

Power Feedthroughs, Low and High Voltage, Multi-way and Ceramic Breaks

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Molybdenum, Stainless Steel and Copper Conductors



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Power Feedthroughs rated at up to 5KV and up to 20 A
Stainless Steel, Nickel and Copper Conductor



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High Current Feedthroughs rated at up to 1000Amps
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Crimps, Push-ons, Screw-ons and Clamps



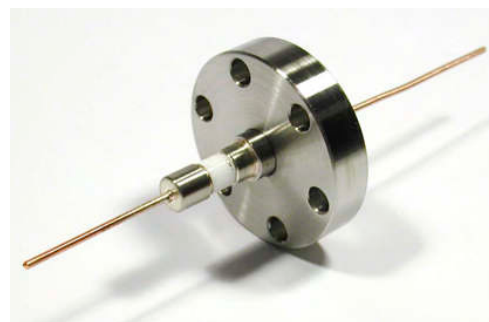
4.2 POWER: VOLTAGE TO 1KV

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Power Feedthroughs – low voltage types 500V & 1KV

- Choice of Conductor Materials: Molybdenum, Stainless Steel, Nickel or Copper
- 500 Volt types are very small and ideal when space is limited
- 1KV types are for general purpose instrumentation use
All conductor materials and all flange types are available even if not shown in the product tables



General Specification 500V types

Vacuum	UHV (leak rate <5x10 ⁻¹⁰ mbar l/s)
Materials	SS, Ceramic
Temp.	-200°C to 450°C
Electrical	500V, 8A max per Pin
Pin-ø	0.8 mm
Pin material	Molybdenum (Cu, Ni, SS optional)
Weld Ø	1 Pin type 3.9 mm 2 & 4 Pins types 12.6 mm 8 Pin type 19 mm
Crimps	use 360-CRF-07-10

500V 8A Molybdenum Conductor Conductor 0.8 mm

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	261-08MO500	30,00
WELD	2	264-08MO500-2	60,00
WELD	4	264-08MO500-4	70,00
WELD	8	264-08MO500-8	100,00
16CF	2	264-08MO500-2-C16	110,00
16CF	4	264-08MO500-4-C16	120,00
16CF	8	264-08MO500-8-C16	145,00

Note: also available with Copper (12A), Nickel (4A), Stainless Steel (1A) and Constantan (2A) conductors

General Specification 1KV types

Vacuum	UHV (leak rate <5x10 ⁻¹⁰ mbar-l/s)
Materials	SS, Ceramic
Temp.	-200°C to 450°C
Electrical	1KV, max current see below
Pin-ø	1.3 mm
Pin material	SS, Cu or Kovar
Current SS	1 A max per pin
Current Cu	20 A max per pin
Current Kovar	7 A max per pin
Weld ø	1 Pin type 6.3 mm 2 to 8 Pin types 19 mm
Crimps	use 360-CRIMP-1.3

1KV 1A Stainless Steel Conductor Conductor 1.3 mm (8 pin vers. Kovar rated 7A)

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	261-13SS1K	30,00
WELD	2	264-13SS1K-2	50,00
WELD	4	264-13SS1K-4	75,00
WELD	8*	264-13KO1K-8	100,00
16CF	2	264-13SS1K-2-C16	90,00
16CF	4	264-13SS1K-4-C16	105,00
16CF	8*	264-13KO1K-8-C16	140,00
16KF	2	264-13SS1K-2-K16	90,00
16KF	4	264-13SS1K-4-K16	105,00
16KF	8*	264-13KO1K-8-K16	140,00

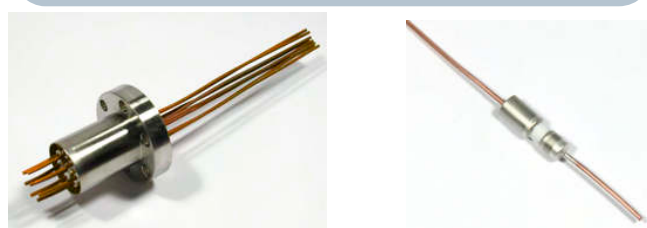
Note: feedthroughs marked * are also available with stainless steel tubes

1KV 20A Copper Conductor Conductor 1.3 mm

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	261-13CU1K	30,00
WELD	2	264-13CU1K-2	50,00
WELD	4	264-13CU1K-4	75,00
WELD	8	264-13CU1K-8	100,00
16CF	2	264-13CU1K-2-C16	90,00
16CF	4	264-13CU1K-4-C16	105,00
16CF	8	264-13CU1K-8-C16	140,00
16KF	2	264-13CU1K-2-K16	90,00
16KF	4	264-13CU1K-4-K16	105,00
16KF	8	264-13CU1K-8-K16	135,00

Note: also available with Nickel (7A) conductors



8 pin 500V version on 16CF (left) and 1KV version (right) with copper pin

CRYOGENIC OPTION: Versions with Constantan Pins for use at liquid Helium temperature are available. The current rating is 2A. Please ask for details.

