

Mil-C-5015 Circular 700 Volts, 10 Amps, 3 or 6 Pins



Circular hermetic power feedthroughs are designed to meet Mil-C-5015 specifications. These feedthroughs are available in either a 3 pin or 6 pin configuration. 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. Ultrahigh vacuum cable assemblies with PEEK connectors and Kapton® insulated 18AWG cables are available to meet the demands of UHV environments. They are fitted with a captured stainless steel vented screw that provides a means of securely locking them to their mating feedthrough. Air service cable assemblies are available on request. Mil-C-5015 feedthroughs are sold individually or as kits, where each kit contains one feedthrough and one each of both vacuum and air side cable assemblies.

Features:

- Mil-C-5015 configuration.
- 3 or 6 pin configuration.
- High temperature rated to 250°C.
- UHV compatible construction.
- Kapton® insulated in-vacuum cables & PEEK connector with lock screw.
- Air & vacuum side connectors available.
- Custom versions available on request.

Specifications:

Voltage¹ 700VDC max

Current¹ 10A max @ 20°C

Material

Flange 304 St.St.

Shell St.St.

Pin Gold plated Ni-Fe alloy

Insulation Glass ceramic

Connector, vacuum UHV³ PEEK

Connector, air Nickel plated aluminium

Temperature Range²

CF flanged feedthrough -200°C to 250°C

KF flanged feedthrough -20°C to 150°C

Vacuum side connector -200°C to 250°C

Air side connector -200°C to 175°C

Thermal Gradient 25°C / minute maximum

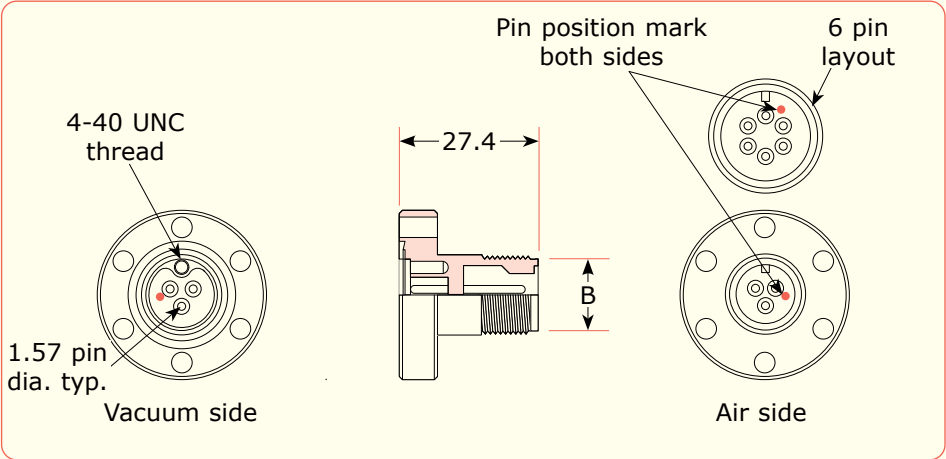
¹ - Please see section introduction for safety information. For proper heat dissipation, a maximum of 20% of the pins on a feedthrough may carry the maximum current at any given time.
² - Assembly rating is reduced to that of the lowest rated component.
³ - PEEK is a polyetheretherketone thermoplastic.

All dimensions are nominal in millimetres unless otherwise specified

Mil-C-5015 Circular Mounted on CF Flanges



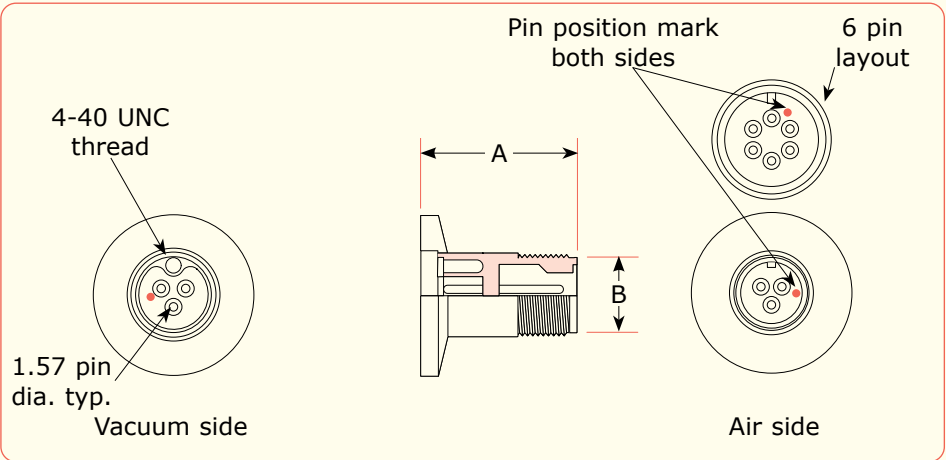
No. Pins	Flange	B	Description	Part Code	Price £	Price €
3	DN16CF	15.7	C3 F/T on DN16CF + UHV & air cables with connectors	C3KIT-16CF	£430	€495
6	DN40CF	22.2	C6 F/T on DN40CF + UHV & air cables with connectors	C6KIT-40CF	£523	€602
3	DN16CF	15.7	C3 F/T on DN16CF 700VDC 10A per pin	C3-16CF	£210	€242
3	DN40CF	15.7	C3 F/T on DN40CF 700VDC 10A per pin	C3-40CF	£219	€252
6	DN40CF	22.2	C6 F/T on DN40CF 700VDC 10A per pin	C6-40CF	£237	€273



Mil-C-5015 Circular Mounted on KF Flanges



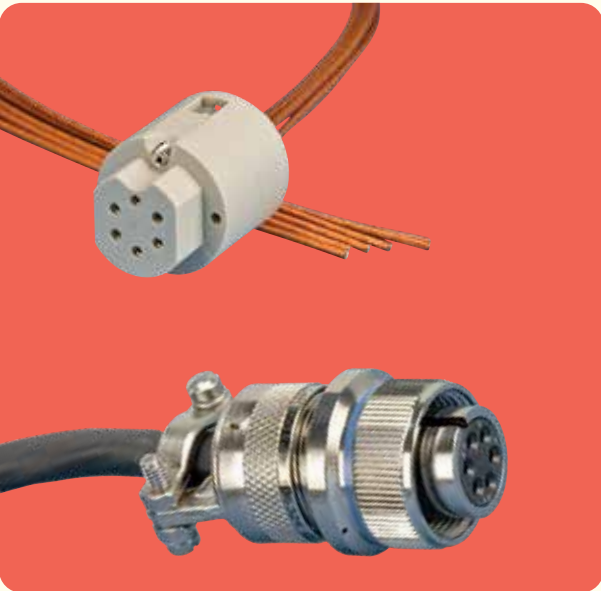
No. Pins	Flange	B	C	Description	Part Code	Price £	Price €
3	DN16KF	15.7	29.0	C3 F/T on DN16KF + UHV & air cables with connectors	C3KIT-16KF	£430	€495
6	DN40KF	22.2	26.4	C6 F/T on DN40KF + UHV & air cables with connectors	C6KIT-40KF	£523	€602
3	DN16KF	15.7	29.0	C3 F/T on DN16KF 700VDC 10A per pin	C3-16KF	£210	€242
3	DN40KF	15.7	26.4	C3 F/T on DN40KF 700VDC 10A per pin	C3-40KF	£219	€252
6	DN40KF	22.2	26.4	C6 F/T on DN40KF 700VDC 10A per pin	C6-40KF	£237	€273



* - Kits are supplied with In vacuum cable 482mm long & Air side cable 2438mm long.

All dimensions are nominal in millimetres unless otherwise specified

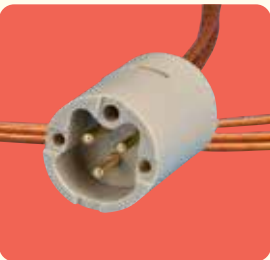
Mil-C-5015 Circular Cables & Connectors



Connector to cable UHV cable assemblies are fitted with female Mil-C-5015 type PEEK 3 pin or 6 pin connectors at one end and either 3 or 6, non-terminated Kapton® insulated wires at the other. The female cable connectors mate directly onto the vacuum side of Mil-C-5015 feedthroughs shown on the previous page. The individual conductors are 18AWG, 10A silver plated copper wire, stranded 19 x 0.23mm, with Kapton® insulation.

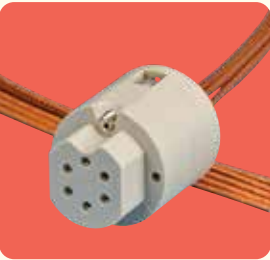
When assembling connectors, the wires must be threaded through the back part of the connector before contacts are crimped in place.

UHV Cable Assemblies - Connector To Cable - 3 Pin



Cable Length	Cable Diameter	Connector type	Connector Dimensions O.D. x Length	Part Code	Price £	Price €
500	3 x 1.52	Female	15.8 x 27.9	C3-VCF500	£139	€160
1000	3 x 1.52	Female	15.8 x 27.9	C3-VCF1000	£163	€188
500	3 x 1.52	Male	15.8 x 25.9	C3-VCM500	£139	€160
1000	3 x 1.52	Male	15.8 x 25.9	C3-VCM1000	£163	€188

UHV Cable Assemblies - Connector To Cable - 6 Pin



Cable Length	Cable Diameter	Connector type	Connector Dimensions O.D. x Length	Part Code	Price £	Price €
500	6 x 1.52	Female	22.2 x 27.9	C6-VCF500	£188	€217
1000	6 x 1.52	Female	22.2 x 27.9	C6-VCF1000	£235	€271
500	6 x 1.52	Male	22.2 x 25.9	C6-VCM500	£188	€217
1000	6 x 1.52	Male	22.2 x 25.9	C6-VCM1000	£235	€271

UHV Cable Assemblies - Female to Female Extension Cable



Cable Length	Cable Diameter	Connector type	Connector Dimensions O.D. x Length	Part Code	Price £	Price €
500	3 x 1.52	2 x Female	15.8 x 27.9	C3-EVCF500	£237	€273
1000	3 x 1.52	2 x Female	15.8 x 27.9	C3-EVCF1000	£263	€303
500	6 x 1.52	2 x Female	22.2 x 25.9	C6-EVCF500	£316	€364
1000	6 x 1.52	2 x Female	22.2 x 25.9	C6-EVCF1000	£369	€425

In vacuum cable assemblies use 18AWG wire.

