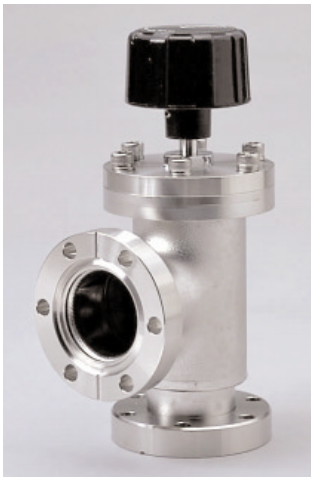
Ultra-High Vacuum Valve VULH Series

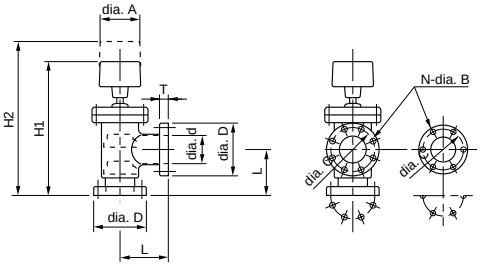
Ultra-High Vacuum Valve VULH-CM Series (Manual Valve with UFC Flange)



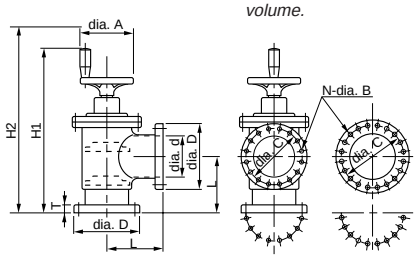
Specifications

Item / Model	VULH-CM
Common diameter A	10-250
Main unit material	Stainless steel
Gasket material	Bonnet seal: Silver wire, Disk seal: Fluoride rubber
Allowable baking temperature °C	OPEN: 200/CLOSE: 150
Applicable pressure range Pa	10^{5}-10^{-8}
Leak volume Pa · m³/s Pa · m³/s	< 1.3 x 10^{-11} *1
Allowable surrounding temperature °C	5-40
Operation method	Manual

Note: SI units are used in this catalog. The following conversion can be used for non-SI units.
Ultimate pressure: 1Pa = 7.5 x 10^{-3} Torr
**1 O-ring permeability is not included in the leak volume.*



VULH-10CM, 25CM, 40CM, 65CM



VULH-100CM, 150CM, 200CM, 250CM

unit: mm

Item / Model	Common port diameter (A)	Flange specification	Conductance L/s*1	Flange diameter dia. D	Surface interval L	When completely closed H1	When completely open H2	Diameter dia. d	Flange thickness T	Bolt center dia. C	Hole quantity/ diameter N-dia. B	Handle dia. A	Weight kg
VULH-10CM	10	UFC034-018FH	1.1	33.8	30	110	113	10.0	7.2	27	6-4.4	40	0.6
VULH-25CM	25	UFC070-025FH	8.7	69.3	50	146	158	22.4	12.7	58.7	6-6.8	40	1.5
VULH-40CM	40	UFC070-040FH	23	69.3	63	178	204	35	12.7	58.7	6-6.8	55	2.0
VULH-65CM	65	UFC114-065FH	83	113.5	95	235	273	59.5	17.5	92.2	8-8.5	55	5.0
VULH-100CM	100	UFC152-100FH	206	151.6	131.1	381	——	95.6	19.8	130.3	16-8.5	125	12.5
VULH-150CM	150	UFC203-150FH	688	202.4	162.7	433.7	——	146.4	22.4	181	20-8.5	125	22.0
VULH-200CM	200	UFC253-200FH	924	253.2	204.7	653.2	——	197.2	24.6	231.8	24-8.5	160	50
VULH-250CM	200	UFC306-250FH	1730	306	220	725	——	246	27	284	32-8.5	200	70

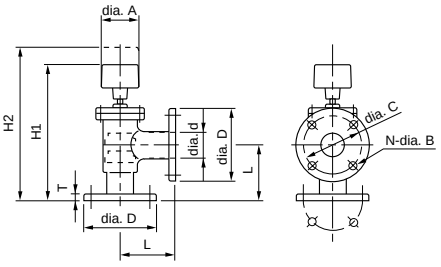
**1: Conductance: Calculated value using molecular flow, 20 °C, and air*

Ultra-High Vacuum Valve VULH-F Series (Manual Valve with UVF Flange)