Power Feedthroughs rated at up to 5KV & up to 20 A

- Stainless Steel, Nickel and Copper Conductors with a diameter of 1.3mm.
- Single Pin weldables
- up to 4 Pins on 16CF / 16 KF Flanges

Custom arrangements on choice of flanges upon request

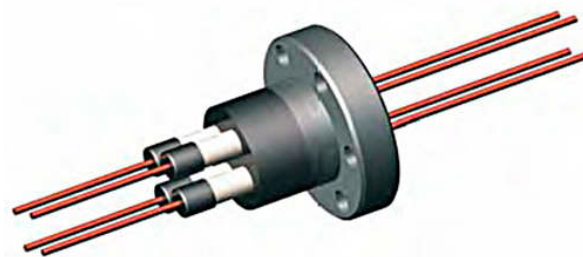
General Specification 5KV types

Vacuum	UHV (leak rate $<5 \times 10^{-10}$ mbar-l/s)
Materials	SS, Ceramic
Temp.	-200°C to 450°C
Electrical	5KV max current see below
Pin-ø	1.3 mm SS, Ni or Cu
Current Cu	20 A max per pin
Current Ni	7 A max per pin
Current SS	1 A max per pin
Weld-ø	1 pin type 6.3 mm
Weld-ø	2 or 4 pin types 19 mm
Crimps	use 360-CRIMP-1.3



261-13CU5K

For versions on 40CF and 40KF Flanges see next page!



5KV 20A Copper Conductor Conductor 1.3 mm

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	261-13CU5K	30,00
WELD	2	264-13CU5K-2	65,00
WELD	4	264-13CU5K-4	75,00
16CF	2	264-13CU5K-2-C16	105,00
16CF	4	264-13CU5K-4-C16	115,00
16KF	2	264-13CU5K-2-K16	105,00
16KF	4	264-13CU5K-4-K16	115,00

5KV 7A Nickel Conductor Conductor 1.3 mm

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	261-13NI5K	30,00
WELD	2	264-13NI5K-2	65,00
WELD	4	264-13NI5K-4	75,00
16CF	2	264-13NI5K-2-C16	105,00
16CF	4	264-13NI5K-4-C16	115,00
16KF	2	264-13NI5K-2-K16	105,00
16KF	4	264-13NI5K-4-K16	115,00

5KV 1A Stainless Steel Conductor Conductor 1.3 mm

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	261-13SS5K	30,00
WELD	2	264-13SS5K-2	65,00
WELD	4	264-13SS5K-4	75,00
16CF	2	264-13SS5K-2-C16	105,00
16CF	4	264-13SS5K-4-C16	115,00
16KF	2	264-13SS5K-2-K16	105,00
16KF	4	264-13SS5K-4-K16	115,00

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4.4 POWER: 5K/ 10KV UP TO 30 A

DE: Info@allectra.com
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Power feedthroughs – 5KV and 10KV up to 30 A

- Stainless Steel, Nickel & Copper Conductors
- Up to 12 Pins on 40CF or 40KF flange
- Custom arrangements of Pins and Flange types upon request



261-24CU5K-4-C40

General Specification 5KV 30A types

Vacuum	UHV (leak rate <5x10 ⁻¹⁰ mbar-l/s)
Materials	SS, Ceramic
Temp.	-200°C to 450°C
Pin-ø	2.4 mm
Voltage	5KV
Current	30 A per pin CU 15 A per pin Ni
Weld-ø	11 mm
Connectors	use 360-CRIMP-2.4

5KV 30A Copper Conductor Conductor 2.4 mm

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	261-24CU5K	30,00
16CF	1	261-24CU5K-C16	75,00
16CF	2	264-24CU5K-2-C16	135,00
40CF	4	264-24CU5K-4-C40	185,00
40CF	8	264-24CU5K-8-C40	300,00
40CF	12	264-24CU5K-12-C40	365,00
16KF	1	261-24CU5K-K16	75,00
16KF	2	264-24CU5K-2-K16	135,00
40KF	4	264-24CU5K-4-K40	185,00
40KF	8	264-24CU5K-8-K40	300,00
40KF	12	264-24CU5K-12-K40	365,00

Note: also available with Nickel (15A) conductors

General Specification 10KV types

Vacuum	UHV (leak rate <5x10 ⁻¹⁰ mbar-l/s)
Materials	SS, Ceramic
Temp.	-200°C to 450°C
Pin-ø	2.4 mm
Voltage	10KV
Current	30 A per pin CU 15 A per pin Ni
Weld-ø	11 mm
Connectors	use 360-CRIMP-2.4

10KV 30A Copper Conductor Conductor 2.4 mm

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	261-24CU10K	35,00
16CF	1	261-24CU10K-C16	110,00
16CF	2	264-24CU10K-2-C16	165,00
40CF	4	264-24CU10K-4-C40	225,00
16KF	1	261-24CU10K-K16	110,00
16KF	2	264-24CU10K-2-K16	165,00
40KF	4	264-24CU10K-4-K40	225,00

Note: also available with Nickel (15A) conductors



261-24CU10K

*Crimps see page 4.14.
Versions with air side Power Glove
Cables on page 4.8!*

5KV 100A Copper Conductor Conductor 4 mm

FLANGE	PINS	PART NUMBER	EURO
WELD	1	261-40CU5K	51,00
16CF	1	261-40CU5K-C16	105,00
40CF	1	261-40CU5K-C40	109,00
40CF	2	261-40CU5K-2-C40	189,00
25KF	1	261-261-40CU5K-K25	115,00
40KF	2	264-261-40CU5K-2-K40	186,00

Note: also available with Nickel (30A) conductors

High Current Feedthroughs to 1000A

High Current Feedthroughs are suitable for heaters, furnaces and Electron Beam Evaporation Sources.

A range of types is offered as weld adaptors or on KF or CF flanges.

Special arrangements on standard or custom flanges are available upon request.

For very high current a 1000 Ampere water cooled Feedthrough is offered.



