

Ultrahigh Vacuum Ribbon Extension Cable Assemblies

Connector to Connector Extension Cables are fitted with PEEK Subminiature-D connectors on both ends of a 19 or 39 inch UHV Kapton® insulated ribbon cable. Female cable connectors mate directly to vacuum-side of Subminiature-D feedthroughs or with male in-vacuum cable connectors. Ribbon cables are Kapton® insulated 28 AWG silver plated copper conductors, stranded 7 x 0.005. Cable leads are woven together using a 0.008 inch nominal diameter PEEK monofilament.

Extension Ribbon Cable Assemblies — 250°C / UHV to 1x10⁻¹⁰ Torr

Number Contacts	Wire		Connector		Model Number	Part Number	Unit Price \$
	Length	Dimensions	Gender	W x H x D			
Connector to Connector Extension Cable							
9	19	0.04 x 0.40	F / F	1.30 x 0.50 x 0.75	KAP-R9-192SC	100880	345
9	39	0.04 x 0.40	F / F	1.30 x 0.50 x 0.75	KAP-R9-392SC	100881	400
9	19	0.04 x 0.40	F / M	1.30 x 0.50 x 0.75	KAP-R9-19SCPC	112494	345
9	39	0.04 x 0.40	F / M	1.30 x 0.50 x 0.75	KAP-R9-39SCPC	112495	400
15	19	0.04 x 0.74	F / F	1.70 x 0.50 x 0.75	KAP-R15-192SC	100890	450
15	39	0.04 x 0.74	F / F	1.70 x 0.50 x 0.75	KAP-R15-392SC	100891	515
15	19	0.04 x 0.74	F / M	1.70 x 0.50 x 0.75	KAP-R15-19SCPC	112496	450
15	39	0.04 x 0.74	F / M	1.70 x 0.50 x 0.75	KAP-R15-39SCPC	112497	515
25	19	0.04 x 1.20	F / F	2.20 x 0.50 x 0.75	KAP-R25-192SC	100900	560
25	39	0.04 x 1.20	F / F	2.20 x 0.50 x 0.75	KAP-R25-392SC	100901	650
25	19	0.04 x 1.20	F / M	2.20 x 0.50 x 0.75	KAP-R25-19SCPC	112498	560
25	39	0.04 x 1.20	F / M	2.20 x 0.50 x 0.75	KAP-R25-39SCPC	112499	650
50 ¹	19	0.08 x 1.20	F / F	2.70 x 0.50 x 0.75	KAP-R50-192SC	100480	915
50 ¹	39	0.08 x 1.20	F / F	2.70 x 0.50 x 0.75	KAP-R50-392SC	100481	1100
50 ¹	19	0.08 x 1.20	F / M	2.70 x 0.50 x 0.75	KAP-R50-19SCPC	100482	915
50 ¹	39	0.08 x 1.20	F / M	2.70 x 0.50 x 0.75	KAP-R50-39SCPC	112500	1100

1. Uses two lengths of 25-way ribbon cable

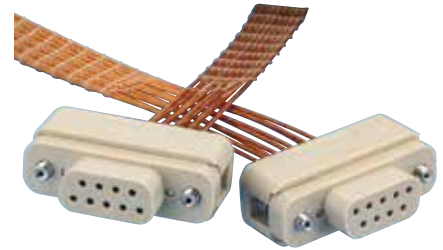
Ultrahigh Vacuum Gender Adapters, PEEK

Gender Adapters are offered for use with Accu-Glass Subminiature-D feedthroughs with male pins on both sides, to correct pin numbering to the standard Subminiature-D configuration. (Pin 1 reverses position from vacuum side to air side due to the male to male configuration.)

Ultrahigh vacuum gender adapters are made of UHV compatible PEEK material.

