

All-metal Diaphragm Valves for High Performance

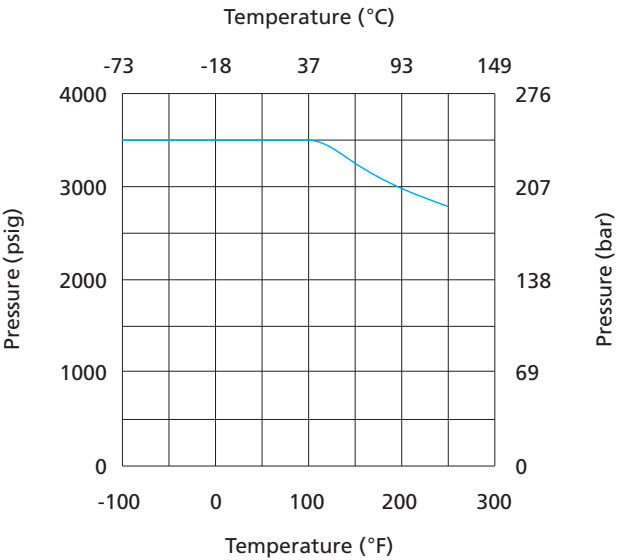
DM Series

Features

- All-metal containment, packless
- Repetitive shutoff with fully contained softseat stem tip
- Working pressures from vacuum to 3500 psig (241 bar)
- Temperatures from -100 to 250°F (-73 to 121°C)
- Helium leak tested, maximum leak rate of 4x10⁻⁹ std cm³/s
- Round handle, approximately one and one-half turns to operate from fully open to closed.
- Lever handle, just one-quarter turn of the handle to actuate the valve from fully open to closed.



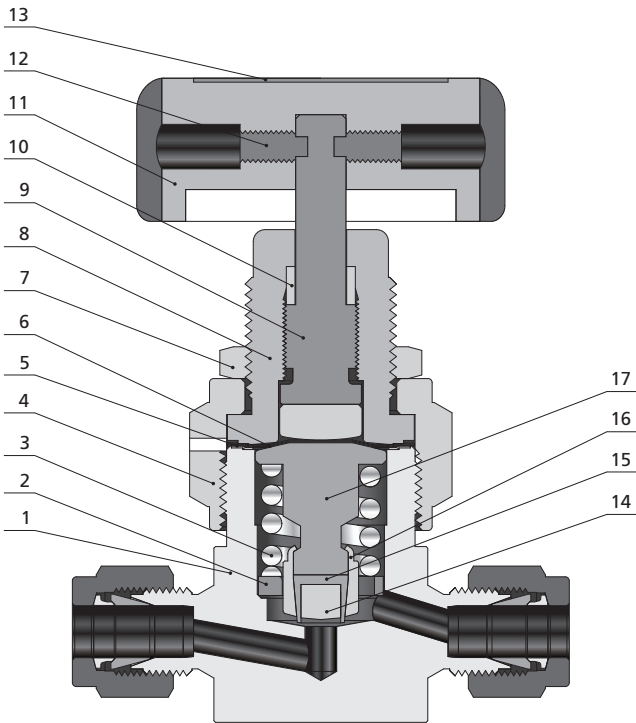
Pressure-Temperature Ratings



Technical Data

Series	Orifice in.(mm)	Flow Coefficient (Cv)	PressureRating at 70° F(20° C)	Differential Back Pressure Max at 70° F(20° C)	Temperature Rating	Containment
Lever handle	0.156 (4.0)	0.14	3500 psig (241 bar)	1500 psig (103 bar)	-100 to 250° F -73 to 121° C	0.18in. ³ Max(2.9 cm ³)
Round handle		0.30				