Specification 5KV 150A types

Vacuum	UHV (leak rate $<5 \times 10^{-10}$ mbar-l/s)
Materials	SS, Ceramic
Temp.	-200°C to 450°C
Pin-ø	6.35 mm
Voltage	5KV
Current	150 A per pin CU 75 A per pin Ni 7 A per Pin SS
Weld-ø	15.8 mm
Connectors	use 360-PPO-6.6 / 360-PPO-6.4

5KV 150A Copper Conductor Conductor 6.35 mm ø

REDUCED

FLANGE	PINS	PART NUMBER	EURO
16CF	1	261-63CU5K-C16	97,00
40CF	2	264-63CU5K-2-C40	170,00
40CF	3	264-63CU5K-3-C40	225,00
40CF	4	264-63CU5K-4-C40	275,00
16KF	1	261-63CU5K-K16	80,00
40KF	2	264-63CU5K-2-K40	170,00
40KF	3	264-63CU5K-3-K40	225,00
40KF	4	264-63CU5K-4-K40	275,00

Also available with Nickel (75A) and stainless steel (7A) conductors

Specification 3KV 250A types

Vacuum	UHV (leak rate $<5 \times 10^{-10}$ mbar-l/s)
Materials	SS, Ceramic
Temp.	-200°C to 450°C
Electrical	3KV , 250 A
Pin-ø	9.65 mm Cu
Weld-ø	19mm
Clamps	360-CLAMP-9.6

3KV 250A Copper Conductor Conductor 9.65 mm ø

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	261-96CU3K	68,00
16CF	1	261-96CU3K-C16	100,00
16KF	1	261-96CU3K-K16	100,00
1" BOLT	1	261-96CU3K-BP	195,00

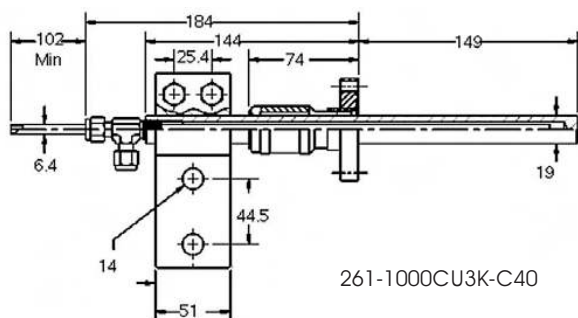
Specification 3KV 600A types

Vacuum	UHV (leak rate $<5 \times 10^{-10}$ mbar-l/s)
Materials	SS, Ceramic
Temp.	-200°C to 450°C
Electrical	3KV , 600 A
Pin-ø	19mm Cu
Weld-ø	28.5mm
Clamps	360-CLAMP-19

3KV 600A Copper Conductor Conductor 19 mm ø

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	261-190CU3K	166,00
40CF	1	261-190CU3K-C40	200,00
40KF	1	261-190CU3K-K40	200,00



3KV 1000A Copper Tube Conductor Watercooled 1/4" (6.35 mm) Swagelock conn.

REDUCED

FLANGE	PINS	PART NUMBER	EURO
40CF	1	261-1000CU3K-C40	750,00

4.6 MULTI WAY F/T: MS-SOCKETS

DE: Info@allectra.com
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Multi-way Feedthroughs with MS Circular Sockets

- A range of Multi-way Feedthroughs with 10/ 23 or 40 Amps per Pin
- MS Circular Screw-On Sockets included
- MS sockets comply with MIL-C-5015
- Double Sided option on request



Specification MS 10 Amps 700 Volts

Vacuum	UHV (leak rate<5x10 ⁻¹⁰ mbar l/s)
Materials	SS, Ceramic
Air side Socket	MS Circular included
Temp.	-200°C to 450°C (without conn.)
Electrical	700V DC, 10 Amp max per Pin
Pin-ø	1.4 mm Alumel
Crimps	use 360-CRIMP-1.3/ 360-CRBC-1.4



Double sided 4-pin Version on 40CF, these versions are available on request

Specification MS 23 Amps 700 Volts

Vacuum	UHV (leak rate<5x10 ⁻¹⁰ mbar l/s)
Materials	SS, Ceramic
Air side Socket	MS Circular included
Temp.	-200°C to 450°C (without conn.)
Electrical	700V DC, 23 Amps max per Pin
Pin-ø	2.4 mm Copper
Crimps	use 360-CRIMP-2.4



221-40MO700-4-C40

Specification MS 40 Amps 700 Volts

Vacuum	UHV (leak rate<5x10 ⁻¹⁰ mbar l/s)
Materials	SS, Ceramic
Air side Socket	MS Circular included
Temp.	-200°C to 450°C (without conn.)
Electrical	700V DC, 40 Amp max per Pin
Pin-ø	3.6 mm Molybdenum
Push-ons	use 360-PPO-4

700V 10A Multi-way 4 to 35 Alumel Cond. 1.4 mm includes MS Circular Air Side Socket

REDUCED

FLANGE	PINLENGTH	PINS	PART NUMBER	EURO
16CF	66.5	4	221-10AL700-4-C16	190,00
16CF	66.5	6	221-10AL700-6-C16	205,00
40CF	78	6	221-10AL700-6-C40	220,00
16CF	66.5	10	221-10AL700-10-C16	330,00
40CF	78	10	221-10AL700-10-C40	345,00
40CF	87	20	221-10AL700-20-C40	435,00
40CF	52	35	221-10AL700-35-C40	750,00
16KF	66.5	4	221-10AL700-4-K16	190,00
16KF	66.5	6	221-10AL700-6-K16	205,00
16KF	66.5	10	221-10AL700-10-K16	330,00
40KF	88	20	221-10AL700-20-K40	425,00
40KF	51	35	221-10AL700-35-K40	745,00