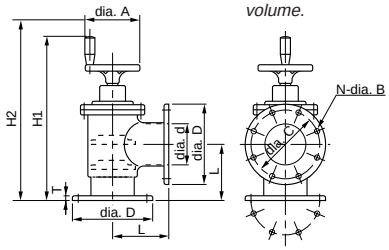
Specifications

Item / Model	VULH-F
Common diameter A	25-250
Main unit material	Stainless steel
Gasket material	Bonnet seal, disk seal: Fluoride rubber
Allowable baking temperature °C	Max. 150
Applicable pressure range Pa	10^{5}-10^{-7}
Leak volume Pa · m³/s	< 1.3 x 10^{-11} *1
Allowable surrounding temperature °C	5-40
Operation method	Manual

Note: SI units are used in this catalog. The following conversion can be used for non-SI units.
Ultimate pressure: 1Pa = 7.5 x 10^{-3} Torr
**1 O-ring permeability is not included in the leak volume.*



VULH-25F, 40F, 65F



VULH-100F, 150F, 200F, 250F

unit: mm

Item / Model	Common port diameter (A)	Flange specification	Conductance L/s*1	Flange diameter dia. D	Surface interval L	When completely closed H1	When completely open H2	Diameter dia. d	Flange thickness T	Bolt center dia. C	Hole quantity/ diameter N-dia. B	Handle dia. A	Weight kg
VULH-25F	25	UVF25	7.5	90	65	162	173	22.4	8	70	4-10	40	1.5
VULH-40F	40	UVF40	24	105	80	195	221	35	10	85	4-10	55	2.5
VULH-65F	65	UVF65	89	145	93	235	273	59.5	10	120	4-12	55	5.2
VULH-100F	100	UVF100	257	185	130	380	——	95.6	12	160	8-12	125	12.5
VULH-150F	150	UVF150	707	235	156	430	——	146.4	12	210	8-12	125	20.0
VULH-200F	200	UVF200	1070	300	200	670	——	197.2	16	270	8-15	160	50
VULH-250F	250	UVF250	1073	350	220	726	——	246	16	320	12-15	200	70

**1: Conductance: Calculated value using molecular flow, 20 °C, and air*

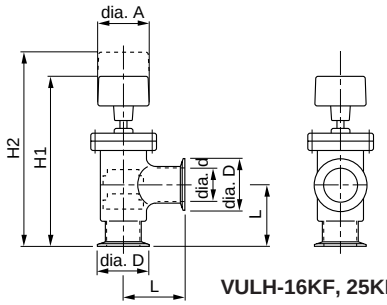
Ultra-High Vacuum Valve VULH / VULP Series

Ultra-High Vacuum Valve VULH-KF Series (Manual Valve with Quick Clamp Flange)

Specifications

Item	Model	VULH-KF
Connection flange		NW16, 25, 40
Main unit material		Stainless steel
Gasket material		Bonnet seal, disk seal: Fluoride rubber
Allowable baking temperature	°C	Max.150
Applicable pressure range	Pa	10^{5}-10^{-7}
Leak volume	Pa · m^3/s	< 1.3 x 10^{-11} *1
Allowable surrounding temperature	°C	5-40
Operation method		Manual

Note: SI units are used in this catalog. The following conversion can be used for non-SI units.
Ultimate pressure: 1Pa = 7.5 x 10^{-3} Torr
**1 O-ring permeability is not included in the leak volume.*



VULH-16KF, 25KF, 40KF

unit: mm

Item / Model	Common port diameter (A)	Flange specification	Conductance L/s*1	Flange diameter dia. D	Surface interval L	When completely closed H1	When completely open H2	Diameter dia. d	Handle dia. A	Weight kg
VULH-16KF	10	NW16 (KF16)	1	30	30	110	113	10	40	0.7
VULH-25KF	25	NW25 (KF25)	9	40	50	146	157	22.4	40	0.8
VULH-40KF	40	NW40 (KF40)	28	55	65	179	206	35	55	1.4

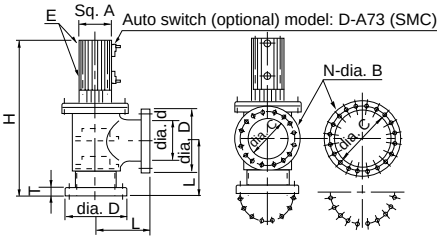
**1: conductance: calculated valve using molecular flow, 20 °C, and air*

Ultra-High Vacuum Valve VULP-CM Series (Compressed Air Driven Valve with UFC Flange)

