

PBV1 Bellows Valves

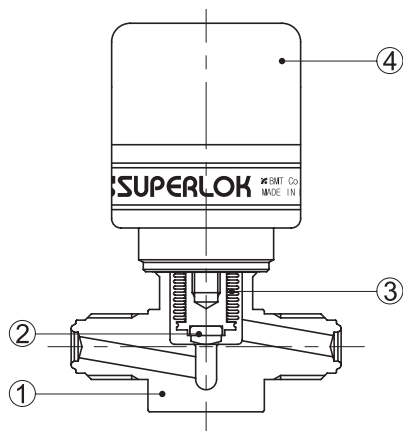
Low Pressure Pneumatic Bellows Valves (Standard Type) - N.O/N.C



Specifications

Size	1/4"	3/8", 1/2"
Cv Value	0.36	1.1
Orifice Size	4.5 mm	8.0 mm
Max. Working Pressure	10 bar (145 psig)	
Operating Pressure	0.4~0.6 MPa (58~87 psig)	
Working Temperature	PCTFE: -10 ~ 80°C (14 ~ 176°F) / PI: -10 ~ 150°C (14 ~ 302°F)	
Inboard Leak Test Rates (He) (Holding Time ≥ 15 sec.)	≤4x10 ⁻⁹ atm.cc/s	
Across the Seat Leak Test Rates (He) (Holding Time ≥ 15 sec.)	≤4x10 ⁻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

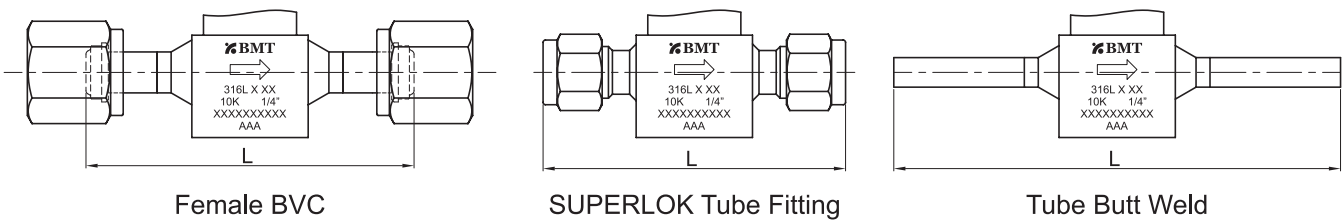
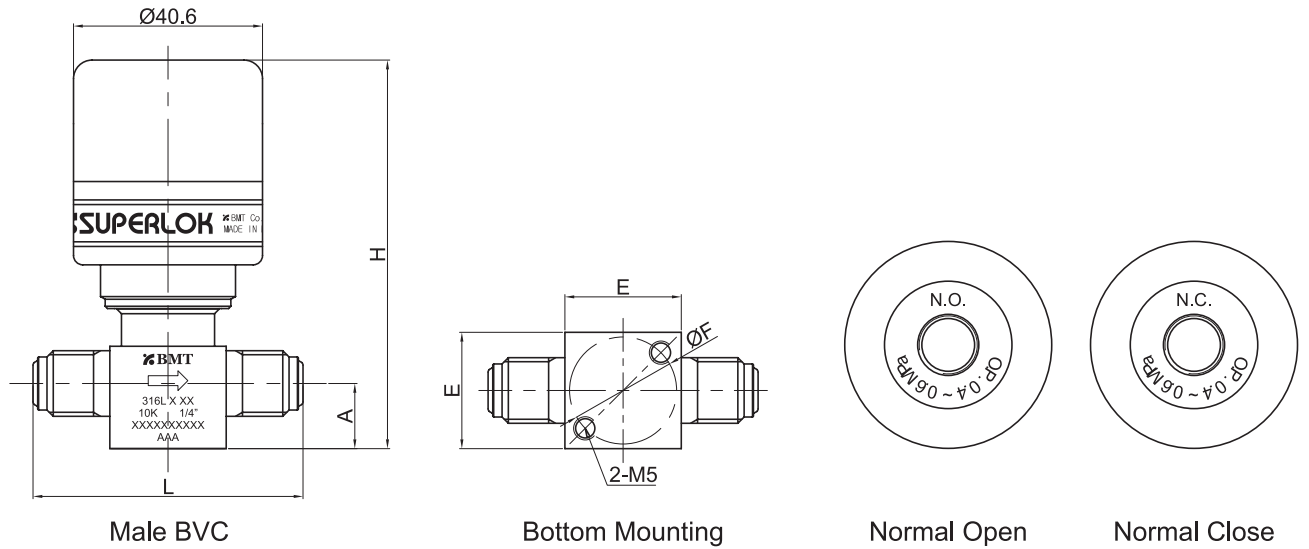


No.	Component	Material
1	Body	316L Stainless Steel
		316L Stainless Steel VAR
		304 Stainless Steel
2	Seat	PCTFE (<i>standard</i>) / PI
3	Bellows	316L Stainless Steel
4	Actuator	Aluminium

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



End Connection	Part No.	Dimensions (mm)				
		L	H	A	E	F (Φ)
Male BVC	SMPBV1C-VM4	58	83.5			
	SMPBV1C-VM6	60	90	14	25	23
	SMPBV1C-VM8	60	90			
Female BVC	SMPBV1C-VF4	70.5	83.5			
	SMPBV1C-VF6	90	90	14	25	23
	SMPBV1C-VF8	90	90			
SUPERLOK Tube Fitting	SMPBV1C-S4	65	83.5			
	SMPBV1C-S6	78	90	14	25	23
	SMPBV1C-S8	83.4	90			
Tube Butt Weld	SMPBV1C-TW4	150	83.5			
	SMPBV1C-TW6	150	90	14	25	23
	SMPBV1C-TW8	150	90			

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Ordering Information

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*Additional configurations available upon request.

A	PBV1	B	-	C	D	-	E	-	F	Standard feature
SM	PBV1	C	-	VM	4	-	PI	-	P	Optional

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
	6	3/8 in.	9.53 mm	1.00 mm
	8	1/2 in.	12.7 mm	1.24 mm

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

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

Part Number Examples

	SMPBV1C-VM4-PI-P		4SSPBV10-TW6-AP	
Material	SM	316L Stainless Steel	4SS	304 Stainless Steel
Series	PBV1	PBV1 series	PBV1	PBV1 series
Operation Method	C	Normally Closed	O	Normally Open
Connection Type	VM	BVC Male	TW	Butt Weld
Connection Size	4	1/4"	6	3/8"
Seat Material	PI	Polyimide		PCTFE (standard)
Grade	P	EP grade	AP	AP grade

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