

PDV1 Diaphragm Valves

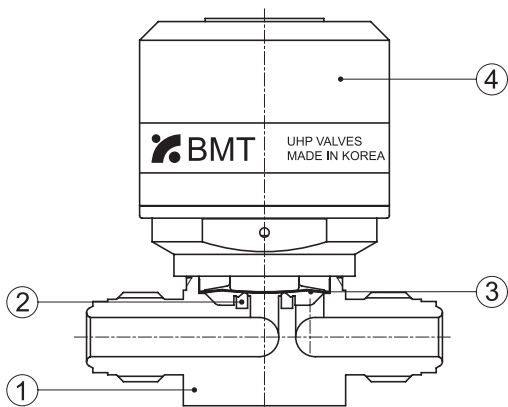
Low Pressure Pneumatic Diaphragm Valves (Standard Type)



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)		
Internal Leakage Allowance (He) (Holding Time ≥ 15 sec.)	≤1x10 ⁻⁹ atm.cc/s		
Inboard Leakage Allowance (He) (Holding Time ≥ 15 sec.)	≤1x10 ⁻⁹ atm.cc/s		
Particle Inspection (EP Only) (0.1µm and Larger)	No Count		

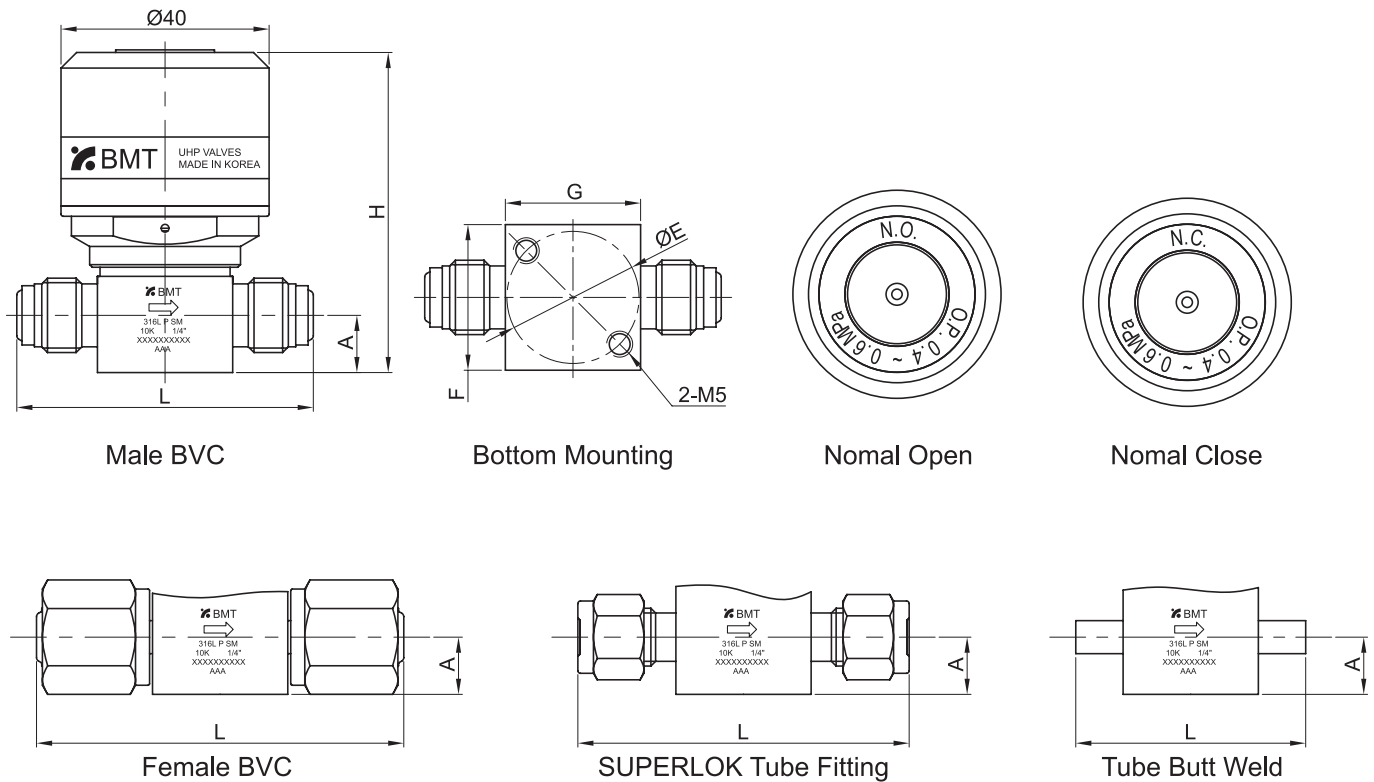
Material



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

·Dimensions and Drawings are for reference only and are subject to change without prior notice.

Dimensions



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

*Dimensions and Drawings are for reference only and are subject to change without prior notice.

Ordering Information

Low Pressure Pneumatic Diaphragm Valves (Standard Type)

*Additional configurations available upon request.

A	PDV1	B	-	C	D	-	E	-	F	Standard feature
SM	PDV1	C	-	VM	4	-	PA	-	P	Optional

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

B	Operation Method	
<i>Add an operation method designator for Pneumatic Valves.</i>		
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	
<i>PCTFE is standard. No part designator needed.</i>		
PA	PFA	
PI	Polyimide	

F	Wetted Surface Grade	
<i>BA is standard. No part designator needed.</i>		
P	EP	
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"
Flow Path	<i>Omit for PDV1 series</i>		<i>Omit for PDV1 series</i>	
Seat Material	PCTFE (standard)		PA	PFA
Grade	BA grade (standard)		P	EP grade

*Dimensions and Drawings are for reference only and are subject to change without prior notice.