Gender Adapters — 250°C / UHV to 1x10⁻¹⁰ Torr

Number Contacts	W x H x D	Model Number	Part Number	Unit Price \$
Gender Adapters — PEEK Polymer Shell / Contacts included.				
9	1.30 x 0.40 x 1.20	9D-PK-GA	103102	175
15	1.60 x 0.40 x 1.20	15D-PK-GA	103112	190
25	2.10 x 0.40 x 1.20	25D-PK-GA	104101	215
50	2.07 x 0.50 x 1.20	50D-PK-GA	103132	310



100880 / Female to Female UHV Connector to Connector Extension Cable



112496 / Female to Male UHV Connector to Connector Extension Cable



104101 / Subminiature-D UHV Gender Adapter (Contacts Included)

See page 18 for **Specifications**

See page 94 for **Cable Specs**

Instrumentation



100420 / Male Pin UHV Connector
(Contacts Sold Separately)



100470 / Female Socket UHV Connector
(Contacts Sold Separately)



100465 / PEEK Backshell Strain Relief on 100460,
Female Socket UHV Connector
(Connector and Backshell Sold Separately)



110905 / Macor Male Pin, UHV Connector
(Contacts Sold Separately)



112714 / Stainless Steel Backshell Strain Relief on
110904, Female Socket UHV Connector
(Connector and Backshell Sold Separately)

Ultrahigh Vacuum Connectors, PEEK

Components in this section are sold as the most basic components. Connectors do not include contacts and must be purchased separately. Connectors and Backshell units are made of UHV compatible PEEK material. High duty cycle stainless steel Type-T1 contacts are recommended for use in connectors where plug-in cycles exceed 3 cycles per day. • *The pins and sockets listed on next page are intended for use with ultrahigh vacuum PEEK connectors only.* • *See page 25 for connectors with ears for bulkhead mounting.*

Connectors — UHV to 1x10⁻¹⁰ Torr

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

Connectors — PEEK Polymer Shell / 250°C

9	M	1.30 x 0.50 x 0.75	Type T1 Contacts	9D-PKP	100400	135
9	F	1.30 x 0.50 x 0.75	Type T1 Contacts	9D-PKS	100440	135
15	M	1.60 x 0.50 x 0.75	Type T1 Contacts	15D-PKP	100410	155
15	F	1.60 x 0.50 x 0.75	Type T1 Contacts	15D-PKS	100450	155
25	M	2.10 x 0.50 x 0.75	Type T1 Contacts	25D-PKP	100420	175
25	F	2.10 x 0.50 x 0.75	Type T1 Contacts	25D-PKS	100460	175
50	M	2.70 x 0.50 x 0.75	Type T1 Contacts	50D-PKP	100430	250
50	F	2.70 x 0.50 x 0.75	Type T1 Contacts	50D-PKS	100470	250

Backshell Strain Relief — PEEK Polymer Shell / 250°C

9	PEEK	1.00 x 0.65 x 1.25	100400, 100440	9D-PKBS	100445	80
15	PEEK	1.30 x 0.65 x 1.25	100410, 100450	15D-PKBS	100455	90
25	PEEK	1.90 x 0.65 x 1.25	100420, 100460	25D-PKBS	100465	100
50	PEEK	2.35 x 0.65 x 1.25	100430, 100470	50D-PKBS	100475	110

Ultrahigh Vacuum Connectors, Ceramic

Macor Ceramic Connectors are designed for high temperature and extreme environments not suitable for our standard PEEK connectors. These connectors are used with either non-insulated wire or with ceramic bead insulators found on page 115.

