

MFDV1 Diaphragm Valves

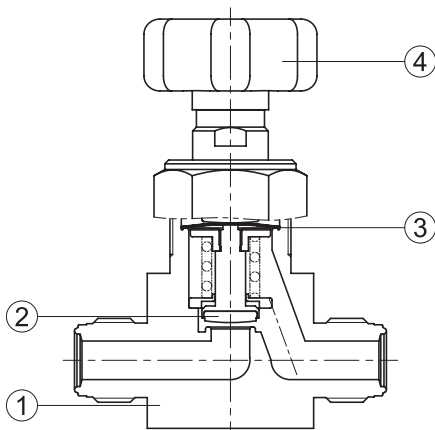
Medium Pressure Manual Diaphragm Valves (High Flow Type)



Specifications

Size	1/2"
Cv Value	1.5
Orifice Size	10.2 mm
Max. Working Pressure	20 bar (290 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/sec
Across the Seat Leak Test Rates (He) (Holding Time ≥ 15 sec.)	≤1x10 ⁻⁹ atm.cc/sec
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

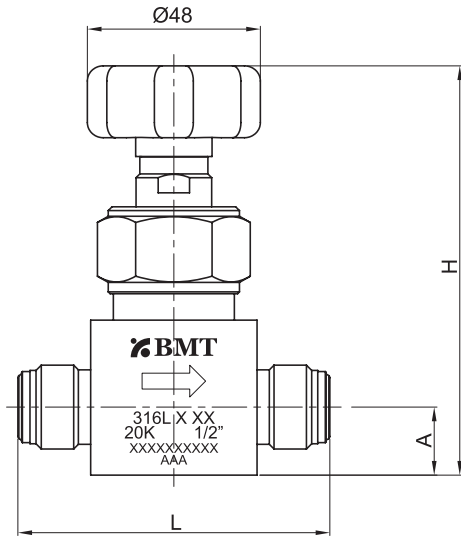


No.	Component	Material
1	Body	316L Stainless Steel
		316L Stainless Steel VAR
		304 Stainless Steel
2	Seat	PCTFE (<i>standard</i>) / PFA / PI
3	Diaphragm	Ni-Co Alloy
4	Handle	Aluminium

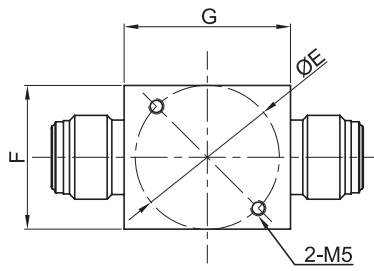
NOTE:

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

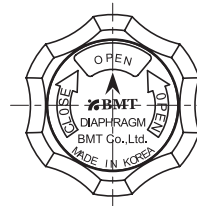
Dimensions



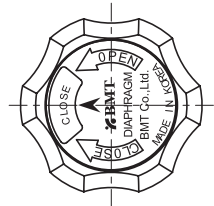
Male BVC



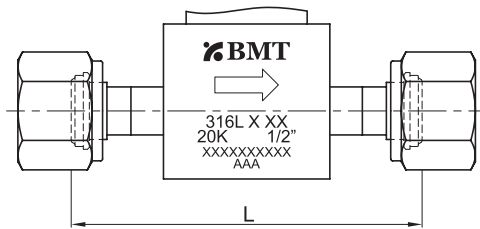
Bottom Mounting



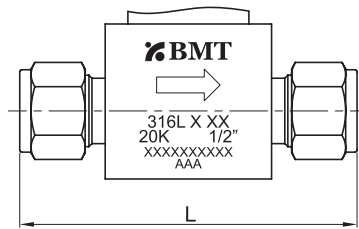
Handle Open



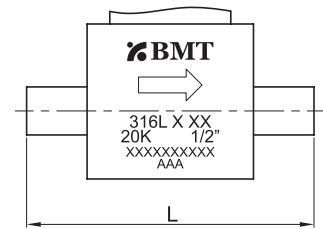
Handle Close



Female BVC



SUPERLOK Tube Fitting



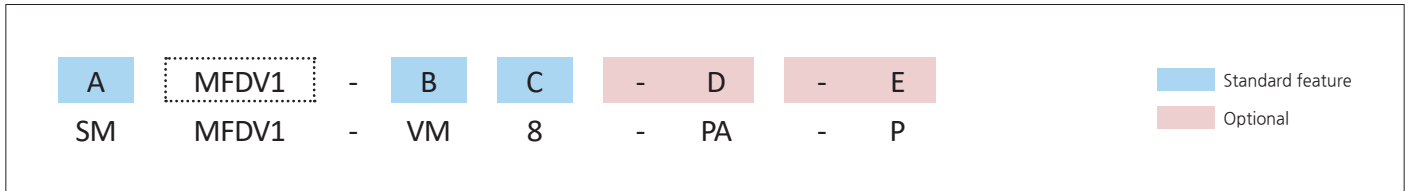
Tube Butt Weld

End Connection	Part No.	Dimensions (mm)					
		L	H	A	E (Φ)	F	G
Male BVC	SMMFDV1-VM8	82.5	108.3	18	38	38	44
Female BVC	SMMFDV1-VF8	92.8	108.3	18	38	38	44
SUPERLOK Tube Fitting	SMMFDV1-S8	89.2	108.3	18	38	38	44
Tube Butt Weld	SMMFDV1-TW8	76.0	108.3	18	38	38	44

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Ordering Information

Medium Pressure Manual Diaphragm Valves (High Flow Type)
 *Additional configurations available upon request.



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			
	Designator	Nominal Size	Outside Diameter	Wall Thickness
	8	1/2 in.	12.7 mm	1.24 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	
AP	AP	

Part Number Examples

	DMMFDV1-VM8		SMMFDV1-VM8-PA-P	
Material	DM	316L Stainless Steel VAR	SM	316L Stainless Steel
Series	MFDV1	MFDV1 series	MFDV1	MFDV1 series
Operation Method		<i>Omit for MFDV1 Series</i>		<i>Omit for MFDV1 Series</i>
Connection Type	VM	BVC Male	VM	BVC Male
Connection Size	8	1/2"	8	1/2"
Flow Path		<i>Omit for MFDV1 series</i>		<i>Omit for MFDV1 series</i>
Seat Material		PCTFE (standard)	PA	PFA
Grade		BA grade (standard)	P	EP grade

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