

Low Pressure Manual Diaphragm Valve

STD TYPE



Features

- Reduced inner capacity.
- Electropolished, D.I. water cleaned, assembled, tested and packaged in a certified clean room.
- Minimal contributions of Moisture, Oxygen and Hydrocarbon.
- Permanently heat code laser marked; material traceable to original mill certificate of test.
- Hastelloy® C-22™ and custom configurations available upon request.

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Major Specifications

Size	1/4"	3/8", 1/2"	3/4"
Cv Value	0.3	0.7	0.7
Orifice Size	4.5mm	7.8mm	7.8mm
Max. Working Pressure (G.)	1MPa		
Max. Working Temp.	PCTFE : -10℃ ~ 80℃ / PI,PFA : -10℃ ~ 150℃		
Internal Leakage Allowance (He)	1x10 ⁻¹⁰ Pa · m ³ /s		
Test Pressure ≤ 1×10 ⁻² Torr			
Holding Time ≥ 30 sec.			
External Leakage Allowance (He)	1x10 ⁻¹⁰ Pa · m ³ /s		
Test Pressure ≤ 1×10 ⁻² Torr			
Holding Time ≥ 1 min.			
Particle Inspection (EP only)	No count		
Pressure : 60~80psi N ₂ Gas			
Sample Volume : 1CFM			
0.1μm and Larger			

Product Grade

GRADE	AP	BA	EP
Inner	Ry ≤ 25μm	Ry ≤ 3.0μm	Ry ≤ 0.7μm
Surface	Cut off Length : 2.5mm	10 μ inch Ra(Avg.)	5 μ inch Ra(Avg.)
Roughness	Measuring Length : 12.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
		Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing Finish

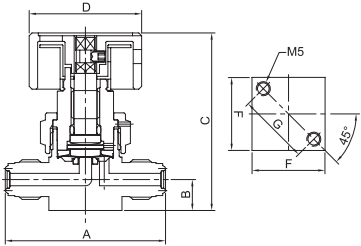
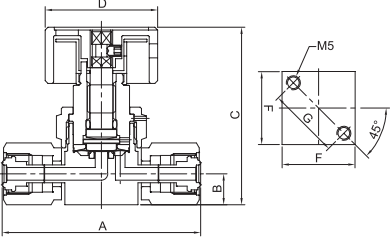
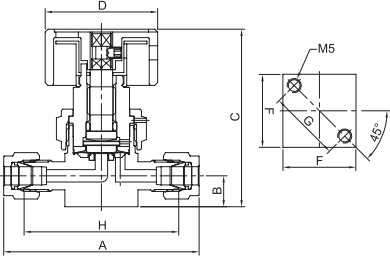
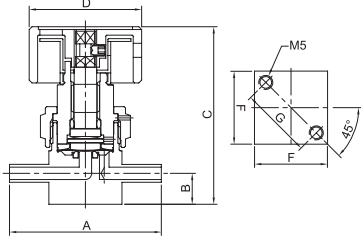
Material

NO.	NAME	MATERIAL
1	Body	Stainless Steel 316L Single Melt Stainless Steel 316L Double Melt Stainless Steel 304
2	Seat	PCTFE / PI / PFA
3	Diaphragm	Ni-Co Alloy
4	Handle	ALUMINUM

Ordering Number

S	4	DVN	VM	X1	P
Material	Size	Product	Connection	Option	Grade

MATERIAL	SIZE	CONNECTION	OPTION	GRADE
S Stainless Steel 316L Single Melt	4 1/4"	VM MFS Male	× 47 Constant Bleed ø0.3	AP AP Grade
D Stainless Steel 316L Double Melt	6 3/8"	VF MFS Female	× 59 Constant Bleed ø0.6	BLANK BA Grade
4S Stainless Steel 304	8 1/2"	SW Lok		P EP Grade
	12 3/4"	TW Butt Weld		

