



**HIGH VACUUM MULTIPIN ELECTRICAL
FEEDTHROUGHS MPF 700v-13 AMP
MIL-C-5015 2 to 37 Pins**



Description

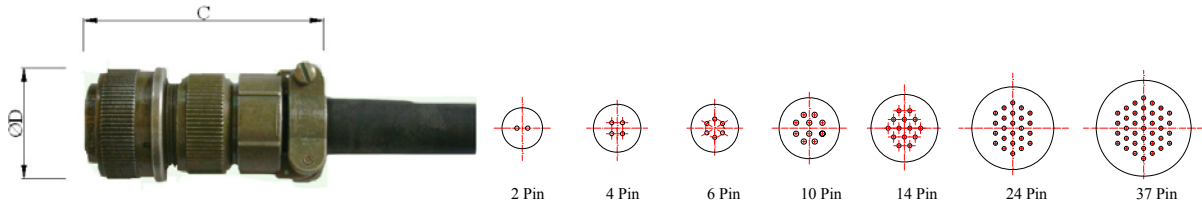
In compliance with standard military connectors VLT supply (Multi-pin MPF feedthroughs) for High and Ultra High Vacuum applications. In this type of feedthroughs, as insulator is used a high quality tecnopolymer, the vacuum tightness between conductors and insulator is attained by a patented technique. Since nor Alumina nor Glass is used as insulator, the feedthroughs are highly resistant to thermal and mechanical shocks.

Technical characteristics

- Vacuum tightness: better than 10^{-12} Pascal
- Insulator: Vespel (Dupon trade name)
- Working temperature: -190 +290°C
- Short time Max temperature: +480°C
- Conductors: Cu alloy gold plated
- Shell: AISI 304L or Anticorodal
- Voltage: 700 V DC
- Current: 13 Amp. each pin
- Conductor diam. 1.60 mm
- Working temperature connector: -55°C+125°C
- Very high resistance to thermal and mechanical shocks.
- γ and β radiation resistance.

MS Circular connectors MIL-C-5015

MS Circular connectors, are supplied with Multipin electrical feedthroughs, circular type threaded as in the following table.



Tab 1

Code MS	N° of pins	C	D
MS-3106A-12S-3S	2	52	27
MS-3106A-14S-1S	3	56	29,5
MS-3106A-14S-2S	4	56	29,5
MS-3106A-14S-6S	6	56	29,5
MS-3106A-18-1S	10	70	34,2
MS-3106A-20-27S	14	70	37,4
MS-3106A-24-28S	24	74	43,7
MS-3106A-28-21S	37	84	50



Double Ended KF



Single Ended CF



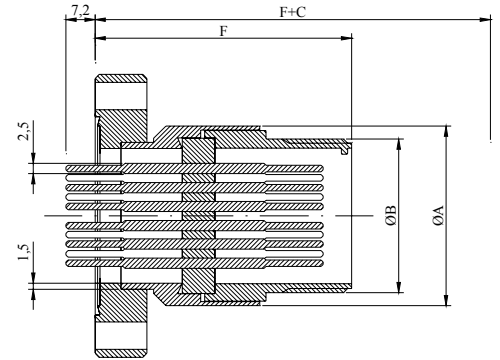
Single ended DN-CF flanged

2 to 37 pins,

700Vdc-13A

**Air side MS connector included.
Female pin included solder or clamp type
Pin material:Gold plated Copper alloy**

N° OF PINS	CF FLANGE	Ø A	Ø B	F	F+C	REFERENCE CODE	PRICE €
2	DN 40	25	0.750-20 UNEF	55	94	S-MPF 02-40C	
3	DN 40	28	0.875-20 UNEF	55	98	S-MPF 03-40C	
4	DN 40	28	0.875-20 UNEF	55	98	S-MPF 04-40C	
6	DN 40	28	0.875-20 UNEF	55	98	S-MPF 06-40C	
10	DN 40	34.5	1.125-18 UNEF	59	110	S-MPF 10-40C	
14	DN 40	37.5	1.250-10 UNEF	59	110	S-MPF 14-40C	
24	DN 40	44	1.500-18 UNEF	61.5	119.5	S-MPF 24-63C	
37	DN 40	49.5	1.750-18 UNEF	61.5	138.5	S-MPF 37-63C	



F+C=Total length with MS Connector

On request VLT can supply multipin feedthroughs with any contact arrangement as MIL-C-5015.

