

High Vacuum Valve VLP Series

High Vacuum Valve VLP-U (S) Series (Compressed Air Driven Valve with Vacuum Flange)



Specifications

Item	Model	VLP-U, US
Common diameter	A (B)	20A (3/4B) -900 A (36B)*1
Main unit material		U: Soft steel/US: Stainless steel *2
Gasket material		U: Nitrile rubber, US: Fluoride rubber
Allowable baking temperature	°C	U: < 60 US: < 120 *3
Applicable pressure range	Pa	10 ⁵ -10 ⁻⁵
Leak volume	Pa·m ³ /s	U: < 1.5 x 10 ⁻⁷ / US: < 7.0 x 10 ⁻⁹ *4
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 up to diameter of 550A (22B) is possible (optional) *5
Remarks		20A (3/4B) -100 A (4B) : Reverse pressure possible, 150A (6B) -900 A (36B): Reverse pressure not possible; Model with reverse pressure capability is available as an option (R model).

Note: SI units are used in this catalog. The following conversion can be used for non-SI units.

Ultimate pressure: 1 Pa = 7.5 x 10⁻³Torr

*1 Please inquire the size of 16B or more separately.

*2 Standard VLP-US material: SUS304

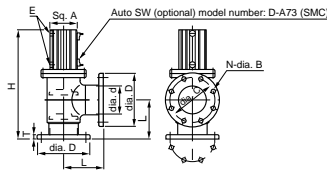
SUS304L, 316 and 316L are optional with a delivery period of 2 months.

*3 60 °C for the air cylinder section.

*4 a. Seal performance value when valve is shut. O-ring permeability is not included in the leak volume.

b. When the valve is operated air caught in the shaft is turned in and may increase the apparent leak volume.

*5 Automatic switch models: 20A (3/4B) -100 A (4B): D-A73
120A (6B) -550 A (22B): D-A54



(unit: mm)

Model	Item	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
VLP-U 3/4 (S)		20	VF20	8.1	80	60	157	22.2	8	60	4-10	36	Rc (PT) 1/8	1.6
VLP-U 1 (S)		25	VF25	20.9	90	65	192	35	8	70	4-10	45	Rc (PT) 1/8	2.0
VLP-U11/2 (S)		40	VF40	21.4	105	80	220	35	10	85	4-10	45	Rc (PT) 1/8	2.7
VLP-U 2 (S)		50	VF50	74.1	120	90	255	59.5	10	100	4-10	64	Rc (PT) 1/4	5.0
VLP-U 3 (S)		80	VF80	180.7	160	120	332	84	12	135	4-12	77	Rc (PT) 1/4	9.5
VLP-U 4 (S)		100	VF100	227.8	185	130	355	97	12	160	8-12	98	Rc (PT) 3/8	13
VLP-U 6 (S)		150	VF150	1000	235	160	610	143.4	12	210	8-12	102	Rc (PT) 1/2	31
VLP-U 8 (S)		200	VF200	1900	300	200	770	204.3	16	270	8-15	116	Rc (PT) 1/2	58
VLP-U10 (S)		250	VF250	3700	350	220	845	255.4	18/16	320	12-15	116	Rc (PT) 1/2	70
VLP-U12 (S)		300	VF300	3084	400	250	940	304.7	16	370	12-15	145	Rc (PT) 1/2	120
VLP-U14 (S)		350	VF350	7200	450	280	1070	343.6	20	420	12-15	145	Rc (PT) 1/2	127

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

High Vacuum Valve VLP-US-KF Series (Manual Valve with Quick Clamp Flange)



Specifications

Item	Model	VLP-US-KF
Connection flange		NW25, 40, 50
Common diameter		stainless steel *1
Gasket material		Disk seal: Fluoride rubber Bonnet seal: NBR
Allowable baking temperature	°C	< 120 *2
Applicable pressure range	Pa	10 ⁵ -10 ⁻⁵
Leak volume	Pa·m ³ /s	7.0 x 10 ⁻⁹ *3
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)*4
Remarks		Reverse pressure possible

Note: SI units are used in this catalog. The following conversion can be used for non-SI units.

Ultimate pressure: 1 Pa = 7.5 x 10⁻³Torr

*1 Standard material: SUS304

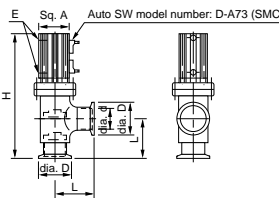
SUS304L, 316 and 316L are optional with a delivery period of 2 months.

*2 60 °C for the air cylinder section.

*3 a. Seal performance value when valve is shut. O-ring permeability is not included in the leak volume.

b. When the valve is operated air caught in the shaft is turned in and may increase the apparent leak volume.

*4 Automatic switch model: D-A73



(unit: mm)

Model	Item	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
VLP-US-25KF		25	NW25 (KF25)	9.6	40	50	147	22.2	36	dia. 6 x dia. 4 With tube connection port	1.2
VLP-US-40KF		40	NW40 (KF40)	25.7	55	65	205	35	45	Rc (PT) 1/8	2.4
VLP-US-50KF		50	NW50 (KF50)	68.8	75	70	235	50	64	Rc (PT) 1/4	3.7

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