connector, Vacuum <sup>2</sup>	PEEK Polymer

**Vacuum Range**

UHV, Ultrahigh vacuum	1x10 <sup>-10</sup> Torr
HV, High vacuum	1x10 <sup>-8</sup> Torr

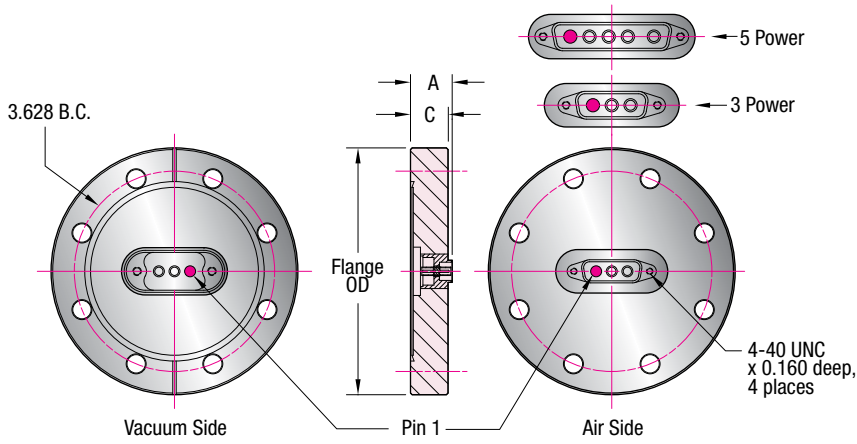
**Temperature Range<sup>3</sup>**

Feedthrough	250°C
Flange Mount, Conflat®	450°C
Flange Mount, ISO	150°C
Connector / Cable, Air	80°C
Connector / Cable, Vacuum, PEEK	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 designed for high power applications.
2. PEEK is a polyether ether ketone thermoplastic.
3. Overall assembly ratings must be adjusted to that of its lowest rated component.
4. 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 1 reverses position from vacuum side to air side.

**CF Flange<sup>1</sup> — 3 or 5 Power Leads / 500 VDC, 20 Amp / 250°C / UHV to  $1 \times 10^{-10}$  Torr**

Number Contacts	Flange Type	OD	A	C	Model Number	Part Number	Unit Price \$
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**Feedthrough — Feedthrough without Cables**

3	450 CF	4.47	0.76	0.68	15D-3P-450	<b>100940</b>	435
5 <sup>2</sup>	450 CF	4.47	0.76	0.68	25D-5P-450	<b>100945</b>	465

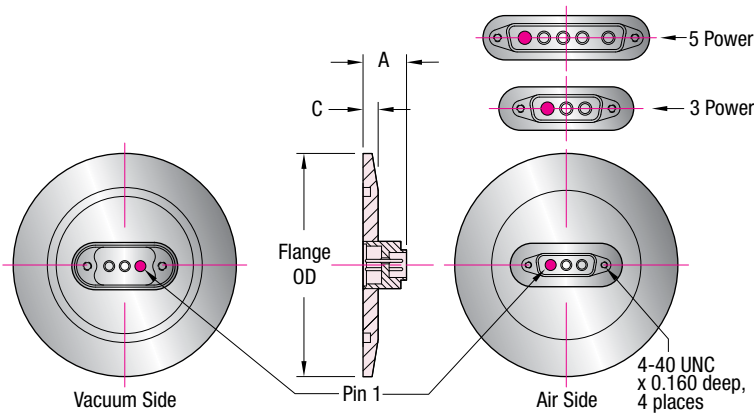
1. Compatible with Conflat® flanges and hardware. 2. Pin position not centered or symmetrical



**100940** / UHV Power Feedthrough (Vacuum Side)



**100945** / UHV Power Feedthrough (Vacuum Side)



• Pin 1 reverses position from vacuum side to air side.

