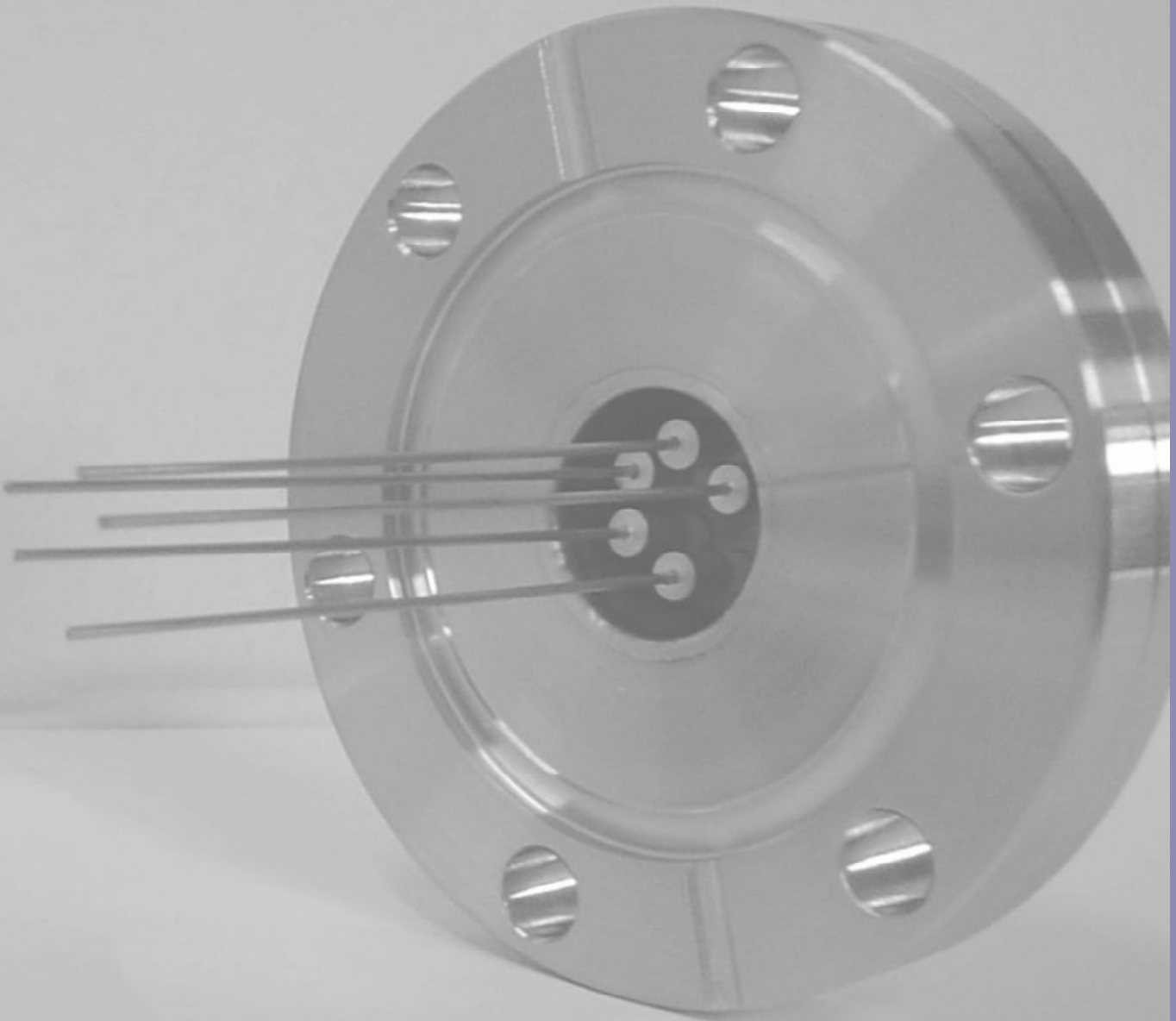


1.0 electrical & optical feedthroughs



Index

Electrical Feedthroughs

- *Multipin Feedthroughs* 3-8
- *Power Feedthroughs* 9-16

Coaxial Feedthroughs

- *BNC Feedthroughs* 17-19
- *MHV Feedthroughs* 20-22
- *SHV-5 Feedthroughs* 23-24
- *SHV-10 Feedthroughs* 25-26
- *SHV-20 Feedthroughs* 27
- *SHV-B Feedthroughs* 28
- *Type-N Feedthroughs* 29
- *SMA Feedthroughs* 30
- *Microdot Feedthroughs* 31
- *BNC-Microdot Feedthroughs* 32
- *Subminiature D Feedthroughs* 33

Thermocouple Feedthroughs 34-37

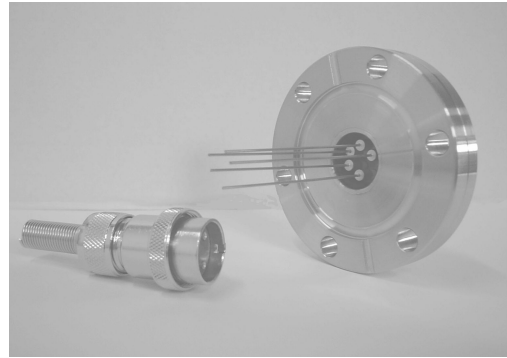
Breaks & Envelopes 38-39

Connectors & Cables 40-49

Description

Multipin feedthroughs are recommended for electrical measurement, signals, heaters up to amps as well as thermocouple connections.

3 to 7 pins style are used for applications requiring moderate pins density with small package size



Features

- 3 to 7 pins
- Available on CF and KF flanges
- UHV compatibles materials
- Air side connector included
- Custom configuration available upon request

Specifications:

Voltage	500 VDC max
Current	3.5 Amp per pin
Material	
Flanges	304 stainless steel
Shell	Stainless steel
Pins	Molybdenum
Insulation	alumina ceramic
Vacuum range UHV/HV	1x10 ⁻¹⁰ mbar / 1x10 ⁻⁸ mbar
Temperature range	
CF mounted FT	-50 to 450°C
ISO KF mounted FT	-20 to 150°C
Air side connector	-50 to 65°C

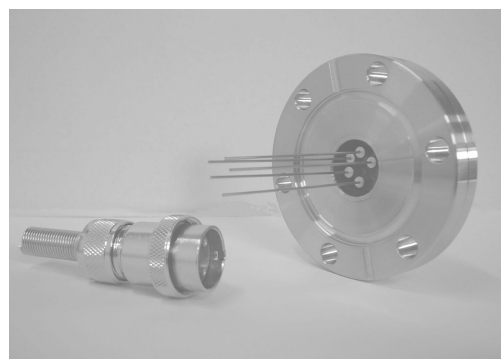
Description	Part Number
MPIN FT 500V-3,5A 3PINS CF16 W/AIR CON	1-MP-0001
MPIN FT 500V-3,5A 5PINS CF16 W/AIR CON	1-MP-0002
MPIN FT 500V-3,5A 5PINS CF40 W/AIR CON	1-MP-0003
MPIN FT 500V-3,5A 7PINS CF16 W/AIR CON	1-MP-0004
MPIN FT 500V-3,5A 7PINS CF40 W/AIR CON	1-MP-0005
MPIN FT 500V-3,5A 3PINS KF16 W/AIR CON	1-MP-0006
MPIN FT 500V-3,5A 3PINS KF40 W/AIR CON	1-MP-0007
MPIN FT 500V-3,5A 5PINS KF16 W/AIR CON	1-MP-0008
MPIN FT 500V-3,5A 5PINS KF40 W/AIR CON	1-MP-0009
MPIN FT 500V-3,5A 7PINS KF16 W/AIR CON	1-MP-0010
MPIN FT 500V-3,5A 7PINS KF40 W/AIR CON	1-MP-0011

Multipin Feedthroughs 700V – 10Amp Single Ended

Description

Multipin feedthroughs are recommended for electrical measurement, signals, heaters up to amps as well as thermocouple connections.

4 to 35 pins style are used for applications requiring high pins density with a good range of voltage and current. With industry standard threaded connectors (MIL-C-5015 specifications)



Features

- 4 to 35 pins
- Available CF / KF / Weldable
- UHV compatibles materials
- Air side connector included
- Industry standard threaded connectors
- Custom configuration available upon request

Specifications:

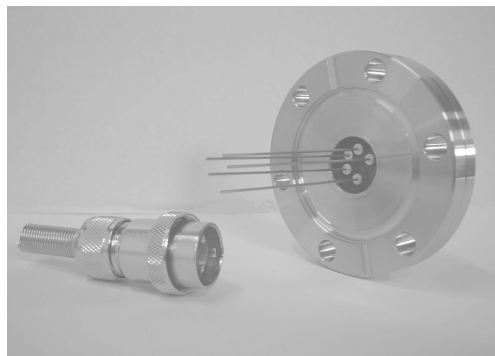
Voltage	700 VDC max
Current	10 Amp per pin
Material	
Flanges	304 stainless steel
Shell	Stainless steel
Pins	Alumel
Insulation	Alumina ceramic
Vacuum range UHV/HV	1x10 ⁻¹⁰ mbar / 1x10 ⁻⁸ mbar
Temperature range	
CF mounted FT	-55 to 450°C
ISO KF mounted FT	-20 to 150°C
Weldable	-55 to 450°C
Air side connector	-55 to 125°C

Description	Part Number
MPIN FT 700V-10A-20PINS SE WELD W/AIR CON	1-MP-0050
MPIN FT 700V-10A 4PINS WELD SE W/AIR CON	1-MP-0027
MPIN FT 700V-10A 6PINS WELD SE W/AIR CON	1-MP-0028
MPIN FT 700V-10A 10PINS WELD SE W/AIR CON	1-MP-0029
MPIN FT 700V-10A 35PINS WELD S SE W/AIR CON	1-MP-0030
MPIN FT 700V-10A 35PINS WELD L SE W/AIR CON	1-MP-0031
MPIN FT 700V-10A 4PINS CF16 SE W/AIR CON	1-MP-0012
MPIN FT 700V-10A 4PINS CF40 SE W/AIR CON	1-MP-0013
MPIN FT 700V-10A 6PINS CF16 SE W/AIR CON	1-MP-0014
MPIN FT 700V-10A 6PINS CF40 SE W/AIR CON	1-MP-0015
MPIN FT 700V-10A 10PINS CF16 SE W/AIR CON	1-MP-0016
MPIN FT 700V-10A 10PINS CF40 SE W/AIR CON	1-MP-0017
MPIN FT 700V-10A 20PINS CF40 SE W/AIR CON	1-MP-0018

Description

Multipin feedthroughs are recommended for electrical measurement, signals, heaters up to amps as well as thermocouple connections.

4 to 35 pins style are used for applications requiring high pins density with a good range of voltage and current. With industry standard threaded connectors (MIL-C-5015 specifications)



Features

- 4 to 35 pins
- Available on CF flanges
- UHV compatibles materials
- Air side connector included
- Industry standard threaded connectors
- Custom configuration available upon request

Specifications:

Voltage	700 VDC max
Current	10 Amp per pin
Material	
Flanges	304 stainless steel
Shell	Stainless steel
Pins	Alumel
Insulation	Alumina ceramic
Vacuum range UHV	1x10 ⁻¹⁰ mbar
Temperature range	
CF mounted FT	-100 to 350°C
Air side connector	-100 to 350°C

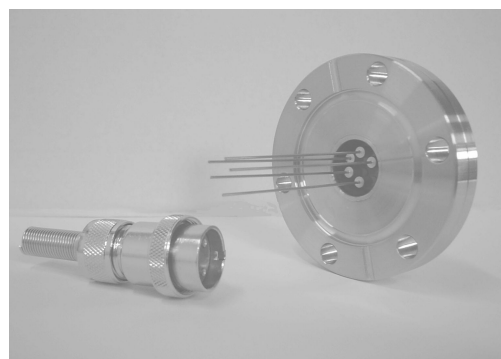
Description	Part Number
MPIN FT 700V-10A 4PINS CF40 DE W/AIR CON	1-MP-0032
MPIN FT 700V-10A 6PINS CF40 DE W/AIR CON	1-MP-0033
MPIN FT 700V-10A 10PINS CF40 DE W/AIR CON	1-MP-0034
MPIN FT 700V-10A 20PINS CF63 DE W/AIR CON	1-MP-0035

1.1 Multipin Feedthroughs 700V – up to 23Amp

Description

Multipin feedthroughs are recommended for electrical measurement, signals, heaters up to amps as well as thermocouple connections.

2 to 8 pins style are used for applications requiring moderate pins density with small package size



Features

- 2 to 8 pins
- Available on CF flanges
- UHV compatibles materials
- Air side connector included
- Industry standard threaded connectors
- Custom configuration available upon request

Specifications:

Voltage	700 VDC max
Current	15 Amp per nickel pin 23 Amp per copper pin

Material

Flanges	304 stainless steel
Shell	Stainless steel
Pins	Copper / Nickel
Insulation	Alumina ceramic

Vacuum range UHV	1x10 ⁻¹⁰ mbar
-------------------------	--------------------------

Temperature range

CF mounted FT	-55 to 350°C
Air side connector	-55 to 125°C

Description	Part Number
MPIN FT 700V-23A 2PINS CF40 W/AIR CON	1-MP-0042
MPIN FT 700V-15A 2PINS CF40 W/AIR CON	1-MP-0037
MPIN FT 700V-23A 3PINS CF40 W/AIR CON	1-MP-0043
MPIN FT 700V-15A 3PINS CF40 W/AIR CON	1-MP-0038
MPIN FT 700V-23A 4PINS CF40 W/AIR CON	1-MP-0044
MPIN FT 700V-15A 4PINS CF40 W/AIR CON	1-MP-0039
MPIN FT 700V-23A 5PINS CF40 W/AIR CON	1-MP-0045
MPIN FT 700V-15A 5PINS CF40 W/AIR CON	1-MP-0040
MPIN FT 700V-23A 7PINS CF40 W/AIR CON	1-MP-0046
MPIN FT 700V-15A 7PINS CF40 W/AIR CON	1-MP-0041
MPIN FT 700V-23A 8PINS CF40 W/AIR CON	1-MP-0047
MPIN FT 700V-15A 8PINS CF40 W/AIR CON	1-MP-0064

Description

Multipin feedthroughs Subminiature-C multi-pin hermetic feedthroughs are designed for applications where space is limited or where Subminiature-D connections will not fit. The compact design allows installation into CF16 metal seal and KF16 elastomer seal flanges. Nine gold plated pins are 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. 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 demands of ultrahigh vacuum environments. In-vacuum connector screws are vented where required and the feedthrough's screw-boss functions as a locating key. Air to vacuum pin position is identified with a permanent surface mark, which clearly locates pin assignments.

Features

- UHV compatible construction
- Available on CF and KF flanges
- Air side and vacuum side connectors and cables available
- High temperature up to 250°C
- Custom configuration available upon request

Specifications:

Voltage	300 VDC max
Current	5 Amp max at 20°C
Material	
Flanges	304 stainless steel
Shell	Stainless steel
Pins	Ni-Fe alloy, gold plated
Seal/Insulation	Glass/Ceramic
Vacuum range UHV/HV	1x10 ⁻¹⁰ / 1x10 ⁻⁸ mbar
Temperature range	
CF mounted FT	250°C
KF mounted FT	150°C
Air side connector	125°C
Thermal gradient	25°C/min



Description	Part Number
SUBMINIATURE C 9 PINS KIT ON CF16	1-MP-0065
SUBMINIATURE C FT 9 PINS ONLY ON CF16	1-MP-0066
SUBMINIATURE C FT 2x9 PINS ONLY ON CF40	1-MP-0067
SUBMINIATURE C 9 PINS KIT ON KF16	1-MP-0068
SUBMINIATURE C FT 9 PINS ONLY ON KF16	1-MP-0069

Multipin Subminiature D

Description

Multipin hermetic Subminiature-D instrumentation feedthroughs are constructed with pin arrangements designed to meet MIL-C-24308 specification. On our standard flanges 9 to 100 gold plated pins are 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. Custom flanges with unlimited numbers of pins are routinely manufactured.

Ultrahigh vacuum cable assemblies with PEEK connectors and Kapton insulated ribbon cables are available to meet the demands of ultrahigh vacuum environments.