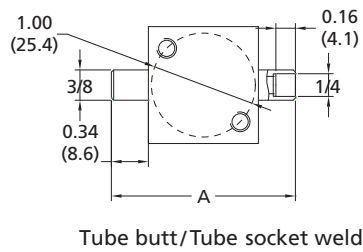
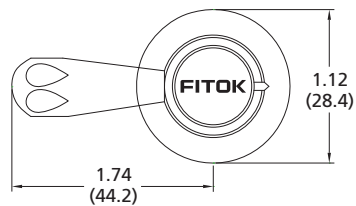
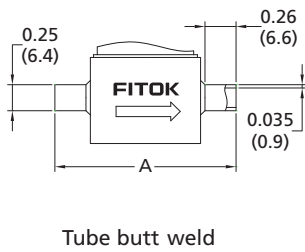
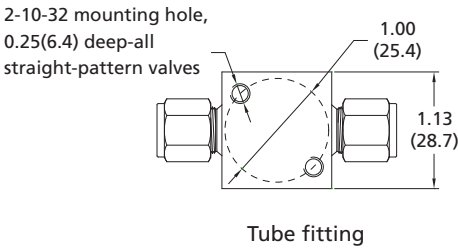
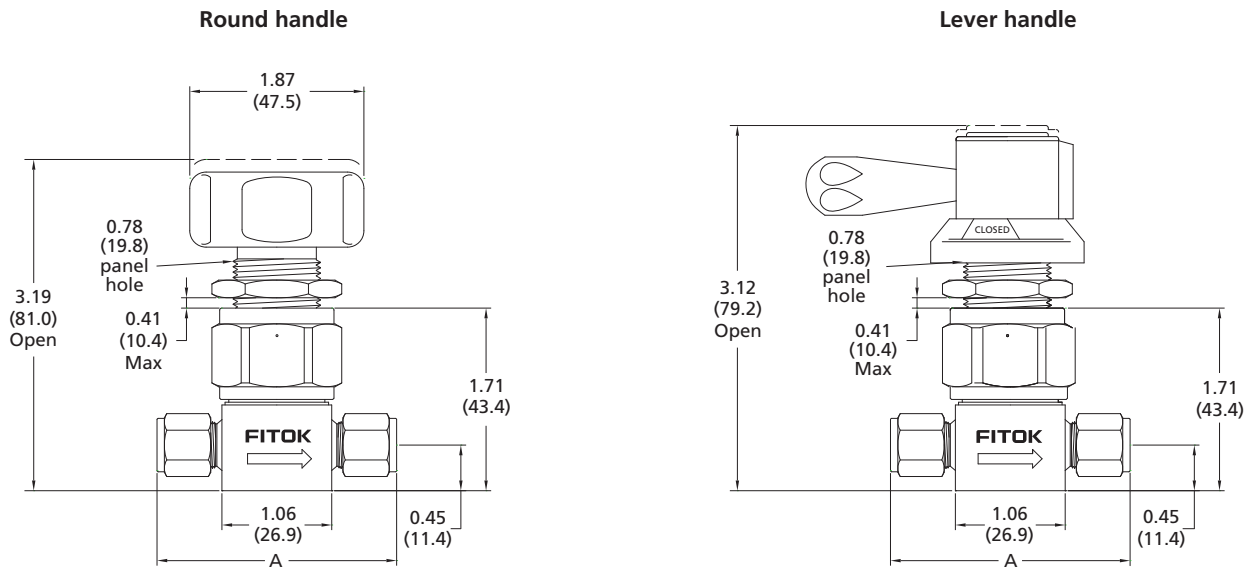
Materials of Construction



Item	Component	Material Grade/ASTM Specification	
		316 SS/A479	316L SS/A479
1	Body	316 SS/A479	316L SS/A479
2	Guide	Electropolished 316 SS/A479	
3	Spring	316 SS/A313	
4	Bonnet nut	316 SS/A479	
5	Gasket	PTFE-coated 316L SS/A240	
6	Diaphragms(3)	316 SS/A240	
7	Panel mount nut	316 SS/A479	
8	Bonnet	316 SS/A479	
9	Actuator	416 SS/A582	
10	Wipe ring	Glass-filled PTFE	
11	Round Handle	Aluminum 6061-T6/B211	
12	Set screw	304 SS	
13	Lable	PVC	
14	Stem plug	316L SS/A479	
15	Stem insert	PCTFE/D1430	
16	Stem container	316L SS/A479	
17	Stem	316L SS/A479	