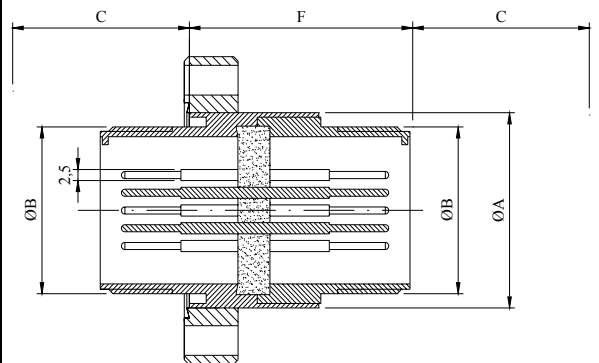
Double ended DN-CF flanged

2 to 37 pins,

700Vdc-13A

**Air-Vacuum side MS connectors included.
Pin material:Gold plated Copper alloy**

N° OF PINS	KF FLANGE	Ø A	Ø B	F	F+2C	REFERENCE CODE	PRICE €
2	DN 40	25	0.750-20 UNEF	60	138.5	D-MPF 02-40C	
3	DN 40	28	0.875-20 UNEF	60	141.5	D-MPF 03-40C	
4	DN 40	28	0.875-20 UNEF	60	141.5	D-MPF 04-40C	
6	DN 40	28	0.875-20 UNEF	60	141.5	D-MPF 06-40C	
10	DN 40	34.5	1.125-18 UNEF	69	173	D-MPF 10-40C	
14	DN 40	37.5	1.250-10 UNEF	69	173	D-MPF 14-40C	
24	DN 63	44	1.500-18 UNEF	73	189	D-MPF 24-63C	
37	DN 63	49.5	1.750-18 UNEF	73	207	D-MPF 37-63C	



F+2C=Total length with MS Connectors.

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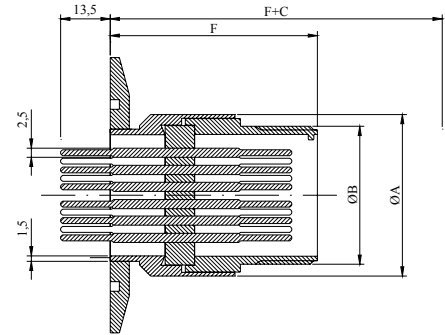
Single ended DN-KF flanged

2 to 37 pins,

700Vdc-13A

**Air side MS connector included.
Female pin included solder or clamp type
Pin material:Gold plated Copper alloy**

N° OF PINS	KF FLANGE	Ø A	Ø B	F	F+C	REFERENCE CODE	PRICE €
2	DN 25	25	0.750-20 UNEF	49	88	S-MPF02-25K	
3	DN 25	28	0.875-20 UNEF	49	92	S-MPF03-25K	
4	DN25	28	0.875-20 UNEF	49	92	S-MPF04-25K	
6	DN25	28	0.875-20 UNEF	49	92	S-MPF06-25K	
10	DN40	34.5	1.125-18 UNEF	53	104	S-MPF10-40K	
14	DN40	37.5	1.250-10 UNEF	53	104	S-MPF14-40K	
24	DN50	44	1.500-18 UNEF	55.5	113.5	S-MPF24-50K	
37	DN50	49.5	1.750-18 UNEF	55.5	122.5	S-MPF37-50K	



F+C=Total length with MS Connector

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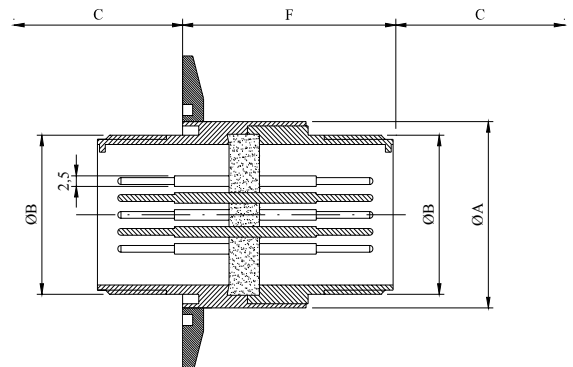
Double ended DN-KF flanged

2 to 37 pins,

700Vdc-13A

**Air-Vacuum side MS connectors included.
Pin material:Gold plated Copper alloy**

N° OF PINS	KF FLANGE	Ø A	Ø B	F	F+2C	REFERENCE CODE	PRICE €
2	DN 25	25	0.750-20 UNEF	60	138.5	D-MPF 02-25K	
3	DN 25	28	0.875-20 UNEF	60	141.5	D-MPF 03-25K	
4	DN25	28	0.875-20 UNEF	60	141.5	D-MPF 04-25K	
6	DN25	28	0.875-20 UNEF	60	141.5	D-MPF 06-25K	
10	DN40	34.5	1.125-18 UNEF	69	173	D-MPF 10-40K	
14	DN40	37.5	1.250-10 UNEF	69	173	D-MPF 14-40K	
24	DN50	44	1.500-18 UNEF	73	189	D-MPF 24-50K	
37	DN50	49.5	1.750-18 UNEF	73	207	D-MPF 37-50K	



F+2C=Total length with MS Connectors.