Specifications:

Voltage	300 VDC max
Current	5 Amp max at 20°C
Material	
Flanges	304 stainless steel
Shell	Stainless steel
Pins	Ni-Fe alloy, gold plated
Seal/Insulation	Glass/Ceramic
Vacuum range UHV/HV	1x10 ⁻¹⁰ / 1x10 ⁻⁸ mbar
Temperature range	
CF mounted FT	250°C
KF mounted FT	150°C
Air side connector	125°C
Thermal gradient	25°C/min



Features

- UHV compatible construction
- Available on CF and KF flanges
- Air side and vacuum side connectors and cables available
- High temperature up to 250°C
- Custom configuration available upon request

Description	Part Number
SUBMINIATURE D FT 9PINS ON CF40	1-MP-0070
SUBMINIATURE D FT 15PINS CF40	1-MP-0049
SUBMINIATURE D FT 25PINS CF40	1-MP-0051
SUBMINIATURE D FT 15PINS ON CF63	1-MP-0071
SUBMINIATURE D FT 2x15PINS ON CF63	1-MP-0072
SUBMINIATURE D FT 25PINS ON CF63	1-MP-0073
SUBMINIATURE D FT 37PINS CF63	1-MP-0053
SUBMINIATURE D FT 50PINS ON CF63	1-MP-0074
SUBMINIATURE D FT 37PINS CF100	1-MP-0054
SUBMINIATURE D FT 50PINS ON CF100	1-MP-0075
SUBMINIATURE D FT 2x50PINS ON CF100	1-MP-0076
SUBMINIATURE D FT 9PINS KF25	1-MP-0057
SUBMINIATURE D FT 9PINS ON KF40	1-MP-0077
SUBMINIATURE D FT 15PINS KF40	1-MP-0059
SUBMINIATURE D FT 15PINS ON KF50	1-MP-0078
SUBMINIATURE D FT 25PINS ON LF63	1-MP-0079
SUBMINIATURE D FT 37PINS LF100	1-MP-0062
SUBMINIATURE D FT 50PINS ON LF100	1-MP-0080

Description

Power is a classification given to electrical feedthroughs used to carry either high voltage or high current, or both into vacuum systems. Vaqtec's power section has both connector fitted and exposed power leads.

Specifications:

Voltage 500 to 5000 VDC max

Current 3.5 to 600 Amp

Material

Flanges 304 stainless steel

Shell Stainless steel

Pins See options

Insulation Alumina ceramic

Vacuum range UHV/HV 1×10^{-10} mbar / 1×10^{-8} mbar

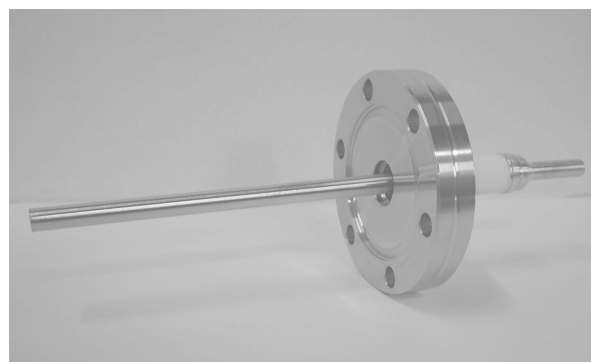
Temperature range

CF mounted FT -100 to 450°C

ISO KF mounted FT -20 to 150°C

Weldable FT -100 to 450°C

Power FT 500 & 1000 VDC to 15 Amp 1 to 8 pins



Features

- 1 to 8 pins
- Available on CF/KF/Baseplate 1" flanges and weldable
- UHV compatibles materials
- In-vacuum accessories availables
- Custom configuration available upon request

Description	Part Number
PW FT 500V 10AMP MOLY WELD	1-PW-0500
PW FT 500V 3AMP COPPER WELD	1-PW-0501
PW FT 500V 2AMP NICKEL WELD	1-PW-0502
PW FT 500V INSTRUM ONLY SST WELD	1-PW-0503
PW FT 500V 3AMP COPPER WELD	1-PW-0504
PW FT 500V 2AMP CONSTANTAN WELD	1-PW-0505
PW FT 500V INSTRUM ONLY SST WELD	1-PW-0506
PW FT 500V 10AMP MOLY 2 PIN WELD	1-PW-0530
PW FT 500V 3AMP COPPER 2 PIN WELD	1-PW-0531
PW FT 500V 2AMP NICKEL 2 PIN WELD	1-PW-0533
PW FT 500V INSTRUM ONLY SST 2 PIN WELD	1-PW-0535
PW FT 500V 10AMP MOLY 4 PIN WELD	1-PW-0551
PW FT 500V 3AMP COPPER 4 PIN WELD	1-PW-0552
PW FT 500V 2AMP NICKEL 4 PIN WELD	1-PW-0554
PW FT 500V INSTRUM ONLY SST 4 PIN WELD	1-PW-0556
PW FT 500V 10AMP MOLY 8 PIN WELD	1-PW-0564
PW FT 500V 10AMP MOLY 2 PIN CF16	1-PW-0516
PW FT 500V 3AMP COPPER 2 PIN CF16	1-PW-0517
PW FT 500V 2AMP NICKEL 2 PIN CF16	1-PW-0519
PW FT 500V INSTRUM ONLY SST 2 PIN CF16	1-PW-0521
PW FT 500V 10AMP MOLY 4 PIN CF16	1-PW-0537
PW FT 500V 3AMP COPPER 4 PIN CF16	1-PW-0538
PW FT 500V 2AMP NICKEL 4 PIN CF16	1-PW-0540
PW FT 500V INSTRUM ONLY SST 4 PIN CF16	1-PW-0542
PW FT 500V 10AMP MOLY 8 PIN CF16	1-PW-0558
PW FT 500V 10AMP MOLY 2 PIN KF16	1-PW-0523
PW FT 500V 3AMP COPPER 2 PIN KF16	1-PW-0524
PW FT 500V 2AMP NICKEL 2 PIN KF16	1-PW-0526
PW FT 500V INSTRUM ONLY SST 2 PIN KF16	1-PW-0528
PW FT 500V 10AMP MOLY 4 PIN KF16	1-PW-0544
PW FT 500V 3AMP COPPER 4 PIN KF16	1-PW-0545
PW FT 500V 2AMP NICKEL 4 PIN KF16	1-PW-0547
PW FT 500V INSTRUM ONLY SST 4 PIN KF16	1-PW-0549
PW FT 500V 10AMP MOLY 8 PIN KF16	1-PW-0561

Power Feedthroughs 500 to 5000 VDC

Power FT 500 & 1000 VDC to 15 Amp 1 to 8 pins

Description	Part Number
PW FT 1KV 15AMP COPPER 8 PIN WELD	1-PW-0565
PW FT 1KV 5AMP NICKEL 8 PIN WELD	1-PW-0566
PW FT 1KV 15AMP COPPER WELD	1-PW-0507
PW FT 1KV 5AMP NICKEL WELD	1-PW-0508
PW FT 1KV 1AMP SST WELD	1-PW-0509
PW FT 1KV 15AMP COPPER 2 PIN WELD	1-PW-0532
PW FT 1KV 5AMP NICKEL 2 PIN WELD	1-PW-0534
PW FT 1KV 1AMP SST 2 PIN WELD	1-PW-0536
PW FT 1KV 15AMP COPPER 4 PIN WELD	1-PW-0553
PW FT 1KV 5AMP NICKEL 4 PIN WELD	1-PW-0555
PW FT 1KV 1AMP SST 4 PIN WELD	1-PW-0557
PW FT 1KV 15AMP COPPER 8 PIN CF16	1-PW-0559
PW FT 1KV 5AMP NICKEL 8 PIN CF16	1-PW-0560
PW FT 1KV 15AMP COPPER 2 PIN CF16	1-PW-0518
PW FT 1KV 5AMP NICKEL 2 PIN CF16	1-PW-0520
PW FT 1KV 1AMP SST 2 PIN CF16	1-PW-0522
PW FT 1KV 15AMP COPPER 4 PIN CF16	1-PW-0539
PW FT 1KV 5AMP NICKEL 4 PIN CF16	1-PW-0541
PW FT 1KV 1AMP SST 4 PIN CF16	1-PW-0543
PW FT 1KV 15AMP COPPER 8 PIN KF16	1-PW-0562
PW FT 1KV 5AMP NICKEL 8 PIN KF16	1-PW-0563
PW FT 1KV 15AMP COPPER 2 PIN KF16	1-PW-0525
PW FT 1KV 5AMP NICKEL 2 PIN KF16	1-PW-0527
PW FT 1KV 1AMP SST 2 PIN KF16	1-PW-0529
PW FT 1KV 15AMP COPPER 4 PIN KF16	1-PW-0546
PW FT 1KV 5AMP NICKEL 4 PIN KF16	1-PW-0548
PW FT 1KV 1AMP SST 4 PIN KF16	1-PW-0550

Power FT 2000 VDC to 30 Amp 1 to 10 pins

Description	Part Number
PW FT 2000V 10AMP 4 PIN WELD	1-PW-0573
PW FT 2000V 10AMP 6 PIN WELD	1-PW-0574
PW FT 2000V 10AMP 10 PIN WELD	1-PW-0575
PW FT 2000V 10AMP 4 PIN CF16	1-PW-0567
PW FT 2000V 10AMP 6 PIN CF16	1-PW-0568
PW FT 2000V 10AMP 10 PIN CF16	1-PW-0569
PW FT 2000V 10AMP 4 PIN KF16	1-PW-0570
PW FT 2000V 10AMP 6 PIN KF16	1-PW-0571
PW FT 2000V 10AMP 10 PIN KF16	1-PW-0572

Power FT 3000 VDC to 600 Amp 1 pin

Description	Part Number
PW FT 3KV 15AMP COPPER WELD	1-PW-0510
PW FT 3KV 5AMP NICKEL WELD	1-PW-0511
PW FT 3KV 1AMP SST WELD	1-PW-0512
PW FT 3KV 600AMP 1 PIN COPPER WELD	1-PW-0618
PW FT 3KV 250AMP 1 PIN COPPER WELD	1-PW-0619
PW FT 3KV 600AMP 1 PIN COPPER CF40	1-PW-0628
PW FT 3KV 250AMP 1 PIN COPPER CF16	1-PW-0629
PW FT 3KV 600AMP 1 PIN COPPER KF40	1-PW-0654
PW FT 3KV 250AMP 1 PIN COPPER KF16	1-PW-0655
PW FT 3KV 250AMP 1 PIN COPPER BASEPLATE	1-PW-0671

Power FT 3500 VDC to 10 Amp 7 to 20 pins

Description	Part Number
PW FT 3500V 10AMP 7 PIN WELD	1-PW-0780
PW FT 3500V 10AMP 10 PIN WELD	1-PW-0781
PW FT 3500V 10AMP 20 PIN WELD	1-PW-0782
PW FT 3500V 10AMP 7 PIN CF16	1-PW-0784
PW FT 3500V 10AMP 7 PIN CF40	1-PW-0783
PW FT 3500V 10AMP 10 PIN CF16	1-PW-0784
PW FT 3500V 10AMP 20 PIN CF40	1-PW-0785
PW FT 3500V 10AMP 7 PIN KF16	1-PW-0786
PW FT 3500V 10AMP 10 PIN KF16	1-PW-0787
PW FT 3500V 10AMP 20 PIN KF40	1-PW-0788
PW FT 3500V 10AMP 20 PIN KF50	1-PW-0789

Power FT 5000 VDC to 150 Amp 1 to 12 pins

Description	Part Number
PW FT 5KV 15AMP COPPER WELD	1-PW-0513
PW FT 5KV 5AMP NICKEL WELD	1-PW-0514
PW FT 5KV 1AMP SST WELD	1-PW-0515
PW FT 5KV 30AMP 1 PIN COPPER CF16	1-PW-0588
PW FT 5KV 15AMP 1 PIN NICKEL CF16	1-PW-0589
PW FT 5KV 15AMP 2 PIN COPPER CF16	1-PW-0576
PW FT 5KV 5AMP 2 PIN NICKEL CF16	1-PW-0577
PW FT 5KV 1AMP 2 PIN SST CF16	1-PW-0578
PW FT 5KV 30AMP 2PIN COPPER CF16	1-PW-0590
PW FT 5KV 15AMP 2PIN NICKEL CF16	1-PW-0591
PW FT 5KV 30AMP 2PIN COPPER CF40	1-PW-0592
PW FT 5KV 15AMP 2PIN NICKEL CF40	1-PW-0593
PW FT 5KV 15AMP 4PIN COPPER CF16	1-PW-0579
PW FT 5KV 5AMP 4PIN NICKEL CF16	1-PW-0580
PW FT 5KV 1AMP 4PIN SST CF16	1-PW-0581
PW FT 5KV 30AMP 4PIN COPPER CF40	1-PW-0594
PW FT 5KV 15AMP 4PIN NICKEL CF40	1-PW-0595
PW FT 5KV 30AMP 8PIN COPPER CF40	1-PW-0596
PW FT 5KV 15AMP 8PIN NICKEL CF40	1-PW-0597
PW FT 5KV 30AMP 1 PIN COPPER KF16	1-PW-0598
PW FT 5KV 15AMP 1 PIN NICKEL KF16	1-PW-0599
PW FT 5KV 15AMP 2 PIN COPPER KF16	1-PW-0582
PW FT 5KV 5AMP 2 PIN NICKEL KF16	1-PW-0583
PW FT 5KV 1AMP 2 PIN SST KF16	1-PW-0584
PW FT 5KV 30AMP 2PIN COPPER KF16	1-PW-0600
PW FT 5KV 15AMP 2PIN NICKEL KF16	1-PW-0601
PW FT 5KV 30AMP 2PIN COPPER KF40	1-PW-0602
PW FT 5KV 15AMP 2PIN NICKEL KF40	1-PW-0603
PW FT 5KV 15AMP 4PIN COPPER KF16	1-PW-0585
PW FT 5KV 5AMP 4PIN NICKEL KF16	1-PW-0586
PW FT 5KV 1AMP 4PIN SST KF16	1-PW-0587
PW FT 5KV 30AMP 4PIN COPPER KF40	1-PW-0604
PW FT 5KV 15AMP 4PIN NICKEL KF40	1-PW-0605
PW FT 5KV 30AMP 8PIN COPPER KF40	1-PW-0606
PW FT 5KV 15AMP 8PIN NICKEL KF40	1-PW-0607

Power Feedthroughs 10 to 40kV VDC

Power FT 10kV VDC to 30 Amp 1 to 4 pins

Description	Part Number
PW FT 10KV 30AMP 1 PIN COPPER WELD	1-PW-0790
PW FT 10KV 15AMP 1 PIN COPPER WELD	1-PW-0791
PW FT 10KV 30AMP 1 PIN COPPER CF16	1-PW-0792
PW FT 10KV 15AMP 1 PIN COPPER CF16	1-PW-0793
PW FT 10KV 30AMP 2 PIN COPPER CF16	1-PW-0794
PW FT 10KV 15AMP 2 PIN COPPER CF16	1-PW-0795
PW FT 10KV 30AMP 2 PIN COPPER CF40	1-PW-0796
PW FT 10KV 15AMP 2 PIN COPPER CF40	1-PW-0797
PW FT 10KV 30AMP 4 PIN COPPER CF40	1-PW-0798
PW FT 10KV 15AMP 4 PIN COPPER CF40	1-PW-0799
PW FT 10KV 30AMP 1 PIN COPPER KF16	1-PW-0800
PW FT 10KV 15AMP 1 PIN NICKEL KF16	1-PW-0801
PW FT 10KV 30AMP 2 PIN COPPER KF16	1-PW-0802
PW FT 10KV 15AMP 2 PIN NICKEL KF16	1-PW-0803
PW FT 10KV 30AMP 2 PIN COPPER KF40	1-PW-0804
PW FT 10KV 15AMP 2 PIN NICKEL KF40	1-PW-0805
PW FT 10KV 30AMP 4 PIN COPPER KF40	1-PW-0806
PW FT 10KV 15AMP 4 PIN NICKEL KF40	1-PW-0807