Note: all MS types are also available double sided

Note: available as weldables to order

700V 23A Multi-way 2 to 8 Copper Cond. 2.4 mm includes MS Circular Air Side Socket

REDUCED

FLANGE	PINS	PART NUMBER	EURO
40CF	2	221-23CU700-2-C40	270,00
40CF	3	221-23CU700-3-C40	290,00
40CF	4	221-23CU700-4-C40	335,00
40CF	5	221-23CU700-5-C40	360,00
40CF	7	221-23CU700-7-C40	415,00
40CF	8	221-23CU700-8-C40	445,00

Note: also available with Nickel(15A) conductors

700V 40A Multi-way 2 & 4 Molybdenum Cond. 3.6mm includes MS Circular Air Side Socket

REDUCED

FLANGE	PINS	PART NUMBER	EURO
40CF	2	221-40MO700-2-C40	330,00
40CF	4	221-40MO700-4-C40	400,00
40KF	2	221-40MO700-2-K40	330,00
40KF	4	221-40MO700-4-K40	400,00

Note: available as weldables to order

Note: also available with Nickel (25A) conductors

High voltage 12KV with MS circular sockets

- A range of High Voltage Multi-way Feedthroughs with 7.5 Amps per Pin
- MS Circular Screw-On Sockets included for the Air Side
- MS sockets comply with MIL-C-5015

Vacuum Side Sockets are available for 40CF versions.
Please ask Sales Office for details.

General Specification 267-075HV

Vacuum	UHV
Compatible	MIL-C-5015
Pin-ø	1.3 mm
Pin material	Mo
Socket	MS circular socket
Leak rate	<5x10 ⁻¹⁰ mbar-l/s
Temp.	-200°C to 450°C
Test-Voltage	12KV DC
Current	7.5 A max per pin
Crimps	360-CRBC-1.3

12KV 7.5A Multi-way 2 to 7 conductors, 1.3 mm includes MS circular air side socket

REDUCED

FLANGE	PINS	PART NUMBER	EURO
16CF	2	267-075HV12K-2-C16	465,00
16CF	4	267-075HV12K-4-C16	505,00
16CF	7	267-075HV12K-7-C16	550,00
40CF	2	267-075HV12K-2-C40	465,00
40CF	4	267-075HV12K-4-C40	505,00
40CF	7	267-075HV12K-7-C40	550,00
16KF	2	267-075HV12K-2-K16	465,00
16KF	4	267-075HV12K-4-K16	505,00
16KF	7	267-075HV12K-7-K16	550,00
40KF	2	267-075HV12K-2-K40	465,00
40KF	4	267-075HV12K-4-K40	505,00
40KF	7	267-075HV12K-7-K40	550,00

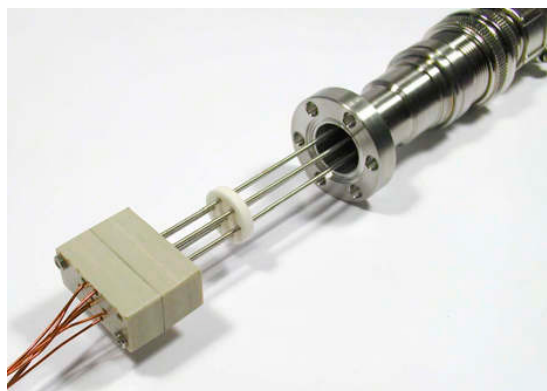
Crimps Beryllium Copper For Conductor 1.3 mm

SIZE	No PER PKT.	PART NUMBER	EURO
1.3 mm	10	360-CRBC-1.3	40,00

Vacuum side Connector for 12KV F/T, 2 to 7 pins, FITS 40CF Feedthrough

Pins	Qty.	PART NUMBER	EURO
2-4	1	267-CON12K-4	114,00
7	1	267-CON12K-7	126,00

Crimp pins are included



Vacuum side connector 267-CON12K-7. The connector will not fit through a 16CF flange, so it must be fitted from the vacuum side after installation. Alternatively a 40CF flange can be used.

4.8

HIGH VOLTAGE: 10KV

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Power Glove Feedthroughs 5KV to 10KV

- A new design of High Voltage 5KV and 10 KV Feedthrough
- Air side cables and High Voltage Glove with 2.4 m length included
- 1, 2 or 4 Pins option on 40CF flange
- Supplied on CF, KF or custom flange designs



General Specification 265-025 (CU/ NI/ SS) 5K

Vacuum	UHV
Pin-ø	2.4 mm
Pin material	Cu, Ni or SS
Air cable	High Voltage Power Glove 2.4m
Leak rate	<5 x 10 ⁻¹⁰ mbar l/s
Temp.	-200°C to 450°C without cable
Test-Voltage	5KV DC
Test-Resistivity	>1G (pins to ground)
Current	Cu: 25A max per pin Ni: 15A max per pin SS: 1A max per pin
Connectors	360-CRIMP-2.4 / 360-PPO-2.4
Weld-ø	11 mm

5KV Power Glove Feedthroughs, Copper cond. 25A includes 2.4 m Air side cable

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	265-025CU5K	75,00
16CF	1	265-025CU5K-C16	130,00
40CF	2	265-025CU5K-2-C40	215,00
40CF	4	265-025CU5K-4-C40	365,00

5KV Power Glove Feedthroughs, Nickel cond. 15A includes 2.4 m Air side cable

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	265-015NI5K	75,00
16CF	1	265-015NI5K-C16	130,00
40CF	2	265-015NI5K-2-C40	215,00
40CF	4	265-015NI5K-4-C40	365,00