UHV Connectors & Contacts



No. Pins	Connector type	Connector Dimensions O.D. x Length	Use Contact	Part Code	Price £	Price €
3	Female	15.8 x 27.9	C3/6PINF-10	C3-PCF	£97	€112
3	Male	15.8 x 25.9	C3/6PINM-10	C3-PCM	£97	€112
6	Female	22.2 x 27.9	C3/6PINF-10	C6-PCF	£115	€133
6	Male	22.2 x 25.9	C3/6PINM-10	C6-PCM	£115	€133
3	Female +SR	19.1 x 31.0	C3/6PINF-10	C3-PCF-SR	£163	€188
3	Male +SR	19.1 x 29.5	C3/6PINM-10	C3-PCM-SR	£163	€188
6	Female +SR	22.2 x 38.1	C3/6PINF-10	C6-PCF-SR	£188	€217
6	Male +SR	22.2 x 36.3	C3/6PINM-10	C6-PCM-SR	£188	€217
UHV/air female skts for use in C3 & C6 connector shells 10/PK				C3/6PINF-10	£27	€32
UHV/air male pins for use in C3 & C6 connector shells 10/PK				C3/6PINM-10	£27	€32
Crimp tool for C3 & C6 UHV/air skts & C19 air skts				DCT5	£818	€941

+SR - connector includes strain relief

Air Service Round Cable Assemblies



No. Pins	Cable Length	Cable Diameter	Connector type	Connector Dimension O.D. x Length	Part Code	Price £	Price €
3	1200	5.1	Female	22.4 x 52.1	C3-AC1200	£102	€118
3	2500	5.1	Female	22.4 x 52.1	C3-AC2500	£119	€137
6	1200	7.6	Female	28.7 x 55.1	C6-AC1200	£111	€128
6	2500	7.6	Female	28.7 x 55.1	C6-AC2500	£139	€160

Air Service Connectors, Contacts & Tools



No. Pins	Connector type	Connector Dimensions O.D. x Length	Use Contact	Part Code	Price £	Price €
3	Female	22.4 x 52.1	C3/6PINF-10	C3-AIR	£57	€66
3	Female 90°	ask	C3/6PINF-10	C3-AIR-90	£78	€90
6	Female	28.7 x 55.1	C3/6PINF-10	C6-AIR	£65	€75
6	Female°	ask	C3/6PINF-10	C6-AIR-90	£84	€97
UHV/air female skts for use in C3 & C6 connector shells 10/PK				C3/6PINF-10	£27	€32
Crimp tool for C3 & C6 UHV/air skts & C19 air skts				DCT5	£818	€941
Pin insertion tool for C3 & C6 UHV/air skts				PIT3/6	£77	€89
Pin extraction tool for C3 & C6 UHV/air skts				PET3/6	£84	€97

Air service cable assemblies use 18AWG wire.



All dimensions are nominal in millimetres unless otherwise specified

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Mil-C-26482 Circular connector 1000 Volts, 3 / 5 Amps, 10, 19, 32 & 41 Pins



Features:

- 10, 19, 32 & 41 pin configuration.
- Air and vacuum side connectors included.
- Custom versions available on request.



Air side connector.



Vac side connector.

Specifications:

Voltage ¹	1000VDC max
Current ¹	3 or 5A per pin @ 20°C
Material	
Shell	St.St.
Pin	Gold plated St.St.
Insulation	Glass ceramic
Temperature Range ²	
CF flanged feedthrough	-269°C to 450°C
KF flanged feedthrough	-25°C to 150°C
Vacuum connector	-269°C to 250°C
Air side connector	-55°C to 200°C

Max Thermal Gradient 25°C / minute

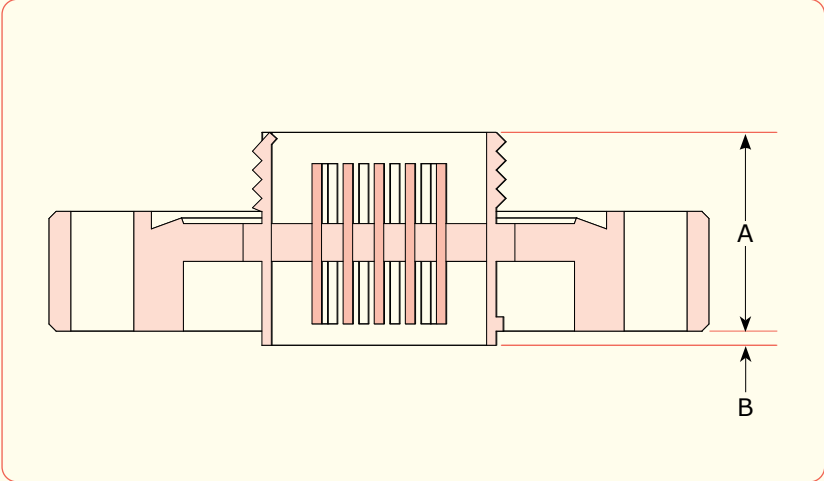
¹ - Please see section introduction for safety information.
² - Assembly rating is reduced to that of the lowest rated component.

All dimensions are nominal in millimetres unless otherwise specified

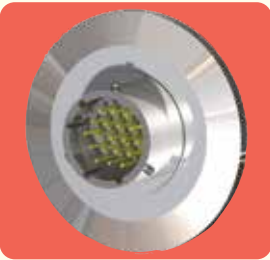
CF Flange Mounted



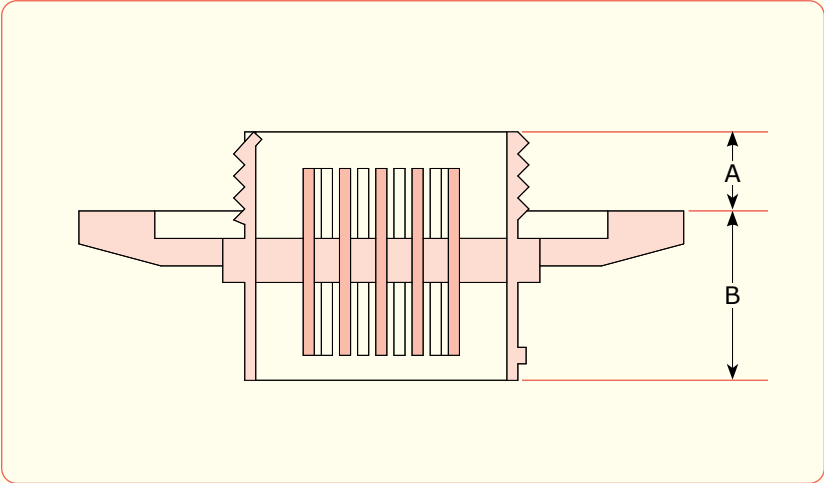
No. Pins	Current A	A	B	Flange	Part Code	Price £	Price €
10	5	21.1	1.5	DN40CF	FH-MSC10-40CF	£574	€661
19	3	21.1	1.5	DN40CF	FH-MSC19-40CF	£682	€785
32	3	21.1	1.5	DN40CF	FH-MSC32-40CF	£778	€895
41	3	25.9	-	DN63CF	FH-MSC41-63CF	POA	POA



KF/LF Flange Mounted



No. Pins	Current A	A	B	Flange	Part Code	Price £	Price €
10	5	15.5	7.0	DN40KF	FH-MSC10-40KF	£574	€661
19	3	15.5	7.0	DN40KF	FH-MSC19-40KF	£682	€785
32	3	15.5	7.0	DN40KF	FH-MSC32-40KF	£778	€895
41	3	17.0	7.0	DN50KF	FH-MSC41-50KF	£876	€1008



All dimensions are nominal in millimetres unless otherwise specified

Subminiature D 500 Volts, 20 Amps, 3 or 5 Pins



Power hermetic subminiature D feedthroughs are available in 3 and 5 pin configurations mounted on standard D15 and D25 shell sizes, respectively. These pin arrangements are designed to meet IEC 807-2 and DESC 85039 specifications. Straight through pins 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 cables are available to meet the demands of UHV environments. The connection accessories must be purchased separately. Vacuum side cable assemblies, individual connectors and other accessories are detailed overleaf. Custom subminiature D power feedthrough products are available upon request.

Features:

- 3 or 5 pin configuration.
- Air & vacuum side connectors available.
- Custom versions available on request.

Specifications:

Voltage¹ 500VDC max

Current¹ Up to 20A max @ 20°C

Material

Shell St.St.