Power FT 12kV VDC to 150 Amp 1 to 2 pins

Description	Part Number
PW FT 12KV 100AMP 1 PIN COPPER EXPOSED BASEPLATE	1-PW-0808
PW FT 12KV 50AMP 1 PIN NICKEL EXPOSED BASEPLATE	1-PW-0809
PW FT 12KV 5AMP 1 PIN SST EXPOSED BASEPLATE	1-PW-0810
PW FT 12KV 100AMP 1 PIN COPPER SHIELDED BASEPLATE	1-PW-0811
PW FT 12KV 50AMP 1 PIN NICKEL SHIELDED BASEPLATE	1-PW-0812
PW FT 12KV 5AMP 1 PIN SST SHIELDED BASEPLATE	1-PW-0813
PW FT 12KV 150AMP 1 PIN COPPER WELD	1-PW-0625
PW FT 12KV 75AMP 1 PIN NICKEL WELD	1-PW-0626
PW FT 12KV 7AMP 1 PIN SST WELD	1-PW-0627
PW FT 12KV 150AMP 1 PIN COPPER CF16	1-PW-0645
PW FT 12KV 75AMP 1 PIN NICKEL CF16	1-PW-0646
PW FT 12KV 7AMP 1 PIN SST CF16	1-PW-0647
PW FT 12KV 150AMP 1 PIN COPPER CF40	1-PW-0648
PW FT 12KV 75AMP 1 PIN NICKEL CF40	1-PW-0649
PW FT 12KV 7AMP 1 PIN SST CF40	1-PW-0650
PW FT 12KV 150AMP 2 PIN COPPER CF40	1-PW-0651
PW FT 12KV 75AMP 2 PIN NICKEL CF40	1-PW-0652
PW FT 12KV 7AMP 2 PIN SST CF40	1-PW-0653

Power FT 12kV VDC to 15 Amp 1 pin

Description	Part Number
PW FT 20KV 15AMP 1 PIN NICKEL WELD	1-PW-0728
PW FT 20KV 15AMP 1 PIN NICKEL CF16	1-PW-0814
PW FT 20KV 15AMP 1 PIN NICKEL KF16	1-PW-0815

Power Feedthroughs 10 to 40kV VDC

1.1

1.1 power feedthroughs

Power FT 20 TO 30kV VDC to 150 Amp 1 to 3 pins

Description	Part Number
PW FT 30KV 1AMP 1 PIN WELD	1-PW-0617
PW FT 25KV 1AMP 1 PIN WELD	1-PW-0616
PW FT 20KV 1AMP 1 PIN WELD	1-PW-0615
PW FT 20KV 150AMP 1 PIN COPPER WELD	1-PW-0610
PW FT 20KV 75AMP 1 PIN NICKEL WELD	1-PW-0611
PW FT 25KV 30AMP 2 PIN NICKEL WELD	1-PW-0816
PW FT 20KV 150AMP 1 PIN COPPER CF40	1-PW-0608
PW FT 20KV 75AMP 1 PIN NICKEL CF40	1-PW-0609
PW FT 25KV 1AMP 1 PIN CF40	1-PW-0613
PW FT 20KV 1AMP 1 PIN CF40	1-PW-0612
PW FT 30KV 1AMP 1 PIN CF40	1-PW-0614
PW FT 20KV 30AMP 1 PIN COPPER CF40	1-PW-0817
PW FT 30KV 30AMP 1 PIN COPPER KF40	1-PW-0818
PW FT 25KV 30AMP 1 PIN COPPER KF40	1-PW-0819
PW FT 20KV 30AMP 1 PIN COPPER KF40	1-PW-0820

Power FT 40kV VDC to 7 Amp 1 pin

Description	Part Number
PW FT 40KV 7AMP 1 PIN WELD W/AIR CON	1-PW-0821
PW FT 40KV 7AMP 1 PIN KF40 W/AIR CON	1-PW-0822
PW FT 40KV 7AMP 1 PIN KF50 W/AIR CON	1-PW-0823
PW FT 40KV 7AMP 1 PIN KF40 W/AIR CON	1-PW-0824

Power Feedthroughs Watercooled

Power FT 50 to 5000 VDC 1 to 4 pins watercooled

Description	Part Number
PW FT 50V 1000AMP 1 TUBE COPPER BASEPLATE	1-PW-0824
PW FT 3KV 1TUBE DIA19.05MM LONG COP W-COOL WELD	1-PW-0675
PW FT 3KV 1 TUBE DIA 9.652MM COP W-COOL WELD	1-PW-0676
PW FT 5KV 1 TUBE DIA 6.35MM COP W-COOL WELD	1-PW-0677
PW FT 5KV 1 TUBE DIA 6.35MM NIC W-COOL WELD	1-PW-0678
PW FT 5KV 1 TUBE DIA 6.35MM SST W-COOL WELD	1-PW-0679
PW FT 3KV 1 TUBE DIA 19.05MM COP W-COOL CF40	1-PW-0680
PW FT 3KV 1 TUBE DIA 9.652MM COP W-COOL CF16	1-PW-0681
PW FT 5KV 1 TUBE DIA 6.35MM COP W-COOL CF16	1-PW-0682
PW FT 5KV 1 TUBE DIA 6.35MM NIC W-COOL CF16	1-PW-0683
PW FT 5KV 1 TUBE 6.35MM SST W-COOL CF16	1-PW-0684
PW FT 5KV 1 TUBE 6.35MM COP W-COOL CF40	1-PW-0685
PW FT 5KV 1 TUBE DIA 6.35MM NIC W-COOL CF40	1-PW-0686
PW FT 5KV 1 TUBE DIA 6.35MM SST W-COOL CF40	1-PW-0687
PW FT 5KV 2 TUBES DIA 6.35MM COP W-COOL CF40	1-PW-0688
PW FT 5KV 2 TUBES DIA 6.35MM NIC W-COOL CF40	1-PW-0689
PW FT 5KV 2 TUBES DIA 6.35MM SST W-COOL CF40	1-PW-0690
PW FT 5KV 3 TUBES DIA 6.35MM COP W-COOL CF40	1-PW-0691
PW FT 5KV 3 TUBES DIA 6.35MM NIC W-COOL CF40	1-PW-0692
PW FT 5KV 3 TUBES DIA 6.35MM SST W-COOL CF40	1-PW-0693
PW FT 5KV 4 TUBES DIA 6.35MM COP W-COOL CF40	1-PW-0694
PW FT 5KV 4 TUBES DIA 6.35MM NIC W-COOL CF40	1-PW-0695
PW FT 5KV 4 TUBES DIA 6.35MM SST W-COOL CF40	1-PW-0696
PW FT 3KV 1 TUBE COPPER W-COOLED KF16	1-PW-0825
PW FT 5KV 1 TUBE COPPER W-COOLED KF16	1-PW-0697
PW FT 5KV 1 TUBE NICKEL W-COOLED KF16	1-PW-0698
PW FT 5KV 1 TUBE SST W-COOLED KF16	1-PW-0699
PW FT 5KV 1 TUBE COPPER W-COOLED KF40	1-PW-0700
PW FT 5KV 1 TUBEN NICKEL W-COOLED KF40	1-PW-0701
PW FT 5KV 1 TUBE SST W-COOLED KF40	1-PW-0702
PW FT 5KV 2 TUBE COPPER W-COOLED KF40	1-PW-0703
PW FT 5KV 2 TUBE NICKEL W-COOLED KF40	1-PW-0704
PW FT 5KV 2 TUBE SST W-COOLED KF40	1-PW-0705
PW FT 5KV 3 TUBE COPPER W-COOLED KF40	1-PW-0706
PW FT 5KV 3 TUBE NICKEL W-COOLED KF40	1-PW-0707
PW FT 5KV 3 TUBE SST W-COOLED KF40	1-PW-0708
PW FT 5KV 4 TUBE COPPER W-COOLED KF40	1-PW-0709
PW FT 5KV 4 TUBE NICKEL W-COOLED KF40	1-PW-0710
PW FT 5KV 4 TUBE SST W-COOLED KF40	1-PW-0711
PW FT 3KV 1000AMP 1 PIN COP W-COOL CF40	1-PW-0712

Power FT 5 to 10kVDC 1 to 8 pins power-glove

Description	Part Number
PW FT 5KV 25AMP 1 PIN COPPER WELD P-GLOVE	1-PW-0826
PW FT 5KV 15AMP 1 PIN COPPER WELD P-GLOVE	1-PW-0827
PW FT 5KV 1AMP 1 PIN COPPER WELD P-GLOVE	1-PW-0828
PW FT 5KV 25AMP 1 PIN COPPER CF16 P-GLOVE	1-PW-0713
PW FT 5KV 25AMP 1 PIN COPPER CF40 P-GLOVE	1-PW-0714
PW FT 5KV 25AMP 2 PIN COPPER CF40 P-GLOVE	1-PW-0715
PW FT 5KV 25AMP 3 PIN COPPER CF40 P-GLOVE	1-PW-0716
PW FT 5KV 25AMP 4 PIN COPPER CF40 P-GLOVE	1-PW-0727
PW FT 5KV 25AMP 5 PIN COPPER CF40 P-GLOVE	1-PW-0829
PW FT 5KV 25AMP 6 PIN COPPER CF40 P-GLOVE	1-PW-0830
PW FT 5KV 25AMP 7 PIN COPPER CF40 P-GLOVE	1-PW-0831
PW FT 5KV 25AMP 8 PIN COPPER CF40 P-GLOVE	1-PW-0832
PW FT 5KV 25AMP 1 PIN COPPER KF16 P-GLOVE	1-PW-0833
PW FT 5KV 25AMP 1 PIN COPPER KF40 P-GLOVE	1-PW-0834
PW FT 5KV 25AMP 2 PIN COPPER KF16 P-GLOVE	1-PW-0835
PW FT 5KV 25AMP 3 PIN COPPER KF16 P-GLOVE	1-PW-0836
PW FT 5KV 25AMP 4 PIN COPPER KF16 P-GLOVE	1-PW-0837
PW FT 5KV 25AMP 5 PIN COPPER KF16 P-GLOVE	1-PW-0838
PW FT 5KV 25AMP 6 PIN COPPER KF16 P-GLOVE	1-PW-0839
PW FT 5KV 25AMP 7 PIN COPPER KF16 P-GLOVE	1-PW-0840
PW FT 5KV 25AMP 8 PIN COPPER KF16 P-GLOVE	1-PW-0841
PW FT 10KV 25AMP 1 PIN COPPER WELD P-GLOVE	1-PW-0722
PW FT 10KV 15AMP 1 PIN NICKEL WELD P-GLOVE	1-PW-0724
PW FT 10KV 1AMP 1 PIN SST WELD P-GLOVE	1-PW-0725
PW FT 10KV 25AMP 1 PIN COPPER CF16 P-GLOVE	1-PW-0717
PW FT 10KV 25AMP 1 PIN COPPER CF40 P-GLOVE	1-PW-0718
PW FT 10KV 25AMP 2 PIN COPPER CF40 P-GLOVE	1-PW-0719
PW FT 10KV 25AMP 3 PIN COPPER CF40 P-GLOVE	1-PW-0720
PW FT 10KV 25AMP 4 PIN COPPER CF40 P-GLOVE	1-PW-0721
PW FT 10KV 25AMP 5 PIN COPPER CF40 P-GLOVE	1-PW-0842
PW FT 10KV 25AMP 6 PIN COPPER CF40 P-GLOVE	1-PW-0843
PW FT 10KV 25AMP 7 PIN COPPER CF40 P-GLOVE	1-PW-0844
PW FT 10KV 25AMP 8 PIN COPPER CF40 P-GLOVE	1-PW-0845

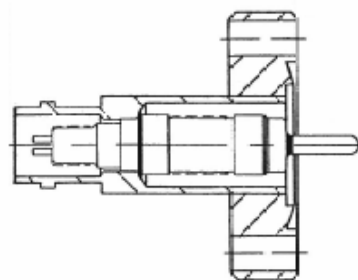
Power Feedthroughs RF 10KW to 450kHz

RF power to 10KW to 450kHz max bakeout temp 300°C

Description	Part Number
PW FT RF 8KV 450HZ 10KW 1PIN WELD	1-RF-0804
PW FT RF 8KV 450HZ 10KW 2PIN WELD	1-RF-0805
PW FT RF 8KV 450HZ 10KW 1PIN CF40	1-RF-0800
PW FT RF 8KV 450HZ 10KW 2PIN CF40	1-RF-0801
PW FT RF 8KV 450HZ 35KW 1PIN KF40	1-RF-0802
PW FT RF 8KV 450HZ 20KW 2PIN KF40	1-RF-0803

Description

Single ended coaxial feedthroughs are used in application where continuous shielding is not important, and the space on vacuum side is limited

**Features**

- UHV compatible construction
- Available CF / KF and weldable configuration
- Air side connector included
- Bayonet style threadless connection
- Noise shield for instrumentation transmission
- Custom configuration available on request

Specifications:

Voltage	500 VDC max
Current	3 Amp
Impedence	Non constant
Material	
Flanges	304 Stainless steel
Shell	304 Stainless steel
Pins	304 Stainless steel
Insulation	Alumina ceramic
Vacuum range UHV/HV	1×10^{-10} / 1×10^{-8} mbar
Temperature range	
CF mounted FT	-200 to 450°C
KF mounted FT	-20 to 150°C
Weldable	-200 to 450°C
Air side connector	-65 to 165°C

Description	Part Number
COAX BNC GROUNDED SE 1PIN CF16 W/AIR CON	1-CX-0100
COAX BNC GROUNDED SE 1PIN CF40 W/AIR CON	1-CX-0101
COAX BNC GROUNDED SE 2PIN CF40 W/AIR CON	1-CX-0102
COAX BNC GROUNDED SE 3PIN CF40 W/AIR CON	1-CX-0103
COAX BNC GROUNDED SE 4PIN CF40 W/AIR CON	1-CX-0104
COAX BNC GROUNDED SE 1PIN KF16 W/AIR CON	1-CX-0105
COAX BNC GROUNDED SE 1PIN KF40 W/AIR CON	1-CX-0106
COAX BNC GROUNDED SE 2PIN KF40 W/AIR CON	1-CX-0107
COAX BNC GROUNDED SE 3PIN KF50 W/AIR CON	1-CX-0108
COAX BNC GROUNDED SE 4PIN KF50 W/AIR CON	1-CX-0109
COAX BNC GROUNDED SE 1PIN WELD W/AIR CON	1-CX-0110

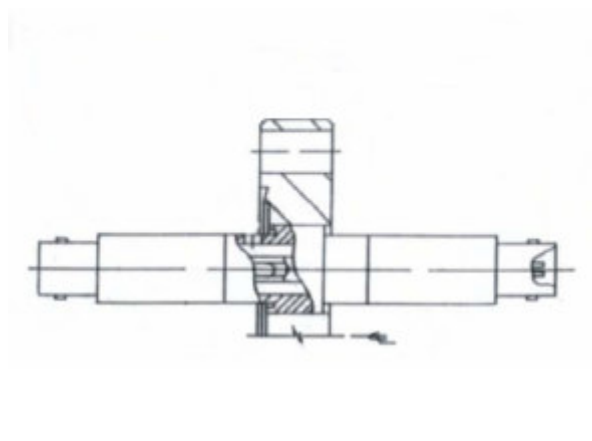
1.2 BNC Coaxial Grounded Shield Double Ended

Description

Double ended coaxial feedthroughs are used in application where continuous air and vacuum shielding is requested.

Features

- UHV compatible construction
- Available CF / KF and weldable configuration
- Air side connector included
- Bayonet style threadless connection
- Noise shield for instrumentation transmission
- Custom configuration available on request



Specifications:

Voltage	500 VDC max
Current	3 Amp
Impedence	Non constant
Material	
Flanges	304 Stainless steel
Shell	304 Stainless steel
Pins	304 Stainless steel
Insulation	Alumina ceramic
Vacuum range UHV/HV	1x10 ⁻¹⁰ / 1x10 ⁻⁸ mbar
Temperature range	
CF mounted FT	-200 to 450°C
KF mounted FT	-20 to 150°C
Weldable	-200 to 450°C
Air side connector	-65 to 165°C

Description	Part Number
COAX BNC GROUNDED DE 1PIN CF16 W/AIR CON	1-CX-0111
COAX BNC GROUNDED DE 1PIN CF40 W/AIR CON	1-CX-0112
COAX BNC GROUNDED DE 2PIN CF40 W/AIR CON	1-CX-0113
COAX BNC GROUNDED DE 1PIN KF40 W/AIR CON	1-CX-0114
COAX BNC GROUNDED DE 2PIN KF50 W/AIR CON	1-CX-0115
COAX BNC GROUNDED DE 3PIN KF50 W/AIR CON	1-CX-0116
COAX BNC GROUNDED DE 1PIN WELD W/AIR CON	1-CX-0117

Description

Single ended coaxial feedthroughs are used in application where continuous shielding is not important, and the space on vacuum side is limited.

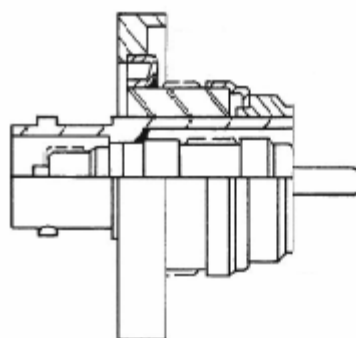
Double ended coaxial feedthroughs are used in application where continuous air and vacuum shielding is requested.