General Specification 265-025 (CU/ NI/ SS) 10K

Vacuum	UHV
Pin-ø	2.4 mm
Pin material	Cu, Ni or SS
Air cable	High Voltage power Glove 2.4 m
Leak rate	<5x10 ⁻¹⁰ mbar l/s
Temp.	-200°C to 450°C without cable
Test-Voltage	10KV DC
Test-Resistivity	>1G (pins to ground)
Current	Cu: 25A max per pin Ni: 15A max per pin SS: 1A max per pin
Connectors	360-CRIMP-2.4 / 360-PPO-2.4
Weld-ø	11 mm

5KV Power Glove Feedthroughs, Stainless St. cond. 1A includes 2.4 m Air side cable

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	265-001SS5K	75,00
16CF	1	265-001SS5K-C16	130,00
40CF	2	265-001SS5K-2-C40	215,00
40CF	4	265-001SS5K-4-C40	365,00

10KV Power Glove Feedthroughs, Nickel cond. 15A includes 2.4 m Air side

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	265-015NI10K	85,00
16CF	1	265-015NI10K-C16	145,00
40CF	2	265-015NI10K-2-C40	245,00
40CF	4	265-015NI10K-4-C40	425,00

10KV Power Glove Feedthroughs, Copper cond. 25A includes 2.4 m Air side cable

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	265-025CU10K	85,00
16CF	1	265-025CU10K-C16	145,00
40CF	2	265-025CU10K-2-C40	245,00
40CF	4	265-025CU10K-4-C40	425,00

Note: also available with Stainless Steel (1A) conductors

Power Glove Feedthroughs 20KV to 40KV

Power Glove High Voltage Feedthroughs include an Air Side insulating cover and 2.4 m of High Voltage Cable

Power Glove Feedthroughs are available with Copper, Nickel or Stainless Steel conductors.

It is the users responsibility to ensure that electrical components are used in accordance with local regulations.



40KV Feedthrough
with Cable

Specification 20KV Power Glove

Vacuum	UHV
Pin-ø	2.4 mm
Pin material	Cu, Ni or SS
Air cable	High Voltage power Glove 2.4m
Leak rate	<5 x 10 ⁻¹⁰ mbar l/s
Temp.	-200°C to 450°C without cable
Test-Voltage	20KV DC
Test-Resistivity	>1G (pins to ground)
Current	Cu: 25A max per pin Ni: 15A max per pin SS: 1A max per pin
Crimps	360-CRIMP-2.4/ 360-PPO-2.4
Weld-ø	11 mm



265-025CU20K-4-C40



265-001SS20K-C40

Specification 40KV with cable

Vacuum	UHV
Materials	Straight Ceramic/SS
Leak rate	<5 x 10 ⁻¹⁰ mbar l/s
Pin-ø	1.6 mm
Pin material	SS
Air cable	9 m cable included
Test-Voltage	40KV DC pin to ground
Current	7A
Crimps	360-CRBC-1.6
Weld-ø	28.5 mm

20KV Power Glove Feedthroughs, Copper cond. 25A includes 2.4 m Air side cable

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	265-025CU20K	90,00
16CF	1	265-025CU20K-C16	150,00
40CF	2	265-025CU20K-2-C40	255,00
40CF	4	265-025CU20K-4-C40	445,00

Air side cable for Power Glove Feedthroughs

LENGTH	VOLTAGE	PART NUMBER	EURO
2.4m	5 KV	265-CAB-5K	60,00
2.4m	20 KV	265-CAB-20K*	60,00

* also useable for 10KV

20KV Power Glove Feedthroughs, Nickel cond. 15A includes 2.4 m Air side cable

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	265-015NI20K	90,00
16CF	1	265-015NI20K-C16	150,00
40CF	2	265-015NI20K-2-C40	255,00
40CF	4	265-015NI20K-4-C40	445,00

20KV Power Glove Feedthroughs, Stainless St. cond, 1A includes 2.4 m Air side cable

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	265-001SS20K	90,00
16CF	1	265-001SS20K-C16	150,00
40CF	2	265-001SS20K-2-C40	255,00
40CF	4	265-001SS20K-4-C40	445,00

40KV Feedthroughs, Stainless St. conductor 7A Air side connector and 9 m cable incl.

REDUCED

FLANGE	PINS	PART NUMBER	EURO
WELD	1	265-007SS40K	605,00
40CF	1	265-007SS40K-C40	565,00
40KF	1	265-007SS40K-K40	570,00

4.10 HIGH VOLTAGE – MORE TYPES

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High Voltage Feedthroughs – other types

High Voltage Feedthroughs are offered in ratings up to 60KV. They are not built for high currents as high voltage and high current are typically not used together.

Tube Feedthroughs (see Page 51) are suitable for liquid cooling applications and High Voltages where higher currents are necessary.



