

## LOW PRESSURE PNEUMATIC DIAPHRAGM VALVE

# BRANCH TYPE

## FEATURES

- Reduced inner capacity
- Highly resistant to corrosion using nickel-cobalt alloy diaphragm
- Minimal particle generation
- Minimal contributions of Moisture, Oxygen and Hydrocarbon
- Permanently heat code laser marked; material traceable to original mill certificate of test
- Increased operation speed using aluminum piston

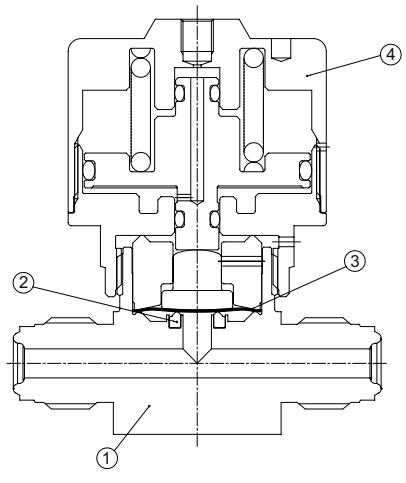


## MAJOR SPECIFICATIONS

Size	1/4"	3/8", 1/2"	3/4"
<b>Cv Value</b>	0.3	0.7	0.7
<b>Orifice Size</b>	4.5mm	7mm	7mm
<b>Max. Working Pressure (G.)</b>	1MPa		
<b>Operating Pressure (G.)</b>	0.4~0.6MPa		
<b>Max. Working Temp.</b>	PCTFE : -10°C ~ 80°C / PI, PFA : -10°C ~ 150°C		
<b>Internal Leakage Allowance (He)</b>	1x10 <sup>-10</sup> Pa · m <sup>3</sup> /s		
<b>Test Pressure ≤ 1×10<sup>-2</sup> Torr</b>			
<b>Holding Time ≥ 15 sec.</b>			
<b>External Leakage Allowance (He)</b>	1x10 <sup>-10</sup> Pa · m <sup>3</sup> /s		
<b>Test Pressure ≤ 1×10<sup>-2</sup> Torr</b>			
<b>Holding Time ≥ 1 min.</b>			
<b>Particle Inspection (EP only)</b>	No count		
<b>Pressure : 60~80psi N<sub>2</sub> Gas</b>			
<b>Sample Volume : 1CFM</b>			
<b>0.1µm and Larger</b>			

## PRODUCT GRADE

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



**MATERIAL**

NO.	NAME	MATERIAL
1	Body	316L Stainless Steel 316L Stainless Steel VAR 304 Stainless Steel
2	Seat	PCTFE / PI / PFA
3	Diaphragm	Ni-Co Alloy
4	Actuator	Aluminum

**ORDERING INFORMATION**

**S**
**4**
**PDVN3**
**VM**
**12T3**
**C**
**X1**
**P**

Material    Size    Product    Connection    Flow    Operation Method    Option    Grade

MATERIAL	SIZE	CONNECTION	FLOW	OPERATION METHOD	GRADE
S 316L Stainless Steel	4 1/4"	VM MFS Male	12T3	C Normally Close	AP AP Grade
D 316L Stainless Steel VAR	6 3/8"	VF MFS Female			BLANK BA Grade
4S 304 Stainless Steel	8 1/2"	SW Lok	13T2	O Normally Open	P EP Grade
	12 3/4"	TW Butt Weld			

MODEL	CONNECTION	SIZE	A	B	C	D	E	F	G
	MFS Male	1/4"	15.5	11	64.3	40	26	25.4	
		3/8"	19.6	16	83.8	55	37	28	
		1/2"	19.6	16	83.8	55	37	28	
		3/4"	42.5	22	89.8	55	37	28	
	MFS Female	1/4"	22.3	11	64.3	40	26	25.4	
		3/8"	23	16	83.8	55	37	28	
		1/2"	23	16	83.8	55	37	28	
		3/4"	42.5	22	89.8	55	37	28	
	Lok	1/4"	14.5	11	64.3	40	26	25.4	26.7
		3/8"	15.5	16	83.8	55	37	28	22.8
		1/2"	16.5	16	83.8	55	37	28	26.8
		3/4"	23.5	22	89.8	55	37	28	34.5
	Butt Weld	1/4"	54	11	64.3	40	26	25.4	
		3/8"	69	16	83.8	55	37	28	
		1/2"	69	16	83.8	55	37	28	
		3/4"	150	22	89.8	55	37	28	