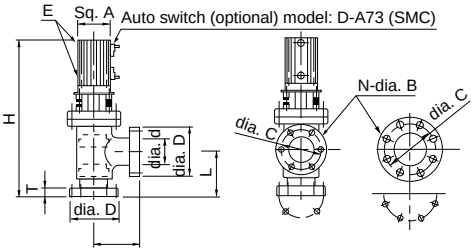
Specifications

Item	Model	VULP-CM
Main unit material		Stainless steel
Gasket material		Bonnet seal: Silver wire, Disk seal: Fluoride rubber
Allowable baking temperature	°C	OPEN: 200/CLOSE 150 *1
Applicable pressure range	Pa	10^{5}-10^{-8}
Leak volume	Pa · m^3/s	< 1.3 x 10^{-11} *2
Allowable surrounding temperature	°C	5-40
Operation method		Compressed air
Compressed air operating pressure	MPa G	0.45-0.55
Open/close signal output		Attachment possible (optional) *3
Remarks		

Note: SI units are used in this catalog. The following conversion can be used for non-SI units.
Ultimate pressure: 1Pa = 7.5 x 10^{-3} Torr
**1 Allowable surrounding temperature: 60 °C; cylinder heating is not possible.*
**2 O-ring permeability is not included in the leak volume.*
**3 Automatic switch model: D-A73 (for both DC24V and AC100 V, with indicator lamp)*



VULP-100CM, 150CM,200CM,250CM



VULP-10CM,25CM, 40CM, 65CM

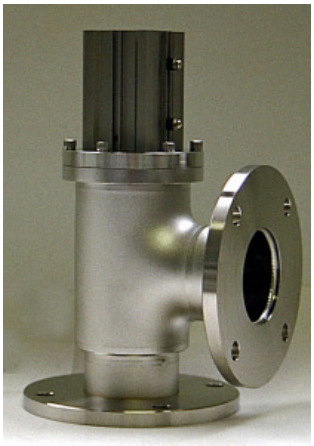
unit: mm

Item / Model	Common port diameter (A)	Flange specification	Conductance L/s*1	Flange diameter dia. D	Surface interval L	Totalheight H	Diameter dia. d	Flange thickness T	Bolt center dia. C	Hole quantity/ diameter N-dia. B	Cylinder Sq. A	Compressed air connection port E	Weight kg
VULP-10CM	10	UFC034-018FH	1.1	33.8	30	129.2	14.5	7.2	27	6-4.4	36	M5	0.7
VULP-25CM	25	UFC070-025FH	10	69.3	50	181	22.4	12.7	58.7	6-6.8	36	Rc (PT) 1/8	1.8
VULP-40CM	40	UFC070-040FH	23	69.3	63	218	35	12.7	58.7	6-6.8	45	Rc (PT) 1/8	2.3
VULP-65CM	65	UFC114-065FH	80	113.5	95	287	59.5	17.5	92.1	8-8.5	52	Rc (PT) 1/8	5.6
VULP-100CM	100	UFC152-100FH	225	151.6	131.1	374	95.6	19.8	130.3	16-8.5	77	Rc (PT) 1/4	13
VULP-150CM	150	UFC203-150FH	680	202.4	162.7	465	146.4	22.4	181	20-8.5	98	Rc (PT) 3/8	24
VULP-200CM	200	UFC253-200FH	1020	253.2	204.7	590.7	197.2	24.6	231.8	24-8.5	117	Rc (PT) 3/8	50
VULP-550CM	250	UFC306-550FH	1780	306	220	795	246	27	284	33-8.5	145	Rc (PT) 1/2	70

**1: conductance: calculated valve using molecular flow, 20 °C, and air*

Ultra-High Vacuum Valve VULP Series

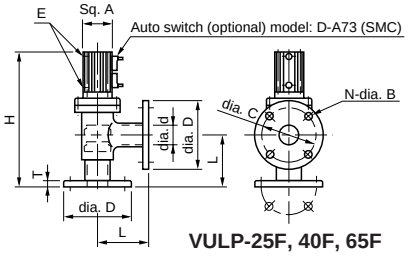
Ultra-High Vacuum Valve VULP-F Series (Compressed Air Driven Valve with UVF Flange)



