



**Isolator Introduction**

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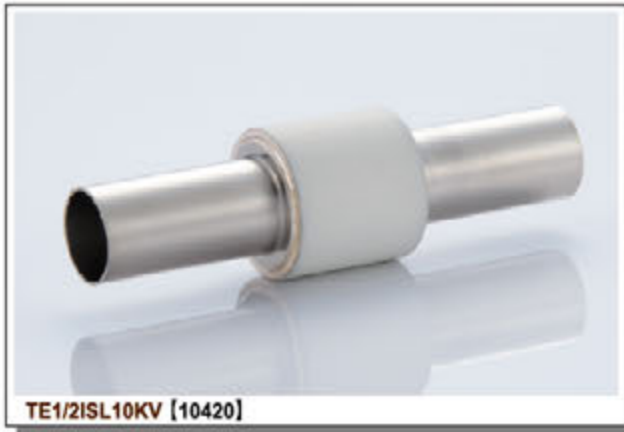
Section **5.1** **Isolator**

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Section **5.2** **Isolators with NW / KF and Conflat® Flange**

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Section **5** **Isolators**



TE1/2ISL10KV [10420]

### Features

#### Isolator

The Isolator is a ceramic joint for insulation and is rated from 6 to 24 kV DC.

The inner diameter is offered from 5 to 135.

Select the most suitable isolator from a wide variety of products. Aside from standard products, welding bellows with an insulating flange is available for vibrational absorption and alignment.

Select joint size and type from Tube-Ended, Pipe-Ended, Swagelok®, VCR® Female, and VCR® Male. Also select flange size and type from NW / KF, ConFlat®, ISO-K, ISO-F and ASA. We also manufacture custom-made products with quick delivery.

Select joints and the size of custom-made flanges.

### Materials

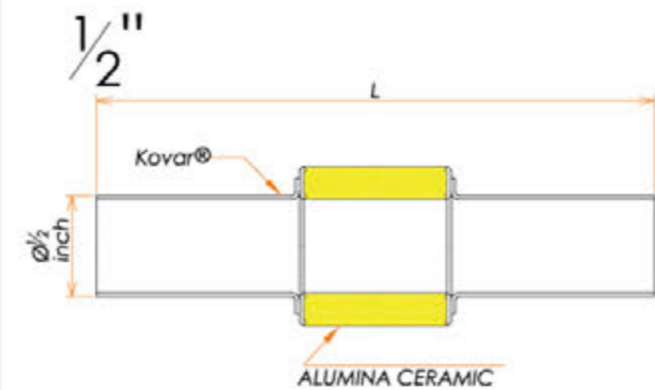
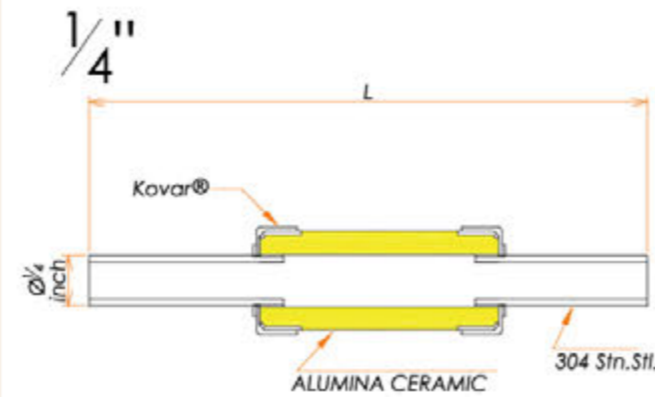
Tube	1/4" 304 Stainless steel 1/2" Kovar®
Cap	1/4" Kovar®
Insulation	Alumina ceramic

### Specifications

Type	Isolator
Voltage: V max. DC	10,000 to 12,000
Leak rate: 1.3×Pa · m³/s	10 <sup>-10</sup>
Temperature Range: °C*	-196 to 300

\*Temperature range will be changed depends on the connection.