Features

- UHV compatible construction
- Available CF / KF and weldable configuration
- Air side connector included
- Bayonet style threadless connection
- Noise shield for instrumentation transmission
- Custom configuration available on request

Specifications:

Voltage	500 VDC max
Current	3 Amp
Impedence	Non constant
Material	
Flanges	304 Stainless steel
Shell	304 Stainless steel
Pins	304 Stainless steel
Insulation	Alumina ceramic
Vacuum range UHV/HV	1x10 ⁻¹⁰ / 1x10 ⁻⁸ mbar
Temperature range	
CF mounted FT	-200 to 450°C
KF mounted FT	-20 to 150°C
Weldable	-200 to 450°C
Air side connector	-65 to 165°C



Description	Part Number
COAX BNC FLOAT SE 1PIN CF16 W/AIR CON	1-CX-0118
COAX BNC FLOAT SE 1PIN CF40 W/AIR CON	1-CX-0119
COAX BNC FLOAT DE 1PIN CF16 W/AIR CON	1-CX-0120
COAX BNC FLOAT DE 1PIN CF40 W/AIR CON	1-CX-0121
COAX BNC FLOAT SE 1PIN KF16 W/AIR CON	1-CX-0122
COAX BNC FLOAT SE 1PIN KF40 W/AIR CON	1-CX-0123
COAX BNC FLOAT DE 1PIN KF16 W/AIR CON	1-CX-0124
COAX BNC FLOAT DE 1PIN KF40 W/AIR CON	1-CX-0125
COAX BNC FLOAT DE 1PIN WELD W/AIR CON	1-CX-0126

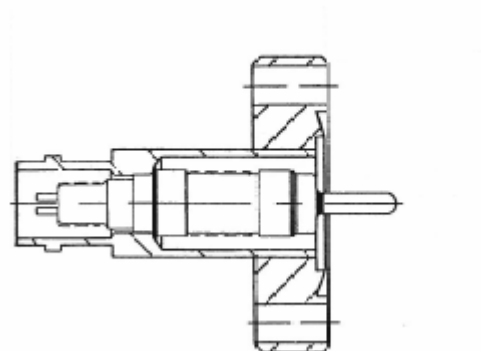
1.2 MHV Coaxial Grounded Shield Single Ended

Description

Single ended coaxial feedthroughs are used in application where continuous shielding is not important, and the space on vacuum side is limited.

Features

- UHV compatible construction
- Available CF / KF and weldable configuration
- Air side connector included
- Bayonet style threadless connection
- Medium voltage
- Custom configuration available on request



Specifications:

Voltage	5000 VDC max
Current	3 Amp
Impedence	Non constant
Material	
Flanges	304 Stainless steel
Shell	304 Stainless steel
Pins	304 Stainless steel
Insulation	Alumina ceramic
Vacuum range UHV/HV	1x10 ⁻¹⁰ / 1x10 ⁻⁸ mbar
Temperature range	
CF mounted FT	-200 to 450°C
KF mounted FT	-20 to 150°C
Weldable	-200 to 450°C
Air side connector	-65 to 165°C

Description	Part Number
COAX MHV GROUNDED SE 1PIN CF16 W/AIR CON	1-CX-0127
COAX MHV GROUNDED SE 1PIN CF40 W/AIR CON	1-CX-0128
COAX MHV GROUNDED SE 2PIN CF40 W/AIR CON	1-CX-0129
COAX MHV GROUNDED SE 3PIN CF40 W/AIR CON	1-CX-0130
COAX MHV GROUNDED SE 4PIN CF40 W/AIR CON	1-CX-0131
COAX MHV GROUNDED SE 1PIN KF16 W/AIR CON	1-CX-0132
COAX MHV GROUNDED SE 1PIN KF40 W/AIR CON	1-CX-0133
COAX MHV GROUNDED SE 2PIN KF40 W/AIR CON	1-CX-0134
COAX MHV GROUNDED SE 3PIN KF50 W/AIR CON	1-CX-0135
COAX MHV GROUNDED SE 4PIN KF50 W/AIR CON	1-CX-0136
COAX MHV GROUNDED SE 1PIN WELD W/AIR CON	1-CX-0137

Description

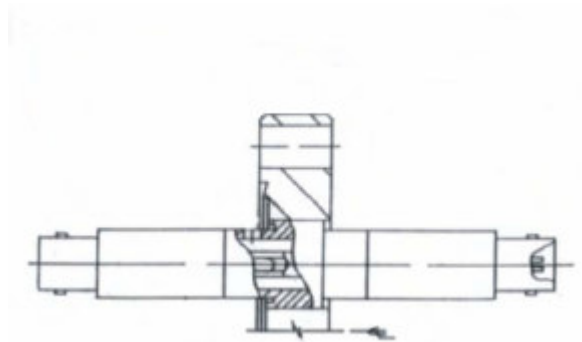
Double ended coaxial feedthroughs are used in application where continuous air and vacuum shielding is requested.

Features

- UHV compatible construction
- Available CF / KF and weldable configuration
- Air side connector included
- Bayonet style threadless connection
- Medium voltage
- Custom configuration available on request

Specifications:

Voltage	5000 VDC max
Current	3 Amp
Impedence	Non constant
Material	
Flanges	304 Stainless steel
Shell	304 Stainless steel
Pins	304 Stainless steel
Insulation	Alumina ceramic
Vacuum range UHV/HV	1×10^{-10} / 1×10^{-8} mbar
Temperature range	
CF mounted FT	-200 to 450°C
KF mounted FT	-20 to 150°C
Weldable	-200 to 450°C
Air side connector	-65 to 165°C



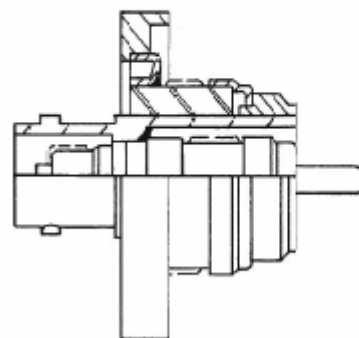
Description	Part Number
COAX MHV GROUNDED DE 1PIN CF16 W/AIR CON	1-CX-0138
COAX MHV GROUNDED DE 1PIN CF40 W/AIR CON	1-CX-0139
COAX MHV GROUNDED DE 2PIN CF40 W/AIR CON	1-CX-0140
COAX MHV GROUNDED DE 1PIN KF16 W/AIR CON	1-CX-0141
COAX MHV GROUNDED DE 1PIN KF40 W/AIR CON	1-CX-0142
COAX MHV GROUNDED DE 2PIN KF50 W/AIR CON	1-CX-0143
COAX MHV GROUNDED DE 3PIN KF50 W/AIR CON	1-CX-0144
COAX MHV GROUNDED DE 1PIN WELD W/AIR CON	1-CX-0145

MHV Coaxial Floating Shield Single & Double Ended

Description

Single ended coaxial feedthroughs are used in application where continuous shielding is not important, and the space on vacuum side is limited.

Double ended coaxial feedthroughs are used in application where continuous air and vacuum shielding is requested.



Features

- UHV compatible construction
- Available CF / KF and weldable configuration
- Air side connector included
- Bayonet style threadless connection
- Medium voltage
- Custom configuration available on request

Specifications:

Voltage	5000 VDC max
Current	3 Amp
Impedence	Non constant
Material	
Flanges	304 Stainless steel
Shell	304 Stainless steel
Pins	304 Stainless steel
Insulation	Alumina ceramic
Vacuum range UHV/HV	1×10^{-10} / 1×10^{-8} mbar
Temperature range	
CF mounted FT	-200 to 450°C
KF mounted FT	-20 to 150°C
Weldable	-200 to 450°C
Air side connector	-65 to 165°C

Description	Part Number
COAX MHV FLOAT DE 1PIN CF16 W/AIR CON	1-CX-0146
COAX MHV FLOAT DE 1PIN CF40 W/AIR CON	1-CX-0147
COAX MHV FLOAT SE 1PIN KF16 W/AIR CON	1-CX-0148
COAX MHV FLOAT SE 1PIN KF40 W/AIR CON	1-CX-0149
COAX MHV FLOAT DE 1PIN KF16 W/AIR CON	1-CX-0150
COAX MHV FLOAT DE 1PIN KF40 W/AIR CON	1-CX-0151
COAX MHV FLOAT DE 1 PIN WELD W/AIR CON	1-CX-0152

Features

- UHV compatible construction
- Available CF / KF and weldable configuration
- Air side connector included
- Bayonet style threadless connection
- Custom configuration available on request

**Specifications:**

Voltage	5000 VDC max
Current	5 Amp
Impedence	Non constant
Material	
Flanges	304 Stainless steel
Shell	304 Stainless steel
Pins	Nickel
Insulation	Alumina ceramic
Vacuum range UHV/HV	1×10^{-10} / 1×10^{-8} mbar
Temperature range	
CF mounted FT	-200 to 450°C
KF mounted FT	-20 to 150°C
Weldable	-200 to 450°C
Air side connector	-65 to 165°C

Description	Part Number
COAX SHV-5 EXP 1PIN CF16 W/AIR CON	1-CX-0153
COAX SHV-5 EXP 1PIN CF40 W/AIR CON	1-CX-0154
COAX SHV-5 EXP 2PIN CF40 W/AIR CON	1-CX-0155
COAX SHV-5 EXP 3PIN CF40 W/AIR CON	1-CX-0156
COAX SHV-5 EXP 4PIN CF40 W/AIR CON	1-CX-0157
COAX SHV-5 EXP 1PIN KF16 W/AIR CON	1-CX-0158
COAX SHV-5 EXP 1PIN KF40 W/AIR CON	1-CX-0159
COAX SHV-5 EXP 2PIN KF40 W/AIR CON	1-CX-0160
COAX SHV-5 EXP 3PIN KF50 W/AIR CON	1-CX-0161
COAX SHV-5 EXP 4PIN KF50 W/AIR CON	1-CX-0162
COAX SHV-5 EXP SE 1PIN WELD W/AIR CON	1-CX-0163

SHV-5 Coaxial Recessed

Features

- UHV compatible construction
- Available CF / KF and weldable configuration
- Air side connector included
- Bayonet style threadless connection
- Custom configuration available on request

**Specifications:**

Voltage	5000 VDC max
Current	5 Amp
Impedence	Non constant
Material	
Flanges	304 Stainless steel
Shell	304 Stainless steel
Pins	Nickel
Insulation	Alumina ceramic
Vacuum range UHV/HV	1×10^{-10} / 1×10^{-8} mbar
Temperature range	
CF mounted FT	-200 to 450°C
KF mounted FT	-20 to 150°C
Weldable	-200 to 450°C
Air side connector	-65 to 165°C

Description	Part Number
COAX SHV-5 REC 1PIN CF16 W/AIR CON	1-CX-0164
COAX SHV-5 REC 1PIN CF40 W/AIR CON	1-CX-0165
COAX SHV-5 REC 2PIN CF40 W/AIR CON	1-CX-0166
COAX SHV-5 REC 3PIN CF40 W/AIR CON	1-CX-0167
COAX SHV-5 REC 4PIN CF40 W/AIR CON	1-CX-0168
COAX SHV-5 REC 1PIN KF16 W/AIR CON	1-CX-0169
COAX SHV-5 REC 1PIN KF40 W/AIR CON	1-CX-0170
COAX SHV-5 REC 2PIN KF40 W/AIR CON	1-CX-0171
COAX SHV-5 REC 3PIN KF50 W/AIR CON	1-CX-0172
COAX SHV-5 REC 4PIN KF50 W/AIR CON	1-CX-0173
COAX SHV-5 REC SE 1PIN WELD W/AIR CON	1-CX-0174

Features

- UHV compatible construction
- Available CF / KF and weldable configuration
- Air side connector included
- Bayonet style threadless connection
- Custom configuration available on request

**Specifications:**

Voltage	10000 VDC max
Current	5 Amp
Impedence	Non constant
Material	
Flanges	304 Stainless steel
Shell	304 Stainless steel
Pins	Nickel
Insulation	Alumina ceramic
Vacuum range UHV/HV	1×10^{-10} / 1×10^{-8} mbar
Temperature range	
CF mounted FT	-100 to 450°C
KF mounted FT	-20 to 150°C
Weldable	-100 to 450°C
Air side connector	-65 to 165°C

Description	Part Number
COAX SHV-10 EXP 1PIN CF16 W/AIR CON	1-CX-0175
COAX SHV-10 EXP 1PIN CF40 W/AIR CON	1-CX-0176
COAX SHV-10 EXP 2PIN CF40 W/AIR CON	1-CX-0177
COAX SHV-10 EXP 3PIN CF40 W/AIR CON	1-CX-0178
COAX SHV-10 EXP 4PIN CF40 W/AIR CON	1-CX-0179
COAX SHV-10 EXP 1PIN KF16 W/AIR CON	1-CX-0180
COAX SHV-10 EXP 1PIN KF40 W/AIR CON	1-CX-0181
COAX SHV-10 EXP 2PIN KF40 W/AIR CON	1-CX-0182
COAX SHV-10 EXP 3PIN KF50 W/AIR CON	1-CX-0183
COAX SHV-10 EXP 4PIN KF50 W/AIR CON	1-CX-0184
COAX SHV-10 EXP SE 1PIN WELD W/AIR CON	1-CX-0185

SHV-10 Coaxial Recessed

Features

- UHV compatible construction
- Available CF / KF and weldable configuration
- Air side connector included
- Bayonet style threadless connection
- Custom configuration available on request

**Specifications:**

Voltage	10000 VDC max
Current	5 Amp
Impedence	Non constant
Material	
Flanges	304 Stainless steel
Shell	304 Stainless steel
Pins	Nickel
Insulation	Alumina ceramic
Vacuum range UHV/HV	1×10^{-10} / 1×10^{-8} mbar
Temperature range	
CF mounted FT	-100 to 450°C
KF mounted FT	-20 to 150°C
Weldable	-100 to 450°C
Air side connector	-65 to 165°C

Description	Part Number
COAX SHV-10 REC 1PIN CF16 W/AIR CON	1-CX-0186
COAX SHV-10 REC 2PIN CF40 W/AIR CON	1-CX-0187
COAX SHV-10 REC 3PIN CF40 W/AIR CON	1-CX-0188
COAX SHV-10 REC 4PIN CF40 W/AIR CON	1-CX-0189
COAX SHV-10 REC 1PIN KF16 W/AIR CON	1-CX-0190
COAX SHV-10 REC 1PIN KF40 W/AIR CON	1-CX-0191
COAX SHV-10 REC 2PIN KF40 W/AIR CON	1-CX-0192
COAX SHV-10 REC 3PIN KF50 W/AIR CON	1-CX-0193
COAX SHV-10 REC 4PIN KF50 W/AIR CON	1-CX-0194
COAX SHV-10 REC SE 1PIN WELD W/AIR CON	1-CX-0195

Features

- UHV compatible construction
- Available CF / KF and weldable configuration
- Air side connector included
- Bayonet style threadless connection
- Custom configuration available on request

**Specifications:**

Voltage	20000 VDC max
Current	15 Amp
Impedence	Non constant
Material	
Flanges	304 Stainless steel
Shell	304 Stainless steel
Pins	Nickel
Insulation	Alumina ceramic
Vacuum range UHV/HV	1×10^{-10} / 1×10^{-8} mbar
Temperature range	
CF mounted FT	-200 to 450°C
KF mounted FT	-20 to 150°C
Weldable	-200 to 450°C
Air side connector	-65 to 165°C

Description	Part Number
COAX SHV-20 EXP 1PIN CF16 W/AIR CON	1-CX-0196
COAX SHV-20 EXP 1PIN CF40 W/AIR CON	1-CX-0197
COAX SHV-20 EXP 2PIN CF40 W/AIR CON	1-CX-0198
COAX SHV-20 EXP 1PIN KF40 W/AIR CON	1-CX-0199
COAX SHV-20 EXP 2PIN KF50 W/AIR CON	1-CX-0200
COAX SHV-20 EXP SE 1PIN WELD W/AIR CON	1-CX-0201

SHV-B Coaxial 7500V – 3Amp

Features

- UHV compatible construction
- Available CF / KF and weldable configuration
- Bakeable air side connector included
- Threaded style connection
- Custom configuration available on request



Specifications:

Voltage	7500 VDC max
Current	3 Amp
Impedence	Non constant
Material	
Flanges	304 Stainless steel
Shell	304 Stainless steel
Pins	Nickel
Insulation	Alumina ceramic
Vacuum range UHV/HV	1×10^{-10} / 1×10^{-8} mbar
Temperature range	
CF mounted FT	-200 to 450°C
KF mounted FT	-20 to 150°C
Weldable	-200 to 450°C
Air side connector	-200 to 350°C

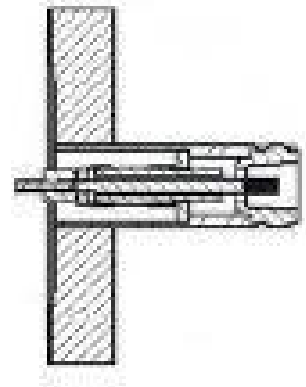
Description	Part Number
COAX SHV-B 1PIN CF16 W/AIR CON	1-CX-0209
COAX SHV-B 1PIN CF40 W/AIR CON	1-CX-0210
COAX SHV-B 1PIN KF16 W/AIR CON	1-CX-0211
COAX SHV-B 2PIN KF50 W/AIR CON	1-CX-0212
COAX SHV-B SE 1PIN WELD W/AIR CON	1-CX-0213

Features

- UHV compatible construction
- Available CF / KF and weldable configuration
- Air side connector included
- Threaded style connection
- High frequency transmission 1GHz
- Custom configuration available on request

Specifications:

Voltage	500 VDC max
Current	3 Amp
Impedence	Non constant
Material	
Flanges	304 Stainless steel
Shell	304 Stainless steel
Pins	Nickel
Insulation	Alumina ceramic
Vacuum range UHV/HV	1x10 ⁻¹⁰ / 1x10 ⁻⁸ mbar
Temperature range	
CF mounted FT	-200 to 450°C
KF mounted FT	-20 to 150°C
Weldable	-200 to 450°C
Air side connector	-65 to 165°C



Description	Part Number
COAX TYPE-N SE 1PIN CF16 W/AIR CON	1-CX-0214
COAX TYPE-N SE 1PIN CF40 W/AIR CON	1-CX-0215
COAX TYPE-N DE 1PIN CF40 W/AIR CON	1-CX-0216
COAX TYPE-N SE 1PIN KF16 W/AIR CON	1-CX-0217
COAX TYPE-N SE 1PIN KF40 W/AIR CON	1-CX-0218
COAX TYPE-N SE 1 PIN WELD W/AIR CON	1-CX-0219
COAX TYPE-N DE 1 PIN WELD W/AIR CON	1-CX-0220

SMA Coaxial Single & Double Ended

Features

- UHV compatible construction
- Available CF / KF and weldable configuration
- Air side connector included
- Threaded style connection
- High frequency transmission 1GHz
- Custom configuration available on request

Specifications:

Voltage 700 VDC max

Current 1 Amp

Impedence

Single Ended Non constant

Double Ended Matched

Material

Flanges 304 Stainless steel

Shell 304 Stainless steel

Pins 304 Stainless steel

Insulation Alumina ceramic

Vacuum range UHV/HV 1×10^{-10} / 1×10^{-8} mbar

Temperature range

CF mounted FT -200 to 450°C

KF mounted FT -20 to 150°C

Weldable -200 to 450°C

Air side connector -65 to 165°C



Description	Part Number
COAX SME SE 1PIN WELD W/AIR CON	1-CX-0225
COAX SME DE 1PIN WELD W/AIR CON	1-CX-0226
COAX SMA SE 1PIN CF16 W/AIR CON	1-CX-0221
COAX SMA DE 1PIN CF16 W/AIR CON	1-CX-0222
COAX SMA SE 1PIN KF16 W/AIR CON	1-CX-0223
COAX SMA DE 1PIN KF16 W/AIR CON	1-CX-0224

Features

- UHV compatible construction
- Available on CF configuration
- Air side connector included
- Threaded style connection
- Noise Shield for instrumentation transmission
- Custom configuration available on request

Specifications:

Voltage	500 VDC max
Current	2 Amp
Impedence	Non constant
Material	
Flanges	304 Stainless steel
Shell	304 Stainless steel
Pins	Molybdenum
Insulation	Alumina ceramic
Vacuum range UHV/HV	1x10 ⁻¹⁰ / 1x10 ⁻⁸ mbar
Temperature range	
CF mounted FT	-100 to 450°C
KF mounted FT	-20 to 150°C
Weldable	-100 to 450°C
Air side connector	-65 to 165°C

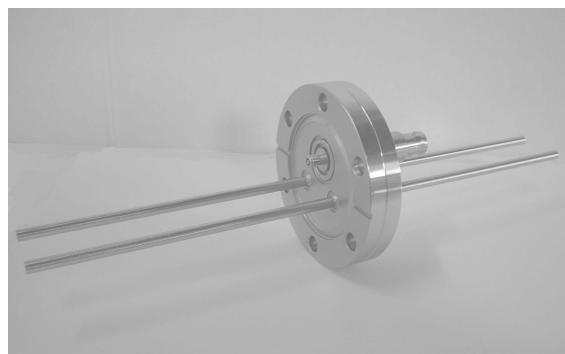


Description	Part Number
COAX MICRODOT GRO SE 1PIN CF16 W/AIR CON	1-CX-0227

1.2 BNC-Microdot Crystal Sensor Feedthrough

Features

- UHV compatible construction
- Available on CF/KF/Baseplate 1" and Weldable configuration
- Air side connector included
- Bayonet style threadless connection
- Noise Shield for instrumentation transmission
- Custom configuration available on request



Specifications:

Voltage	500 VDC max
Current	1 Amp
Impedence	Non constant
Material	
Flanges	304 Stainless steel
Shell	304 Stainless steel
Pins	304 Stainless steel
Insulation	Alumina ceramic
Vacuum range UHV/HV	1×10^{-10} / 1×10^{-8} mbar
Temperature range	
CF mounted FT	400°C
KF mounted FT	150°C
Weldable	450°C
Air side connector	125°C

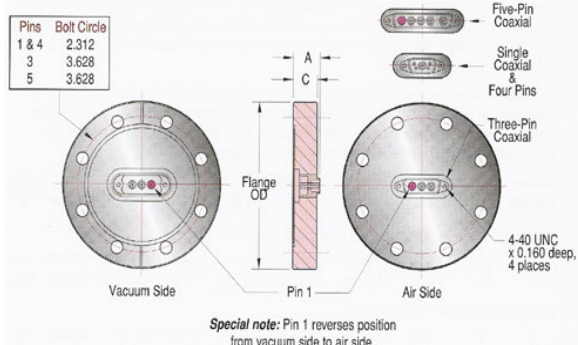
Description	Part Number
FT ON CF40 2 WATER + 1 COAXIAL	6-CF-0400
FT ON KF40 2 WATER + 1 COAXIAL	6-CF-0402
COAX BNC TO MICRODOT WELD	1-CX-0228

Description

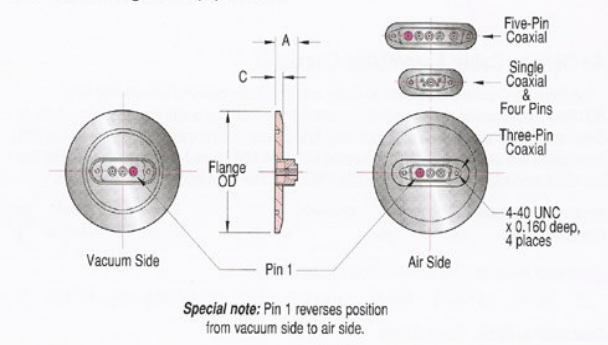
Hermetic Subminiature-D feedthroughs are now available with coaxial, pin and shield design and come in 1,3 3 and 5 pin configurations mounted in standard D9, D15 and D25 shell sizes respectively. The coaxial shield floats with respect to ground providing a secondary electrical path. The single pin coaxial feedthrough also includes four non shielded instrumentation pins for added connection capability. Gold plated pins and shields are hermetically sealed and electrically insulated in a stainless steel shell using the latest in glass-ceramic bonding technology. Ultrahigh vacuum cable assemblies with PEEK connectors and Kapton insulated 50-Ohm coaxial cables are available to meet the rigorous demands of UHV environments. Vacuum and air side cable assemblies are available, but must be purchased separately. Custom Subminiature-D coaxial feedthrough products are available on request.



Ultrahigh Vacuum
CF Flange with 1, 3, & 5 Pins



High Vacuum
ISO KF / LF Flange with 1, 3, & 5 Pins



Specifications:

Voltage	500 VDC max
Current	5 Amp max @ 20°C
Material	
Shell	304 Stainless steel
Coaxial shield	Ni-Fe alloy, gold plated
Pins	Ni-Fe alloy, gold plated
Seal/insulation	Glass-ceramic
Vacuum connector	PEEK®
Air connector	Delrin
Cable insulation	Kapton® type F film
Vacuum range UHV/HV	1x10 ⁻¹⁰ / 1x10 ⁻⁸ mbar
Temperature range	
Feedthrough	250°C
Connector, air/vacuum	80/250°C
Thermal gradient	25°C/minute max

Features

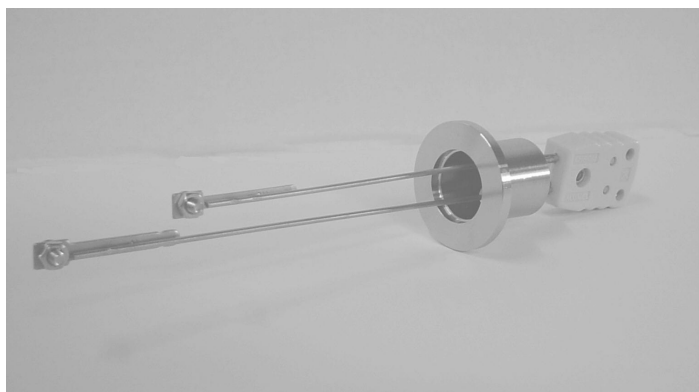
- 1,3 & 5 pin configuration
- Floating shield design
- Kapton insulated, vacuum compatible 50-Ohm cables
- High temperature rated to 250deg.C
- UHV compatible construction
- Conflat compatible flange mounts
- ISO compatible flange mounts
- PEEK connector with locking screws
- Air side connectors available
- Custom versions on request

Description	Part Number
SUB-D COAXIAL FT 1 COAX 4 INSTR ON CF40	1-CX-0242
SUB-D COAXIAL FT 3 COAX ON CF63	1-CX-0243
SUB-D COAXIAL FT 5 COAX ON CF63	1-CX-0244
SUB-D COAXIAL FT 1 COAX 4 INSTR ON KF40	1-CX-0245
SUB-D COAXIAL FT 3 COAX ON KF50	1-CX-0246
SUB-D COAXIAL FT 5 COAX ON LF63	1-CX-0247

Thermocouple Feedthroughs TC only

Features

- UHV compatible construction
- Available on CF/KF and Weldable configuration
- Air side connector included
- TC types C, E, J, K as standard, N upon request
- Custom configuration available on request



Specifications:

Voltage	Milli Volts
Current	Milli Amp
Material	
Flanges	304 Stainless steel
Shell	304 Stainless steel
Pins	See options steel
Insulation	Alumina ceramic
Vacuum range UHV/HV	1×10^{-10} / 1×10^{-8} mbar
Temperature range	
CF mounted FT	450°C
KF mounted FT	150°C
Weldable	450°C
Air side connector	125°C



TYPE	THERMOCOUPLE MATERIAL	POLARITY	OPERATING TEMPERATURE RANGE °C
K	CHROMEL ALUMEL	+ -	-200 TO 1250
C	TUNGSTEN 5% RHENIUM TUNGSTEN 26% RHENIUM	+ -	0 TO 2320
E	CHROMEL CONSTANTAN	+ -	-200 TO 900
J	IRON CONSTANTAN	+ -	0 TO 750
T	COPPER CONSTANTAN	+ -	-200 TO 350
N	NI-CR-SI NI-SI-MG	+ -	-270 TO 1300
R	PLATINUM 13% RHODIUM PLATINUM	+ -	0 TO 1450
S	PLATINUM 10% RHODIUM PLATINUM	+ -	0 TO 1450

TC only 1 to 3 pairs connection fitted

Description	Part Number
TC FT 1 PAIR TYPE C WELD W/AIR CON	1-TC-0308
TC FT 1 PAIR TYPE E WELD W/AIR CON	1-TC-0309
TC FT 1 PAIR TYPE J WELD W/AIR CON	1-TC-0310
TC FT 1 PAIR TYPE K WELD W/AIR CON	1-TC-0311
TC FT 2 PAIR TYPE C WELD W/AIR CON	1-TC-0320
TC FT 2 PAIR TYPE E WELD W/AIR CON	1-TC-0321
TC FT 2 PAIR TYPE J WELD W/AIR CON	1-TC-0322
TC FT 2 PAIR TYPE K WELD W/AIR CON	1-TC-0323
TC FT 3 PAIR TYPE C WELD W/AIR CON	1-TC-0332
TC FT 3 PAIR TYPE E WELD W/AIR CON	1-TC-0333
TC FT 3 PAIR TYPE J WELD W/AIR CON	1-TC-0334
TC FT 3 PAIR TYPE K WELD W/AIR CON	1-TC-0335
TC FT 1 PAIR TYPE C CF16 W/AIR CON	1-TC-0300
TC FT 1 PAIR TYPE E CF16 W/AIR CON	1-TC-0301
TC FT 1 PAIR TYPE J CF16 W/AIR CON	1-TC-0302
TC FT 1 PAIR TYPE K CF16 W/AIR CON	1-TC-0303
TC FT 2 PAIR TYPE C CF16 W/AIR CON	1-TC-0312
TC FT 2 PAIR TYPE E CF16 W/AIR CON	1-TC-0313
TC FT 2 PAIR TYPE J CF16 W/AIR CON	1-TC-0314
TC FT 2 PAIR TYPE K CF16 W/AIR CON	1-TC-0315
TC FT 3 PAIR TYPE C CF16 W/AIR CON	1-TC-0324
TC FT 3 PAIR TYPE E CF16 W/AIR CON	1-TC-0325
TC FT 3 PAIR TYPE J CF16 W/AIR CON	1-TC-0326
TC FT 3 PAIR TYPE K CF16 W/AIR CON	1-TC-0327
TC FT 1 PAIR TYPE C KF16 W/AIR CON	1-TC-0304
TC FT 1 PAIR TYPE E KF16 W/AIR CON	1-TC-0305
TC FT 1 PAIR TYPE J KF16 W/AIR CON	1-TC-0306
TC FT 1 PAIR TYPE K KF16 W/AIR CON	1-TC-0307
TC FT 2 PAIR TYPE C KF16 W/AIR CON	1-TC-0316
TC FT 2 PAIR TYPE E KF16 W/AIR CON	1-TC-0317
TC FT 2 PAIR TYPE J KF16 W/AIR CON	1-TC-0318
TC FT 2 PAIR TYPE K KF16 W/AIR CON	1-TC-0319
TC FT 3 PAIR TYPE C KF16 W/AIR CON	1-TC-0328
TC FT 3 PAIR TYPE E KF16 W/AIR CON	1-TC-0329
TC FT 3 PAIR TYPE J KF16 W/AIR CON	1-TC-0330
TC FT 3 PAIR TYPE K KF16 W/AIR CON	1-TC-0331

TC only 4 to 5 pairs connection fitted

Description	Part Number
TC FT 4 PAIR TYPE C WELD W/AIR CON	1-TC-0344
TC FT 4 PAIR TYPE E WELD W/AIR CON	1-TC-0345
TC FT 4 PAIR TYPE J WELD W/AIR CON	1-TC-0346
TC FT 4 PAIR TYPE K WELD W/AIR CON	1-TC-0347
TC FT 5 PAIR TYPE C WELD W/AIR CON	1-TC-0356
TC FT 5 PAIR TYPE E WELD W/AIR CON	1-TC-0357
TC FT 5 PAIR TYPE J WELD W/AIR CON	1-TC-0358
TC FT 5 PAIR TYPE K WELD W/AIR CON	1-TC-0359
TC FT 4 PAIR TYPE C CF40 W/AIR CON	1-TC-0336
TC FT 4 PAIR TYPE E CF40 W/AIR CON	1-TC-0337
TC FT 4 PAIR TYPE J CF40 W/AIR CON	1-TC-0338
TC FT 4 PAIR TYPE K CF40 W/AIR CON	1-TC-0339
TC FT 5 PAIR TYPE C CF40 W/AIR CON	1-TC-0348
TC FT 5 PAIR TYPE E CF40 W/AIR CON	1-TC-0349
TC FT 5 PAIR TYPE J CF40 W/AIR CON	1-TC-0350
TC FT 5 PAIR TYPE K CF40 W/AIR CON	1-TC-0351
TC FT 4 PAIR TYPE C KF40 W/AIR CON	1-TC-0340
TC FT 4 PAIR TYPE E KF40 W/AIR CON	1-TC-0341
TC FT 4 PAIR TYPE J KF40 W/AIR CON	1-TC-0342
TC FT 4 PAIR TYPE K KF40 W/AIR CON	1-TC-0343
TC FT 5 PAIR TYPE C KF40 W/AIR CON	1-TC-0352
TC FT 5 PAIR TYPE E KF40 W/AIR CON	1-TC-0353
TC FT 5 PAIR TYPE J KF40 W/AIR CON	1-TC-0354
TC FT 5 PAIR TYPE K KF40 W/AIR CON	1-TC-0355