Pin Gold plated Ni-Fe alloy

Insulation Glass ceramic

Temperature Range²

CF flanged feedthrough -200°C to 250°C

KF flanged feedthrough -20°C to 150°C

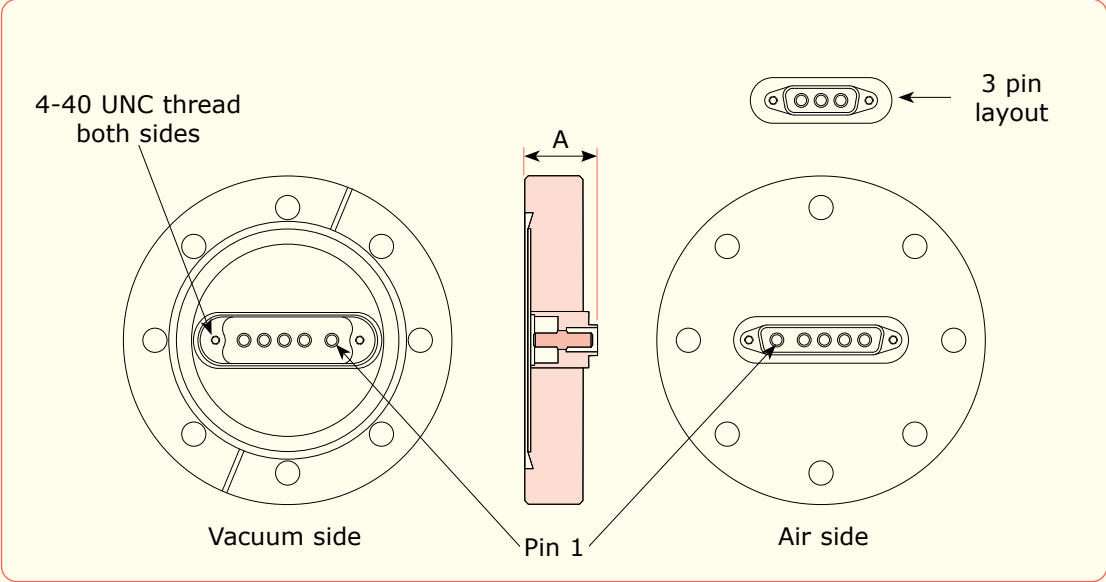
Max Thermal Gradient 25°C / minute

¹ - Please see section introduction for safety information.
² - Assembly rating is reduced to that of the lowest rated component.

CF Flange Mounted



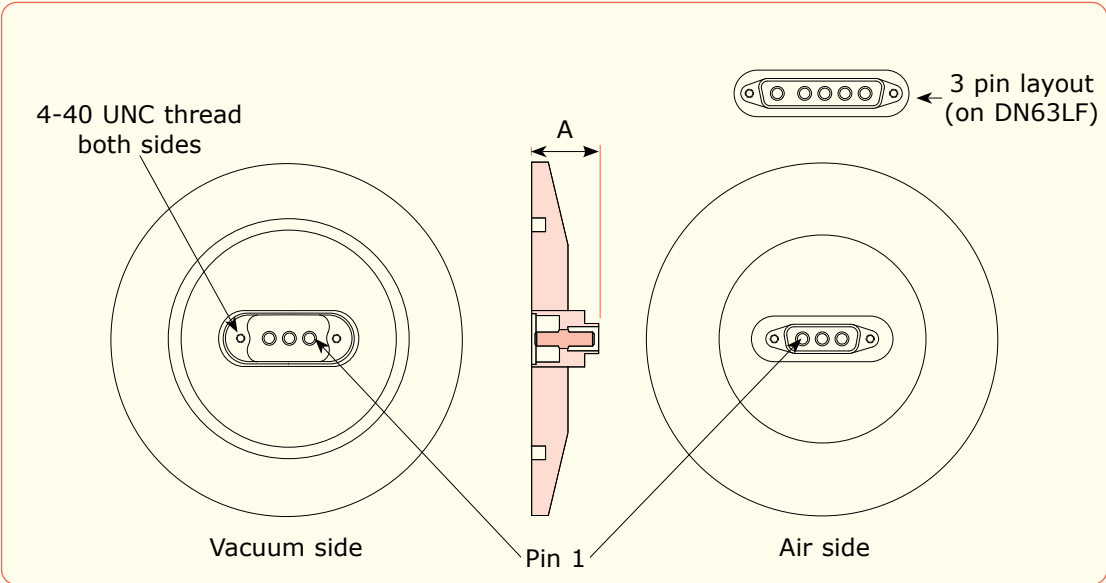
No. Pins	Flange	A	Part Code	Price £	Price €
3	DN63CF	17.8	D15-3P-63CF	£396	€456
5	DN63CF	17.8	D25-5P-63CF	£424	€488



KF/LF Flange Mounted



No. Pins	Flange	A	Part Code	Price £	Price €
3	DN50KF	15.0	D15-3P-50KF	£396	€456
5	DN63LF	15.0	D25-5P-63LF	£424	€488



All dimensions are nominal in millimetres unless otherwise specified

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Subminiature D 500 Volts, 20 Amps, UHV Cables & Connectors



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 the previous page. Power cable assemblies have gold plated female socket contacts at one end and non terminated Kapton® insulated 12AWG multi-strand wire at the other. Contact to cable UHV leads do not include PEEK connectors. Please note, individual contact fitted leads will not allow subsequent connector installation.

UHV subminiature D connectors are made of PEEK and do not include contacts, which must be purchased separately. Female connectors mate directly with the vacuum side of subminiature D feedthroughs shown on the previous page.

UHV Cable Assemblies - Connector To Cable



No. Leads	Cable Length	Cable Diameter	Connector T type	Connector Dimensions	Part Code	Price £	Price €
3	500	3 x 1.27	Female	43.2 x 12.7 x 25.1	D15-3P-F500	£216	€249
3	1000	3 x 1.27	Female	43.2 x 12.7 x 25.1	D15-3P-F1000	£245	€282
3	500	3 x 1.27	Male	43.2 x 12.7 x 25.1	D15-3P-M500	£216	€249
3	1000	3 x 1.27	Male	43.2 x 12.7 x 25.1	D15-3P-M1000	£243	€280
5	500	5 x 1.27	Female	55.9 x 12.7 x 25.1	D25-5P-F500	£292	€336
5	1000	5 x 1.27	Female	55.9 x 12.7 x 25.1	D25-5P-F1000	£342	€394
5	500	5 x 1.27	Male	55.9 x 12.7 x 25.1	D25-5P-M500	£292	€336
5	1000	5 x 1.27	Male	55.9 x 12.7 x 25.1	D25-5P-M1000	£342	€394

UHV Cable Assemblies - Socket To Cable



No. Leads	Cable Length	Cable Diameter	Connector Type	Part Code	Price £	Price €
1	500	1 x 1.27	Female	DP-1-F500	£40	€46
1	1000	1 x 1.27	Female	DP-1-F1000	£48	€56

UHV Connectors, Sockets & Accessories



No. Pins	Connector Type	Connector Material	Connector Dimensions	Part Code	Price £	Price €
3	Female	PEEK	43.2 x 12.7 x 25.1	D15-3P-PCONF	£130	€150
3	Male	PEEK	43.2 x 12.7 x 25.1	D15-3P-PCONM	£130	€150
5	Female	PEEK	55.9 x 12.7 x 25.1	D25-5P-PCONF	£139	€160
5	Male	PEEK	55.9 x 12.7 x 25.1	D25-5P-PCONM	£139	€160
3	Female	MACOR	43.2 x 12.7 x 25.1	D15-3P-CONF-MAC	POA	POA
5	Female	MACOR	55.9 x 12.7 x 25.1	D15-5P-CONF-MAC	POA	POA
UHV/air power female skts for use in connector shells 12 AWG 5/PK				DP-5-PSKT	£37	€43
UHV/air power male pins for use in connector shells 12 AWG 5/PK				DP-5-PPIN	£37	€43
UHV/air power female skts for use in connector shells 16 AWG 5/PK				DP-5-PSKT-S	£37	€43
UHV/air power male pins for use in connector shells 16 AWG 5/PK				DP-5-PPIN-S	£37	€43
Crimp tool for D type power pins				DCT3	£718	€826
Extraction tool for coax & power pins				CX-EXT	£116	€134

All dimensions are nominal in millimetres unless otherwise specified

Subminiature D 500 Volts, 20 Amps, Air Cables & Connectors



Cable assemblies are fitted with glass filled polyester composite subminiature D connectors at one end and non-terminated PVC insulated power leads at the other. The female cable connectors mate directly to the air side of the corresponding feedthrough shown previously. Power cables are constructed with 12AWG stranded copper conductors.

Air Cable Assemblies - Connector To Cable



No. Leads	Cable Length	Cable Diameter	Connector Type	Connector Dimensions	Part Code	Price £	Price €
3	2400	3 x 1.27	Female	43.7 x 19.1 x 53.3	D15-3P-A2400	£148	€171
5	2400	5 x 1.27	Female	57.7 x 19.1 x 59.9	D25-5P-A2400	£226	€260

Air Connectors, Sockets & Accessories



No. Pins	Connector Type	Connector Dimensions	Part Code	Price £	Price €
3	Female	43.7x 19.1 x 53.3	D15-3P-ACONF	£37	€43
5	Female	57.7 x 19.1 x 59.9	D25-5P-ACONF	£42	€49
3	Male	43.7x 19.1 x 53.3	D15-3P-ACONM	£43	€50
5	Male	57.7 x 19.1 x 59.9	D25-5P-ACONM	£48	€56
UHV/air power female skts for use in connector shells 5/PK			DP-5-PSKT	£37	€43
UHV/air power male pins for use in connector shells 5/PK			DP-5-PPIN	£37	€43
Crimp tool for D type power pins			DCT3	£718	€826
Extraction tool for coax & power pins			CX-EXT	£116	€134

* - Male pins have polyethererimide (PEI) retention clips. PEI is UHV compatible

All dimensions are nominal in millimetres unless otherwise specified

500 Volts, 3.5 Amps, 3, 5 or 7 Pins



Features:

- For instrumentation applications.
- 3 to 7 pin configuration.
- Air side connector included.
- NPT fitting versions available.
- Custom versions available on request.