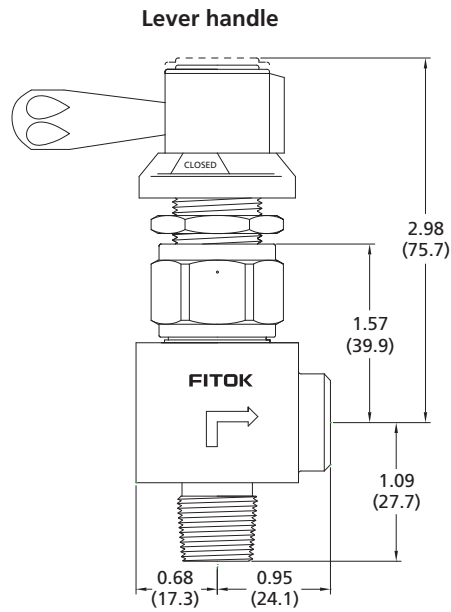
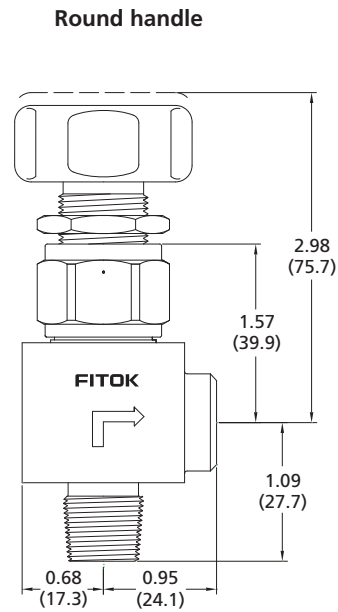
Dimentions

Straight Patterns



Basic Ordering Number	Connection Type and Size		Dimension, in. (mm)
	Inlet	Outlet	A
DM□□-FL4-	1/4" FITOK	1/4" FITOK	2.46(62.5)
DM□□-FL6-	3/8" FITOK	3/8" FITOK	2.58(65.5)
DM□□-ML6-	6 mm FITOK	6 mm FITOK	2.46(62.5)
DM□□-ML8-	8 mm FITOK	8 mm FITOK	2.53(64.3)
DM□□-TB4-	1/4" Tube butt weld	1/4" Tube butt weld	1.74(44.2)
DM□□-TB6-	3/8" Tube butt weld	3/8" Tube butt weld	1.74(44.2)
DM□□-TB6-TS4-	3/8" Tube butt weld	1/4" Tube socket weld	1.75(44.4)
DM□□-TB8-TS6-	1/2" Tube butt weld	3/8" Tube socket weld	1.81(46.0)
DM□□-NS4-	1/4 NPT Male NPT	1/4 NPT Male NPT	2.46(62.5)
DM□□-FNS4-	1/4 NPT Female NPT	1/4 NPT Female NPT	2.46(62.5)
DM□□-FR4-	1/4 FR Male NPT	1/4 FR Male NPT	2.30(58.4)
DM□□-FFR4-	1/4 FR Female NPT	1/4 FR Female NPT	2.76(70.1)
DM□□-FFR4-FR4-	1/4 FR Female NPT	1/4 FR Male NPT	2.54(64.5)
DM□□-FR4-FFR4-	1/4 FR Male NPT	1/4 FR Female NPT	2.54(64.5)
DM□□-FO4-	1/4 FO Male NPT	1/4 FO Male NPT	2.00(50.8)