Specification 20KV Fluted Ceramic

Vacuum	UHV (leak rate < 5 x 10 ⁻¹⁰ mbar-l/s)
Materials	SS Ceramic
Temp.	-200°C to 450°C
Electrical	20KV, max current as below
Pin	6.35 mm Cu or Ni
Max. Current	Cu 150A Ni 75A
Connector	360-PIC-6.6 (for air and vacuum side)

20KV Feedthroughs Nickel and Copper conductor Conductor 6.35 mm Fluted Ceramic

REDUCED

FLANGE	AMPS	PART NUMBER	EURO
40CF	75	266-075NI20K-C40	250,00
40CF	150	266-150CU20-C40	250,00

Weldable versions and KF versions available on request

Specification 30KV Fluted Ceramic

Vacuum	UHV (leak rate < 5 x 10 ⁻¹⁰ mbar-l/s)
Materials	SS Ceramic
Temp.	-200°C to 450°C
Electrical	30KV, max current as below
Pin	2.4 mm Cu or Ni or SS
Max. Current	Cu 30A SS 3A
Connector	360-PPO-2.4
Air Side	Threaded connection 1/4-28

30KV Feedthroughs, Stainless Steel and Copper cond Conductor 2.4 mm

REDUCED

FLANGE	COND.	PART NUMBER	EURO
WELD	SS	266-003SS30K	145,00
40CF	SS	266-003SS30K-C40	200,00
40CF	Cu	266-030CU30K-C40	200,00

Specification 30KV Fluted Ceramic 2 Pin

Vacuum	UHV (leak rate < 5 x 10 ⁻¹⁰ mbar-l/s)
Materials	SS Ceramic
Temp.	-200°C to 450°C
Electrical	30KV, 50A (max. 5KV pin to pin)
Pin	2 x copper, 2.4 mm
Connector	360-PPO-2.4
Air Side	Threaded connection 1/4-28

30KV 50A Feedthrough - 2 PIN Conductors 2.4 mm

REDUCED

FLANGE	COND.	PART NUMBER	EURO
40CF	CU	266-050CU30K-2-C40	425,00



Specification 60KV Fluted Ceramic

Vacuum	UHV (leak rate < 5 x 10 ⁻¹⁰ mbar-l/s)
Materials	SS Ceramic
Temp.	-200°C to 450°C
Electrical	60KV 3A per Pin
Pin	Vacuum 4mm
Push-on	360-PPO-4
Air Side	Threaded connection 1/4-28

60KV Feedthrough Stainless Steel conductor 3A Conductor 2.4 mm

REDUCED

FLANGE	PINS	PART NUMBER	EURO
63CF	1	266-003SS60K-C63	930,00

Sub-D
1
CM + DIL
2
Coax
3
Power
4
Thermo-
couple
5
Cables
6
Accessories
7
Viewports
Fiberoptic
8
Valves
9
Motion
Manipulation
10
Process
Control
11
CF
Hardware
12
KF
Hardware
13
ISO-K
Hardware
14
Adaptors
Specials
15
HV / UHV
Chambers
16
Bi-Metal
Alfas

Baseplate Feedthroughs

Baseplate Feedthroughs are designed to fit through a 1"(25.4mm) hole and seal by compressing an O-Ring between 2 nuts.

Applications for these Feedthroughs include High Vacuum Coaters. Many of our Feedthroughs can be supplied as Baseplate types. This page shows a selection of those which are available.

General Specification OCTAL type

Vacuum	High Vacuum
Materials	SS, Ceramic, Viton O ring
Seal	1" (25.4mm) Bolt type
Plate thickness	32 mm max
Pins	8 Octal pattern
Electrical	1KV 5Amps per Pin
Connectors	Air and Vacuum Octal included

1KV 8 way Feedthrough Stainless Steel conductor includes Air and Vacuum Octal Connectors

REDUCED

SIZE	PINS	PART NUMBER	EURO
1" BOLT	8	221-005OCT1KV-8-BP	358,00



264-13CU1K-2-BP

Specification 1KV 20A Baseplate Feedthrough

Vacuum	High Vacuum
Materials	Stainless Steel, Viton O ring
Electrical	1 KV DC Max current as below
Seal	1" (25.4 mm) baseplate bolt
Plate thickness	32mm max
Pin material	1.3mm Cu (Ni or SS option)
Max. Current	Cu 20A Ni 7A SS 1A
Crimps	360-CRIMP-1.3
8 way Feedthrough	has optionally SS tube or Ni conductors

1KV 20A Baseplate Feedthrough Copper cond. 1.3mm Fits Baseplate with 1" (25.4mm) hole

REDUCED

SIZE	PINS	PART NUMBER	EURO
1" BOLT	2	264-13CU1K-2-BP	170,00
1" BOLT	4	264-13CU1K-4-BP	225,00
1" BOLT	8	264-13CU1K-8-BP	280,00

Also available with Stainless Steel tube and Nickel (7A) conductors



261-198CU3K-BP

Specification 250 A BP Feedthrough

Vacuum	High Vacuum
Seal	1" (25.4mm) baseplate bolt
Plate thickness	32mm max
Pin	Cu (3/8-16 thread both sides) ~9.6mm
Electrical	3KV, 250A

3KV 250A Baseplate Feedthrough Copper conductor includes air and vacuum side clamping nuts

REDUCED

SIZE	PINS	PART NUMBER	EURO
1" BOLT	1	261-198CU3K-BP	195,00



261-1000WC-BP

Specification 1000 A BP Feedthrough

Vacuum	High Vacuum
Seal	1" (25.4mm) baseplate bolt
Plate thickness	32mm max
Pin	Water Cooled Copper
Electrical	50V, 1000A

1000A Water Cooled Baseplate Feedthrough includes vacuum side clamping screw

REDUCED

SIZE	PINS	PART NUMBER	EURO
1" BOLT	1	261-1000WC-BP	205,00

See page 52 for vacuum Side Crimps

4.12 CERAMIC BREAKS

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allectra

High Voltage Cryogenic and Vacuum Breaks

- Small Tube Size Breaks for Gas and Liquid lines
- Cryogenic versions for use with Liquid Nitrogen
- Large sizes for System Isolation