MODEL	CONNECTION	SIZE	A	B	C	D	F	G	H
	MFS Male	1/4"	57	11	64.3	40	26	25.4	
		3/8"	76.2	16	76.8	40	37	28	
		1/2"	76.2	16	76.8	40	37	28	
		3/4"	122	22	82.8	40	37	28	
	MFS Female	1/4"	70.6	11	64.3	40	26	25.4	
		3/8"	83	16	76.8	40	37	28	
		1/2"	83	16	76.8	40	37	28	
		3/4"	122	22	82.8	40	37	28	
	Lok	1/4"	69.5	11	64.3	40	26	25.4	55
		3/8"	82.5	16	76.8	40	37	28	68
		1/2"	91	16	76.8	40	37	28	70
		3/4"	106	22	82.8	40	37	28	84
	Butt Weld	1/4"	54	11	64.3	40	26	25.4	
		3/8"	69	16	76.8	40	37	28	
		1/2"	69	16	76.8	40	37	28	
		3/4"	150	22	82.8	40	37	28	

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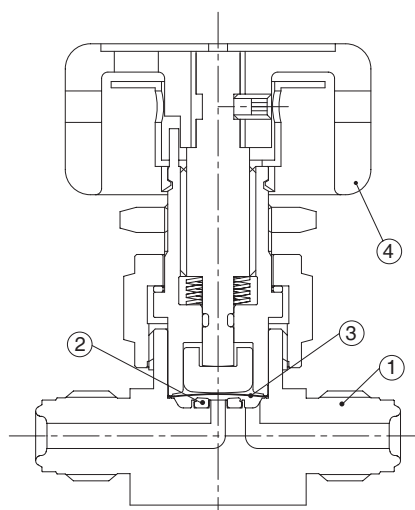
High Pressure Manual Diaphragm Valve STD TYPE

Major Specifications

Size	1/4"
Cv Value	0.1
Orifice Size	2.3mm
Max. Working Pressure (G.)	23.5MPa
Max. Working Temp.	-10℃ ~ 40℃
Internal Leakage Allowance (He) Test Pressure $\leq 1 \times 10^{-2}$ Torr Holding Time ≥ 30 sec.	$1 \times 10^{-10} \text{ Pa} \cdot \text{m}^3/\text{s}$
External Leakage Allowance (He) Test Pressure $\leq 1 \times 10^{-2}$ Torr Holding Time ≥ 1 min.	$1 \times 10^{-10} \text{ Pa} \cdot \text{m}^3/\text{s}$
Particle Inspection (EP only) Pressure : 60~80psi N ₂ Gas Sample Volume : 1CFM 0.1 μm and Larger	No count

Product Grade

GRADE	AP	BA	EP
Inner	Ry $\leq 25 \mu\text{m}$	Ry $\leq 3.0 \mu\text{m}$	Ry $\leq 0.7 \mu\text{m}$
Surface	Cut off Length : 2.5mm	10 $\mu\text{inch Ra(Avg.)}$	5 $\mu\text{inch Ra(Avg.)}$
Roughness	Measuring Length : 12.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
		Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing Finish



Material

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3	Diaphragm	Ni-Co Alloy
4	Handle	ALUMINUM

Ordering Number

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Material	Size	Product	Connection	Option	Grade

MATERIAL	SIZE	CONNECTION	GRADE
S Stainless Steel 316L Single Melt	4 1/4"	VM MFS Male	AP AP Grade
D Stainless Steel 316L Double Melt		VF MFS Female	BLANK BA Grade
4S Stainless Steel 304		SW Lok	P EP Grade
		TW But Weld	

MODEL	CONNECTION	A	B	C	D	E	F	G	H	I	J
	MFS Male	57	11	74	48	28	25.4	28.5	3.5	M5	
	MFS Female	70.6	11	74	48	28	25.4	28.5	3.5	M5	
	Lok	55	11	74	48	28	25.4	28.5	3.5	M5	69.3
	Butt Weld	135	11	74	48	28	25.4	28.5	3.4	M5	