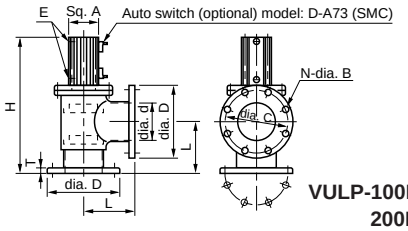
Specifications

Item	Model	VULP-F
Common port diameter	A	25-250
Main unit material		Stainless steel
Gasket material		Bonnet seal, disk seal: Fluorine rubber
Allowable baking temperature	°C	Max. 150 *1
Applicable pressure range	Pa	10^{5}-10^{-7}
Leak volume	Pa · m^3/s	< 1.3 x 10^{-11} *2
Allowable surrounding temperature	°C	5-40
Operation method		Compressed air
Compressed air operating pressure	MPa G	0.45-0.55
Open/close signal output		Attachment possible (optional) *3
Remarks		

Note: SI units are used in this catalog. The following conversion can be used for non-SI units.
Ultimate pressure: 1Pa = 7.5 x 10^{-3} Torr
**1 Cylinder heating is not possible.*
**2 O-ring permeability is not included in the leak volume.*
**3 Automatic switch model: D-A73 (for both DC24 V and AC100 V, with indicator lamp)*



VULP-25F, 40F, 65F



VULP-100F, 150F
200F, 250F

unit: mm

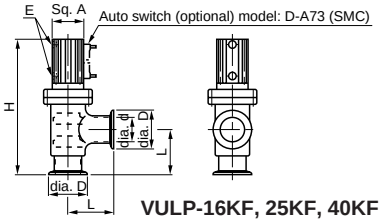
Item / Model	Common port diameter (A)	Flange specification	Conductance L/s*1	Flange diameter dia. D	Surface interval L	Total height H	Diameter dia. d	Flange thickness T	Bolt center dia. C	Hole quantity/ diameter N-dia. B	Cylinder Sq. A	Compressed air connection port E	Weight kg
VULP-25F	25	UVF25	8.4	90	65	171	22.4	8	70	4-10	36	RC (PT) 1/8	1.8
VULP-40F	40	UVF40	24	105	80	210	35	10	85	4-10	45	RC (PT) 1/8	2.8
VULP-65F	65	UVF65	87	145	93	253	59.5	10	120	4-12	52	RC (PT) 1/8	5.6
VULP-100F	100	UVF100	254	185	130	343	95.6	12	160	8-12	77	RC (PT) 1/4	13
VULP-150F	150	UVF150	699	235	156	425	146.4	12	210	8-12	98	RC (PT) 3/8	24
VULP-200F	200	UVF200	1020	300	200	586.5	197.2	16	270	8-15	117	RC (PT) 3/8	50
VULP-550F	250	UVF250	1790	350	220	795	238	16	320	12-15	145	RC (PT) 1/2	70

**1: Conductance: Calculated value using molecular flow, 20 °C, and air*

Ultra-High Vacuum Valve VULP-KF Series (Compressed Air Driven Valve with Quick Clamp Flange)

Specifications

Item	Model	VULP-KF
Connection flange		NW16, 25, 40
Main unit material		Stainless steel
Gasket material		Bonnet seal, disk seal: Fluoride rubber*4
Allowable baking temperature	°C	Max. 150*1
Applicable pressure range	Pa	10^{5}–10^{-7}
Leak volume	Pa · m^3/s	< 1.3 x 10^{-11}*2
Allowable surrounding temperature	°C	5-40
Operation method		Compressed air
Compressed air operating pressure	MPa G	0.45-0.55
Open/close signal output		Attachment possible (optional)*3
Remarks		



VULP-16KF, 25KF, 40KF

Note: SI units are used in this catalog. The following conversion can be used for non-SI units.
Ultimate pressure: 1Pa = 7.5 x 10^{-3} Torr
**1 Cylinder heating is not possible.*
**2 O-ring permeability is not included in the leak volume.*
**3 Automatic switch model: D-A73 (for both DC24V and AC100 V, with indicator lamp)*
**4 The bonnet seal material of the VULP-16KF model is silver wire.*

unit: mm

Item / Model	Common port diameter (A)	Flange specification	Conductance L/s*1	Flange diameter dia. D	Surface interval L	Total height H	Diameter dia. d	Cylinder Sq. A	Compressed air connection port E	Weight kg
VULP-16KF	10	NW16 (KF16)	1	30	30	117.5	10	36	M5	0.6
VULP-25KF	25	NW25 (KF25)	10	40	50	156	22.4	36	RC (PT) 1/8	1.1
VULP-40KF	40	NW40 (KF40)	28	55	65	195	35	45	RC (PT) 1/8	1.8

**1: Conductance: Calculated value using molecular flow, 20 °C, and air*