N.B. If using Ceramic Breaks to join two Vacuum Systems while maintaining electrical isolation, the use of a bellows in addition to the Break is recommended. Stand-offs (see Page 51) for mounting high voltage items are suitable for use in air or vacuum. (In air the Maximum Voltage rating should be reduced by a factor of 2.5)

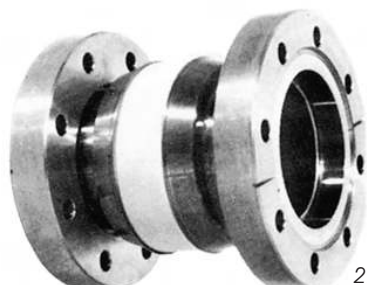


General Specification Ceramic Breaks

Vacuum	UHV
Ceramic	Al ₂ O ₃
Leak rate	< 5 x 10 ⁻¹⁰ mbar l/s
Temp.	-200°C to 450°C
Temp gradient	25°/ min Max
Test-Voltage	see Product Tables



271-CB-6.4



271-CB-10K-59-C63



271-CB-35K-85-C100

Also available 60KV version.
Please call our Sales Office.

5KV DC Cryogenic breaks Tube sizes 3/32" (2.4 mm), 1/8" (3.2 mm)

REDUCED

TUBE OD	LENGTH	PART NUMBER	EURO
3/32"(2.4)	58.4	271-CB-2.4	48,00
1/8"(3.2)	58.4	271-CB-3.2	56,00

10KV DC Cryogenic breaks Tube sizes 1/4"(6.35 mm) and 3/8"(9.5 mm)

REDUCED

TUBE OD	LENGTH	PART NUMBER	EURO
1/4"(6.35)	76.2	271-CB-6.4	70,00
3/8"(9.5)	76.2	271-CB-9.5	110,00

30KV Vacuum breaks 50.4mm long ceramic, I.D. 31.7 mm

FLANGE	LENGTH	PART NUMBER	EURO
38.1mm ø	97	271-CB30K-32	180,00
40CF	107	271-CB30K-32-C40	285,00
40KF	104	271-CB30K-32-K40	285,00

15KV Vacuum breaks 25.4 mm long ceramic, I.D. 16.0 mm

FLANGE	LENGTH	PART NUMBER	EURO
19mm ø	67	271-CB15K-16	185,00
16CF	92	271-CB15K-16-C16	285,00
16KF	92	271-CB15K-16-K16	285,00

30KV Vacuum breaks 117 mm long ceramic, I.D. 16.0 mm

FLANGE	LENGTH	PART NUMBER	EURO
19mm ø	117	271-CB30K-16	290,00
16CF	117	271-CB30K-16-C16	410,00
16KF	117	271-CB30K-16-K16	410,00

35KV Vacuum breaks 60 mm long fluted ceramic

FLANGE	LENGTH	PART NUMBER	EURO
101mm ø	118	271-CB35K-85	900,00
100CF	135	271-CB35K-85-C100	1.350,00

1 Sub-D
2 CM + DIL F/T
3 Coax F/T
4 Power High Voltage
5 Thermo-couple
6 Cables Accessories
7 Viewports Fiberoptic
8 Valves
9 Motion Manipulation
10 Process Control
11 CF Hardware
12 KF Hardware
13 ISO-K Hardware
14 Adaptors Specials
15 HV / UHV Chambers
16 Bi-Metal

Ceramic Stand-offs, Tube Feedthroughs, High Voltage Vacuum Breaks

Ceramic Stand-offs enable items, which must be held at voltage, to be insulated from the chamber.



273-CSO-10-10



273-CSO-50-20

Specification Ceramic Stand-off Isolators

Material	Steatite (MgO)
Screws	SS
Voltage Vac	see table
Voltage Air	approx. 25% of Vacuum rating

Ceramic Stand-off isolators height excludes screws

KV	HEIGHT X DIAM	PART NUMBER	EURO
7KV	10 X 10	273-CSO-10-10	40,00
10KV	12.7 X 10	273-CSO-13-10	40,00
12KV	16 X 12.7	273-CSO-16-13	40,00
35KV	51 X 13	273-CSO-51-13	40,00
35KV	51 X 19	273-CSO-51-20	40,00

Tube Feedthroughs

Tube feedthroughs can be used to carry both current and water for water cooled components in the vacuum system.



272-TU6SS5K welding Version

Specification Tube Feedthroughs

Tube	6.35 mm OD SS tube
Leak rate	$<5 \times 10^{-10}$ mbar l/s
Test-Voltage	5KV DC
Current	depends on water flow

5kV Tube feedthroughs 1/4" (6.35mm) OD Stainless Steel Tubes

REDUCED

FLANGE	No. OF TUBES	PART NUMBER	EURO
16CF	1	272-TU6SS5K-C16	85,00
40CF	2	272-TU6SS5K-2-C40	160,00
40CF	3	272-TU6SS5K-3-C40	225,00
40CF	4	272-TU6SS5K-4-C40	275,00

Note 1: also available with Copper and Nickel Tube conductors

Note 2: also available with KF flanges

High Voltage Vacuum Breaks up to 40KV

High Voltage vacuum breaks allow components to be coupled together with insulation of up to 40KV



271-CB-30K-51-C63

Specification 10kV to 40kV ceramic breaks

Vacuum	UHV
Materials	Ceramic, SS
Test Voltage DC I.D.	see Product table
	10KV : 7.9 mm
	20KV: 23 mm
	30KV: 51 mm
	40KV: 61 mm