Thermocouple Feedthroughs

TC only 1 to 3 pairs screw type connection

Description	Part Number
TC FT 1PAIR TYPE R&S WELD W/AIR CON	1-TC-0362
TC FT 1PAIR TYPE T WELD W/AIR CON	1-TC-0428
TC FT 2PAIR TYPE R&S WELD W/AIR CON	1-TC-0367
TC FT 2PAIR TYPE T WELD W/AIR CON	1-TC-0368
TC FT 3PAIR TYPE R&S WELD W/AIR CON	1-TC-0371
TC FT 3PAIR TYPE T WELD W/AIR CON	1-TC-0372
TC FT 1PAIR TYPE R&S CF16 W/AIR CON	1-TC-0360
TC FT 1PAIR TYPE T CF16 W/AIR CON	1-TC-0361
TC FT 2PAIR TYPE R&S CF16 W/AIR CON	1-TC-0363
TC FT 2PAIR TYPE T CF16 W/AIR CON	1-TC-0364
TC FT 3PAIR TYPE R&S CF16 W/AIR CON	1-TC-0369
TC FT 3PAIR TYPE T CF16 W/AIR CON	1-TC-0370
TC FT 1PAIR TYPE R&S KF16 W/AIR CON	1-TC-0430
TC FT 1PAIR TYPE T KF16 W/AIR-VAC CONN	1-TC-0426
TC FT 2PAIR TYPE R&S KF16 W/AIR CON	1-TC-0365
TC FT 2PAIR TYPE T KF16 W/AIR CON	1-TC-0366
TC FT 3PAIR TYPE R&S KF16 W/AIR CON	1-TC-0429
TC FT 3PAIR TYPE T KF16 W/AIR CON	1-TC-0430

TC only 4 to 5 pairs screw type connection

Description	Part Number
TC FT 4PAIR TYPE R&S WELD W/AIR CON	1-TC-0377
TC FT 4PAIR TYPE T WELD W/AIR CON	1-TC-0378
TC FT 5PAIR TYPE R&S WELD W/AIR CON	1-TC-0383
TC FT 5PAIR TYPE T WELD W/AIR CON	1-TC-0384
TC FT 4PAIR TYPE R&S CF40 W/AIR CON	1-TC-0373
TC FT 4PAIR TYPE T CF40 W/AIR CON	1-TC-0374
TC FT 5PAIR TYPE R&S CF40 W/AIR CON	1-TC-0379
TC FT 5PAIR TYPE T CF40 W/AIR CON	1-TC-0380
TC FT 4PAIR TYPE R&S KF40 W/AIR CON	1-TC-0375
TC FT 4PAIR TYPE T KF40 W/AIR CON	1-TC-0376
TC FT 5PAIR TYPE R&S KF40 W/AIR CON	1-TC-0381
TC FT 5PAIR TYPE T KF40 W/AIR CON	1-TC-0382

TC 2 to 10 pairs MS connector

Description	Part Number
TC FT MS CON 2PAIR K WELD W/AIR CON	1-TC-0397
TC FT MS CON 3PAIR K WELD W/AIR CON	1-TC-0398
TC FT MS CON 5PAIR K WELD W/AIR CON	1-TC-0399
TC FT MS CON 10PAIR K WELD W/AIR CON	1-TC-0400
TC FT MS CON 2PAIR K CF16 W/AIR CON	1-TC-0385
TC FT MS CON 2PAIR K CF40 W/AIR CON	1-TC-0386
TC FT MS CON 3PAIR K CF16 W/AIR CON	1-TC-0387
TC FT MS CON 3PAIR K CF40 W/AIR CON	1-TC-0388
TC FT MS CON 5PAIR K CF16 W/AIR CON	1-TC-0389
TC FT MS CON 5PAIR K CF40 W/AIR CON	1-TC-0390
TC FT MS CON 10PAIR K CF40 W/AIR CON	1-TC-0391
TC FT MS CON 2PAIR K KF16 W/AIR CON	1-TC-0392
TC FT MS CON 2PAIR K KF40 W/AIR CON	1-TC-0393
TC FT MS CON 3PAIR K KF16 W/AIR CON	1-TC-0394
TC FT MS CON 5PAIR K KF40 W/AIR CON	1-TC-0395
TC FT MS CON 10PAIR K KF40 W/AIR CON	1-TC-0396

TC only 2 to 5 pairs push-on connector

Description	Part Number
TC FT TC-PW 1PAIR K 5AMP N WELD W/AIR CON	1-TC-0414
TC FT TC-PW 1PAIR K 15AMP C WELD W/AIR CON	1-TC-0415
TC FT TC-PW 1PAIR K 15AMP N WELD W/AIR CON	1-TC-0420
TC FT TC-PW 1PAIR K 30AMP C WELD W/AIR CON	1-TC-0421
TC FT TC-PW 1PAIR K 5AMP N CF16 W/AIR CON	1-TC-0410
TC FT TC-PW 1PAIR K 15AMP C CF16 W/AIR CON	1-TC-0411
TC FT TC-PW 1PAIR K 15AMP N CF16 W/AIR CON	1-TC-0416
TC FT TC-PW 1PAIR C 30AMP C CF16 W/AIR CON	1-TC-0425
TC FT TC-PW 1PAIR K 30AMP C CF16 W/AIR CON	1-TC-0417
TC FT TC-PW 1PAIR K 5AMP N KF16 W/AIR CON	1-TC-0412
TC FT TC-PW 1PAIR K 15AMP C KF16 W/AIR CON	1-TC-0413
TC FT TC-PW 1PAIR K 15AMP N KF16 W/AIR CON	1-TC-0418
TC FT TC-PW 1PAIR K 30AMP C KF16 W/AIR CON	1-TC-0419

TC Power 1 TC pair & 1 PW pair TC connector

Description	Part Number
TC FT PUSH-ON 2PAIR K WELD	1-TC-0407
TC FT PUSH-ON 3PAIR K WELD	1-TC-0408
TC FT PUSH-ON 5PAIR K WELD	1-TC-0409
TC FT PUSH-ON 2PAIR K CF16	1-TC-0401
TC FT PUSH-ON 3PAIR K CF16	1-TC-0402
TC FT PUSH-ON 5PAIR K CF16	1-TC-0403
TC FT PUSH-ON 2PAIR K KF16	1-TC-0404
TC FT PUSH-ON 3PAIR K KF16	1-TC-0405
TC FT PUSH-ON 5PAIR K KF16	1-TC-0406

TC Power 1&2 TC pair & 3 PW pair TC connector

Description	Part Number
TC FT TC-PW 2PAIR K 30AMP C CF40 W/AIR CON	1-TC-0422
TC FT TC-PW 2PAIR C 60AMP C CF40 W/AIR CON	1-TC-0427
TC FT TC-PW 2PAIR K 60AMP C CF40 W/AIR CON	1-TC-0424

TC Power 1&2 TC pair & 1 PW pair TC connector

Description	Part Number
TC FT TC-PW 1PAIR C 150AMP 5KV Cu CF40 W/AIR CON	1-TC-0431
TC FT TC-PW 1PAIR E 150AMP 5KV Cu CF40 W/AIR CON	1-TC-0432
TC FT TC-PW 1PAIR J 150AMP 5KV Cu CF40 W/AIR CON	1-TC-0433
TC FT TC-PW 1PAIR K 150AMP 5KV Cu CF40 W/AIR CON	1-TC-0434
TC FT TC-PW 2PAIR C 150AMP 5KV Cu CF40 W/AIR CON	1-TC-0435
TC FT TC-PW 2PAIR E 150AMP 5KV Cu CF40 W/AIR CON	1-TC-0436
TC FT TC-PW 2PAIR J 150AMP 5KV Cu CF40 W/AIR CON	1-TC-0437
TC FT TC-PW 2PAIR K 150AMP 5KV Cu CF40 W/AIR CON	1-TC-0438

Breaks & Envelopes

Description

Ceramic breaks are used when an electrical break is required and to which other vacuum components can be added. They are offered in various dimensions and consist of a ceramic tube, which creates the electrical insulation, with conductive metal tubes brazed to either end. We can provide weldable, CF or KF flanged cryogenic, water and vacuum breaks to meet your requirements.

Specifications:

Voltage	3 to 15kV DC
Material	
Flanges	304 stainless steel
Insulation	Alumina ceramic
Vacuum range UHV/HV	1x10 ⁻¹⁰ mbar / 1x10 ⁻⁸ mbar
Temperature range	
Cryogenic brakes:	-200 to 450°C
Water brakes:	0 to 100°C
Vacuum brakes:	-200 to 450°C

Features

- Available on CF and KF flanges
- UHV compatibles materials
- Custom configuration available upon request



Cryogenic Breaks

Description	Part Number
CRYO BREAK 3KV 3,2DIAM SST WELD	1-BE-0850
CRYO BREAK 3KV 3,2DIAM SST SWG	1-BE-0851
CRYO BREAK 3KV 3,2DIAM SST BRAZE	1-BE-0852
CRYO BREAK 6KV 7,9DIAM SST WELD	1-RF-0853
CRYO BREAK 6KV 11,0DIAM SST WELD	1-BE-0855
CRYO BREAK 6KV 6,4DIAM SST WELD	1-BE-0854
CRYO BREAK 6KV 9,5DIAM SST WELD	1-BE-0856

Water Breaks

Description	Part Number
WATER BREAK TUBE OD 8,1mm COPPER WELD	1-BE-0869
WATER BREAK TUBE OD 11,1mm COPPER WELD	1-BE-0870
WATER BREAK TUBE OD 15,0mm COPPER WELD	1-BE-0871

Vacuum Breaks

Description	Part Number
CERAMIC BREAK 20KV 19DIAM WELD	1-BE-0872
CERAMIC BREAK 35KV 19DIAM WELD	1-BE-0879
CERAMIC BREAK 3KV 38.1DIAM WELD	1-BE-0873
CERAMIC BREAK 15KV 38.1DIAM WELD	1-BE-0874
CERAMIC BREAK 20KV 19,1DIAM CF16	1-BE-0857
CERAMIC BREAK 35KV 19,1DIAM CF16	1-BE-0880
CERAMIC BREAK 3KV 38,1DIAM CF40	1-BE-0858
CERAMIC BREAK 15KV 38,1DIAM CF40	1-BE-0859
CERAMIC BREAK 20KV 19,1DIAM KF16	1-BE-0860
CERAMIC BREAK 35KV 19,1DIAM KF16	1-BE-0881
CERAMIC BREAK 3KV 38,1DIAM KF40	1-BE-0861
CERAMIC BREAK 15KV 38,1DIAM KF40	1-BE-0862

Vacuum Envelopes

Description	Part Number
CERAMIC BREAK 8KV 63,5DIAM WELD	1-BE-0875
CERAMIC BREAK 8KV 101,6DIAM WELD	1-BE-0876
CERAMIC BREAK 15KV 152,4DIAM WELD	1-BE-0877
CERAMIC BREAK 15KV 203,2DIAM WELD	1-BE-0878
CERAMIC BREAK 8KV 63,5DIAM CF63	1-BE-0863
CERAMIC BREAK 8KV 101,6DIAM CF100	1-BE-0864
CERAMIC BREAK 15KV 152,4DIAM CF160	1-BE-0865
CERAMIC BREAK 15KV 203,2DIAM CF200	1-BE-0866

Connectors & Cables

Features

- Thermocouple miniature connectors (air)
- Thermocouple crimp and push connectors (vacuum)
- Screw and nut thermocouple connectors (vacuum)
- Power push-on connectors (vacuum)
- Power in-line connectors (vacuum)
- Power High-voltage silicone cables (air)
- MS circular connectors (air)
- Coaxial connectors (air)
- Coaxial cables (vacuum)
- Wire & rods (vacuum)
- Insulator & spacers (vacuum)
- Kapton cables (air & vacuum)
- Subminiature C & D connectors (air & vacuum)

Thermocouple miniature connectors air service to 125°C

Description	Part Number
TC CON TYPE C AIR	1-CC-0521
TC CON TYPE E AIR	1-CC-0522
TC CON TYPE J AIR	1-CC-0523
TC CON TYPE K AIR	1-CC-0524
TC CON TYPE N AIR	1-CC-0532



Thermocouple crimp & push connectors vacuum & air service 350°C

Description	Part Number
WATER BRAKE TUBE OD 8,1mm COPPER WELD	1-BE-0869
WATER BRAKE TUBE OD 11,1mm COPPER WELD	1-BE-0870
WATER BRAKE TUBE OD 15,0mm COPPER WELD	1-BE-0871



Screw & nut thermocouple connectors thread size 3-48

Description	Part Number
TC SCREW & NUTS SET AIR/VACUUM SST (10XPACK)	1-CC-0531



Power push-on connectors 150°C air / 200°C vacuum

Description	Part Number
POWER PUSH-ON CON A/V BeCu 1,3MM (10XPACK)	1-CC-0533
POWER PUSH-ON CON A/V BeCu 1,5MM (10XPACK)	1-CC-0534
POWER PUSH-ON CON A/V BeCu 2,4MM (10XPACK)	1-CC-0535
POWER PUSH-ON CON A/V BeCu 6,4MM (2XPACK)	1-CC-0541



Power in-line connectors 150°C air / 400°C vacuum

Description	Part Number
POWER IN-LINE CON A/V BeCu 1,5MM (10XPACK)	1-CC-0536
POWER IN-LINE CON A/V BeCu 1,8MM (10XPACK)	1-CC-0537
POWER IN-LINE CON A/V BeCu 3,0MM (10XPACK)	1-CC-0538
POWER IN-LINE CON A/V BeCu 3,4MM (10XPACK)	1-CC-0539
POWER IN-LINE CON A/V BeCu 6,6MM (10XPACK)	1-CC-0540



Power high voltage silicone cable operating temp -55 to 125°C

Description	Part Number
POWER GLOVE AIR 5KV 25AMP 2,4PIN DIAM	1-CC-0542
POWER GLOVE AIR 20KV 25AMP 2,4PIN DIAM	1-CC-0543

**MS circular connectors air service voltage rating 700V peak 10Amp**

Description	Part Number
CIRCULAR MS CON AIR 700V 13A 10PINS	1-CC-0502
CIRCULAR MS CON AIR 700V 13A 20PINS	1-CC-0503
CIRCULAR MS CON AIR 1250V 13A 4PINS	1-CC-0500
CIRCULAR MS CON AIR 700V 13A 6PINS	1-CC-0501
CIRCULAR MS CON AIR 700V 13A 35PINS	1-CC-0504
CIRCULAR MS CON AIR 700V 10A 4PINS	1-CC-0505
CIRCULAR MS CON AIR 700V 10A 6PINS	1-CC-0506
CIRCULAR MS CON AIR 700V 10A 10PINS	1-CC-0507
CIRCULAR MS CON AIR 700V 10A 20PINS	1-CC-0508
CIRCULAR MS CON AIR 700V 10A 35PINS	1-CC-0509

**Coaxial connectors air service**

Description	Part Number
COAX BNC CON AIR 500V	1-CC-0510
COAX MHV CON AIR 5000V	1-CC-0511
COAX SHV-5 CON AIR 5000V	1-CC-0512
COAX TYPE-N CON AIR 1500V	1-CC-0513
COAX SMA CON AIR 700V	1-CC-0514
COAX SHV-B CON AIR 7500V	1-CC-0515
COAX SMB CON AIR 500V	1-CC-0516
COAX MICRODOT AIR CON 500V W/CABLE	1-CC-0517
TRIAxIAL CON AIR	1-CC-0518
COAX SHV-10 CON AIR 1000V	1-CC-0519
COAX SHV-20 CON AIR	1-CC-0520