On request VLT can supply multipin feedthroughs with any contact arrangement as MIL C 5015.



**High Vacuum Miniature Multipin Electrical Feedthroughs
MPF MS Bayonet Circular Connector
MIL-C-26482 / VG 95328**



Description

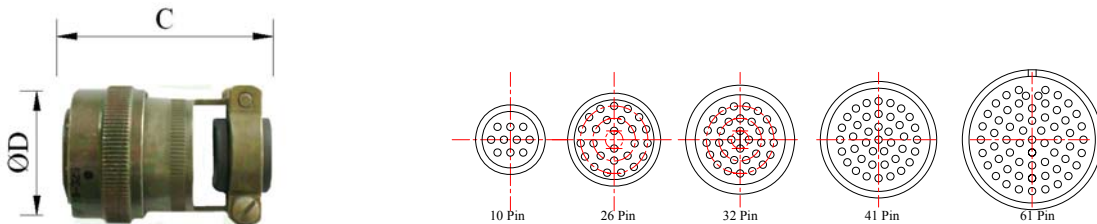
In compliance with miniature, cylindrical, multipole connectors for military, civil and industrial applications VLT supply Multipin Electrical Feedthroughs MPF for High and Ultra High Vacuum applications. In this type of feedthroughs, as insulator is used a high quality tecnopolymer, the vacuum tightness between conductors and insulator is attained by a patented technique. Since nor Alumina nor Glass is used as insulator, the feedthroughs are highly resistant to thermal and mechanical shocks.

Technical characteristics

- Vacuum tightness: better than 10^{-12} Pascal
- Insulator: Vespel (Dupon trade name)
- Working temperature: -190 +290°C
- Max temperature for short time: +480°C
- Conductors: Cu alloy gold plated
- Shell: AISI 304L or Anticorodal
- Voltage: 500 V DC
- Current: 7,5 Amp. each pin
- Conductor diam. 1 mm
- Working temperature connector -55°C+125°C
- Very high resistance to thermal and mechanical shocks
- γ and β radiation resistance.

MS Miniature Bayonet circular connectors MIL-C-26482 / VG 95328

Standard MS connectors in compliance with MIL-C-26482 / VG 95328 are supplied with VLT MPF. The connectors are bayonet lock coupling type, with three axial ramps and 5 polarization Keys.



Code MS	N° of pins	C	D
MS3116 F12-10S	10	48.4	26.5
MS3116 F16-26S	26	52	33.15
MS3116 F18-32S	32	52.8	35.33
MS3116 F20-41S	41	57.15	38.9
MS3116 F24-61S	61	58.7	45.15



Double Ended KF



Double Ended CF



High Vacuum Miniature Multipin Electrical Feedthroughs
MPF MS Bayonet Circular Connector
MIL-C-26482 / VG 95328



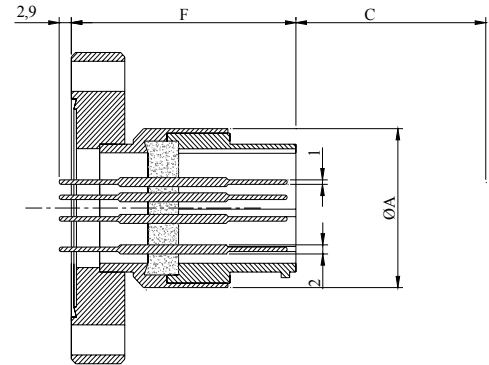
Single ended DN-CF flanged

10 to 61 pins,

500Vdc-7.5A

Air side MS connector included.
Female pin included solder or clamp type
Pin material:Gold plated Copper alloy

N° OF PINS	CF FLANGE	Ø A	F	F+C	REFERENCE CODE	PRICE €
10	DN40	25.3	46.7	87.5	SB-MPF10-40C	
26	DN40	32.3	46.7	91.7	SB-MPF26-40C	
32	DN40	35.9	46.7	92.7	SB-MPF32-50C	
41	DN63	38.6	46.7	97	SB-MPF41-50C	
61	DN63	45	46.7	98.4	SB-MPF61-50C	



F+C=Total length with MS Connector

On request VLT can supply multipin feedthroughs with any contact arrangement as MIL-C-26482 / VG 95328.

