

HPDV1 Diaphragm Valves

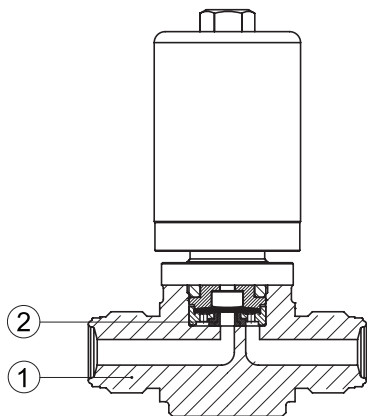
High Pressure Pneumatic Diaphragm Valves (Standard Type) - N.C



Specifications

Size	1/4"	1/2"
Cv Value	0.1	0.27
Orifice Size	2.4 mm	3.8 mm
Max. Working Pressure	210 bar (3,045 psig)	
Operating Pressure	0.4~0.6 Mpa	
Max. Working Temperature	PCTFE: -10 ~ 40°C (14 ~ 104°F) / 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	
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

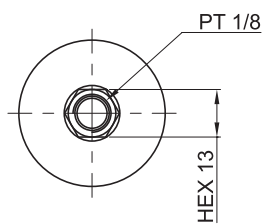
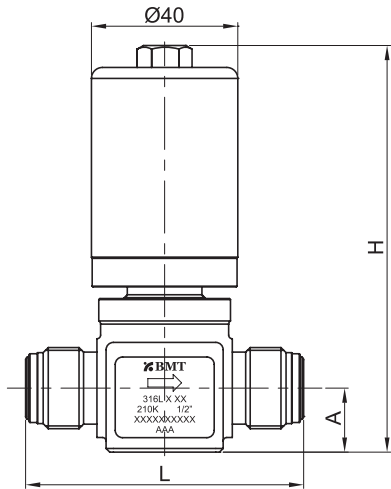


No.	Component	Material
1	Body	316L Stainless Steel
		316L Stainless Steel VAR
2	Seat	304 Stainless Steel
		PCTFE (<i>standard</i>) / PI
3	Diaphragm	Ni-Co Alloy
4	Actuator	Aluminium

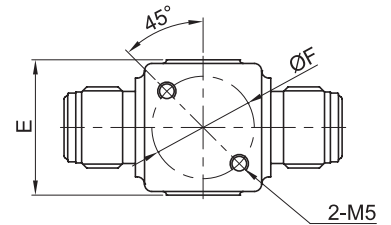
NOTE:

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

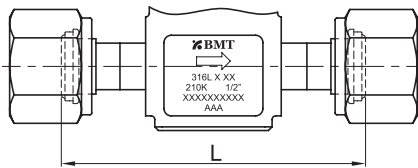
Dimensions



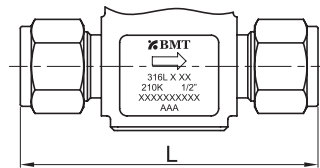
Top View



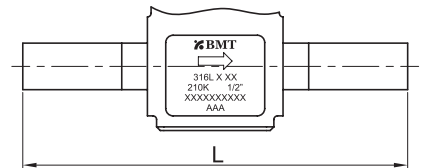
Bottom Mounting



Female BVC



SUPERLOK Tube Fitting



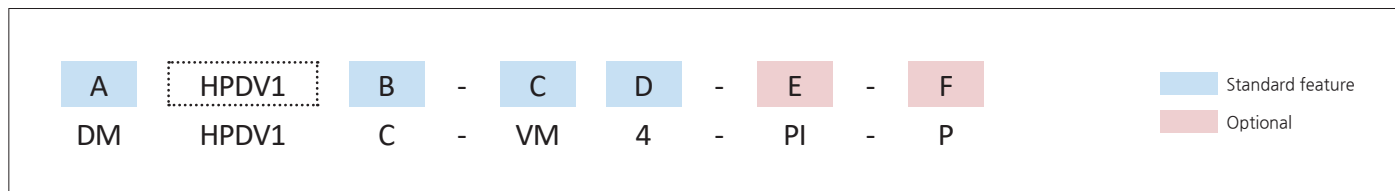
Tube Butt Weld

End Connection	Part No.	Dimensions (mm)				
		L	H	A	E	F (Φ)
Male BVC	SMHPDV1C-VM4	57	98	11	30	17
	SMHPDV1C-VM8	76	110	17.5	39	28
Female BVC	SMHPDV1C-VF4	70.6	98	11	30	17
	SMHPDV1C-VF8	83	110	17.5	39	28
SUPERLOK Tube Fitting	SMHPDV1C-S4	63.7	98	11	30	17
	SMHPDV1C-S8	81.2	110	17.5	39	28
Tube Butt Weld	SMHPDV1C-TW4	135	98	11	30	17
	SMHPDV1C-TW8	105	110	17.5	39	28

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Ordering Information

High Pressure Pneumatic Diaphragm Valves (Standard Type) - N.C.
 *Additional configurations available upon request.



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

B	Operation Method	
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
	8	1/2 in.	12.7 mm	1.24 mm

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

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

Part Number Examples

	DMHPDV1C-VM4-P		SMHPDV1C-VF8-P	
Material	DM	316L Stainless Steel VAR	SM	316L Stainless Steel
Series	HPDV1	HPDV1 series	HPDV1	HPDV1 series
Operation Method	C	Normally Closed	C	Normally Closed
Connection Type	VM	BVC Male	VF	BVC Female
Connection Size	4	1/4"	8	1/2"
Seat Material		PCTFE (standard)		PCTFE (standard)
Grade	P	EP grade	P	EP grade

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