**SMA vacuum cables 1m long**

Description	Part Number
IN-VACUUM SMA COAX CABLE MALE TO MALE	1-CC-0730
IN-VACUUM SMA COAX CABLE MALE TO FEMALE	1-CC-0731
IN-VACUUM SMA COAX CABLE MALE TO NO CONNECTOR	1-CC-0732

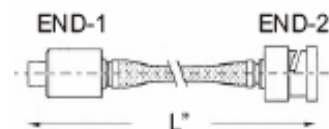
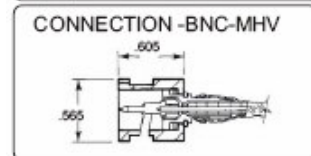
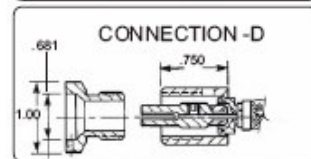
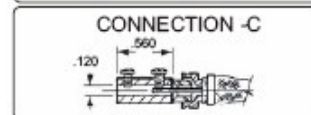
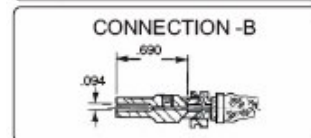
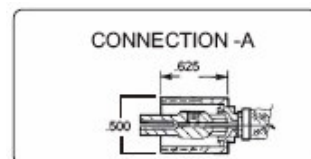
**BNC vacuum cables 50Ω Kapton insulated**

Description	Part Number
UHV BNC CABLE ASS EMBLIES FLO SHIELD 500mm	1-CC-0835
UHV BNC CABLE ASSEMBLIES FLO SHIELD 1000mm	1-CC-0836



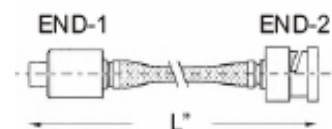
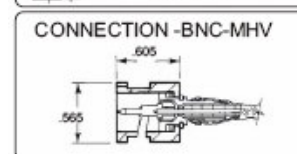
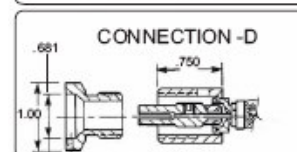
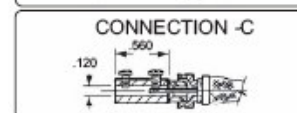
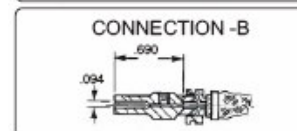
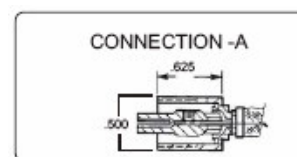
3.2mm Vacuum ready coaxial cables

Description	Part Number
IN-VACUUM COAX CABLE 3,2 305mm CON A TO A	1-CC-0545
IN-VACUUM COAX CABLE 3,2 305mm CON A TO B	1-CC-0546
IN-VACUUM COAX CABLE 3,2 305mm CON A TO C	1-CC-0547
IN-VACUUM COAX CABLE 3,2 305mm CON A TO D	1-CC-0548
IN-VACUUM COAX CABLE 3,2 305mm CON A TO BNC	1-CC-0549
IN-VACUUM COAX CABLE 3,2 305mm CON A TO MHV	1-CC-0556
IN-VACUUM COAX CABLE 3,2 305mm CON B TO B	1-CC-0550
IN-VACUUM COAX CABLE 3,2 305mm CON B TO C	1-CC-0551
IN-VACUUM COAX CABLE 3,2 305mm CON B TO D	1-CC-0552
IN-VACUUM COAX CABLE 3,2 305mm CON C TO C	1-CC-0553
IN-VACUUM COAX CABLE 3,2 305mm CON C TO D	1-CC-0554
IN-VACUUM COAX CABLE 3,2 305mm CON D TO D	1-CC-0555
IN-VACUUM COAX CABLE 3,2 305mm CON MICRODOT TO MICRODOT	1-CC-0557
IN-VACUUM COAX CABLE 3,2 610mm CON A TO A	1-CC-0558
IN-VACUUM COAX CABLE 3,2 610mm CON A TO B	1-CC-0559
IN-VACUUM COAX CABLE 3,2 610mm CON A TO C	1-CC-0560
IN-VACUUM COAX CABLE 3,2 610mm CON A TO D	1-CC-0561
IN-VACUUM COAX CABLE 3,2 610mm CON A TO BNC	1-CC-0562
IN-VACUUM COAX CABLE 3,2 610mm CON A TO MHV	1-CC-0569
IN-VACUUM COAX CABLE 3,2 610mm CON B TO B	1-CC-0563
IN-VACUUM COAX CABLE 3,2 610mm CON B TO C	1-CC-0564
IN-VACUUM COAX CABLE 3,2 610mm CON B TO D	1-CC-0565
IN-VACUUM COAX CABLE 3,2 610mm CON C TO C	1-CC-0566
IN-VACUUM COAX CABLE 3,2 610mm CON C TO D	1-CC-0567
IN-VACUUM COAX CABLE 3,2 610mm CON D TO D	1-CC-0568
IN-VACUUM COAX CABLE 3,2 610mm CON MICRODOT TO MICRODOT	1-CC-0570
IN-VACUUM COAX CABLE 3,2 915mm CON A TO A	1-CC-0571
IN-VACUUM COAX CABLE 3,2 915mm CON A TO B	1-CC-0572
IN-VACUUM COAX CABLE 3,2 915mm CON A TO C	1-CC-0573
IN-VACUUM COAX CABLE 3,2 915mm CON A TO D	1-CC-0574
IN-VACUUM COAX CABLE 3,2 915mm CON A TO BNC	1-CC-0575
IN-VACUUM COAX CABLE 3,2 915mm CON A TO MHV	1-CC-0582
IN-VACUUM COAX CABLE 3,2 915mm CON B TO B	1-CC-0576
IN-VACUUM COAX CABLE 3,2 915mm CON B TO C	1-CC-0577
IN-VACUUM COAX CABLE 3,2 915mm CON B TO D	1-CC-0578
IN-VACUUM COAX CABLE 3,2 915mm CON C TO C	1-CC-0579
IN-VACUUM COAX CABLE 3,2 915mm CON C TO D	1-CC-0580
IN-VACUUM COAX CABLE 3,2 915mm CON D TO D	1-CC-0581
IN-VACUUM COAX CABLE 3,2 915mm CON MICRODOT TO MICRODOT	1-CC-0583



6.4mm Vacuum ready coaxial cables

Description	Part Number
IN-VACUUM COAX CABLE 6,4 305mm CON A TO A	1-CC-0584
IN-VACUUM COAX CABLE 6,4 305mm CON A TO B	1-CC-0585
IN-VACUUM COAX CABLE 6,4 305mm CON A TO C	1-CC-0586
IN-VACUUM COAX CABLE 6,4 305mm CON A TO D	1-CC-0587
IN-VACUUM COAX CABLE 6,4 305mm CON A TO BNC	1-CC-0594
IN-VACUUM COAX CABLE 6,4 305mm CON A TO MHV	1-CC-0595
IN-VACUUM COAX CABLE 6,4 305mm CON B TO B	1-CC-0588
IN-VACUUM COAX CABLE 6,4 305mm CON B TO C	1-CC-0589
IN-VACUUM COAX CABLE 6,4 305mm CON B TO D	1-CC-0590
IN-VACUUM COAX CABLE 6,4 305mm CON C TO C	1-CC-0591
IN-VACUUM COAX CABLE 6,4 305mm CON C TO D	1-CC-0592
IN-VACUUM COAX CABLE 6,4 305mm CON D TO D	1-CC-0593
IN-VACUUM COAX CABLE 6,4 305mm CON BNC TO BNC	1-CC-0596
IN-VACUUM COAX CABLE 6,4305mm CON MHV TO MHV	1-CC-0597
IN-VACUUM COAX CABLE 6,4 610mm CON A TO A	1-CC-0598
IN-VACUUM COAX CABLE 6,4 610mm CON A TO B	1-CC-0599
IN-VACUUM COAX CABLE 6,4 610mm CON A TO C	1-CC-0600
IN-VACUUM COAX CABLE 6,4 610mm CON A TO D	1-CC-0601
IN-VACUUM COAX CABLE 6,4 610mm CON A TO BNC	1-CC-0608
IN-VACUUM COAX CABLE 6,4 610mm CON A TO MHV	1-CC-0609
IN-VACUUM COAX CABLE 6,4 610mm CON B TO B	1-CC-0602
IN-VACUUM COAX CABLE 6,4 610mm CON B TO C	1-CC-0603
IN-VACUUM COAX CABLE 6,4 610mm CON B TO D	1-CC-0604
IN-VACUUM COAX CABLE 6,4 610mm CON C TO C	1-CC-0605
IN-VACUUM COAX CABLE 6,4 610mm CON C TO D	1-CC-0606
IN-VACUUM COAX CABLE 6,4 610mm CON D TO D	1-CC-0607
IN-VACUUM COAX CABLE 6,4 610mm CON BNC TO BNC	1-CC-0610
IN-VACUUM COAX CABLE 6,4 610mm CON MHV TO MHV	1-CC-0611
IN-VACUUM COAX CABLE 6,4 915mm CON A TO A	1-CC-0612
IN-VACUUM COAX CABLE 6,4 915mm CON A TO B	1-CC-0613
IN-VACUUM COAX CABLE 6,4 915mm CON A TO C	1-CC-0614
IN-VACUUM COAX CABLE 6,4 915mm CON A TO D	1-CC-0615
IN-VACUUM COAX CABLE 6,4 915mm CON A TO BNC	1-CC-0622
IN-VACUUM COAX CABLE 6,4 915mm CON A TO MHV	1-CC-0623
IN-VACUUM COAX CABLE 6,4 915mm CON B TO B	1-CC-0616
IN-VACUUM COAX CABLE 6,4 915mm CON B TO C	1-CC-0617
IN-VACUUM COAX CABLE 6,4 915mm CON B TO D	1-CC-0618
IN-VACUUM COAX CABLE 6,4 915mm CON C TO C	1-CC-0619
IN-VACUUM COAX CABLE 6,4 915mm CON C TO D	1-CC-0620
IN-VACUUM COAX CABLE 6,4 915mm CON D TO D	1-CC-0621
IN-VACUUM COAX CABLE 6,4 915mm CON BNC TO BNC	1-CC-0624
IN-VACUUM COAX CABLE 6,4 915mm CON MHV TO MHV	1-CC-0625



Connectors & Cables

Subminiature C UHV ribbon cable assemblies (Kapton insulated)

Description	Part Number
UHV SUB-C MALE CON 9PINS PEEK CABLE 500mm	1-CC-0859
UHV SUB-C MALE CON 9PINS PEEK CABLE 1000mm	1-CC-0860
UHV SUB-C FEMALE CON 9PINS PEEK CABLE 500mm	1-CC-0861
UHV SUB-C FEMALE CON 9PINS PEEK CABLE 1000mm	1-CC-0862
UHV SUB-C FEMALE 2xCON 9PINS PEEK CABLE 500mm	1-CC-0863



Subminiature C UHV round cable (Kapton insulated)

Description	Part Number
UHV SUB-C MALE CON 9PINS ROUND CABLE 500mm	1-CC-0864
UHV SUB-C MALE CON 9PINS ROUND CABLE 1000mm	1-CC-0865
UHV SUB-C FEMALE CON 9PINS ROUND CABLE 500mm	1-CC-0866
UHV SUB-C FEMALE CON 9PINS ROUND CABLE 1000mm	1-CC-0867



Subminiature C connectors, contacts & accessories

Description	Part Number
UHV SUB-C MALE CONN 9PINS PEEK (NO PINS)	1-CC-0719
UHV SUB-C FEM CONN 9PINS PEEK (NO PINS)	1-CC-0720
AIR SUB-C FEM CONN 9PINS PEEK (NO PINS)	1-CC-0721
AIR CONNECTOR 9PINS FITTED CABLE 1200mm	1-CC-0766
AIR CONNECTOR 9PINS FITTED CABLE 2500mm	1-CC-0767
PK OF 10 PINS MALE FOR SUB-C CON UHV/AIR	1-CC-0837
PK OF 10 PINS FEM FOR SUB-C CON UHV/AIR	1-CC-0838
UHV-AIR CRIMPING TOOL	1-CC-0768
UHV-AIR WIRE STRIPPER 0,12 TO 0,40mm WIRE	1-CC-0769
UHV-AIR WIRE STRIPPER 0,25 TO 0,80mm WIRE	1-CC-0770



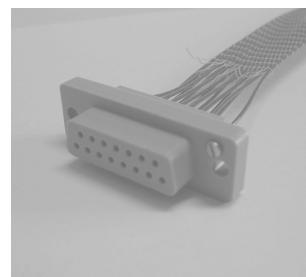
Subminiature C accessories

Description	Part Number
PK OF 10 PINS MALE FOR SUB-C CON UHV/AIR	1-CC-0837
PK OF 10 PINS FEM FOR SUB-C CON UHV/AIR	1-CC-0838
UHV-AIR CRIMPING TOOL	1-CC-0768
UHV-AIR WIRE STRIPPER 0,12 TO 0,40mm WIRE	1-CC-0769
UHV-AIR WIRE STRIPPER 0,25 TO 0,80mm WIRE	1-CC-0770



Subminiature D UHV ribbon cable assemblies (Kapton insulated)

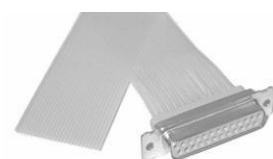
Description	Part Number
UHV SUB-D MALE CON 9PINS PEEK CABLE 500mm	1-CC-0747
UHV SUB-D MALE CON 9PINS PEEK CABLE 1000mm	1-CC-0748
UHV SUB-D FEMALE CON 9PINS PEEK CABLE 500mm	1-CC-0749
UHV SUB-D FEMALE CON 9PINS PEEK CABLE 1000mm	1-CC-0750
UHV SUB-D MALE CON 15PINS PEEK CABLE 500mm	1-CC-0751
UHV SUB-D MALE CON 15PINS PEEK CABLE 1000mm	1-CC-0752
UHV SUB-D FEMALE CON 15PINS PEEK CABLE 500mm	1-CC-0753
UHV SUB-D FEMALE CON 15PINS PEEK CABLE 1000mm	1-CC-0754
UHV SUB-D MALE CON 25PINS PEEK CABLE 500mm	1-CC-0755
UHV SUB-D MALE CON 25PINS PEEK CABLE 1000mm	1-CC-0756
UHV SUB-D FEMALE CON 25PINS PEEK CABLE 500mm	1-CC-0757
UHV SUB-D FEMALE CON 25PINS PEEK CABLE 1000mm	1-CC-0758
UHV SUB-D MALE CON 50PINS PEEK CABLE 500mm	1-CC-0759
UHV SUB-D MALE CON 50PINS PEEK CABLE 1000mm	1-CC-0760
UHV SUB-D FEMALE CON 50PINS PEEK CABLE 500mm	1-CC-0761
UHV SUB-D FEMALE CON 50PINS PEEK CABLE 1000mm	1-CC-0762

**Subminiature D UHV connectors & contacts (no cables)**

Description	Part Number
UHV SUB-D MALE CONN 9PINS PEEK (NO PINS)	1-CC-0734
UHV SUB-D MALE CONN 15PINS PEEK (NO PINS)	1-CC-0735
UHV SUB-D MALE CONN 25PINS PEEK (NO PINS)	1-CC-0726
UHV SUB-D MALE CONN 50PINS PEEK (NO PINS)	1-CC-0736
UHV SUB-D FEMALE CONN 9PINS PEEK (NO PINS)	1-CC-0737
UHV SUB-D FEMALE CONN 15PINS PEEK (NO PINS)	1-CC-0738
UHV SUB-D FEMALE CONN 25PINS PEEK (NO PINS)	1-CC-0727
UHV SUB-D FEMALE CONN 50PINS PEEK (NO PINS)	1-CC-0728