**ISO KF and LF Flange<sup>1</sup> — 3 or 5 Power Leads / 500 VDC, 20 Amp / 150°C / HV to  $1 \times 10^{-8}$  Torr**

Number Contacts	Flange Type	OD	A	C	Model Number	Part Number	Unit Price \$
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**Feedthrough — Feedthrough without Cables**

3	NW50 KF	2.95	0.59	0.20	15D-3P-K50	<b>100941</b>	435
5 <sup>2</sup>	NW63 LF	3.74	0.59	0.47	25D-5P-L63	<b>100942</b>	465

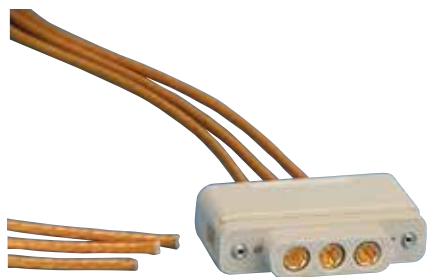
1. Compatible with ISO 2861/1 specification flanges and hardware. 2. Pin position not centered or symmetrical



**100941** / HV Power Feedthrough (Air Side)



**100942** / HV Power Feedthrough (Vacuum Side)


**100950** / Female Socket UHV Connector to Cable

**100860** / Female Socket UHV Contact to Cable

**101011** / Male Power UHV Connector  
(Contacts Sold Separately)

**101000** / Female Socket UHV/Air Power Contacts

**101080** / Crimp Tool  
 ↗ Set Dial to...  
 #6 for 12AWG  
 #3 for 16AWG

**101080** / Crimp Tool

**Ultrahigh Vacuum Power Cable Assemblies**

*Connector to Cable* UHV assemblies are fitted with PEEK Subminiature-D connectors at one end and non-terminated Kapton® insulated cable at the other. The female socket connectors mate directly onto the vacuum-side of corresponding feedthroughs shown on page 39.

*Contact to Cable* UHV assemblies have gold-plated female socket contacts at one end and non-terminated Kapton® insulated 12 AWG multi-strand wire at the other end. Power female socket contacts mate with 0.142 diameter male pins.

**Vacuum Cables — 3 or 5-Pin Subminiature-D / 250°C / UHV to 1x10<sup>-10</sup> Torr**

Number Contacts	Wire		Connector		Model Number	Part Number	Unit Price \$
	Length	Dia.	Gender	W x H x D			

**Connector to Cable**

3	19	3x 0.05	M	1.70 x 0.50 x 0.99	15KAP-3P-19PC	<b>110934</b>	225
3	39	3x 0.05	M	1.70 x 0.50 x 0.99	15KAP-3P-39PC	<b>110935</b>	256
3	19	3x 0.05	F	1.70 x 0.50 x 0.99	15KAP-3P-19SC	<b>100950</b>	225
3	39	3x 0.05	F	1.70 x 0.50 x 0.99	15KAP-3P-39SC	<b>100951</b>	256
5	19	5x 0.05	M	2.20 x 0.50 x 0.99	25KAP-5P-19PC	<b>110936</b>	305
5	39	5x 0.05	M	2.20 x 0.50 x 0.99	25KAP-5P-39PC	<b>110937</b>	357
5	19	5x 0.05	F	2.20 x 0.50 x 0.99	25KAP-5P-19SC	<b>100955</b>	305
5	39	5x 0.05	F	2.20 x 0.50 x 0.99	25KAP-5P-39SC	<b>100956</b>	357

**Contact to Cable**

1	19	1x 0.05	F	Socket Contacts	KAP-P-19S	<b>100860</b>	40
1	39	1x 0.05	F	Socket Contacts	KAP-P-39S	<b>100861</b>	50

**Ultrahigh Vacuum Connectors, Contacts and Tools**

*Connectors* are made of PEEK and do not include contacts, which must be purchased separately. Female connectors mate directly onto the vacuum side of Subminiature-D feedthroughs shown on page 39.