Specifications:

Voltage¹ 500VDC max

Current¹ 3.5A max per pin @ 20°C
Maximum - all pins loaded

3 pin 6A
5 pin 10A
7 pin 15A

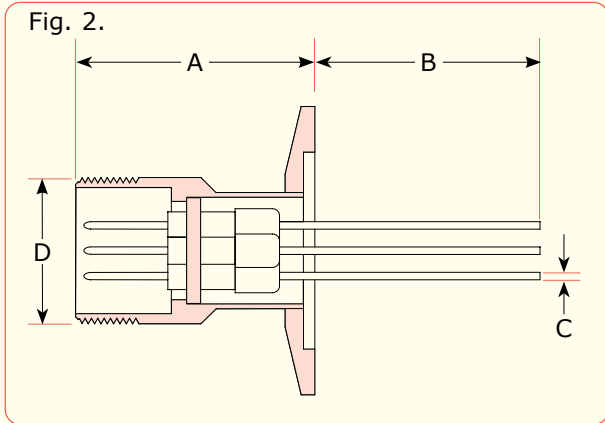
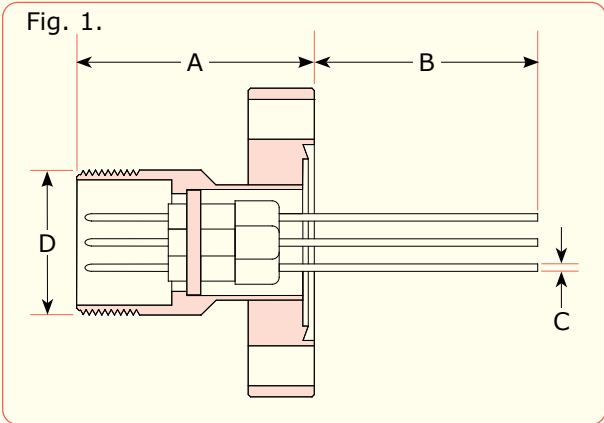
Material

Flange 304 St.St.
Shell St.St.
Pin Molybdenum
Insulation Alumina ceramic

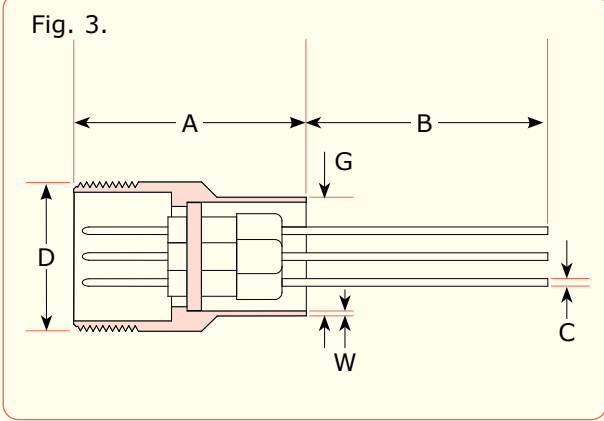
Temperature Range²

CF flanged feedthrough -50°C to 450°C
KF flanged feedthrough -20°C to 150°C
Weldable feedthrough -50°C to 450°C
Air side connector -55°C to 65°C

¹ - Please see section introduction for safety information.
² - Assembly rating is reduced to that of the lowest rated component.



Air side connector.



All dimensions are nominal in millimetres unless otherwise specified

CF Flange Mounted



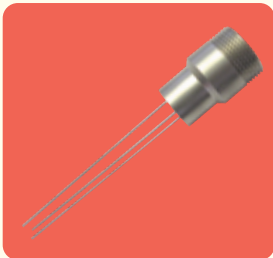
No. Pins	Fig.	A	B	C	D	Flange	Part Code	Price £	Price €
3	1	25.9	49.8	0.8	20.6	DN16CF	FHM-M3-16CF	£238	€274
5	1	34.0	40.1	0.8	20.6	DN16CF	FHM-M5-16CF	£309	€356
5	1	22.6	51.6	0.8	20.6	DN40CF	FHM-M5-40CF	£309	€356
7	1	34.0	40.1	0.8	20.6	DN16CF	FHM-M7-16CF	£323	€372
7	1	22.6	51.6	0.8	20.6	DN40CF	FHM-M7-40CF	£323	€372

KF Flange Mounted



No. Pins	Fig.	A	B	C	D	Flange	Part Code	Price £	Price €
3	2	27.2	48.5	0.8	20.6	DN16KF	FHM-M3-16KF	£238	€274
3	2	24.6	51.1	0.8	20.6	DN40KF	FHM-M3-40KF	£243	€280
5	2	34.0	40.1	0.8	20.6	DN16KF	FHM-M5-16KF	£309	€356
5	2	21.3	52.8	0.8	20.6	DN40KF	FHM-M5-40KF	£319	€367
5	2	21.3	52.8	0.8	20.6	DN50KF	FHM-M5-50KF	£319	€367
7	2	34.0	40.1	0.8	20.6	DN16KF	FHM-M7-16KF	£323	€372
7	2	21.3	52.8	0.8	20.6	DN40KF	FHM-M7-40KF	£329	€379
7	2	22.6	52.8	0.8	20.6	DN50KF	FHM-M7-50KF	£329	€379

Weldable



No. Pins	Fig.	A	B	C	D	G	W	Part Code	Price £	Price €
3	3	24.6	51.0	0.8	20.6	12.6	0.5	FHM-M3-W	£204	€235
5	3	21.3	52.8	0.8	20.6	19.0	0.9	FHM-M5-W	£265	€305
7	3	21.3	52.8	0.8	20.6	19.0	0.9	FHM-M7-W	£275	€317

Accessories



Description	Part Code	Price £	Price €
Power crimp connector BeCu 0.8mm 150°C air 200°C vacuum 10/PK	FHP-BECU-0.8-CON	£50	€58
Power in-line connector BeCu 1.5mm 150°C air 400°C vacuum 10/PK	FHP-BECU-1.5L-CON	£42	€49
Alumina ceramic beads 1.3mm ID 2.8mm long ~107/PK	CB-AL1.3	£42	€49

Additional air side connectors available, please contact sales office for details.

All dimensions are nominal in millimetres unless otherwise specified

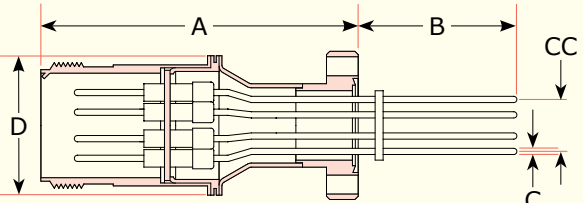
MIL-C-5015 700 Volts, 10 Amps, 4 to 35 Pins, Single Ended



Features:

- For instrumentation applications.
- 4 to 35 pin configuration.
- Industry standard air side connector included.
- 1" base plate or NPT fitting versions available.
- Custom versions available on request.

Fig. 1.



Specifications:

Voltage¹ 700VDC max

Current¹ 10A max per pin @ 20°C
Maximum - all pins loaded

4 pin	28A
6 pin	36A
10 pin	50A
20 pin	75A
35 pin	100A

Material

Flange	304 St.St.
Shell	St.St.
Pin	Alumel®
Insulation	Alumina ceramic

Temperature Range²

CF flanged feedthrough	-55°C to 450°C
KF flanged feedthrough	-20°C to 150°C
Air side connector	-55°C to 125°C

¹ - Please see section introduction for safety information.
² - Assembly rating is reduced to that of the lowest rated component.

Fig. 2.

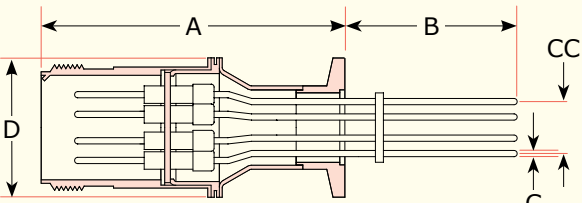
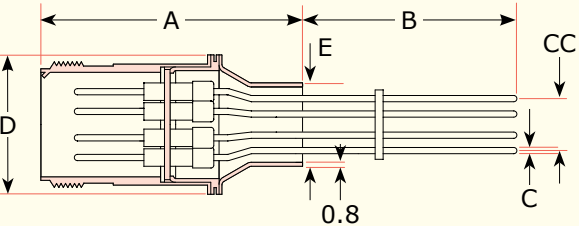


Fig. 3.



Air side connector.