Angle Patterns



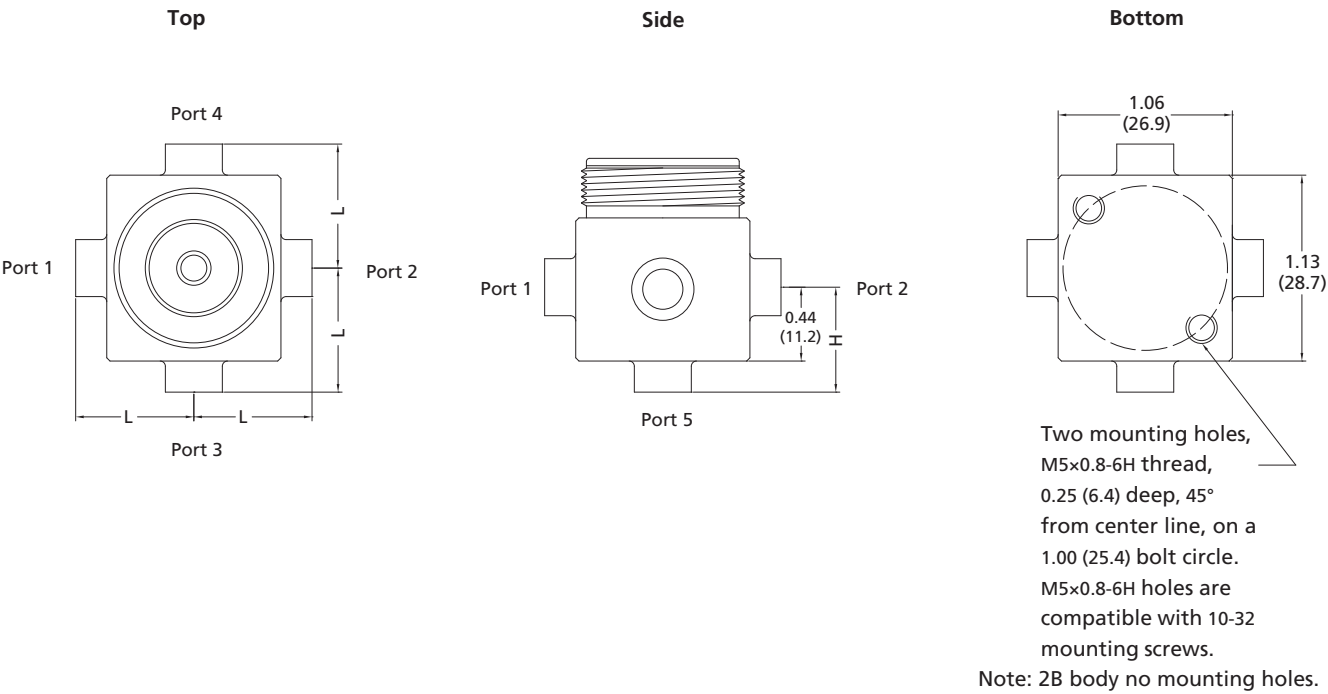
Basic Ordering Number	Connection Type and Size	
	Inlet	Outlet
DM□□-NS4-FNS4-A-	1/4 NPT Male NPT	1/4 NPT Female NPT

