

DV1 Diaphragm Valves

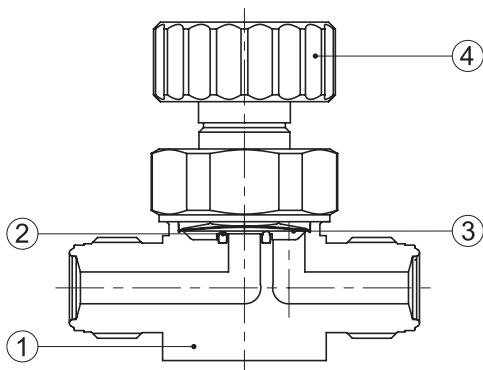
Low Pressure Manual Diaphragm Valves (Standard Type)



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)		
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

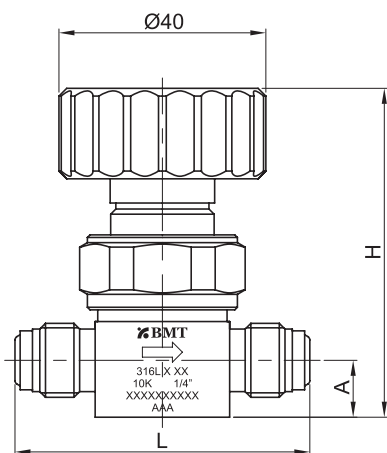


No.	Component	Material
1	Body	316L Stainless Steel
		316L Stainless Steel VAR
		304 Stainless Steel
2	Seat	PCTFE (<i>standard</i>) / PFA / PI
3	Diaphragm	Ni-Co Alloy
4	Handle	Aluminium

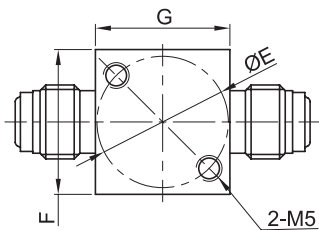
NOTE:

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

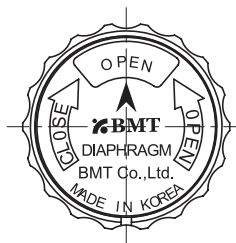
Dimensions



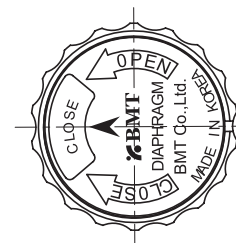
Male BVC



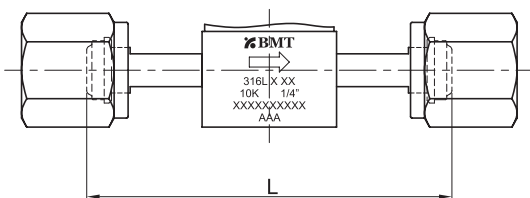
Bottom Mounting



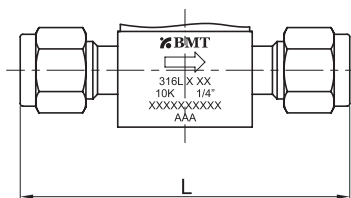
Handle Open



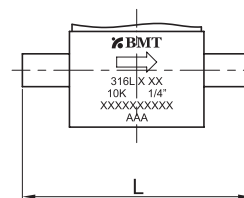
Handle Close



Female BVC



SUPERLOK Tube Fitting



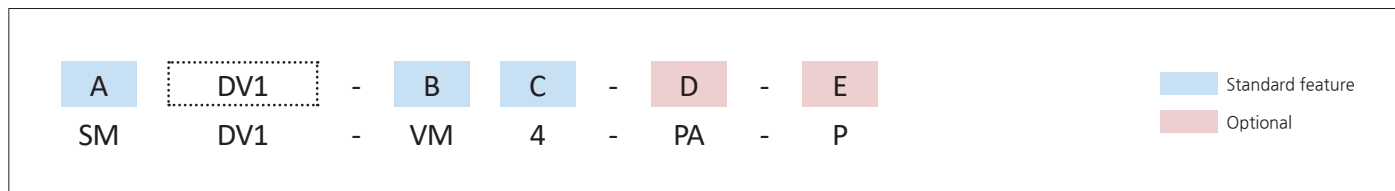
Tube Butt Weld

End Connection	Part No.	Dimensions (mm)					
		L	H	A	E (Φ)	F	G
Male BVC	SMDV1-VM4	57	64.7	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	64.7	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	64.7	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	64.7	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

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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	
MP	MP	
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		Omit for Manual Valves		Omit for Manual Valves
Connection Type	S	Lok	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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