

PDV1 Diaphragm Valves

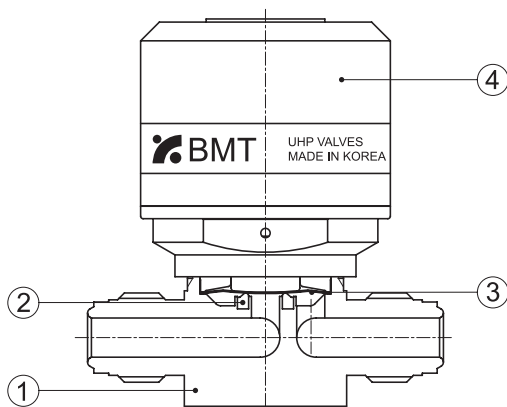
Low Pressure Pneumatic Diaphragm Valves (Standard Type) - N.O/N.C



Specifications

Size	1/4"	3/8", 1/2"	3/4"
Cv Value	0.3	0.7	0.7
Orifice Size	4.5 mm	7.0 mm	7.0 mm
Max. Working Pressure	10 bar (145 psig)		
Operating Pressure	0.4 ~ 0.6 MPa (58 ~ 87 psig)		
Working Temperature	PCTFE: -10 ~ 80°C (14 ~ 176°F) / PFA, PI: -10 ~ 150°C (14 ~ 302°F)		
Inboard Leak Test Rates (He) (Holding Time ≥ 15 sec.)	≤1x10 ⁻⁹ atm.cc/s		
Across the Seat Leak Test Rates (He) (Holding Time ≥ 15 sec.)	≤1x10 ⁻⁹ atm.cc/s		
Particle Inspection (EP Only) (0.1µm and Larger)	No Count		
Inner Surface Roughness	MP: Ra ≤ 20 µin, Ry ≤ 6 µm BA: Ra ≤ 10 µin, Ry ≤ 3 µm EP: Ra ≤ 5 µin, Ry ≤ 0.7 µm		