All dimensions are nominal in millimetres unless otherwise specified

CF Flange Mounted



No. Pins	Fig.	A	B	C	D	CC	Flange	Part Code	Price £	Price €
4	1	74.4	66.5	1.4	31.8	9.7	DN16CF	FHM-A4-16CF	£186	€214
4	1	63.0	78.0	1.4	31.8	9.7	DN40CF	FHM-A4-40CF	£201	€232
6	1	74.4	66.5	1.4	31.8	11.2	DN16CF	FHM-A6-16CF	£201	€232
6	1	63.0	78.0	1.4	31.8	11.2	DN40CF	FHM-A6-40CF	£215	€248
10	1	74.4	66.5	1.4	31.8	13.0	DN16CF	FHM-A10-16CF	£322	€371
10	1	63.0	78.0	1.4	31.8	13.0	DN40CF	FHM-A10-40CF	£337	€388
20	1	65.5	86.9	1.4	44.5	26.2	DN40CF	FHM-A20-40CF	£424	€488
20	1	65.5	86.9	1.4	44.5	26.2	DN63CF	FHM-A20-63CF	£448	€516
35	1	102.3	52.1	1.4	57.2	31.0	DN40CF	FHM-A35-40CF	£731	€841
35	1	80.0	74.4	1.4	57.2	37.3	DN63CF	FHM-A35-63CF	£755	€869
4	1	74.4	66.5	1.6	31.8	9.7	DN16CF	FHM-A4-16CF-1.57	£186	€214
6	1	74.4	66.5	1.6	31.8	11.2	DN16CF	FHM-A6-16CF-1.57	£201	€232
10	1	74.4	66.5	1.6	31.8	13.0	DN16CF	FHM-A10-16CF-1.57	£322	€371

KF Flange Mounted



No. Pins	Fig.	A	B	C	D	CC	Flange	Part Code	Price £	Price €
4	2	74.4	66.5	1.4	31.8	9.7	DN16KF	FHM-A4-16KF	£186	€214
4	2	61.7	79.2	1.4	31.8	9.7	DN40KF	FHM-A4-40KF	£195	€225
6	2	74.4	66.5	1.4	31.8	11.2	DN16KF	FHM-A6-16KF	£201	€232
6	2	61.7	79.2	1.4	31.8	11.2	DN40KF	FHM-A6-40KF	£210	€242
10	2	74.4	66.5	1.4	31.8	13.0	DN16KF	FHM-A10-16KF	£322	€371
10	2	61.7	79.2	1.4	31.8	13.0	DN40KF	FHM-A10-40KF	£332	€382
20	2	64.3	88.1	1.4	44.5	26.2	DN40KF	FHM-A20-40KF	£415	€478
20	2	64.3	88.1	1.4	44.5	26.2	DN50KF	FHM-A20-50KF	£424	€488
35	2	103.6	50.8	1.4	57.2	31.0	DN40KF	FHM-A35-40KF	£726	€835
35	2	78.7	75.7	1.4	57.2	37.3	DN50KF	FHM-A35-50KF	£736	€847
4	2	74.4	66.5	1.6	31.8	9.7	DN16KF	FHM-A4-16KF-1.57	£186	€214
6	2	74.4	66.5	1.6	31.8	11.2	DN16KF	FHM-A6-16KF-1.57	£201	€232
10	2	74.4	66.5	1.6	31.8	13.0	DN16KF	FHM-A10-16KF-1.57	£322	€371

Weldable



No. Pins	Fig.	A	B	C	D	E	CC	Part Code	Price £	Price €
4	3	61.7	79.2	1.4	31.8	19.0	9.7	FHM-A4-W	£162	€187
6	3	61.7	79.2	1.4	31.8	19.0	11.2	FHM-A6-W	£176	€203
10	3	61.7	79.2	1.4	31.8	19.0	13.0	FHM-A10-W	£298	€343
20	3	64.3	88.1	1.4	44.5	34.8	26.2	FHM-A20-W	£366	€421
35	3	101.1	53.3	1.4	57.2	38.1	31.0	FHM-A35-W	£697	€802
35	3	78.7	75.7	1.4	57.2	44.3	37.3	FHM-A35-WL	£697	€802
4	3	61.7	79.2	1.6	31.8	19.0	9.7	FHM-A4-W-1.57	£162	€187
6	3	61.7	79.2	1.6	31.8	19.0	11.2	FHM-A6-W-1.57	£176	€203
10	3	61.7	79.2	1.6	31.8	19.0	13.0	FHM-A10-W-1.57	£298	€343

Accessories



Description	Part Code	Price £	Price €
TC crimp and push connectors 1.4mm Ni 350°C 5/PK	FHTC-N-CON	£45	€52
Power crimp connector BeCu 1.4mm 150°C air 200°C vacuum 10/PK	FHP-BECU-1.42-CON	£39	€45
Power in-line connector BeCu 1.5mm 150°C air 400°C vacuum 10/PK	FHP-BECU-1.5L-CON	£42	€49
Power crimp connector BeCu 1.6mm 150°C air 200°C vacuum 10/PK	FHP-BECU-1.57-CON	£39	€45

Additional air side connectors available, please contact sales office for details.

All dimensions are nominal in millimetres unless otherwise specified

700 Volts, 10 Amps, 4 to 35 Pins, Double Ended



Features:

- For instrumentation applications.
- 4 to 35 pin configuration.
- Industry standard air side and vacuum side connectors included.
- Custom versions available on request.

Specifications:

Voltage ¹	700VDC max
Current ¹	10A max per pin @ 20°C
Maximum - all pins loaded	
4 pin	28A
6 pin	36A
10 pin	50A
20 pin	75A
35 pin	100A

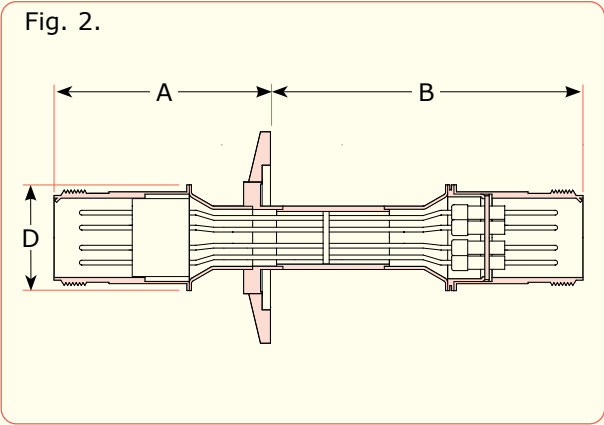
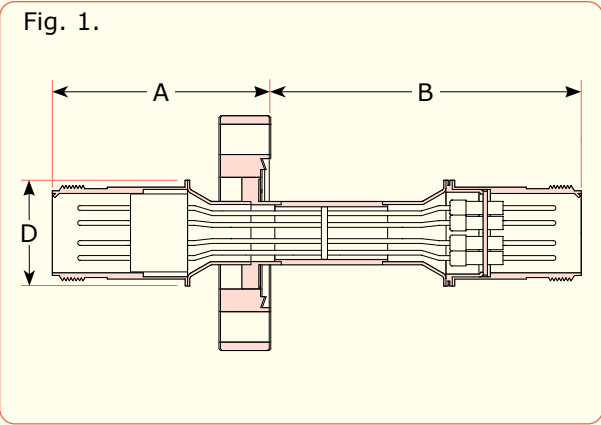
Material

Flange	304 St.St.
Shell	St.St.
Pin	Alumel®
Insulation	Alumina ceramic

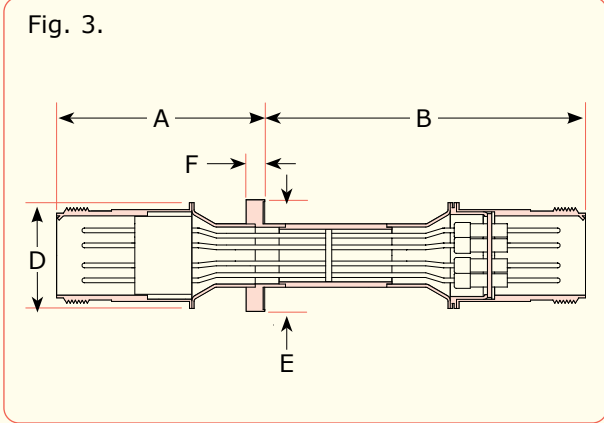
Temperature Range²

CF flanged feedthrough	-55°C to 450°C
KF flanged feedthrough	-20°C to 150°C
Weldable feedthrough	-55°C to 450°C
Vacuum side connector	-55°C to 350°C
Air side connector	-55°C to 125°C

¹ - Please see section introduction for safety information.
² - Assembly rating is reduced to that of the lowest rated component.



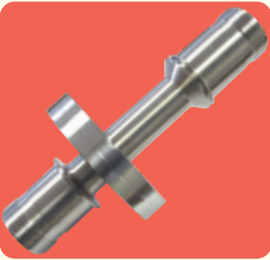
Air side connector.



Vac side connector.

All dimensions are nominal in millimetres unless otherwise specified

CF Flange Mounted (4 To 35 Pin)



No. Pins	Fig.	A	B	D	Flange	Part Code	Price £	Price €
4	1	61.2	87.4	31.8	DN40CF	FHM-A4-D-40CF	£746	€858
6	1	61.2	87.4	31.8	DN40CF	FHM-A6-D-40CF	£833	€958
10	1	61.2	87.4	31.8	DN40CF	FHM-A10-D-40CF	£931	€1071
20	1	71.9	88.9	44.5	DN63CF	FHM-A20-D-63CF	£1169	€1345
35	1	64.8	97.5	57.2	DN63CF	FHM-A35-D-63CF	£1948	€2241
35	1	64.8	97.5	57.2	DN100CF	FHM-A35-D-100CF	£2046	€2353

KF Flange Mounted (4 To 10 Pin Only)



No. Pins	Fig.	A	B	D	Flange	Part Code	Price £	Price €
4	2	62.5	86.1	31.8	DN40KF	FHM-A4-D-40KF	£746	€858
4	2	59.9	88.6	31.8	DN50KF	FHM-A4-D-50KF	£770	€886
6	2	62.5	86.1	31.8	DN40KF	FHM-A6-D-40KF	£833	€958
6	2	59.9	88.6	31.8	DN50KF	FHM-A6-D-50KF	£858	€987
10	2	62.5	86.1	31.8	DN40KF	FHM-A10-D-40KF	£935	€1076
10	2	59.9	88.6	31.8	DN50KF	FHM-A10-D-50KF	£960	€1104

Weldable



No. Pins	Fig.	A	B	D	E	F	Part Code	Price £	Price €
4	3	59.9	88.6	31.8	34.8	7.9	FHM-A4-D-W	£653	€751
6	3	59.9	88.6	31.8	34.8	7.9	FHM-A6-D-W	£721	€830
10	3	59.9	88.6	31.8	34.8	7.9	FHM-A10-D-W	£829	€954
20	3	70.6	88.9	44.5	63.4	9.5	FHM-A20-D-W	£1019	€1172
35	3	63.5	98.8	57.2	63.4	9.5	FHM-A35-D-W	£1812	€2084

Additional air and vacuum side connectors available, please contact sales office for details.