### Isolator



#### TYPE

- A Tube End
- B Swagelok®
- C VCR® Female
- D VCR® Male
- E VCR® Female and Male

Dimensions in inches (mm)

### Tube Ended

TYPE	INSTALLATION	VOLTAGE	L	REFERENCE	PART NUMBER
A	Tube End 1/4	10	3.07 (78)	TE1/4ISL10KV	10156
A	Tube End 1/2	10	2.76 (70)	TE1/2ISL10KV	10420

### Swagelok®

TYPE	INSTALLATION	VOLTAGE	L	REFERENCE	PART NUMBER
B	Swagelok® 1/4	10	6.15 (156.2)	SW1/4ISL10KV	11812
B	Swagelok® 1/2	10	6.88 (174.6)	SW1/2ISL10KV	11939

### VCR® Female

TYPE	INSTALLATION	VOLTAGE	L	REFERENCE	PART NUMBER
C	VCR® Female 1/4	10	4.27 (108.4)	FVCR1/4ISL10KV	11898
C	VCR® Female 1/2	10	4.00 (101.4)	FVCR1/2ISL10KV	11940

### VCR® Male

TYPE	INSTALLATION	VOLTAGE	L	REFERENCE	PART NUMBER
D	VCR® Male 1/4	10	4.27 (108.4)	MVCR1/4ISL10KV	11899
D	VCR® Male 1/2	10	4.00 (101.4)	MVCR1/2ISL10KV	11941

### VCR® Female and Male

TYPE	INSTALLATION	VOLTAGE	L	REFERENCE	PART NUMBER
E	VCR® Female and Male 1/4	10	4.27 (108.4)	FM1/4ISL10KV	11826
E	VCR® Female and Male 1/2	10	4.00 (101.4)	FM1/2ISL10KV	11837



## NW / KF Isolators



N40ISL12KV [10118]

## Materials

Flange	304 Stainless steel
Tube	Kovar®
Insulation	Alumina ceramic

## Specifications

Type	Isolator
Voltage: V max. DC	12,000
Leak rate: 1.3×Pa · m <sup>3</sup> /s	10 <sup>-10</sup>
Cooling Liquid-N <sub>2</sub> Bakeout Temp°C*	-196 to 300

\*Temperature range will be changed depends on the connection.

## ConFlat® Isolators



C70ISL24KV [10335]

## Materials

Flange	304 Stainless steel
Tube	Kovar®
Insulation	Alumina ceramic

## Specifications

Type	Isolator
Voltage: V max. DC	6,000 to 24,000
Leak rate: 1.3×Pa · m <sup>3</sup> /s	10 <sup>-10</sup>
Cooling Liquid-N <sub>2</sub> Bakeout Temp°C*	-196 to 300

\*Temperature range will be changed depends on the connection.

## ConFlat® Isolators with Bellows



C70ISL24KVB [10313]

## Materials

Flange	304 Stainless steel
Tube	Kovar®
Insulation	Alumina ceramic

## Specifications

Type	Isolator
Voltage: V max. DC	6,000 to 24,000
Leak rate: 1.3×Pa · m <sup>3</sup> /s	10 <sup>-10</sup>
Cooling Liquid-N <sub>2</sub> Bakeout Temp°C*	-196 to 300

\*Temperature range will be changed depends on the connection.