Multiport and Elbow Valves

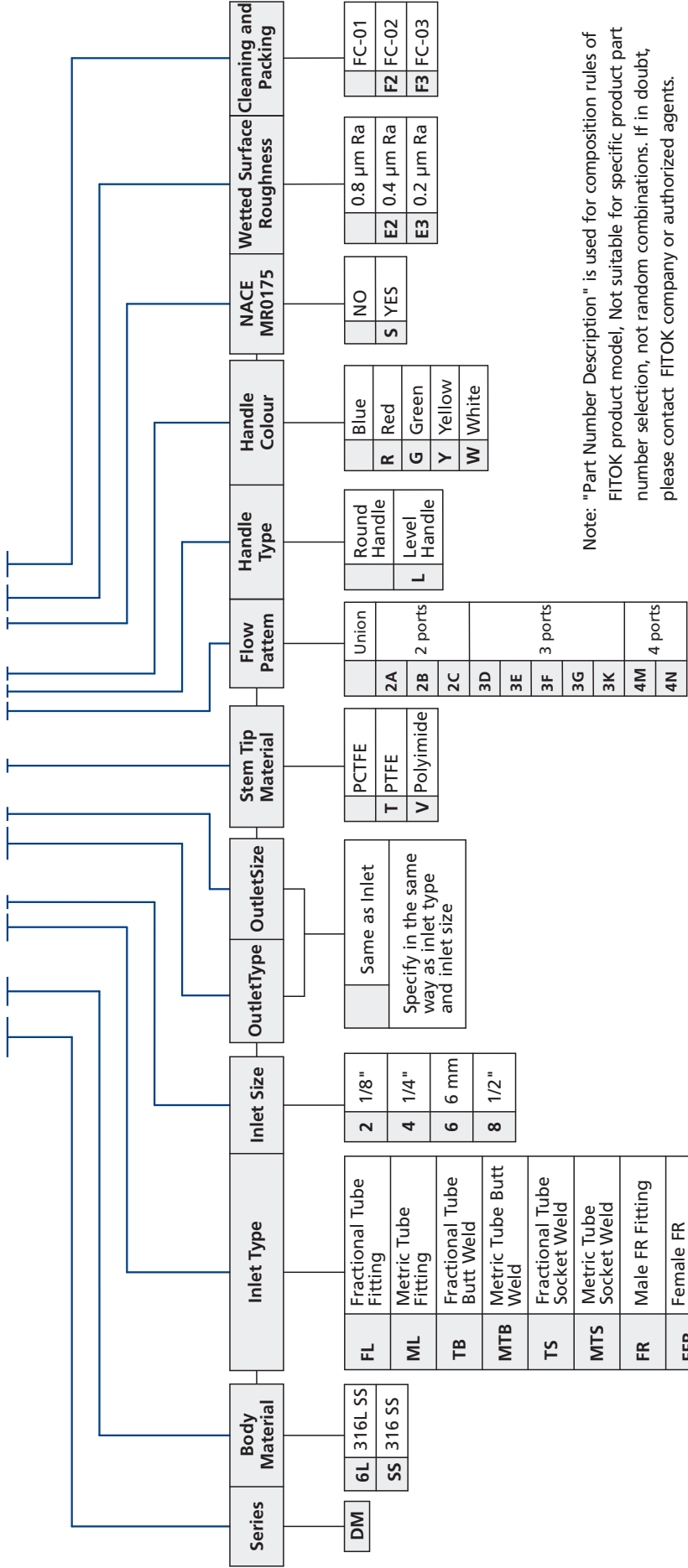
Designator	Schematic	Flow Path		Designator	Schematic	Flow Path	
		Closed	Open			Closed	Open
2A				3D			
2B				3E			
2C				3F			
4M				3G			
4N				3K			

Designator	End Connection		Dimentions, in. (mm)	
			L	H
TB4	1/4" tube butt weld 0.30" (7.6 mm) tube stub, 0.035" wall		0.87(22.1)	0.76(19.3)
TB6	6mm tube butt weld, 1 mm wall		0.87(22.1)	0.76(19.3)
FFR4	1/4" female FR fitting		1.38(35.1)	1.27(32.3)
RFR4	1/4" rotatable male FR fitting		1.74(44.2)	1.63(41.4)

End Connections and Dimentions



DM6L – FL4 – NS4 – T – ALR – SE2F2



Note: "Part Number Description" is used for composition rules of FITOK product model, Not suitable for specific product part number selection, not random combinations. If in doubt, please contact FITOK company or authorized agents.

- Standard Process Specification
FC-01 standard cleaning and packaging, Is applied to all the fittings for general industrial procedure.
- High-Purity Process Specification
FC-02 special cleaning and packaging, following ASTM G93 level C, add -E2F2 as a suffix to the basic ordering number.
- Ultrahigh-purity Process Specification
FC-03 ultrahigh-purity cleaning and packaging, add - E3F3 as a suffix to the basic ordering number.