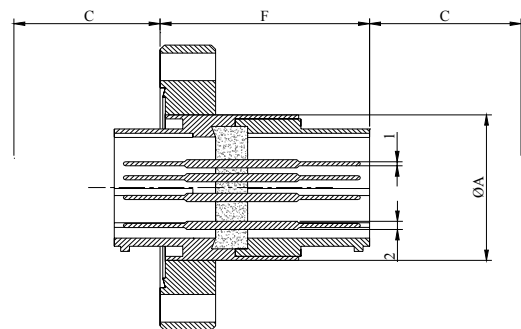
Double ended DN-CF flanged

10 to 61 pins,

500Vdc-7.5A

Air-Vacuum side MS connectors included.
Pin material:Gold platedCopper alloy

N° OF PINS	CF FLANGE	Ø A	F	F+2C	REFERENCE CODE	PRICE
						€
10	DN40	25.3	46.7	128.3	DB-MPF10-40C	
26	DN40	32.3	46.7	136.4	DB-MPF26-40C	
32	DN40	35.9	46.7	138.7	DB-MPF32-50C	
41	DN63	38.6	46.7	147.3	DB-MPF41-50C	
61	DN63	45	46.7	150.1	DB-MPF61-50C	



F+2C=Total length with MS Connectors.

On request VLT can supply multipin feedthroughs with any contact arrangement as MIL-C-26482 / VG 95328.



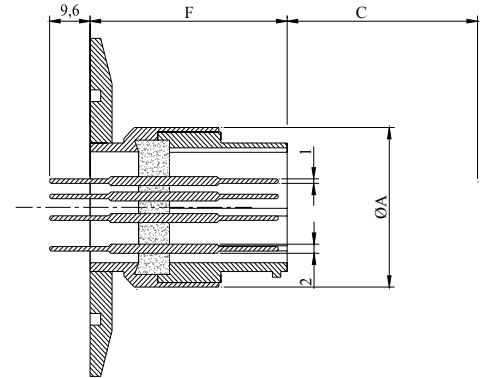
Single ended DN-KF flanged

10 to 61 pins,

500Vdc-7.5A

Air side MS connector included.
Female pin included solder or clamp type
Pin material:Gold plated Copper alloy

N° OF PINS	KF FLANGE	Ø A	F	F+C	REFERENCE CODE	PRICE €
10	DN40	25.3	46.7	87.5	SB-MPF10-40K	
26	DN40	32.3	46.7	91.7	SB-MPF26-40K	
32	DN50	35.9	46.7	92.7	SB-MPF32-50K	
41	DN50	38.6	46.7	97	SB-MPF41-50K	
61	DN50	45	46.7	98.4	SB-MPF61-50K	



F+C=Total length with MS Connector

On request VLT can supply multipin feedthroughs with any contact arrangement as MIL-C-26482 / VG 95328.

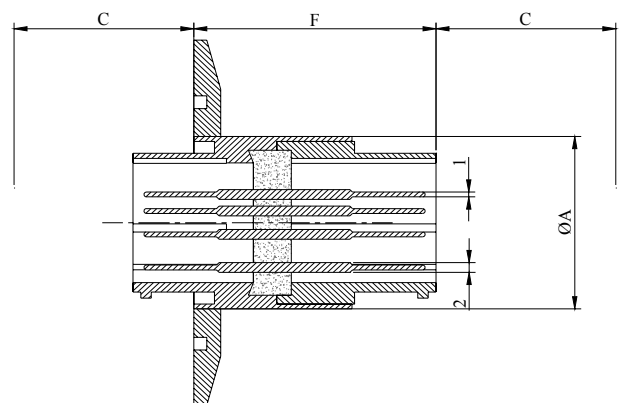
Double ended DN-KF flanged

10 to 61 pins,

500Vdc-7.5A

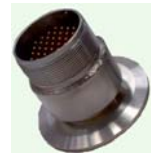
Air-Vacuum side MS connectors included.
Pin material:Gold plated Copper alloy

N° OF PINS	KF FLANGE	Ø A	F	F+2C	REFERENCE CODE	PRICE
						€
10	DN40	25.3	46.7	128.3	DB-MPF10-40K	
26	DN40	32.3	46.7	136.4	DB-MPF26-40K	
32	DN50	35.9	46.7	138.7	DB-MPF32-50K	
41	DN50	38.6	46.7	147.3	DB-MPF41-50K	
61	DN50	45	46.7	150.1	DB-MPF61-50K	



F+2C=Total length with MS Connectors.

On request VLT can supply multipin feedthroughs with any contact arrangement as MIL-C-26482 / VG 95328.