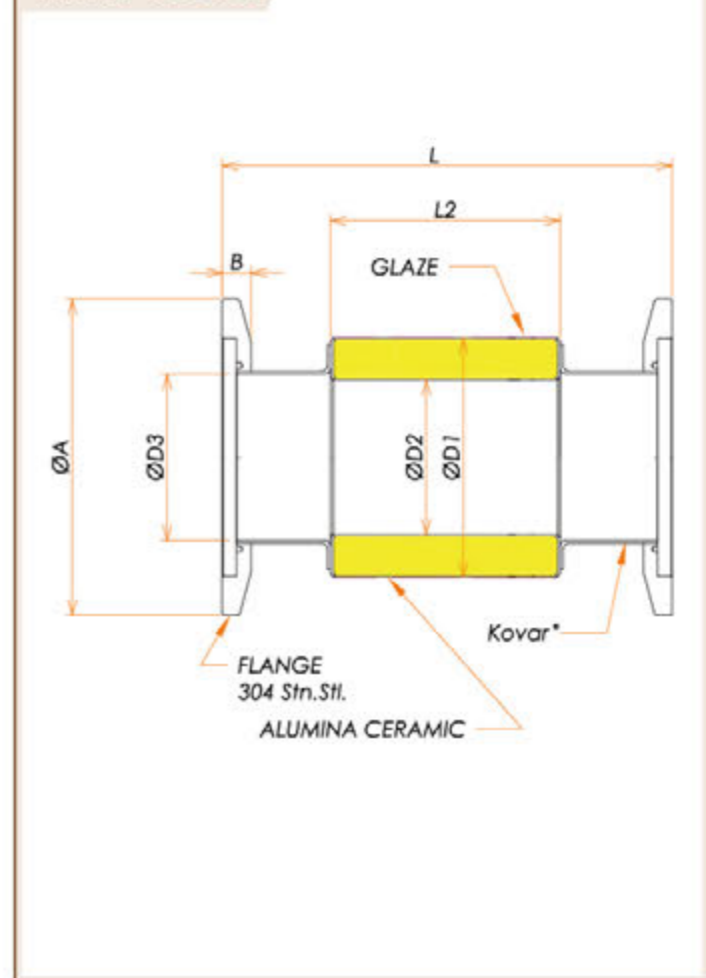
N40ISL12KV [10118]

## NW / KF Isolators

No.	REFERENCE	PART NUMBER
A	N16ISL12KV	11824
B	N25ISL12KV	10273
C	N40ISL12KV	10118
D	N50ISL12KV	11839

Dimensions in inches (mm)

## NW / KF Isolators



## Features

Isolator Flanges 12 kV with NW / KF 16, 25, 40 and 50.

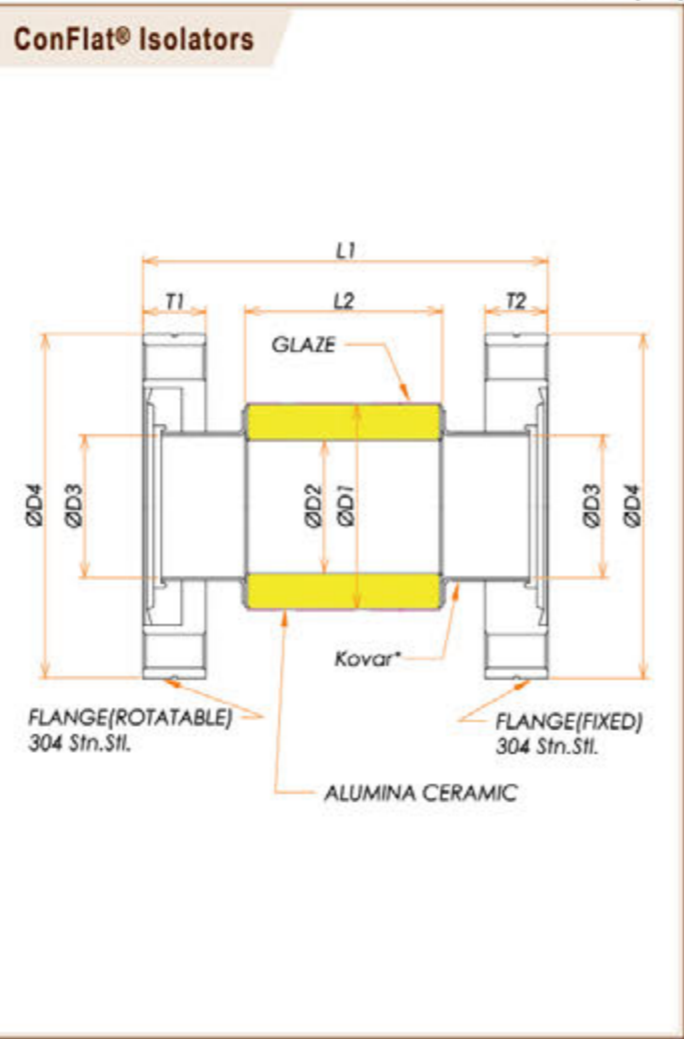
No.	INSTALLATION	VOLTAGE	ØD1	ØD2	ØD3	ØA	L	L2	B
A	NW / KF 16	12 kV	.79 (20)	.47 (11.9)	.47 (11.9)	1.18 (30)	2.91 (74)	.79 (20)	.24 (6)
B	NW / KF 25	12 kV	.98 (25)	.55 (14)	.61 (15.4)	1.57 (40)	2.64 (67)	.79 (20)	.24 (6)
C	NW / KF 40	12 kV	1.65 (42)	1.06 (27)	1.14 (29)	2.17 (55)	2.32 (59)	.79 (20)	.24 (6)
D	NW / KF 50	12 kV	1.65 (42)	1.06 (27)	1.14 (29)	2.95 (75)	2.28 (58)	.79 (20)	.24 (6)