All dimensions are nominal in millimetres unless otherwise specified

SECTION 1.2 MULTIPIN POWER

700 Volts, 16 to 28 Amps Per Pin, 2 or 4 Pins



Specifications:

Voltage¹ 700VDC max

Current¹ 16A / 28A max per pin @ 20°C

Material

Flange 304 St.St.
Shell St.St.
Pin Nickel / molybdenum
Insulation Alumina ceramic

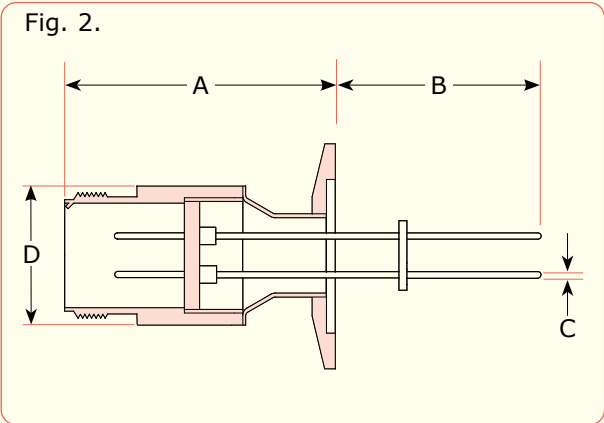
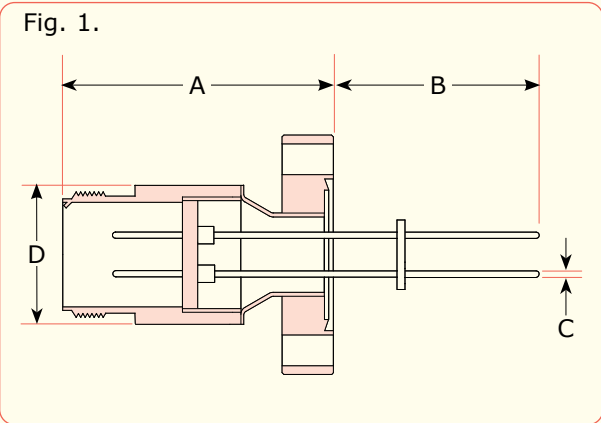
Temperature Range²

CF flanged feedthrough -55°C to 450°C
KF flanged feedthrough -20°C to 150°C
Weldable feedthrough -55°C to 450°C
Air side connector -55°C to 125°C

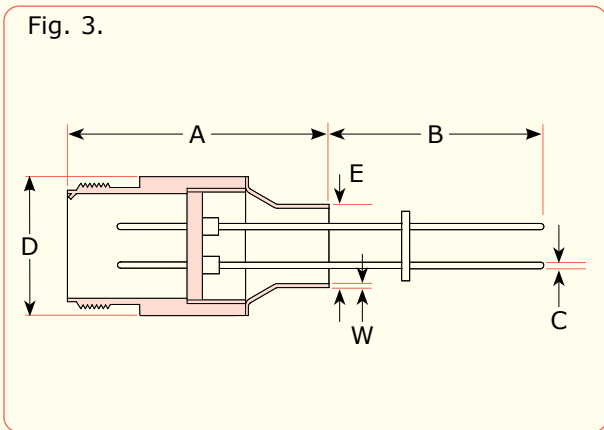
¹ - Please see section introduction for safety information.
² - Assembly rating is reduced to that of the lowest rated component.

Features:

- 2 or 4 pin configuration.
- Industry standard air side connector included.
- Custom versions available on request.



Air side connector.



All dimensions are nominal in millimetres unless otherwise specified

SECTION 1.2 MULTIPIN POWER

CF Flange Mounted



No. Pins	Fig.	Current, A, per pin	A	B	C	D	Pin material	Flange	Part Code	Price £	Price €
2	1	16	68.6	66.0	2.4	31.8	Ni	DN16CF	FHM-2-16-16CF	£225	€259
4	1	16	63.5	66.0	2.4	31.8	Ni	DN16CF	FHM-4-16-16CF	£279	€321
2	1	16	68.6	66.0	2.4	31.8	Ni	DN40CF	FHM-2-16-40CF	£244	€281
4	1	16	68.6	66.0	2.4	31.8	Ni	DN40CF	FHM-4-16-40CF	£298	€343
2	1	28	68.6	66.0	2.4	31.8	Mo	DN16CF	FHM-2-28-16CF	£234	€270
4	1	28	68.6	66.0	2.4	31.8	Mo	DN16CF	FHM-4-28-16CF	£288	€332
2	1	28	68.6	66.0	2.4	31.8	Mo	DN40CF	FHM-2-28-40CF	£264	€304
4	1	28	68.6	66.0	2.4	31.8	Mo	DN40CF	FHM-4-28-40CF	£318	€366

KF Flange Mounted



No. Pins	Fig.	Current, A, per pin	A	B	C	D	Pin material	Flange	Part Code	Price £	Price €
2	2	16	68.6	66.0	2.4	31.8	Ni	DN16KF	FHM-2-16-16KF	£225	€259
4	2	16	68.6	66.0	2.4	31.8	Ni	DN16KF	FHM-4-16-16KF	£279	€321
2	2	16	68.6	66.0	2.4	31.8	Ni	DN25KF	FHM-2-16-25KF	£234	€270
4	2	16	68.6	66.0	2.4	31.8	Ni	DN25KF	FHM-4-16-25KF	£288	€332
2	2	16	68.6	66.0	2.4	31.8	Ni	DN40KF	FHM-2-16-40KF	£244	€281
4	2	16	68.6	66.0	2.4	31.8	Ni	DN40KF	FHM-4-16-40KF	£298	€343
2	2	28	68.6	66.0	2.4	31.8	Mo	DN16KF	FHM-2-28-16KF	£234	€270
4	2	28	68.6	66.0	2.4	31.8	Mo	DN16KF	FHM-4-28-16KF	£298	€343
2	2	28	68.6	66.0	2.4	31.8	Mo	DN25KF	FHM-2-28-25KF	£244	€281
4	2	28	68.6	66.0	2.4	31.8	Mo	DN25KF	FHM-4-28-25KF	£308	€355
2	2	28	68.6	66.0	2.4	31.8	Mo	DN40KF	FHM-2-28-40KF	£254	€293
4	2	28	68.6	66.0	2.4	31.8	Mo	DN40KF	FHM-4-28-40KF	£318	€366

Weldable



No. Pins	Fig.	Current, A, per pin	A	B	C	D	E	W	Pin material	Part Code	Price £	Price €
2	3	16	55.9	78.7	2.4	31.8	25.4	0.8	Ni	FHM-2-16-W	£201	€232
4	3	16	55.9	78.7	2.4	31.8	25.4	0.8	Ni	FHM-4-16-W	£254	€293
2	3	28	55.9	78.7	2.4	31.8	25.4	0.8	Mo	FHM-2-28-W	£210	€242
4	3	28	55.9	78.7	2.4	31.8	25.4	0.8	Mo	FHM-4-28-W	£273	€314

Accessories



Description	Part Code	Price £	Price €
Power push-on connector BeCu 2.4mm 150°C air 200°C vacuum 10/PK	FHP-BECU-2.4-CON	£59	€68
Power in-line connector BeCu 3.0mm 150°C air 400°C vacuum 10/PK	FHP-BECU-3IL-CON	£42	€49
Alumina ceramic beads 2.7mm ID 6.6mm long ~45/PK	CB-AL2.7	£42	€49

Additional air side connectors available, please contact sales office for details.

All dimensions are nominal in millimetres unless otherwise specified

¹ - Maximum current, all pins loaded.