Description

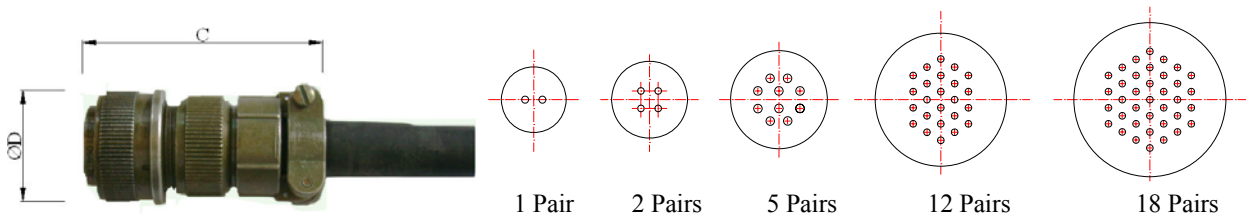
In compliance with standard MS circular type threaded multipole connectors for military, civil and industrial applications, VLT supply thermocouple feedthroughs for high and ultra high vacuum applications. In this type of feedthroughs, as insulator is used a high quality tecnopolymer, the vacuum tightness between conductors and insulator is attained by a patented technouque. Since nor Alumina nor Glass is used as insulator, the feedthroughs are highly resistant to thermal and mechanical shocks.

Technical characteristics

- Vacuum tightness: better than 10^{-12} Pascal
- Insulator: Vespel
- Working temperature: -190 +290°C
- Short time Max temperature: +480°C
- Shell: AISI 304L or Anticorodal
- Pins:
 - K type Chromel – Alumel
 - S type Alloy Thermoelectric fitted with Pt-PtRd 10%
 - T type Copper - Constantan
- Very high resistance to thermal and mechanical shocks
- γ and β irradiation strength

MS Circular connectors MIL-C-5015

With thermocouple feedthroughs are supplied standard MS Circular connectors where pins pairs are of thermoelectric material according to the thermocouple type as in the following table.



Code MS	Pairs	C	D
MS-3106A-12S-3S	1	52	27
MS-3106A-14S-2S	2	56	29,5
MS-3106A-18-1S	5	70	34,2
MS-3106A-24-28S	12	74	43,7
MS-3106A-28-21S	18	84	50



Double ended KF



Single Ended CF



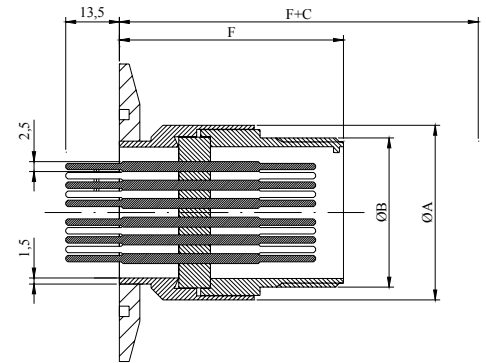
Single ended DN-KF flanged

Air side MS connector included.

Female pin included solder type.

Pin material: K Type Chromel – Alumel, **S Type:** Alloy Thermoelectric fitted with Pt-PtRd 10%, **T Type** Copper – Constantan.

PAIR	TYPE	CF FLANGE	Ø A	Ø B	F	F+C	T.C. CODE	PRICE €
1	K	DN25	25	0.750-20 UNEF	49	88	TC K - SMPF 01-25K	
1	S	"	"	"	49	88	TC S - SMPF 01-25K	
1	T	"	"	"	49	88	TC T - SMPF 01-25K	
2	K	DN25	28	0.875-20 UNEF	49	92	TC K - SMPF 02-25K	
2	S	"	"	"	49	92	TC S - SMPF 02-25K	
2	T	"	"	"	49	92	TC T - SMPF 02-25K	
5	K	DN40	34.5	1.125-18 UNEF	53	104	TC K - SMPF 05-40K	
5	S	"	"	"	53	104	TC S - SMPF 05-40K	
5	T	"	"	"	53	104	TC T - SMPF 05-40K	
12	K	DN50	44	1.500-18 UNEF	55.5	113.5	TC K - SMPF 12-50K	
12	S	"	"	"	55.5	113.5	TC S - SMPF 12-50K	
12	T	"	"	"	55.5	113.5	TC T - SMPF 12-50K	
18	K	DN50	49.5	1.750-18 UNS	55.5	122.5	TC K - SMPF 18-50K	
18	S	"	"	"	55.5	122.5	TC S - SMPF 18-50K	
18	T	"	"	"	55.5	122.5	TC T - SMPF 18-50K	



F+C=Total length with MS Connector

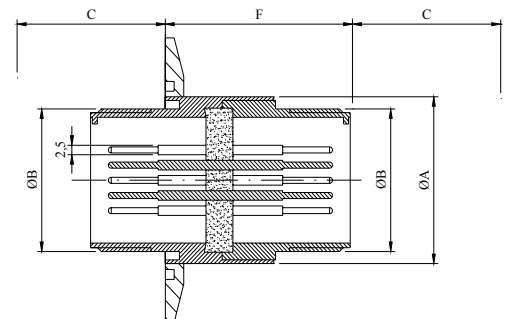
On request VLT can supply multipin feedthroughs with any contact arrangement as MIL C 5015.

Single ended DN-KF flanged

Air-Vacuum side MS connector included.

