

SODV1 Diaphragm Valves

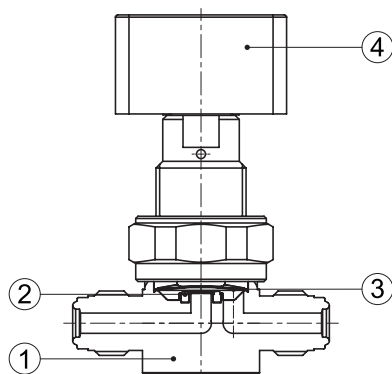
Low Pressure Manual Diaphragm Valves (Shutoff Type)



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

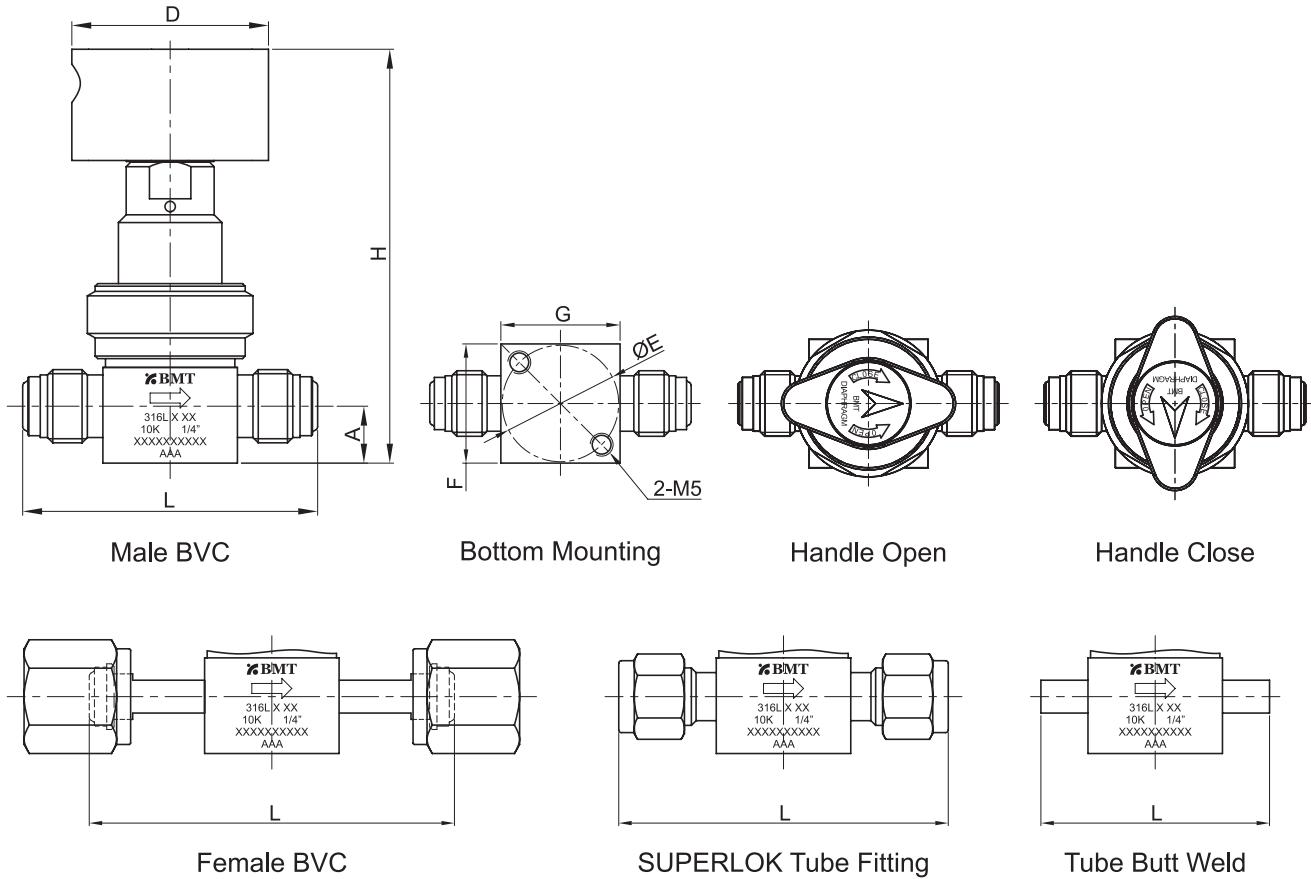


No.	Component	Material
1	Body	316L Stainless Steel 316L Stainless Steel VAR / 304 Stainless Steel
2	Seat	PCTFE (<i>standard</i>) / PFA / PI
3	Diaphragm	Ni-Co Alloy
4	Handle	ABS

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	E (Φ)	F	G
Male BVC	SMSODV1-VM4	57	80	11	38	25.4	28	26
	SMSODV1-VM6	77	93.5	16	50	28	37	36
	SMSODV1-VM8	77	93.5	16	50	28	37	36
	SMSODV1-VM12	122	98	22	50	28	37	37
Female BVC	SMSODV1-VF4	70.6	80	11	38	25.4	28	26
	SMSODV1-VF6	83	93.5	16	50	28	37	36
	SMSODV1-VF8	83	93.5	16	50	28	37	36
	SMSODV1-VF12	122	98	22	50	28	37	37
SUPERLOK Tube Fitting	SMSODV1-S4	63.7	80	11	38	25.4	28	26
	SMSODV1-S6	75.6	93.5	16	50	28	37	36
	SMSODV1-S8	81.2	93.5	16	50	28	37	36
	SMSODV1-S12	104.6	98	22	50	28	37	37
Tube Butt Weld	SMSODV1-TW4	44.2	80	11	38	25.4	28	26
	SMSODV1-TW6	68	93.5	16	50	28	37	36
	SMSODV1-TW8	68	93.5	16	50	28	37	36
	SMSODV1-TW12	150	98	22	50	28	37	37

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Ordering Information

Low Pressure Manual Diaphragm Valves (Shutoff Type)

*Additional configurations available upon request.

A	SODV1	-	B	C	-	D	-	E	
SM	SODV1	-	VM	4	-	PA	-	P	

A Standard feature
D Optional

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

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

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

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

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

Part Number Examples

	SMSODV1-VF8		SMSODV1-VM4-PA-P	
Material	SM	316L Stainless Steel	SM	316L Stainless Steel
Series	SODV1	SODV1 series	SODV1	SODV1 series
Operation Method		Omit for Manual Valves		Omit for Manual Valves
Connection Type	VF	BVC Female	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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