700 Volts, 16 to 28 Amps Per Pin, 4 Pins, Double Ended



Specifications:

Voltage¹ 700VDC max

Current¹ 16A / 28A max per pin @ 20°C

Material

Flange 304 St.St.
Shell St.St.
Pin Nickel / molybdenum
Insulation Alumina ceramic

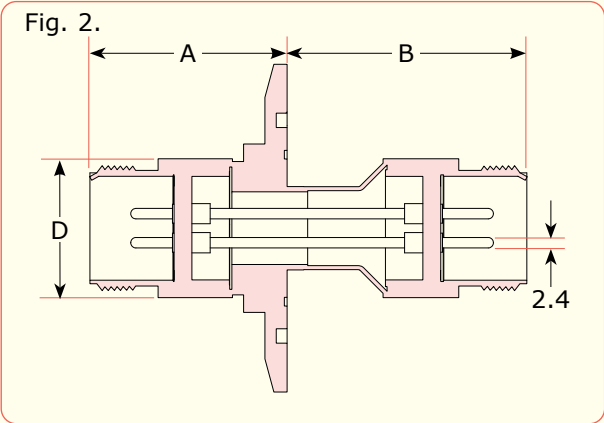
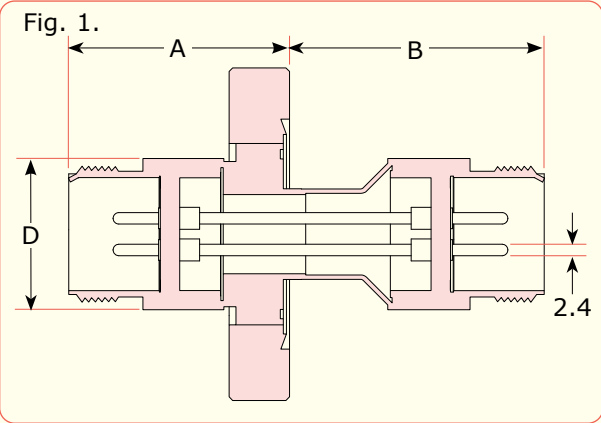
Temperature Range²

CF flanged feedthrough -55°C to 450°C
KF flanged feedthrough -20°C to 150°C
Weldable feedthrough -55°C to 450°C
Air side connector -55°C to 125°C

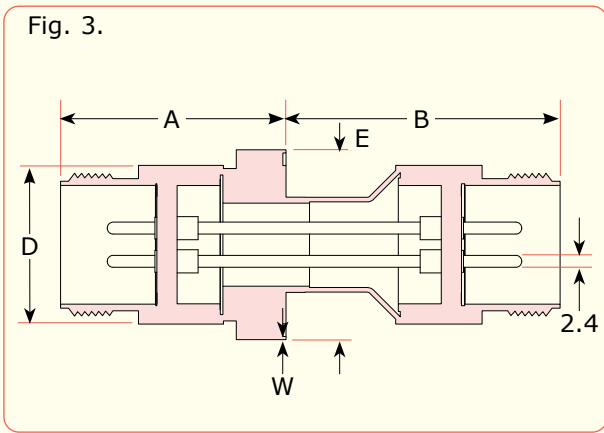
¹ - Please see section introduction for safety information.
² - Assembly rating is reduced to that of the lowest rated component.

Features:

- 4 pin configuration.
- Industry standard air side and vacuum side connectors included.
- Custom versions available on request.



Air side connector.



Vac side connector.

All dimensions are nominal in millimetres unless otherwise specified

CF Flange Mounted



No. Pins	Fig.	Current, A, per pin	A	B	D	Pin material	Flange	Part Code	Price £	Price €
4	1	16	46.4	53.5	33.0	Ni	DN16CF	FHM-4-16N-D-40CF	£721	€830
4	1	28	46.4	53.5	33.0	Mo	DN16CF	FHM-4-28M-D-40CF	£746	€858

KF Flange Mounted



No. Pins	Fig.	Current, A, per pin	A	B	D	Pin material	Flange	Part Code	Price £	Price €
4	2	16	45.1	54.8	33.0	Ni	DN16KF	FHM-4-16N-D-50KF	£721	€830
4	2	28	45.1	54.8	33.0	Mo	DN16KF	FHM-4-28M-D-50KF	£746	€858

Weldable



No. Pins	Fig.	Current, A, per pin	A	B	D	E	W	Pin material	Part Code	Price £	Price €
4	3	16	45.1	54.8	33.0	38.0	0.8	Ni	FHM-4-16N-D-W	£682	€785
4	3	28	45.1	54.8	33.0	38.0	0.8	Mo	FHM-4-28M-D-W	£707	€814

All dimensions are nominal in millimetres unless otherwise specified

¹ - Maximum current, all pins loaded.

700 Volts, up to 23 Amps, 2 to 8 Pins



Specifications:

Voltage¹ 700VDC max

Current¹
Copper conductors 23A max per pin @ 20°C
Nickel conductors 15A max per pin @ 20°C

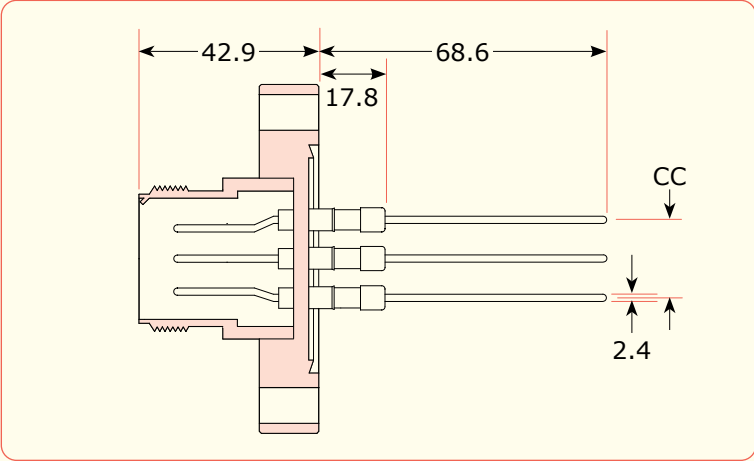
Material
Flange 304 St.St.
Shell St.St.
Pin See table
Insulation Alumina ceramic

Temperature Range²
CF flanged feedthrough -55°C to 450°C
Air side connector -55°C to 125°C

¹ - Please see section introduction for safety information.
² - Assembly rating is reduced to that of the lowest rated component.

Features:

- For high current applications.
- 2 to 8 pin configuration.
- Industry standard air side connector included.
- Custom versions available on request.



Air side connector.

CF Flange Mounted



No Pins	Pin Material	CC	Flange	Part Code	Price £	Price €
2	Copper	12.2	DN40CF	FHM-C2-40CF	£264	€304
2	Nickel	12.2	DN40CF	FHM-N2-40CF	£264	€304
3	Copper	16.3	DN40CF	FHM-C3-40CF	£283	€326
3	Nickel	16.3	DN40CF	FHM-N3-40CF	£283	€326
4	Copper	16.5	DN40CF	FHM-C4-40CF	£327	€377
4	Nickel	16.5	DN40CF	FHM-N4-40CF	£327	€377
5	Copper	19.0	DN40CF	FHM-C5-40CF	£351	€404
5	Nickel	19.0	DN40CF	FHM-N5-40CF	£351	€404
7	Copper	19.0	DN40CF	FHM-C7-40CF	£405	€466
7	Nickel	19.0	DN40CF	FHM-N7-40CF	£405	€466
8	Copper	*	DN40CF	FHM-C8-40CF	£435	€501
8	Nickel	*	DN40CF	FHM-N8-40CF	£435	€501

Accessories



Description	Part Code	Price £	Price €
Power push-on connector BeCu 2.4mm 150°C air 200°C vacuum 10/PK	FHP-BECU-2.4-CON	£39	€45
Power in-line connector BeCu 3.0mm 150°C air 400°C vacuum 10/PK	FHP-BECU-3IL-CON	£42	€49
Alumina ceramic beads 2.7mm ID 6.6mm long ~45/PK	CB-AL2.7	£42	€49

Additional air side connectors available, please contact sales office for details.

* - Not equally spaced.

700 Volts, up to 40 Amps Per Pin, 2 to 4 Pins



Specifications:

Voltage¹ 700VDC max

Current¹
Molybdenum 40A max per pin @ 20°C
Nickel 25A max per pin @ 20°C

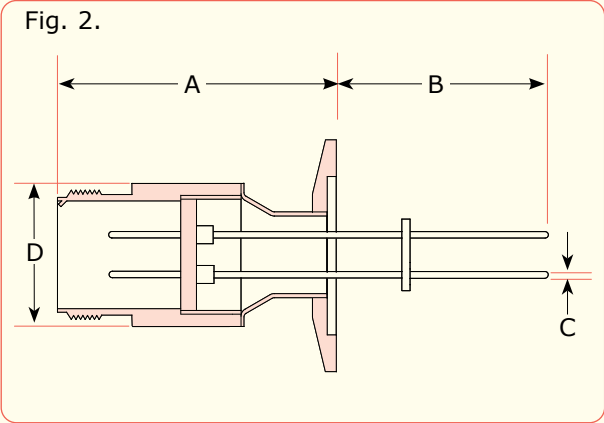
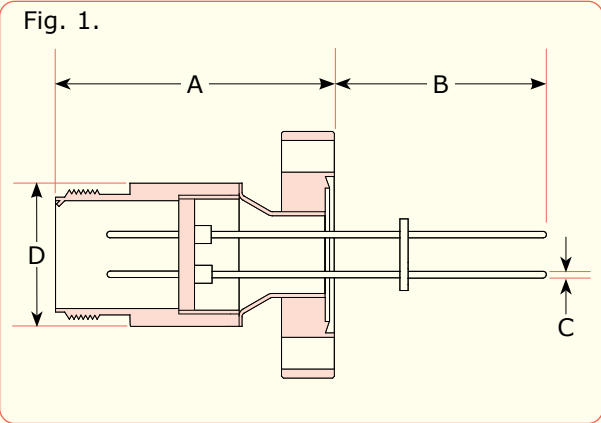
Material
Flange 304 St.St.
Shell St.St.
Pin See table
Insulation Alumina ceramic

Temperature Range²
CF flanged feedthrough -55°C to 450°C
KF flanged feedthrough -20°C to 150°C
Weldable feedthrough -55°C to 450°C
Air side connector -55°C to 125°C

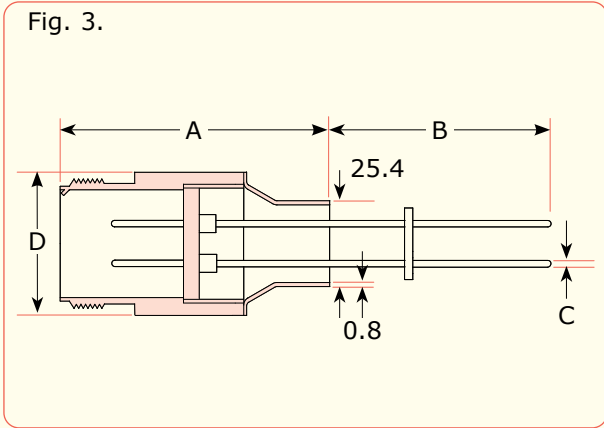
Features:

- 2 or 4 pin configuration.
- Industry standard air side connector included.
- Custom versions available on request.