C70ISL24KV [10335]

ConFlat® Isolators

No.	REFERENCE	PART NUMBER
A	C34ISL6KV	10062
B	C34ISL12KV	10063
C	C70ISL12KV	10064
D	C70ISL24KV	10335
E	C114ISL12KV	10065
F	C114ISL24KV	10066
G	C152ISL12KV	10315
H	C152ISL24KV	10409
I	C203ISL12KV	10449
J	C203ISL24KV	11593
K	C253ISL12KV	12280
L	C253ISL24KV	12281



**Features**  
Isolator Flanges 6 kV, 12 kV and 24 kV with NW / KF 16, 25, 40 and 50, ConFlat® 1.33", 2.75", 4.5", 6", 8" and 10".

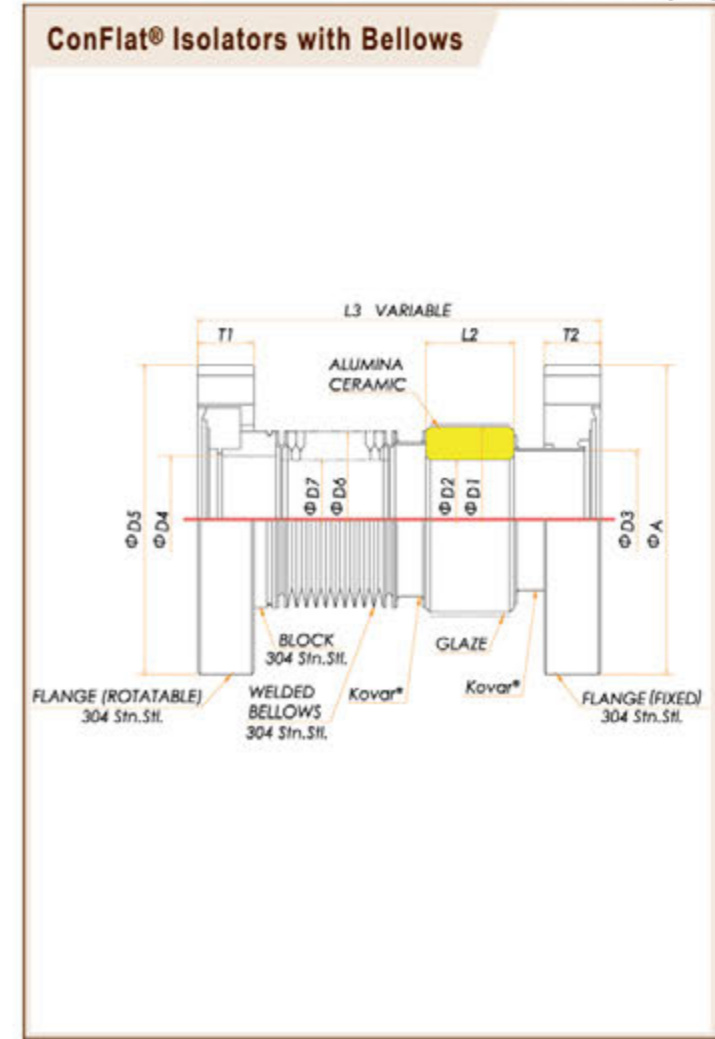
No.	INSTALLATION	VOLTAGE	ØD1	ØD2	ØD3	ØD4	L1	L2	T1	T2
A	CF 1.33	6 kV	.98 (25)	.55 (14)	.61 (15.4)	1.33 (34)	2.36 (60)	.39 (10)	.30 (7.5)	.30 (7.5)
B	CF 1.33	12 kV	.98 (25)	.55 (14)	.61 (15.4)	1.33 (34)	2.76 (70)	.79 (20)	.30 (7.5)	.30 (7.5)
C	CF 2.75	12 kV	1.65 (42)	1.06 (27)	1.14 (29)	2.75 (70)	2.44 (62)	.79 (20)	.50 (12.7)	.50 (12.7)
D	CF 2.75	24 kV	1.65 (42)	1.06 (27)	1.14 (29)	2.75 (70)	3.23 (82)	1.57 (40)	.50 (12.7)	.50 (12.7)
E	CF 4.50	12 kV	2.76 (70)	2.20 (56)	2.30 (58.5)	4.50 (114)	3.15 (80)	.79 (20)	.75 (19)	.69 (17.5)
F	CF 4.50	24 kV	2.76 (70)	2.20 (56)	2.30 (58.5)	4.50 (114)	3.94 (100)	1.57 (40)	.75 (19)	.69 (17.5)
