

TKSCT

Springless Diaphragm Valves

SF Series

- Suitable for ultrahigh-purity applications
- 316L Stainless Steel
- 316L Stainless Steel Remelted
- Metal seal, tube butt weld, tube end connections
- Manual or Pneumatic actuation



Actuator Options

Pneumatic Actuators



Low-Pressure Models

- Pressure rating : 150 psig (10bar)
- Temperature rating : -10 to 150°F (-23 to 65 °C)

Manual Actuators



Round

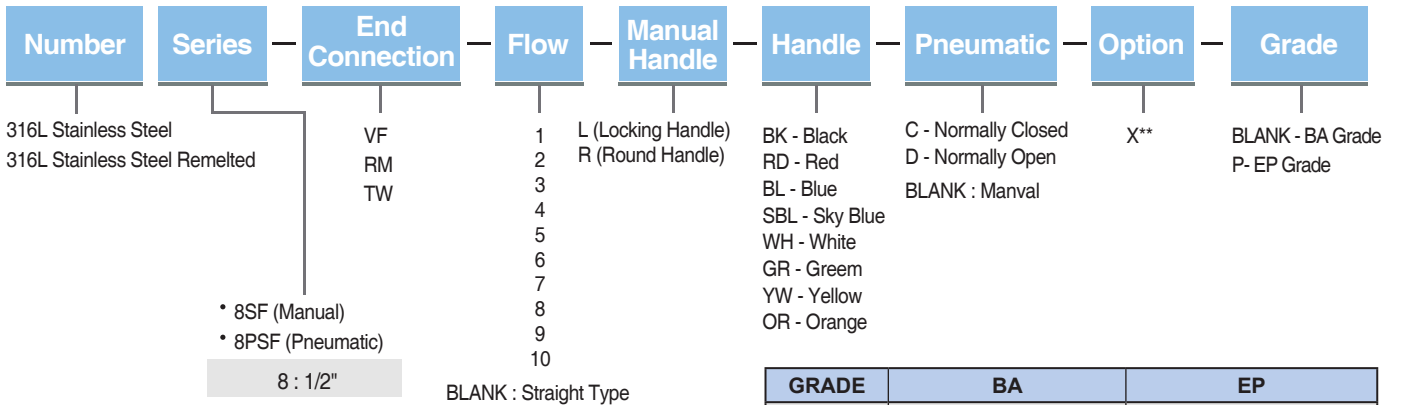
- Quick, quarter-turn actuation
- Handle with window provides Visual indication of OPEN and CLOSED position
- Pressure rating : 300 psig (20.8bar)



Locking

- Quick, quarter-turn actuation
- Lockable in the CLOSED position for safety
- Handle shape and window indicator provides visual indication of OPEN and CLOSED position
- Pressure rating : 300 psig (20.8bar)

Ordering Number



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

Example Part Numbers

Ordering	S8SF-VM-L-GR-P
Material	316L Stainless steel
Series	Manual diaphragm Valve
End Connection	1/2" Male integral MFS fitting
Flow	Straight Type
Manual Handle	Locking Handle
Handle Color	Green
Pneumatic	-
Grade	EP Grade

Color Coded Handles

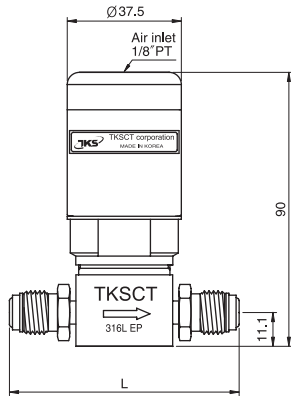


- BL Blue
- SBL Sky Blue
- OR Orange
- YW Yellow
- GR Green
- RD Red
- BK Black
- WH White

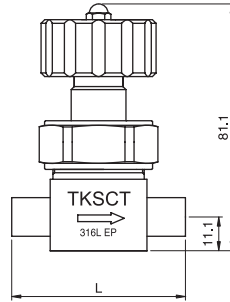
* Eight handle colors are available
* Blue Handle as standard