¹ - Please see section introduction for safety information.
² - Assembly rating is reduced to that of the lowest rated component.



Air side connector.



All dimensions are nominal in millimetres unless otherwise specified

CF Flange Mounted



No. Pins	Fig.	Current, A	A	B	C	D	Pin Material	Part Code	Price £	Price €
2	1	40	62.2	49.5	3.6	31.8	Mo	FHM-2-40M-40CF	£322	€371
2	1	25	62.2	49.5	3.6	31.8	Ni	FHM-2-25N-40CF	£296	€341
4	1	40	62.2	49.5	3.6	31.8	Mo	FHM-4-40M-40CF	£390	€449
4	1	25	62.2	49.5	3.6	31.8	Ni	FHM-4-25N-40CF	£342	€394

KF Flange Mounted



No. Pins	Fig.	Current, A	A	B	C	D	Pin Material	Part Code	Price £	Price €
2	2	40	61.0	50.8	3.6	31.8	Mo	FHM-2-40M-40KF	£322	€371
2	2	25	61.0	50.8	3.6	31.8	Ni	FHM-2-25N-40KF	£296	€341
4	2	40	61.0	50.8	3.6	31.8	Mo	FHM-4-40M-40KF	£390	€449
4	2	25	61.0	50.8	3.6	31.8	Ni	FHM-4-25N-40KF	£342	€394

Weldable



No. Pins	Fig.	Current, A	A	B	C	D	Pin Material	Part Code	Price £	Price €
2	3	40	61.0	50.8	3.6	31.8	Mo	FHM-2-40M-W	£277	€319
2	3	25	61.0	50.8	3.6	31.8	Ni	FHM-2-25N-W	£262	€302
4	3	40	61.0	50.8	3.6	31.8	Mo	FHM-4-40M-W	£346	€398
4	3	25	61.0	50.8	3.6	31.8	Ni	FHM-4-25N-W	£308	€355

Additional air side connectors available, please contact sales office for details.

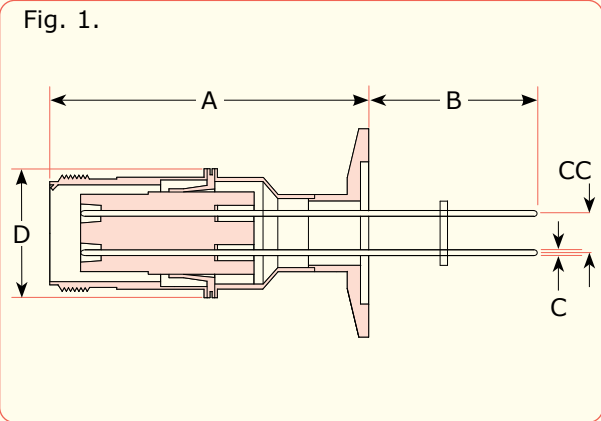
All dimensions are nominal in millimetres unless otherwise specified

12,000 Volts, 7.5 Amps, 2 to 7 Pins

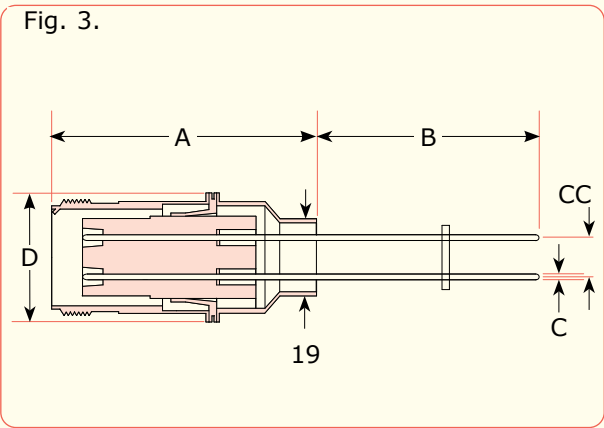
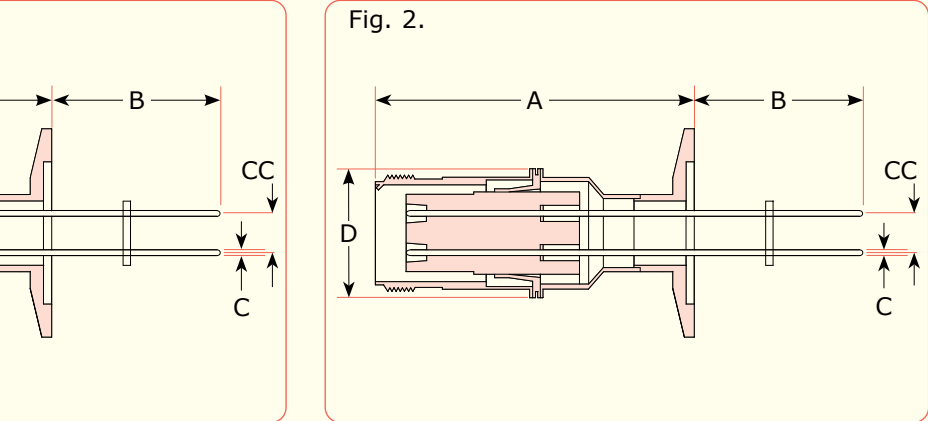


Features:

- For high voltage applications.
- 2 to 7 pin configuration.
- Industry standard air side connector included.
- Custom versions available on request.



Air side connector.



Specifications:

Voltage¹ 12,000VDC max

Current¹ 7.5A max per pin @ 20°C
Maximum - all pins loaded

2 pin 15A
4 pin 30A
7 pin 38A

Material

Flange 304 St.St.
Shell St.St.
Pin Molybdenum
Insulation Alumina ceramic

Temperature Range²

CF flanged feedthrough -55°C to 450°C
KF flanged feedthrough -20°C to 150°C
Weldable feedthrough -55°C to 450°C
Air side connector -55°C to 125°C

¹ - Please see section introduction for safety information.
² - Assembly rating is reduced to that of the lowest rated component.

All dimensions are nominal in millimetres unless otherwise specified

CF Flange Mounted



No. Pins	Fig.	A	B	C	D	CC	Flange	Part Code	Price £	Price €
2	1	69.9	68.6	1.3	27.4	10.2	DN16CF	FHM-12KVS2-16CF	£454	€523
2	1	59.2	79.2	1.3	27.4	10.2	DN40CF	FHM-12KVS2-40CF	£454	€523
4	1	69.9	68.6	1.3	27.4	10.2	DN16CF	FHM-12KVS4-16CF	£493	€567
4	1	59.2	79.2	1.3	27.4	10.2	DN40CF	FHM-12KVS4-40CF	£493	€567
7	1	69.9	68.6	1.3	27.4	10.2	DN16CF	FHM-12KVS7-16CF	£537	€618
7	1	59.2	79.2	1.3	27.4	10.2	DN40CF	FHM-12KVS7-40CF	£537	€618

KF Flange Mounted



No. Pins	Fig.	A	B	C	D	CC	Flange	Part Code	Price £	Price €
2	2	69.9	68.6	1.3	27.4	10.2	DN16KF	FHM-12KVS2-16KF	£454	€523
2	2	59.7	78.7	1.3	27.4	10.2	DN40KF	FHM-12KVS2-40KF	£454	€523
4	2	69.9	68.6	1.3	27.4	10.2	DN16KF	FHM-12KVS4-16KF	£493	€567
4	2	59.7	78.7	1.3	27.4	10.2	DN40KF	FHM-12KVS4-40KF	£493	€567
7	2	69.9	68.6	1.3	27.4	10.2	DN16KF	FHM-12KVS7-16KF	£537	€618
7	2	59.7	78.7	1.3	27.4	10.2	DN40KF	FHM-12KVS7-40KF	£537	€618

Weldable



No. Pins	Fig.	A	B	C	D	CC	Part Code	Price £	Price €
2	3	57.2	81.3	1.3	27.4	10.2	FHM-12KVS2-W	£405	€466
4	3	57.2	81.3	1.3	27.4	10.2	FHM-12KVS4-W	£444	€511
7	3	57.2	81.3	1.3	27.4	10.2	FHM-12KVS7-W	£487	€561

Accessories



Description	Part Code	Price £	Price €
Power crimp connector BeCu 1.3mm 150°C air 200°C vacuum 10/PK	FHP-BECU-1.27-CON	£39	€45
Power push-on connector BeCu 1.3mm 150°C air 200°C vacuum 10/PK	FHP-BECU-1.3-CON	£39	€45
Power in-line connector BeCu 1.5mm 150°C air 400°C vacuum 10/PK	FHP-BECU-1.5L-CON	£42	€49
Alumina ceramic beads 1.3mm ID 2.8mm long ~107/PK	CB-AL1.3	£42	€49

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All dimensions are nominal in millimetres unless otherwise specified