G	CF 6.00	12 kV	3.94 (100)	2.95 (75)	3.01 (76.5)	6.00 (152)	3.74 (95)	.79 (20)	.83 (21)	.79 (20)
H	CF 6.00	24 kV	3.94 (100)	2.95 (75)	3.01 (76.5)	6.00 (152)	4.53 (115)	1.57 (40)	.83 (21)	.79 (20)
I	CF 8.00	12 kV	5.83 (148)	4.80 (122)	4.00 (101.5)	8.00 (203)	4.13 (105)	.79 (20)	.94 (24)	.87 (22)
J	CF 8.00	24 kV	5.83 (148)	4.80 (122)	4.00 (101.5)	8.00 (203)	4.92 (125)	1.57 (40)	.94 (24)	.87 (22)
K	CF 10.00	12 kV	7.48 (190)	5.31 (135)	5.35 (136)	9.96 (253)	4.33 (110)	.79 (20)	.98 (25)	.98 (25)
L	CF 10.00	24 kV	7.48 (190)	5.31 (135)	5.35 (136)	9.96 (253)	5.12 (130)	1.57 (40)	.98 (25)	.98 (25)



C70ISL24KVB [10313]

ConFlat® Isolators with Bellows

No.	REFERENCE	PART NUMBER
A	C34ISL6KVB	12150
B	C34ISL12KVB	12144
C	C70ISL12KVB	10314
D	C70ISL24KVB	10313
E	C114ISL12KVB	10306
F	C114ISL24KVB	10324
G	C152ISL12KVB	10323
H	C152ISL24KVB	12145
I	C203ISL12KVB	12146
J	C203ISL24KVB	12147
K	C253ISL12KVB	12148
L	C253ISL24KVB	12149



**Features**  
Isolator Flanges 6 kV, 12 kV and 24 kV with NW / KF 16, 25, 40 and 50, ConFlat® 1.33", 2.75", 4.5", 6", 8" and 10" provide with welded Bellows.

