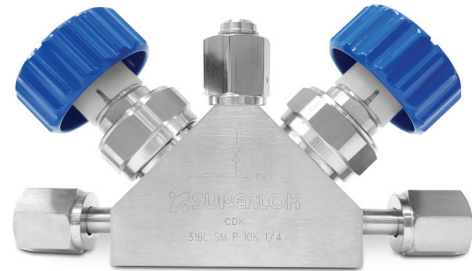


## BDV1 Diaphragm Valves

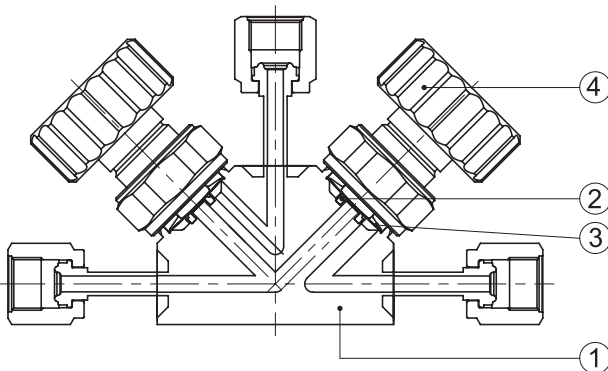
### Low Pressure Manual Diaphragm Valves (Block Type)



### Specifications

Size	1/4"	1/2"
Cv Value	0.3	0.7
Orifice Size	4.5 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 <sup>-9</sup> atm.cc/s	
Across the Seat Leak Test Rates (He) (Holding Time ≥ 15 sec.)	≤1x10 <sup>-9</sup> 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

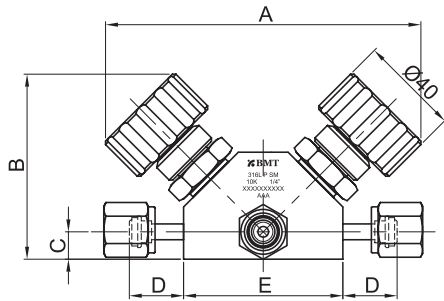


No.	Component	Material
1	Body	316L Stainless Steel
		316L Stainless Steel VAR
		304 Stainless Steel
2	Seat	PCTFE ( <i>standard</i> ) / PFA / PI
3	Diaphragm	Ni-Co Alloy
4	Handle	Aluminium

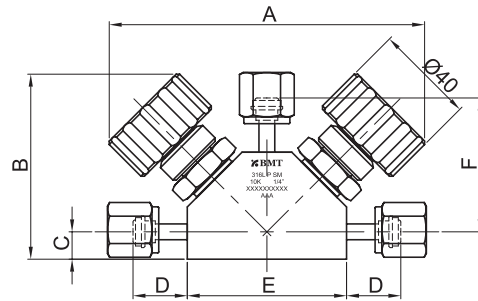
#### NOTE:

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

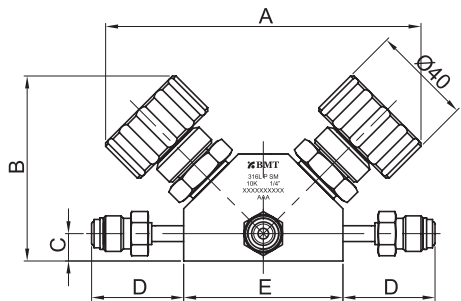
Dimensions



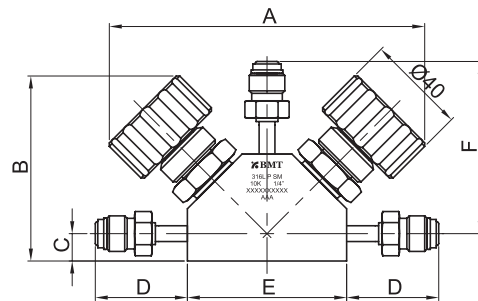
Female BVC FLOW (1F35, 5F13)



Female BVC FLOW (1F23, 2F13)



Male BVC FLOW (1F35, 5F13)



Male BVC FLOW (1F23, 2F13)

\*NOTE: See **Flow Paths** on Page 4.

End Connection	Part No.	Dimensions (mm)							
		A	B	C	D	E	F	G	H
Male BVC	SMBDV1-4-MMM-1F23	116.4	70	11	37	64	68	15	40
	SMBDV1-4-MMM-1F35						50	15	40
	SMBDV1-8-MMM-1F23	129	80.5	16	40	82	89.5	20	55
	SMBDV1-8-MMM-1F35						59	20	55
Female BVC	SMBDV1-4-FFF-1F23	116.4	70	11	21.8	64	53.8	15	40
	SMBDV1-4-FFF-1F35						34.8	15	40
	SMBDV1-8-FFF-1F23	129	80.5	16	23	82	71.5	20	55
	SMBDV1-8-FFF-1F35						41	20	55

NOTE:

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## Ordering Information

Low Pressure Manual Diaphragm Valves (Block Type)

\*Additional configurations available upon request.

<b>A</b>	<b>BDV1</b>	-	<b>B</b>	-	<b>C</b>	-	<b>D</b>	-	<b>E</b>	-	<b>F</b>	Standard feature
SM	BDV1	-	4	-	MMM	-	1F23	-	PA	-	P	Optional

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

B	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	

C	Connection Type	
MMM	Male Only	
FMF	In : Female / Out : Male, Female	
FFF	Female Only	

D	Flow Path			
See <a href="#">Flow Paths</a> for the figures on Page 4.				
Designator	Figure	Designator	Figure	
1F23	Figure A	2F13	Figure C	
1F35	Figure B	5F13	Figure D	

E	Seat Material	
PTFE is standard. No part designator needed.		
PA	PFA	
PI	Polyimide	

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

### Part Number Examples

	SMBDV1-4-MMM-1F23-PA-P		DMBDV1-8-FMF-2F13-P	
Material	SM	316L Stainless Steel	DM	316L Stainless Steel VAR
Series	BDV1	BDV1 series	BDV1	BDV1 series
Operation Method	Omit for Manual Valves		Omit for Manual Valves	
Connection Type	MMM	Male Only	FMF	In : Female / Out : Male, Female
Connection Size	4	1/4"	8	1/2"
Flow Path	1F23	Fig.A of <a href="#">Flow Paths</a> , Page 4	2F13	Fig.C of <a href="#">Flow Paths</a> , Page 4
Seat Material	PA	PFA	PTFE (standard)	
Grade	P	EP grade	P	EP grade

#### NOTE:

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

# Appendix

## Flow Paths

For Block Type Valves