Dimensions

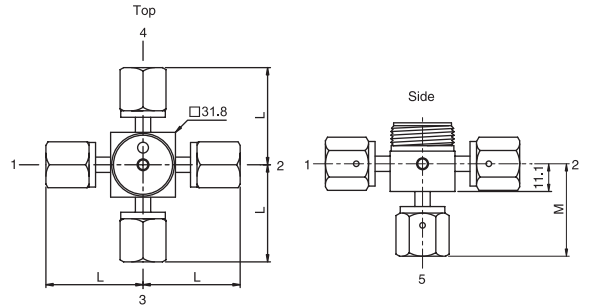
Pneumatic Actuator
Male Integral MFS Fittings



Directional and Round Handle
Tube Butt Weld Ends

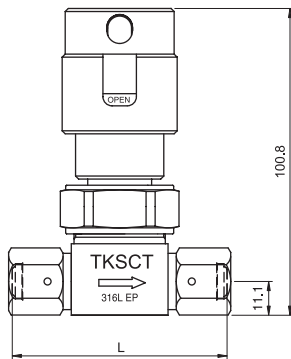
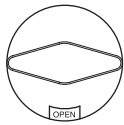


Side & Top

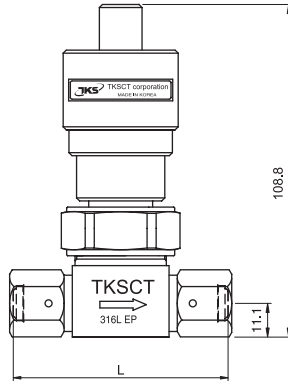
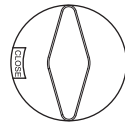


Locking Handle
Female MFS Fittings

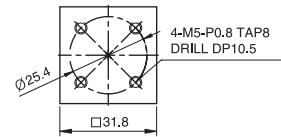
Open



Closed and Locked



Bottom



Material

Body :	316L Stainless steel 316L Stainless steel Remelted
Seat :	PCTFE
Diaphragm :	Ni-Co Alloy
O-Ring :	FKM

Major Specifications

	Manual Actuators	Pneumatic Actuators
Cv Value	0.6	0.6
Orifice Size	5.8mm	5.8mm
Max. Working Pressure (G.)	Vacuum to 300 psig (20.8bar)	Vacuum to 150 psig (10bar)
Operating Pressure (G.)	-	60 ~ 90 psig (4 ~ 6bar)
Burst Pressure (G.)	3,200 psig (220bar)	
Max. Working Temp.	10 ~ 150°F (-23 ~ 65°C)	
Internal Leakage Allowance (He) Test Pressure ≤ 1 x 10 ⁻² Torr	≤ 1 x 10 ⁻⁹ atm · cc/sec	
External Leakage Allowance (He) Test Pressure ≤ 1 x 10 ⁻² Torr Particle Inspection (BA, EP)	≤ 1 x 10 ⁻⁹ atm · cc/sec	
Pressure : 60 ~ 80psi N ² Gas Sample Volume : 1CFM 0.1µm and Larger	No Count	

Flow Path

Ports	Schematic	Flow Path		Designator
		Closed	Open	
4 Port				4
				5
3 Port				1
				2
				3
				6
				7
2 Port				8
				9
				10

End Connections

End Connection		Basic Ordering		L mm(inch)
Inlet/Outlet	Size	Number		
Female MFS Fittings	1/4"		S4SF-VF-	70.6 (2.78)
	1/2"		S8SF-VF-	106 (4.16)
Male MFS Fittings	1/4"		S4SF-RM-	75.2 (2.96)
	1/2"		S8SF-RM-	106 (4.16)
Tube Butt Weld	3/8"		S6SF-TW-	57.1 (2.25)
	1/2"		S8SF-TW-	



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