**Subminiature D HV PTFE ribbon cable assemblies**

Description	Part Number
HV SUB-D FEMALE CON 9PINS CABLE 500mm	1-CC-0787
HV SUB-D FEMALE CON 9PINS CABLE 1000mm	1-CC-0788
HV SUB-D MALE CON 9PINS CABLE 500mm	1-CC-0789
HV SUB-D MALE CON 9PINS CABLE 1000mm	1-CC-0790
HV SUB-D FEMALE CON 15PINS CABLE 500mm	1-CC-0791
HV SUB-D FEMALE CON 15PINS CABLE 1000mm	1-CC-0792
HV SUB-D MALE CON 15PINS CABLE 500mm	1-CC-0793
HV SUB-D MALE CON 15PINS CABLE 1000mm	1-CC-0794
HV SUB-D FEMALE CON 25PINS CABLE 500mm	1-CC-0795
HV SUB-D FEMALE CON 25PINS CABLE 1000mm	1-CC-0796
HV SUB-D MALE CON 25PINS CABLE 500mm	1-CC-0797
HV SUB-D MALE CON 25PINS CABLE 1000mm	1-CC-0798
HV SUB-D FEMALE CON 50PINS CABLE 500mm	1-CC-0799
HV SUB-D FEMALE CON 50PINS CABLE 1000mm	1-CC-0800
HV SUB-D MALE CON 50PINS CABLE 500mm	1-CC-0801
HV SUB-D MALE CON 50PINS CABLE 1000mm	1-CC-0802
HV SUB-D FEMALE 2xCON 9PINS CABLE 500mm	1-CC-0803
HV SUB-D FEMALE 2xCON 9PINS CABLE 1000mm	1-CC-0804
HV SUB-D FEMALE 2xCON 15PINS CABLE 500mm	1-CC-0805
HV SUB-D FEMALE 2xCON 15PINS CABLE 1000mm	1-CC-0806
HV SUB-D FEMALE 2xCON 25PINS CABLE 500mm	1-CC-0807
HV SUB-D FEMALE 2xCON 25PINS CABLE 1000mm	1-CC-0808
HV SUB-D FEMALE 2xCON 50PINS CABLE 500mm	1-CC-0809
HV SUB-D FEMALE 2xCON 50PINS CABLE 1000mm	1-CC-0810



Connectors & Cables

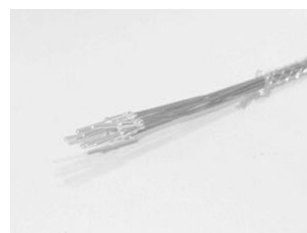
Subminiature D HV connectors & contacts (no cables)

HV SUB-D MALE CONN 25PINS (NO PINS)	1-CC-0741
HV SUB-D MALE CONN 50PINS (NO PINS)	1-CC-0742
HV SUB-D FEMALE CONN 9PINS (NO PINS)	1-CC-0743
HV SUB-D FEMALE CONN 15PINS (NO PINS)	1-CC-0744
HV SUB-D FEMALE CONN 25PINS (NO PINS)	1-CC-0745
HV SUB-D FEMALE CONN 50PINS (NO PINS)	1-CC-0746
STANDARD FEMALE PINS UHV/HV SUB-D (PACK OF 25)	1-CC-0724
STANDARD MALE PINS UHV/HV SUB-D (PACK OF 25)	1-CC-0725
AIR SUB-D FEMALE CONN 9PINS	1-CC-0831
AIR SUB-D FEMALE CONN 15PINS	1-CC-0832
AIR SUB-D FEMALE CONN 25PINS	1-CC-0833
AIR SUB-D FEMALE CONN 50PINS	1-CC-0834
AIR SUB-D MALE/FEMALE CONN 9PINS CABLE 3000mm	1-CC-0827
AIR SUB-D MALE/FEMALE CONN 15PINS CABLE 3000mm	1-CC-0828
AIR SUB-D MALE/FEMALE CONN 25PINS CABLE 3000mm	1-CC-0829
AIR SUB-D MALE/FEMALE CONN 50PINS CABLE 3000mm	1-CC-0830



Subminiature C & D UHV & HV contact fitted cables

Description	Part Number
UHV SUB-C CONTACT FITTED 500mm ROUND CABLE MALE	1-CC-0855
UHV SUB-C CONTACT FITTED 1000mm ROUND CABLE MALE	1-CC-0856
UHV SUB-C CONTACT FITTED 500mm ROUND CABLE FEMALE	1-CC-0857
UHV SUB-C CONTACT FITTED 1000mm ROUND CABLE FEMALE	1-CC-0858
UHV SUB-D CONTACT FITTED 500mm CABLE MALE 9pins	1-CC-0771
UHV SUB-D CONTACT FITTED 1000mm CABLE MALE 9pins	1-CC-0772
UHV SUB-D CONTACT FITTED 500mm CABLE FEMALE 9pins	1-CC-0773
UHV SUB-D CONTACT FITTED 1000mm CABLE FEMALE 9pins	1-CC-0774
UHV SUB-D CONTACT FITTED 500mm CABLE MALE 15pins	1-CC-0775
UHV SUB-D CONTACT FITTED 1000mm CABLE MALE 15pins	1-CC-0776
UHV SUB-D CONTACT FITTED 500mm CABLE FEMALE 15pins	1-CC-0777
UHV SUB-D CONTACT FITTED 1000mm CABLE FEMALE 15pins	1-CC-0778
UHV SUB-D CONTACT FITTED 500mm CABLE MALE 25pins	1-CC-0779
UHV SUB-D CONTACT FITTED 1000mm CABLE MALE 25pins	1-CC-0780
UHV SUB-D CONTACT FITTED 500mm CABLE FEMALE 25pins	1-CC-0781
UHV SUB-D CONTACT FITTED 1000mm CABLE FEMALE 25pins	1-CC-0782
UHV SUB-D CONTACT FITTED 500mm CABLE MALE 50pins	1-CC-0783
UHV SUB-D CONTACT FITTED 1000mm CABLE MALE 50pins	1-CC-0784
UHV SUB-D CONTACT FITTED 500mm CABLE FEMALE 50pins	1-CC-0785
UHV SUB-D CONTACT FITTED 1000mm CABLE FEMALE 50pins	1-CC-0786
HV SUB-D CONTACT FITTED 500mm CABLE MALE 9pins	1-CC-0811
HV SUB-D CONTACT FITTED 1000mm CABLE MALE 9pins	1-CC-0812
HV SUB-D CONTACT FITTED 500mm CABLE FEMALE 9pins	1-CC-0813
HV SUB-D CONTACT FITTED 1000mm CABLE FEMALE 9pins	1-CC-0814
HV SUB-D CONTACT FITTED 500mm CABLE MALE 15pins	1-CC-0815
HV SUB-D CONTACT FITTED 1000mm CABLE MALE 15pins	1-CC-0816
HV SUB-D CONTACT FITTED 500mm CABLE FEMALE 15pins	1-CC-0817
HV SUB-D CONTACT FITTED 1000mm CABLE FEMALE 15pins	1-CC-0818
HV SUB-D CONTACT FITTED 500mm CABLE MALE 25pins	1-CC-0819
HV SUB-D CONTACT FITTED 1000mm CABLE MALE 25pins	1-CC-0820
HV SUB-D CONTACT FITTED 500mm CABLE FEMALE 25pins	1-CC-0821
HV SUB-D CONTACT FITTED 1000mm CABLE FEMALE 25pins	1-CC-0822
HV SUB-D CONTACT FITTED 500mm CABLE MALE 50pins	1-CC-0823
HV SUB-D CONTACT FITTED 1000mm CABLE MALE 50pins	1-CC-0824
HV SUB-D CONTACT FITTED 500mm CABLE FEMALE 50pins	1-CC-0825
HV SUB-D CONTACT FITTED 1000mm CABLE FEMALE 50pins	1-CC-0826



Subminiature D accessories

Description	Part Number
STANDARD FEMALE PINS UHV/HV SUB-D (PACK OF 25)	1-CC-0724
STANDARD MALE PINS UHV/HV SUB-D (PACK OF 25)	1-CC-0725
COLOURED BEADS 6x50 BEADS WIRE DIAM 0,89mm	1-CC-0841
COLOURED BEADS 6x50 BEADS WIRE DIAM 2mm	1-CC-0842

**Subminiature D coaxial connectors & cables**

Description	Part Number
UHV SUB-D COAX CON 1 COAX 4 INSTR CABLE L= 500mm	1-CC-0843
UHV SUB-D COAX CON 1 COAX 4 INSTR CABLE L=1000mm	1-CC-0844
UHV SUB-D COAX CON 3 COAX CABLE L= 500mm	1-CC-0845
UHV SUB-D COAX CON 3 COAX CABLE L= 1000mm	1-CC-0846
UHV SUB-D COAX CON 5 COAX CABLE L= 500mm	1-CC-0847
UHV SUB-D COAX CON 5 COAX CABLE L= 1000mm	1-CC-0848
AIR SUB-D 1 COAX 4 INSTR CABLE 2500mm PLAIN END	1-CC-0849
AIR SUB-D 3 COAX CABLE 2500mm PLAIN END	1-CC-0850
AIR SUB-D 5 COAX CABLE 2500mm PLAIN END	1-CC-0851
AIR SUB-D 1 COAX 4 INSTR CABLE 2500mm BNC MALE END	1-CC-0852
AIR SUB-D 3 COAX CABLE 2500mm BNC MALE END	1-CC-0853
AIR SUB-D 5 COAX CABLE 2500mm BNC MALE END	1-CC-0854



Connectors & Cables

Description

Vaqtec Kapton insulated wires are designed for high and ultrahigh vacuum environments to 1 X 10¹¹ mbar and are bakeable to 250° C. All conductors are silver plated copper wire. Insulation is a high mechanical strength Kapton® type F film that is applied and heat treated to minimize trapped gases. Multi-conductor cables are available in either flat ribbon or circular configuration with an outer PEEK (polyetheretherketone) monofilament weave. Circular cable conductors are colour-coded for ease of wiring. For non-coded wires, Vaqtec offers coloured glass identification beads in six easy to distinguish colours.

Each kit consists of six individual packs of 50 beads totaling six different colours and 300 beads. The six standard colours are: green, grey, blue, brown, white and black.

Specifications:

Voltage see table

Current: see table

Characteristics of Kapton:

Dielectric constant: 3.1

Dielectric strength: 80kV/mm

Dissipation factor: 0.0015

Initial tear: 13.4N

Tensile strength: 10MPa

Elongation: 75%

Moisture absorption: 1.3% @ 50% RH

Radiation resistance: 10⁷ rads (non flexing application)

Vacuum range UHV 1x10⁻¹¹ mbar

Temperature range

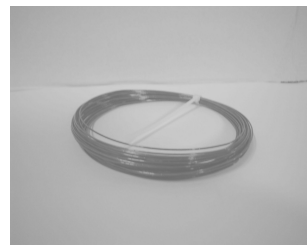
Max operating temp: 200°C

Max bakeout temp: 260°C

Min operating temp: -269°C

In- vacuum wiring: Kapton insulated wires

Description	Part Number
KAPTON INSULATED WIRE 0,25mm WIRE DIAM (10M)	1-CC-0708
KAPTON INSULATED WIRE 0,61mm WIRE DIAM (10M)	1-CC-0709
KAPTON INS COAX WIRE 0,25mm WIRE DIAM (10M)	1-CC-0710
KAPTON INS COAX WIRE 0,61mm WIRE DIAM (10M)	1-CC-0711
KAPTON INS COAX WIRE 50 OHM (5M)	1-CC-0712
KAPTON INS WIRE 7x0,08mm WIRE DIAM (10M)	1-CC-0713
KAPTON INSULATED WIRE 1mm WIRE DIAM (10M)	1-CC-0715
KAPTON INS TC K TYPE (CH/AL) 0,2mm WIRE DIAM (2M)	1-CC-0707



Vaqtec p/n	Description	Insulation	Cable length (m)	Conduct or diam (mm)	Jacket diam (mm)	Voltage rating DC (kV)	Current rating @ 20°C (A)	Resistance Ωkm @ 20°C	Impedance (Ω)
1-CC-0708	Silver plated copper wire kapton insulated	Kapton® type F film	10	0,25	0,53	2	15	376	
1-CC-0709	Silver plated copper wire kapton insulated	Kapton® type F film	10	0,61	0,87	2	5,5	64	
1-CC-0710	Silver plated copper wire kapton insulated	Kapton® type F film with braided shield	10	0,25	1,04	2	15	376	32
1-CC-0711	Silver plated copper wire kapton insulated	Kapton® type F film	10	7x0,2	1,47	2	4,5	87	18
1-CC-0712	Silver plated copper wire kapton insulated	Kapton® type F film	5	7x0,5	2,39	4	1	169	50
1-CC-0713	Silver plated copper wire kapton insulated	Kapton® type F film	10	7x0,8	0,054	2	15	558	
1-CC-0715	Silver plated copper wire kapton insulated	Kapton® type F film	10	0,94	1,42	5	10	25,8	
1-CC-0707	Silver plated copper wire kapton insulated	Kapton® type F film	2	0,2		Signal	Signal	N/A	

Wire & Rods

Description	Part Number
WIRE SST 304 0,8mm SIZE (300mm LONG)	1-CC-0634
WIRE SST 304 1,3mm SIZE (300mm LONG)	1-CC-0635
WIRE SST 304 2,4mm SIZE (300mm LONG)	1-CC-0636
WIRE SST 304 6,4mm SIZE (300mm LONG)	1-CC-0637
WIRE NICKEL NI-200 0,8mm SIZE (300mm LONG)	1-CC-0630
WIRE NICKEL NI-200 1,3mm SIZE (300mm LONG)	1-CC-0631
WIRE NICKEL NI-200 2,4mm SIZE (300mm LONG)	1-CC-0632
WIRE NICKEL NI-200 6,4mm SIZE (300mm LONG)	1-CC-0633
WIRE COPPER OFHC 0,8mm SIZE (300mm LONG)	1-CC-0626
WIRE COPPER OFHC 1,3mm SIZE (300mm LONG)	1-CC-0627
WIRE COPPER OFHC 2,4mm SIZE (300mm LONG)	1-CC-0628
WIRE COPPER OFHC 6,4mm SIZE (300mm LONG)	1-CC-0629

Flexible shielding

Description	Part Number
FLEX SHIELDING 3,2mm sst (300mm LONG)	1-CC-0666
FLEX SHIELDING 6,4mm sst (300mm LONG)	1-CC-0667

**Ceramic standoff, steatite, female**

Description	Part Number
CERAMIC STAND-OFF A3KV/V7KV 6-32 10MM	1-CC-0648
CERAMIC STAND-OFF A4KV/V10KV 6-32 13MM	1-CC-0649
CERAMIC STAND-OFF A5KV/V12KV 8-32 16MM	1-CC-0650
CERAMIC STAND-OFF A6KV/V15KV 8-32 19MM	1-CC-0651
CERAMIC STAND-OFF A8KV/V20KV 6-32 25MM	1-CC-0652
CERAMIC STAND-OFF A8KV/V20KV 8-32 25MM	1-CC-0653
CERAMIC STAND-OFF A8KV/V20KV 10-32 25MM	1-CC-0654
CERAMIC STAND-OFF A10KV/V25KV 1/4"-20 32MM	1-CC-0655
CERAMIC STAND-OFF A14KV/V35KV 8-32 51MM	1-CC-0656
CERAMIC STAND-OFF A14KV/V35KV 10-32 51MM	1-CC-0657
CERAMIC STAND-OFF A16KV/V40KV 1/4"-20 64MM	1-CC-0658

**Ceramic beads, alumina**

Description	Part Number
CERAMIC BEADS L=3 - 125 - 1,1WIRE DIAM	1-CC-0638
CERAMIC BEADS L=5 - 85 - 1,6WIRE DIAM	1-CC-0639
CERAMIC BEADS L=4 - 73 - 1,3WIRE DIAM	1-CC-0640
CERAMIC BEADS L=7 - 56 - 2,6WIRE DIAM	1-CC-0641
CERAMIC BEADS L=7 - 53 - 3,3WIRE DIAM	1-CC-0642
CERAMIC BEADS L=10 - 38 - 3,3WIRE DIAM	1-CC-0643

**Ceramic spacers, alumina**

Description	Part Number
CERAMIC SPACER 4-10PIN HOLE 1,8	1-CC-0644
CERAMIC SPACER 6PIN HOLE 1,8	1-CC-0645
CERAMIC SPACER 20PIN HOLE 1,8	1-CC-0646
CERAMIC SPACER 35PIN HOLE 1,8	1-CC-0647



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Vaqtec Srl

Sales:

C.So Vittorio Emanuele II 25B

12100 Cuneo (CN)

Italy

Tel. +39.0171.66507

Fax: +39.0171.64578

info@vaqtec.com

Accounts:

C.So Lombardia 153/15

10149 Torino (TO)

Italy

Tel: +39.011.4530791

Fax: +39.011.4550298

info@vaqtec.com

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