Connectors^{1,2} — Macor Ceramic / 400°C

9	M	1.30 x 0.51 x 0.75	Type T1 Contacts	9D-MCP	110901	260
9	F	1.30 x 0.51 x 0.75	Type T1 Contacts	9D-MCS	110900	260
15	M	1.60 x 0.51 x 0.75	Type T1 Contacts	15D-MCP	110903	300
15	F	1.60 x 0.51 x 0.75	Type T1 Contacts	15D-MCS	110902	300
25	M	2.10 x 0.51 x 0.75	Type T1 Contacts	25D-MCP	110905	320
25	F	2.10 x 0.51 x 0.75	Type T1 Contacts	25D-MCS	110904	320
50	M	2.70 x 0.51 x 0.75	Type T1 Contacts	50D-MCP	110907	410
50	F	2.70 x 0.51 x 0.75	Type T1 Contacts	50D-MCS	110906	410

Backshell Strain Relief — Stainless Steel / 400°C

9	S. Steel	1.00 x 0.65 x 1.25	100900, 100901	9D-SSBS	112712	140
15	S. Steel	1.30 x 0.65 x 1.25	100903, 100903	15D-SSBS	112713	160
25	S. Steel	1.90 x 0.65 x 1.83	100904, 100905	25D-SSBS	112714	180
50	S. Steel	2.40 x 0.65 x 1.83	100906, 100907	50D-SSBS	112715	225

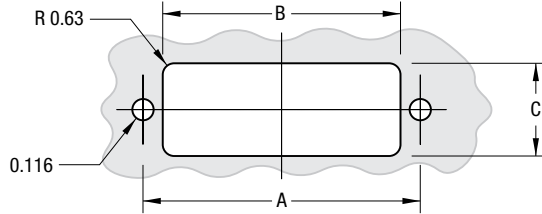
1. Wires must be threaded through the connector back-piece before crimping contacts. 2. Contacts on page 25 may also be used in macor connectors

See page 18 for **Specifications**

Ultrahigh Vacuum Panel Mount Connectors, PEEK

Panel Mount PEEK Connectors are wider than our standard PEEK connectors and are designed with a 4-40 mounting hole on each end to facilitate easy mounting into panels and bulkheads.

Panel Mount Machining Detail



112125 / Male Pin, UHV Connector with Mounting Ears (Contacts Sold Separately)

Panel Mount Connectors — 250°C / UHV to 1x10⁻¹⁰ Torr

Number Contacts	Connector		Panel Mount Dimensions			Model Number	Part Number	Unit Price \$
	Gender	W x H x D	A	B	C			

Panel Mount PEEK Connectors¹

9	M	1.70 x 0.48 x 0.75	1.510	1.295	0.505	9D-PKP-E	112125	160
15	M	2.10 x 0.48 x 0.75	1.807	1.625	0.505	15D-PKP-E	100423	175
25	M	2.60 x 0.48 x 0.75	2.330	2.105	0.505	25D-PKP-E	100421	190
50	M	3.20 x 0.50 x 0.75	2.906	2.680	0.530	50D-PKP-E	100431	270

1. Uses Type-T1 contacts below. Connector backshells on page 24. Female versions available (9D 100422, 15D 112126, 25D 112127, 50D 100471) but not recommended, as mating male connectors require jack screw modification



100421 / Male Pin, UHV Connector with Mounting Ears (Contacts Sold Separately)

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

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

Contacts, Type-T1 — Standard / 10 per Pack

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

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

1 Pack	F	0.04	.043-.046 / 20-24 AWG	GS-10-S	110908	35
1 Pack	F	0.04	.023-.027 / 26-30 AWG	GS2-10-S	110909	35

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.



100180 / Female Contacts
110908 / High Duty Cycle Contacts

Tools — for Wiring UHV Ribbon Vacuum Connectors

Contents	Description	Model Number	Part Number	Unit Price \$
1 Unit	Crimping tool for Type-T1 Contacts	DCT-1	100190	454
1 Unit	Crimp Tool Positioner for HDC Contacts ¹	DCT-POS-T2	111315	69
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 ²	DRV-SET	112146	27

1. Used with high duty cycle contacts, fits DCT-1 part number 100190. 2. Includes one each flat, phillips and hex drivers



Set Dial to #5 ↗

100190 / Contact Crimp Tool



112146 / Connector Screwdriver Set