Pin material: K Type Chromel – Alumel, **S Type:** Alloy Thermoelectric fitted with Pt-PtRd 10%, **T Type** Copper – Constantan.

PAIR	TYPE	CF FLANGE	Ø A	Ø B	F	F+2C	T.C. CODE	PRICE €
1	K	DN25	25	0.750-20 UNEF	60	138.5	TC K - DMPF 01-25K	
1	S	"	"	"	60	138.5	TC S - DMPF 01-25K	
1	T	"	"	"	60	138.5	TC T - DMPF 01-25K	
2	K	DN25	28	0.875-20 UNEF	60	141.5	TC K - DMPF 02-25K	
2	S	"	"	"	60	141.5	TC S - DMPF 02-25K	
2	T	"	"	"	60	141.5	TC T - DMPF 02-25K	
5	K	DN40	34.5	1.125-18 UNEF	69	173	TC K - DMPF 05-40K	
5	S	"	"	"	69	173	TC S - DMPF 05-40K	
5	T	"	"	"	69	173	TC T - DMPF 05-40K	
12	K	DN50	44	1.500-18 UNEF	73	189	TC K - DMPF 12-50K	
12	S	"	"	"	73	189	TC S - DMPF 12-50K	
12	T	"	"	"	73	189	TC T - DMPF 12-50K	
18	K	DN50	49.5	1.750-18 UNS	73	207	TC K - DMPF 18-50K	
18	S	"	"	"	73	207	TC S - DMPF 18-50K	
18	T	"	"	"	73	207	TC T - DMPF 18-50K	



F+2C=Total length with MS Connector

On request VLT can supply multipin feedthroughs with any contact arrangement as MIL C 5015.



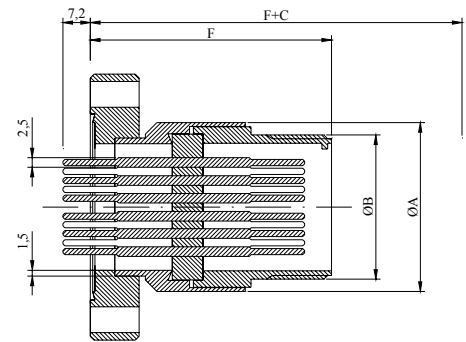
Single ended DN-CF flanged

Air side MS connector included.

Female pin included solder type.

Pin material: K Type Chromel – Alumel, S Type: Alloy Thermoelectric fitted with Pt-PtRd 10%, T Type Copper – Constantan.

PAIR	TYPE	CF FLANGE	Ø A	Ø B	F	F+C	T.C. CODE	PRICE €
1	K	DN40	25	0.750-20 UNEF	55	94	TC K - SMPF 01-25C	
1	S	"	"	"	55	94	TC S - SMPF 01-25C	
1	T	"	"	"	55	94	TC T - SMPF 01-25C	
2	K	DN 40	28	0.875-20 UNEF	55	98	TC K - SMPF 02-25C	
2	S	"	"	"	55	98	TC S - SMPF 02-25C	
2	T	"	"	"	55	98	TC T - SMPF 02-25C	
5	K	DN40	34.5	1.125-18 UNEF	59	110	TC K - SMPF 05-40C	
5	S	"	"	"	59	110	TC S - SMPF 05-40C	
5	T	"	"	"	59	110	TC T - SMPF 05-40C	
12	K	DN40	44	1.500-18 UNEF	61.5	119.5	TC K - SMPF 12-50C	
12	S	"	"	"	61.5	119.5	TC S - SMPF 12-50C	
12	T	"	"	"	61.5	119.5	TC T - SMPF 12-50C	
18	K	DN40	49.5	1.750-18 UNS	61.5	138.5	TC K - SMPF 18-50C	
18	S	"	"	"	61.5	138.5	TC S - SMPF 18-50C	
18	T	"	"	"	61.5	138.5	TC T - SMPF 18-50C	



F+C=Total length with MS connector

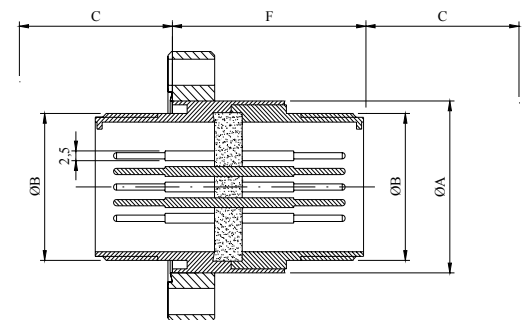
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Double ended DN-CF flanged

Air-Vacuum side MS connectors included.

Pin material: K Type Chromel – Alumel, S Type: Alloy Thermoelectric fitted with Pt-PtRd 10%, T Type Copper – Constantan.