Material

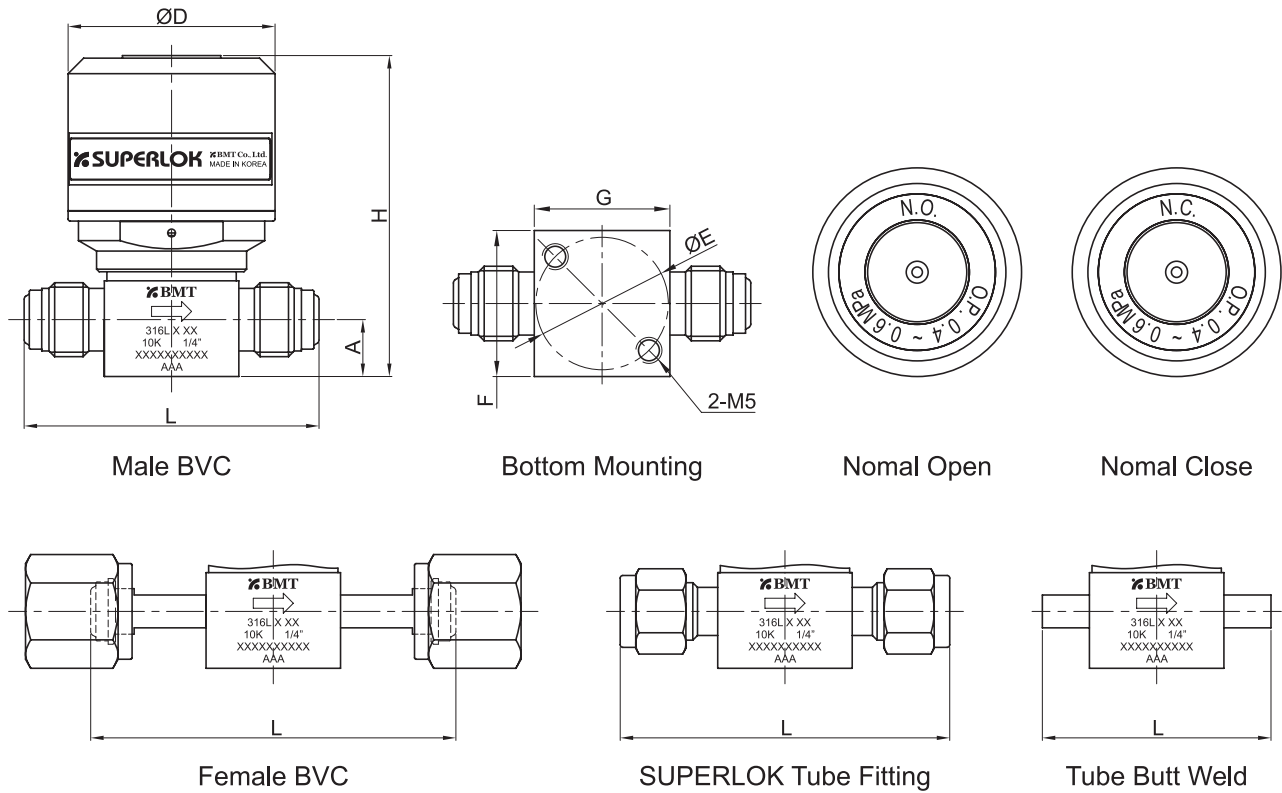


No.	Component	Material
1	Body	316L Stainless Steel
		316L Stainless Steel VAR
		304 Stainless Steel
2	Seat	PCTFE (<i>standard</i>) / PFA / PI
3	Diaphragm	Ni-Co Alloy
4	Actuator	Aluminium

NOTE:

·Dimensions and Drawings are for reference only and are subject to change without prior notice.
·Unless otherwise specified, all dimensions are in millimeters.

Dimensions

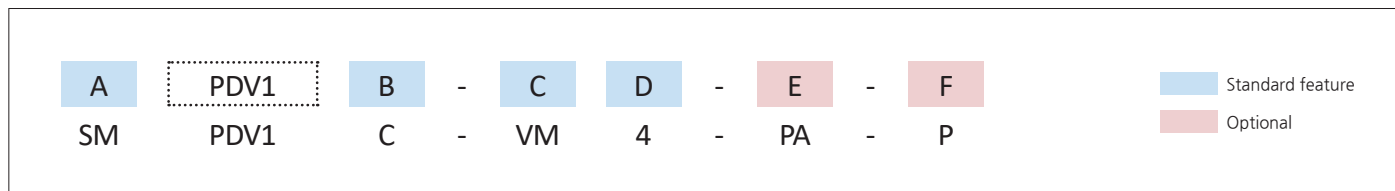


End Connection	Part No.	Dimensions (mm)						
		L	H	A	D (Φ)	E (Φ)	F	G
Male BVC	SMPDV1C-VM4	57	62.1	11	40	25.4	28	26
	SMPDV1C-VM6	77	81.2	16	55	28	37	36
	SMPDV1C-VM8	77	81.2	16	55	28	37	36
	SMPDV1C-VM12	122	88.4	22	55	28	37	37
Female BVC	SMPDV1C-VF4	70.6	62.1	11	40	25.4	28	26
	SMPDV1C-VF6	83	81.2	16	55	28	37	36
	SMPDV1C-VF8	83	81.2	16	55	28	37	36
	SMPDV1C-VF12	122	88.4	22	55	28	37	37
SUPERLOK Tube Fitting	SMPDV1C-S4	63.7	62.1	11	40	25.4	28	26
	SMPDV1C-S6	75.6	81.2	16	55	28	37	36
	SMPDV1C-S8	81.2	81.2	16	55	28	37	36
	SMPDV1C-S12	104.6	88.4	22	55	28	37	37
Tube Butt Weld	SMPDV1C-TW4	44.2	62.1	11	40	25.4	28	26
	SMPDV1C-TW6	68	81.2	16	55	28	37	36
	SMPDV1C-TW8	68	81.2	16	55	28	37	36
	SMPDV1C-TW12	150	88.4	22	55	28	37	37

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Ordering Information

Low Pressure Pneumatic Diaphragm Valves (Standard Type)
 *Additional configurations available upon request.



A	Materials
SM	316L Stainless Steel
DM	316L Stainless Steel VAR
4SS	304 Stainless Steel

B	Operation Method
C	Normally Closed
O	Normally Open

C	Connection Type
VM	Male BVC (BMT Vacuum Coupling)
VF	Female BVC (BMT Vacuum Coupling)
S	SUPERLOK Tube Fitting
TW	Butt Weld
VMXVF	In Male-Out Female

D	Connection Size		
ASTM Tube			
Designator	Nominal Size	Outside Diameter	Wall Thickness
4	1/4 in.	6.35 mm	1.00 mm
6	3/8 in.	9.53 mm	1.00 mm
8	1/2 in.	12.7 mm	1.24 mm
12	3/4 in.	19.05 mm	1.65 mm

E	Seat Material
PCTFE is standard. No part designator needed.	
PA	PFA
PI	Polyimide

F	Wetted Surface Grade
BA is standard. No part designator needed.	
P	EP
MP	MP
AP	AP

Part Number Examples

	DMPDV10-TW8		SMPDV1C-VM4-PA-P	
Material	DM	316L Stainless Steel VAR	SM	316L Stainless Steel
Series	PDV1	PDV1 series	PDV1	PDV1 series
Operation Method	O	Normally Open	C	Normally Closed
Connection Type	TW	Butt Weld	VM	BVC Male
Connection Size	8	1/2"	4	1/4"
Seat Material		PCTFE (standard)	PA	PFA
Grade		BA grade (standard)	P	EP grade

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