**Connectors and Contacts — 3 or 5-Pin Subminiature-D / 250°C / UHV to 1x10<sup>-10</sup> Torr**

Number Contacts	Connector		Model Number	Part Number	Unit Price \$
	Gender	W x H x D			

**Connectors**

3	M	1.70 x 0.50 x 0.99	15D-3P-PKP	<b>101011</b>	135
3	F	1.70 x 0.50 x 0.99	15D-3P-PKS	<b>101009</b>	135
5	M	2.20 x 0.50 x 0.99	25D-5P-PKP	<b>100932</b>	145
5	F	2.20 x 0.50 x 0.99	25D-5P-PKS	<b>100933</b>	145

**Contacts, Type-T3 — 5 per Pack**

1 Pack	M	0.142 Power Pin	PP-5	<b>101001</b>	38
1 Pack	F	0.142 Power Socket	PS-5	<b>101000</b>	38

See Page 112 for (.065) 16 AWG Wire Contacts.

**Tools — for Wiring 3 or 5-Pin Subminiature-D Vacuum Connectors**

Contents	Description	Model Number	Part Number	Unit Price \$
1 Unit	Crimping tool for Type-T3 Contacts, UHV / Air	DCT-3	<b>101080</b>	464
1 Unit	Extraction Tool	CX-ET	<b>100935</b>	80

See page 38 for **Specifications**

**Air-service Power Cable Assemblies**

Connector to Cable assemblies are fitted with a glass filled polyester composite Subminiature-D connector at one end and non-terminated PVC insulated 12 AWG power leads at the other. The female cable connectors mate directly onto the air side of corresponding feedthroughs shown on page 39. Connector to Cable assemblies may be used without the outer shell for minimum space requirements.

**Air-service Cable Assemblies — 3 or 5-Pin Subminiature-D / 80°C / Air Atmosphere**

Number Contacts	Wire		Connector		Model Number	Part Number	Unit Price \$
	Length	Dia.	Gender	W x H x D			

**Connector to Cable**

3	96	3x 0.05	F	1.72 x 0.75 x 2.10 <sup>1</sup>	AIR-3P-96SC	<b>100960</b>	155
5	96	5x .05	F	2.27 x 0.75 x 2.36 <sup>2</sup>	AIR-5P-96SC	<b>100965</b>	238

1. 1.50 x 0.50 x 0.50 without shell. 2. 2.10 x 0.50 x 0.50 without shell.

**Air-service Connectors, Cable, Contacts and Tools**

Components in this section are sold as the most basic components. Connectors do not include contacts and must be purchased separately. All power connectors use glass-filled polyester composite. Connectors may be used without the outer shell for minimum space requirements

**Air Service Connectors — 3 or 5-Pin Subminiature-D / 80°C / Air Atmosphere**

Number Contacts	Connector		Model Number	Part Number	Unit Price \$
	Gender	W x H x D			

**Connectors**

3	F	1.72 x 0.75 x 2.10 <sup>1</sup>	15D-3P-DS	<b>101010</b>	35
5	F	2.27 x 0.75 x 2.36 <sup>2</sup>	25D-5P-DS	<b>100931</b>	44
3	M	1.72 x 0.75 x 2.10 <sup>1</sup>	15D-3P-DP	<b>101012</b>	45
5	M	2.27 x 0.75 x 2.36 <sup>2</sup>	25D-5P-DP	<b>100934</b>	50

1. 1.70 x 0.50 x 0.50 without shell. 2. 2.10 x 0.50 x 0.50 without shell.

Number Contacts	Connector		Model Number	Part Number	Unit Price \$
	Gender	Contact Size			

**Contacts, Type-T3 — 5 per Pack**

1 Pack	F	.142 Power Socket	PS-5	<b>101000</b>	38
1 Pack	M	.142 Power Pin	PP-5	<b>101001</b>	38

**Tools — for Wiring 3 or 5-Pin Subminiature-D Air-Service Connectors**

Contents	Description	Model Number	Part Number	Unit Price \$
1 Unit	Crimping tool for Type-T3 Contacts, UHV / Air	DCT-3	<b>101080</b>	464
1 Unit	Extraction Tool	CX-ET	<b>100935</b>	80



**100960** / Female Socket Air Connector to Cable



**100965** / Connector to Cable



**101010** / Female Socket Air Connector  
(Contacts Sold Separately)



**101001** / Male Socket UHV/Air Power Contacts

See page 38 for **Specifications**