

# DV1 Diaphragm Valves

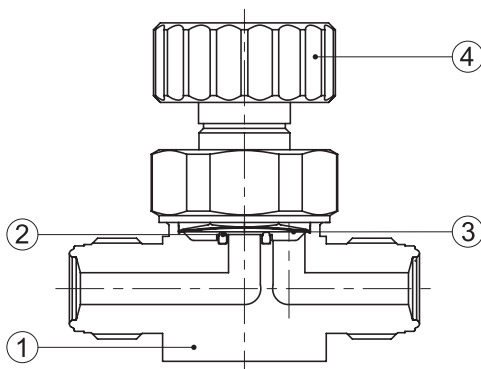
Low Pressure Manual Diaphragm Valves (Standard Type)



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

## Material

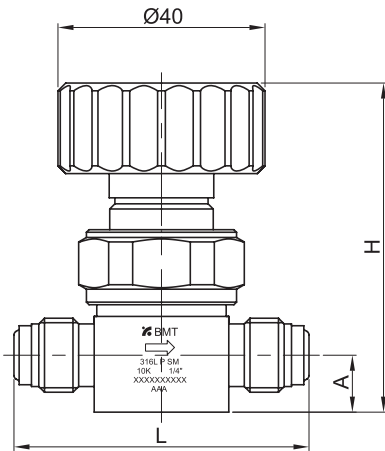


No.	Component	Material
1	Body	316L Stainless Steel
		316L Stainless Steel VAR
		304 Stainless Steel
2	Seat	PCTFE ( <i>standard</i> ) / PFA / PI
3	Diaphragm	Ni-Co Alloy
4	Handle	Aluminium

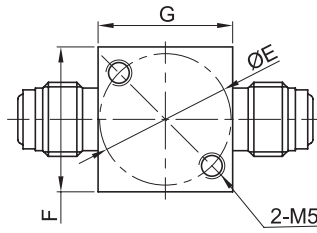
\*Dimensions and Drawings are for reference only and are subject to change without prior notice.

1

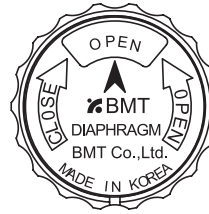
Dimensions



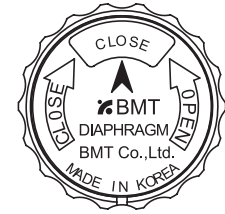
Male BVC



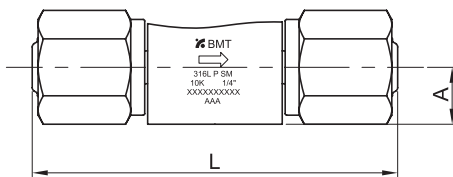
Bottom Mounting



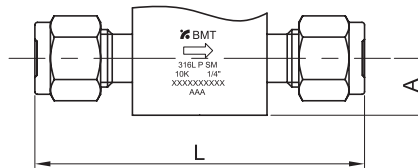
Handle Open



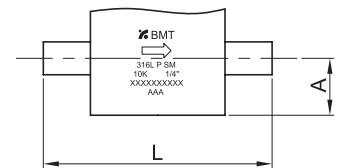
Handle Close



Female BVC



SUPERLOK Tube Fitting



Tube Butt Weld

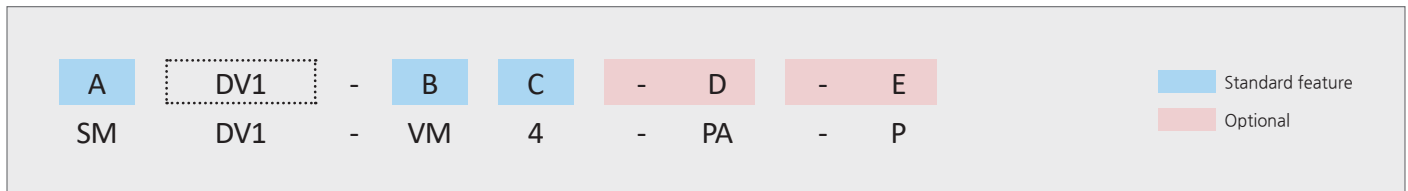
End Connection	Part No.	Dimensions (mm)					
		L	H	A	E (Φ)	F	G
Male BVC	SMDV1-VM4	57	63.6	11	25.4	28	26
	SMDV1-VM6	77	74.1	16	28	37	36
	SMDV1-VM8	77	74.1	16	28	37	36
	SMDV1-VM12	122	81.3	22	28	37	37
Female BVC	SMDV1-VF4	70.6	63.6	11	25.4	28	26
	SMDV1-VF6	83	74.1	16	28	37	36
	SMDV1-VF8	83	74.1	16	28	37	36
	SMDV1-VF12	122	81.3	22	28	37	37
SUPERLOK Tube Fitting	SMDV1-S4	63.7	63.6	11	25.4	28	26
	SMDV1-S6	75.6	74.1	16	28	37	36
	SMDV1-S8	81.2	74.1	16	28	37	36
	SMDV1-S12	104.6	81.3	22	28	37	37
Tube Butt Weld	SMDV1-TW4	44.2	63.6	11	25.4	28	26
	SMDV1-TW6	68	74.1	16	28	37	36
	SMDV1-TW8	68	74.1	16	28	37	36
	SMDV1-TW12	150	81.3	22	28	37	37

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

Ordering Information

Low Pressure Manual Diaphragm Valves (Standard Type)

\*Additional configurations available upon request.



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

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

B	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

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

C 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

Part Number Examples

	SMDV1-S8		SMDV1-VM4-PA-P	
Material	SM	316L Stainless Steel	SM	316L Stainless Steel
Series	DV1	DV1 series	DV1	DV1 series
Operation Method		<i>Omit for Manual Valves</i>		<i>Omit for Manual Valves</i>
Connection Type	S	Lok	VM	BVC Male
Connection Size	8	1/2"	4	1/4"
Flow Path		<i>Omit for DV1 series</i>		<i>Omit for DV1 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.