10KV to 40KV Vacuum Breaks Straight Ceramic, Weldable Versions

REDUCED

TUBE Ø	LENGTH	VOLTAGE	PART NUMBER	EURO
12.9	39.4	10KV	271-CB10K-8	290,00
30.5	65.5	20KV	271-CB20K-23	330,00
60.3	85.3	30KV	271-CB30K-51	390,00
71.1	110.7	40KV	271-CB40K-61	430,00

10KV to 40KV Vacuum Breaks Straight Ceramic, with CF Flanges

REDUCED

FLANGE	LENGTH	VOLTAGE	PART NUMBER	EURO
16CF	46.7	10KV	271-CB10K-8-C16	400,00
40CF	76.2	20KV	271-CB20K-23-C40	480,00
63CF	101.6	30KV	271-CB30K-51-C63	690,00
100CF	122.0	40KV	271-CB40K-61-C100	830,00

Crimps, Connectors and Sockets

A full range of Crimps , Push-ons and Screw-on Connectors for electrical connection to the Air or Vacuum Side of Power Feedthroughs are offered.



Dimensions and Wire Maximum Sizes
- all in mm



Wire ØMax	Crimp Length	Diam.	Material
0.4	12.5	1.4	Au plated Cu
0.8	13.3	1.7	Au plated Cu
1.0	13.7	2.2	Au plated Cu
1.0	13.7	2.2	Au plated Cu
1.3	28.5	3.8	Au plated Cu
1.7	15.0	4.9	Au plated Cu



Wire ØMax	Crimp Length	Diam.	Material
0.8	13.2	1.3	Au plated Cu
1.0	14.0	2.2	Au plated Cu
1.0	14.0	2.2	Au plated Cu
1.3	16.0	3.7	Au plated Cu



Wire ØMax	Be Cu	Crimp Length	Diam.	Material
1.7	19.0	2.6		BeCu
1.7	19.0	2.6		BeCu
1.7	19.0	2.6		BeCu



Wire ØMax	Push-on Length	Diam.	Material
1.27	17.5	6.4	BeCu
1.27	17.5	6.4	BeCu
1.27	17.5	6.4	BeCu
1.27	17.5	6.4	BeCu
2.44	25.4	12.7	BeCu



Wire ØMax	Screw & Nut Length	Push-on Diam.	Material
- 50		7	Ag plated Cu



Wire ØMax	Socket Length	Diam.	Material
1.5	12.7	4.8	BeCu
1.8	12.7	4.8	BeCu
3.8	14.2	6.3	BeCu
3.0	16.0	6.3	BeCu
6.6	25.4	12.7	BeCu



Wire ØMax	Material
-	Cu Ag plated
-	Cu

**Crimps Female fit to Feedthrough Pins
Gold Plated Copper alloy**

PIN SIZE	No PER PKT.	PART NUMBER	EURO
0.5 mm	10	360-CRF-05-10	45,00
0.7 - 0.8 mm	10	360-CRF-07-10	45,00
1.0 mm	10	212-PINF-10	13,00
1.0 mm	25	212-PINF-25	27,00
1.3 - 1.5 mm	5	360-CRIMP-1.3	43,00
2.3 - 2.4 mm	5	360-CRIMP-2.4	44,00

**Male Crimps to fit Female Crimps
Gold Plated Copper alloy**

PIN SIZE	QTY	PART NUMBER	EURO
0.7 - 0.8mm	10	360-CRM-07-10	18,00
1.0mm	10	212-PINM-10	8,00
1.0mm	25	212-PINM-25	17,00
1.3 - 1.5mm	5	360-CRIMP-1.3-M	39,00

**Power Crimps Beryllium Copper
for Conductor 0.8, 1.3 and 1.6 mm**

SIZE	No PER PKT.	PART NUMBER	EURO
0.8 mm	10	360-CRBC-0.8	63,00
1.3 mm	10	360-CRBC-1.3	40,00
1.6 mm	10	360-CRBC-1.6	40,00

**Power Push-ons with Allen Screw
Beryllium Copper**

PIN SIZE	No PER PKT.	PART NUMBER	EURO
1.0 mm	10	360-PPO-1.0	74,00
1.3 mm	10	360-PPO-1.3	50,00
1.5 mm	10	360-PPO-1.5	50,00
2.4 mm	10	360-PPO-2.4	50,00
6.4 mm	2	360-PPO-6.4	59,00

**Power Push-on with M5 screw and nut
Silver plated copper alloy**

PIN SIZE	No PER PKT.	PART NUMBER	EURO
4.0 mm	5	360-PPO-4.0	48,00

**Power In-line Screw-on Sockets
Beryllium Copper**

MAX PIN SIZE	No PER PKT.	PART NUMBER	EURO
1.5 mm	10	360-PIC-1.5	52,00
1.8 mm	10	360-PIC-1.8	52,00
3.0 mm	10	360-PIC-3.0	52,00
3.4 mm	10	360-PIC-3.4	82,00
6.6 mm	10	360-PIC-6.6	98,00

**Clamps for large conductors - 1 per packet
Conductor from 2.0 to 19.0 mm**

PIN SIZE	No PER PKT.	PART NUMBER	EURO
3.6 - 9.6 mm	1	360-CLAMP-9.6	85,00
19 mm (See P. 43)	1	360-CLAMP-19	419,00

Sub-D

CM + DIL
F/TCoax
F/TPower
High VoltageThermo-
coupleCables
AccessoriesViewports
Fiberoptic

Valves

Motion
ManipulationProcess
ControlCF
HardwareKF
HardwareISO-K
HardwareAdaptors
SpecialsHV / UHV
ChambersBi-Metal
Atlas