PAIR	TYPE	CF FLANGE	Ø A	Ø B	F	F+2C	T.C. CODE	PRICE €
1	K	DN 40	25	0.750-20 UNEF	60	138.5	TC K - DMPF 01-25C	
1	S	"	"	"	60	138.5	TC S - DMPF 01-25C	
1	T	"	"	"	60	138.5	TC T - DMPF 01-25C	
2	K	DN 40	28	0.875-20 UNEF	60	141.5	TC K - DMPF 02-25C	
2	S	"	"	"	60	141.5	TC S - DMPF 02-25C	
2	T	"	"	"	60	141.5	TC T - DMPF 02-25C	
5	K	DN40	34.5	1.125-18 UNEF	69	173	TC K - DMPF 05-40C	
5	S	"	"	"	69	173	TC S - DMPF 05-40C	
5	T	"	"	"	69	173	TC T - DMPF 05-40C	
12	K	DN63	44	1.500-18 UNEF	73	189	TC K - DMPF 12-50C	
12	S	"	"	"	73	189	TC S - DMPF 12-50C	
12	T	"	"	"	73	189	TC T - DMPF 12-50C	
18	K	DN63	49.5	1.750-18 UNS	73	207	TC K - DMPF 18-50C	
18	S	"	"	"	73	207	TC S - DMPF 18-50C	
18	T	"	"	"	73	207	TC T - DMPF 18-50C	



On request VLT can supply multipin feedthroughs with any contact arrangement as MIL C 5015.



**HIGH VACUUM MULTIPIN ELECTRICAL
FEEDTHROUGHS MPF 700v-13 AMP
MIL-C-5015 2 to 37 Pins**



Description

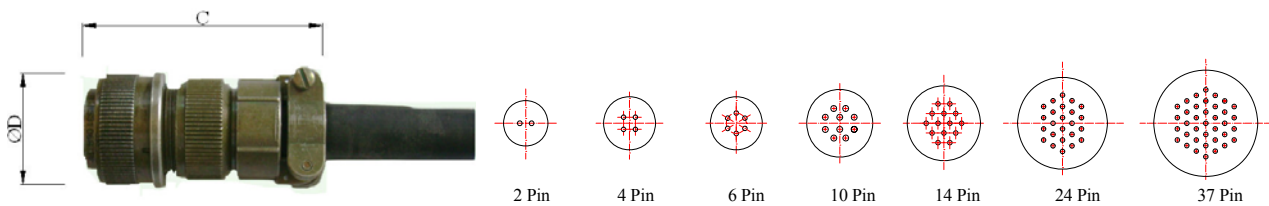
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Technical characteristics

- Vacuum tightness: better than 10^{-12} Pascal
- Insulator: Vespel (Dupon trade name)
- Working temperature: -190 +290°C
- Short time Max temperature: +480°C
- Conductors: Cu alloy gold plated
- Shell: AISI 304L or Anticorodal
- Voltage: 700 V DC
- Current: 13 Amp. each pin
- Conductor diam. 1.60 mm
- Working temperature connector: -55°C+125°C
- Very high resistance to thermal and mechanical shocks.
- γ and β radiation resistance.

MS Circular connectors MIL-C-5015

MS Circular connectors, are supplied with Multipin electrical feedthroughs, circular type threaded as in the following table.



Tab 1

Code MS	N° of pins	C	D
MS-3106A-12S-3S	2	52	27
MS-3106A-14S-1S	3	56	29,5
MS-3106A-14S-2S	4	56	29,5
MS-3106A-14S-6S	6	56	29,5
MS-3106A-18-1S	10	70	34,2
MS-3106A-20-27S	14	70	37,4
MS-3106A-24-28S	24	74	43,7
MS-3106A-28-21S	37	84	50





