

HIGH FLOW MANUAL DIAPHRAGM VALVE

STD TYPE

FEATURES

- Internally threadless and springless
- Fully functional from a vacuum to 275psig
- Aerodynamic, fully swept flow passages
- Minimum particle generation and particle areas
- 100% Helium leak tested



MAJOR SPECIFICATIONS

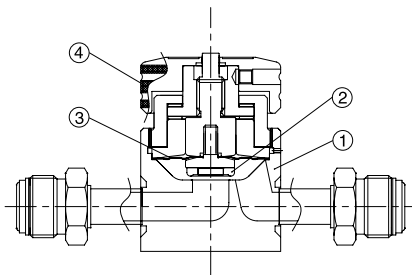
Size	1/2"	3/4", 1"
Cv Value	2.8	3.5
Max. Working Pressure (G.)	1.86MPa	
Max. Working Temp.	-10°C ~ 80°C	
Internal Leakage Allowance (He)		
Test Pressure $\leq 1 \times 10^{-2}$ Torr	1x10 ⁻¹⁰ Pa · m ³ /s	
Holding Time ≥ 30 sec.		
External Leakage Allowance (He)		
Test Pressure $\leq 1 \times 10^{-2}$ Torr	1x10 ⁻¹⁰ Pa · m ³ /s	
Holding Time ≥ 1 min.		
Particle Inspection (EP only)		
Pressure : 60~80psi N ₂ Gas	No count	
Sample Volume : 1CFM		
0.1µm and Larger		

PRODUCT GRADE

GRADE	AP	BA	EP
Inner Surface Roughness	Ry $\leq 25\mu\text{m}$ Cut off Length : 2.5mm Measuring Length : 12.5mm	Ry $\leq 3.0\mu\text{m}$ 10 µinch Ra(Avg.) Cut off Length : 0.8mm Measuring Length : 4mm	Ry $\leq 0.7\mu\text{m}$ 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	Disk	PCTFE
3	Diaphragm	316L Stainless Steel
4	Handle	Aluminum



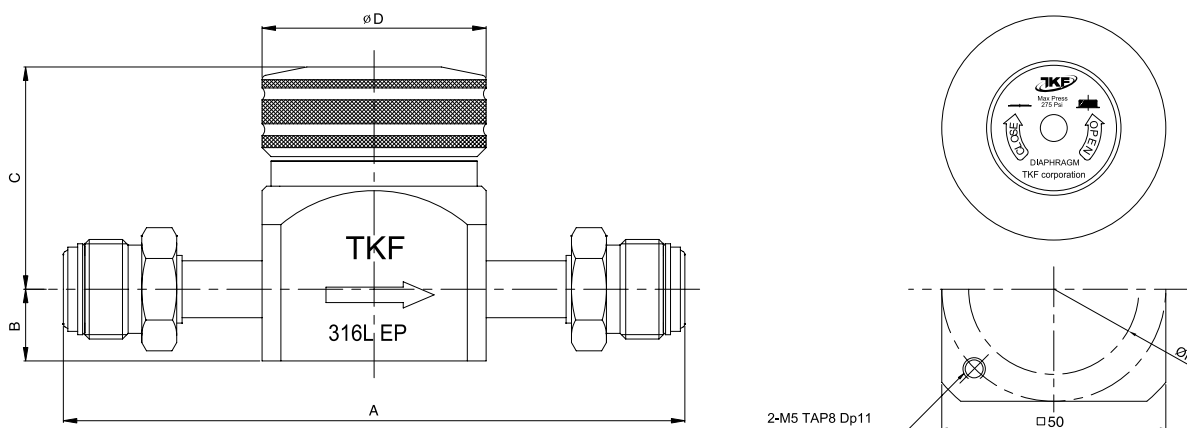
ORDERING INFORMATION

S
8
HFDV
VM
P2
PVF
X1
P

Material Size Product Connection Purge Port Purge Port Connection Option Grade

MATERIAL		SIZE		CONNECTION	
S	316L Stainless Steel	8	1/2"	VM	MFS Male
D	316L Stainless Steel VAR	12	3/4"	VF	MFS Female
4S	304 Stainless Steel	16	1"	TW	Butt Weld

PURGE PORT LOCATION		PURGE PORT CONNECTIONS		GRADE	
P0	Outlet Side	PVM	1/4" MFS Male	AP	AP Grade
P1	Inlet and Outlet	PVF	1/4" MFS Female	BLANK	BA Grade
P2	Inlet Side			P	EP Grade
Blank	No Purge Port				



SIZE	CONNECTION	A	B	C	D	E
1/2"	VM	138.7	16	53.5	50	50
	VF	138.7	16	53.5	50	50
	TW	150	16	53.5	50	50
3/4"	VM	157.0	17.5	56.5	50	50
	VF	157.0	17.5	56.5	50	50
	TW	150	17.5	56.5	50	50
1"	VM	166	17.5	56.5	50	50
	VF	166	17.5	56.5	50	50
	TW	150	17.5	56.5	50	50