No.	INSTALLATION	VOLTAGE	ØD1	ØD2	ØD3	ØD4	ØD5	ØD6	ØD7	L2	L3	T1	T2
A	CF 1.33	6 kV	.98 (25)	.55 (14)	.61 (15.4)	.55 (14)	1.33 (34)	1.02 (26)	.47 (12)	.39 (10)	2.48 to 2.80 (63 to 71)	.30 (7.5)	.30 (7.5)
B	CF 1.33	12 kV	.98 (25)	.55 (14)	.61 (15.4)	.55 (14)	1.33 (34)	1.02 (26)	.47 (12)	.79 (20)	2.80 to 3.11 (71 to 79)	.30 (7.5)	.30 (7.5)
C	CF 2.75	12 kV	1.65 (42)	1.06 (27)	1.14 (29)	1.22 (31)	2.75 (70)	1.57 (40)	1.06 (27)	.79 (20)	3.48 to 3.80 (88.5 to 96.5)	.50 (12.7)	.50 (12.7)
D	CF 2.75	24 kV	1.65 (42)	1.06 (27)	1.14 (29)	1.22 (31)	2.75 (70)	1.57 (40)	1.06 (27)	1.57 (40)	4.27 to 4.59 (108.5 to 116.5)	.50 (12.7)	.50 (12.7)
E	CF 4.50	12 kV	2.76 (70)	2.20 (56)	2.30 (58.5)	2.38 (60.5)	4.50 (114)	3.15 (80)	2.36 (60)	.79 (20)	3.96 to 4.27 (100.5 to 108.5)	.75 (19)	.69 (17.5)
F	CF 4.50	24 kV	2.76 (70)	2.20 (56)	2.30 (58.5)	2.38 (60.5)	4.50 (114)	3.15 (80)	2.36 (60)	1.57 (40)	4.74 to 5.06 (120.5 to 128.5)	.75 (19)	.69 (17.5)
G	CF 6.00	12 kV	3.94 (100)	2.95 (75)	3.01 (76.5)	3.13 (79.5)	6.00 (152)	3.94 (100)	2.95 (75)	.79 (20)	4.15 to 4.47 (105.5 to 113.5)	.83 (21)	.79 (20)
H	CF 6.00	24 kV	3.94 (100)	2.95 (75)	3.01 (76.5)	3.13 (79.5)	6.00 (152)	3.94 (100)	2.95 (75)	1.57 (40)	4.94 to 5.26 (125.5 to 133.5)	.83 (21)	.79 (20)
I	CF 8.00	12 kV	5.83 (148)	4.80 (122)	4.00 (101.5)	4.11 (104.5)	8.00 (203)	6.38 (162)	5.20 (132)	.79 (20)	4.85 to 4.96 (118 to 126)	.94 (24)	.87 (22)
J	CF 8.00	24 kV	5.83 (148)	4.80 (122)	4.00 (101.5)	4.11 (104.5)	8.00 (203)	6.38 (162)	5.20 (132)	1.57 (40)	5.43 to 5.79 (138 to 147)	.94 (24)	.87 (22)
K	CF 10.00	12 kV	7.48 (190)	5.31 (135)	5.35 (136)	5.51 (140)	9.96 (253)	7.28 (185)	5.31 (135)	.79 (20)	4.61 to 4.92 (117 to 125)	.98 (25)	.98 (25)
L	CF 10.00	24 kV	7.48 (190)	5.31 (135)	5.35 (136)	5.51 (140)	9.96 (253)	7.28 (185)	5.31 (135)	1.57 (40)	5.39 to 5.71 (137 to 145)	.98 (25)	.98 (25)