**HIGH VACUUM MULTIPIN ELECTRICAL
FEEDTHROUGHS MPF 700v-13 AMP
MIL-C-5015 2 to 37 Pins**



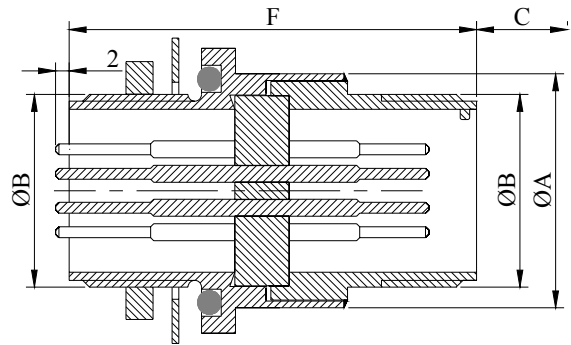
Single ended bulkhead

2 to 37 pins,

700Vdc-13A

**Air side MS connector included.
Female pin included solder or clamp type
Pin material:Gold plated Copper alloy**

N° OF PINS	Ø A	Ø B	F	F+C	REFERENCE CODE	PRICE €
2	25	0.750-20 UNEF	55	94	PS-MPF 02-40C	
3	28	0.875-20 UNEF	55	98	PS-MPF 03-40C	
4	28	0.875-20 UNEF	55	98	PS-MPF 04-40C	
6	28	0.875-20 UNEF	55	98	PS-MPF 06-40C	
10	34.5	1.125-18 UNEF	59	110	PS-MPF 10-40C	
14	37.5	1.250-10 UNEF	59	110	PS-MPF 14-40C	
24	44	1.500-18 UNEF	61.5	119.5	PS-MPF 24-63C	
37	49.5	1.750-18 UNEF	61.5	138.5	PS-MPF 37-63C	



F+C=Total length with MS Connector

On request VLT can supply multipin feedthroughs with any contact arrangement as MIL-C-5015.

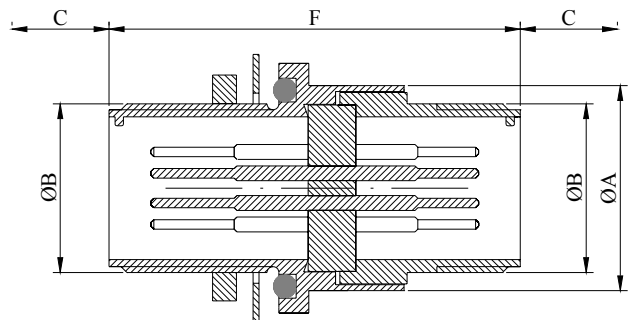
Double ended bulkhead

2 to 37 pins,

700Vdc-13A

**Air-Vacuum side MS connectors included.
Pin material:Gold plated Copper alloy**

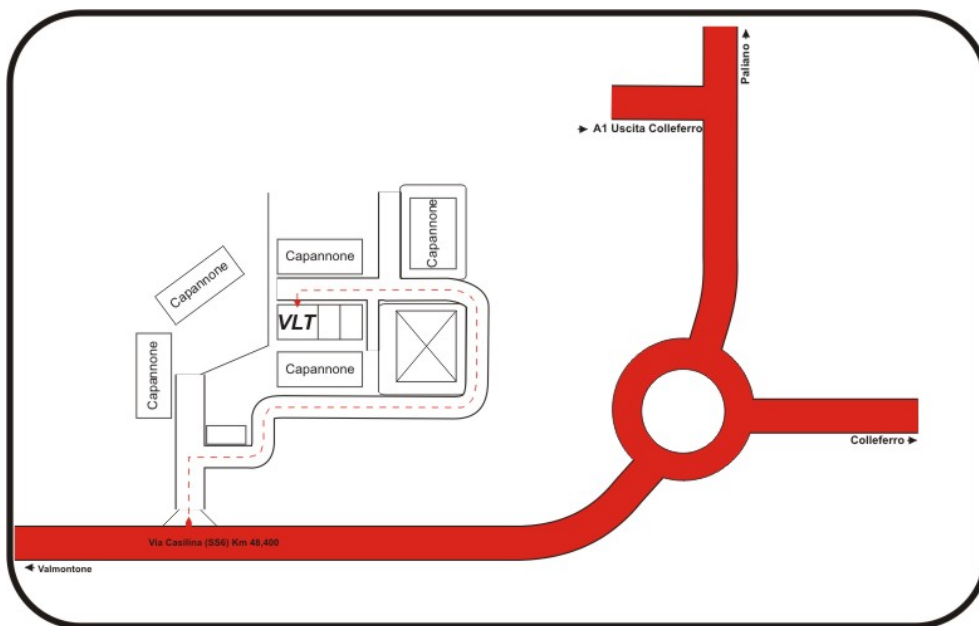
N° OF PINS	Ø A	Ø B	F	F+2C	REFERENCE CODE	PRICE €
2	25	0.750-20 UNEF	60.8	138.5	PD-MPF 02-40C	
3	28	0.875-20 UNEF	60.8	141.5	PD-MPF 03-40C	
4	28	0.875-20 UNEF	60.8	141.5	PD-MPF 04-40C	
6	28	0.875-20 UNEF	60.8	141.5	PD-MPF 06-40C	
10	34.5	1.125-18 UNEF	69	173	PD-MPF 10-40C	
14	37.5	1.250-10 UNEF	69	173	PD-MPF 14-40C	
24	44	1.500-18 UNEF	73	189	PD-MPF 24-63C	
37	49.5	1.750-18 UNEF	73	207	PD-MPF 37-63C	



F+2C=Total length with MS Connectors.

On request VLT can supply multipin feedthroughs with any contact arrangement as MIL-C-5015.

HOW TO FIND VLT



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