

DV87 SERIES Stainless Steel Ultra High Purity Diaphragm Valves

GENTEC® DV87 series ultra-high purity diaphragm valves are designed for the semiconductor industry for low pressure, high flow, ultra-high purity piping systems.



Manual 300 psi



Pneumatic 150 psi

Features

- Suitable for ultra high purity applications
- Both manual and pneumatic actuation are available
- Low dead volume < 3.0 cc
- Cleaned and degreased for oxygen service according to CGA G-4.1 and ASTM G93 Class C, respectively
- Internal spring-less design and metal-to-metal seal minimize particle generation and ensures “purity integrity” in the flow passages
- 100% Helium-leak tested

Materials

- Body: 316L
- Seat: PCTFE, Vespel®
- Diaphragm: Elgiloy®

Specifications

- Cv: 0.65
- Maximum Leak Rate
Inboard: 1×10^{-9} atm.cc/sec He
Outboard: 4×10^{-9} atm.cc/sec He

Operating Conditions

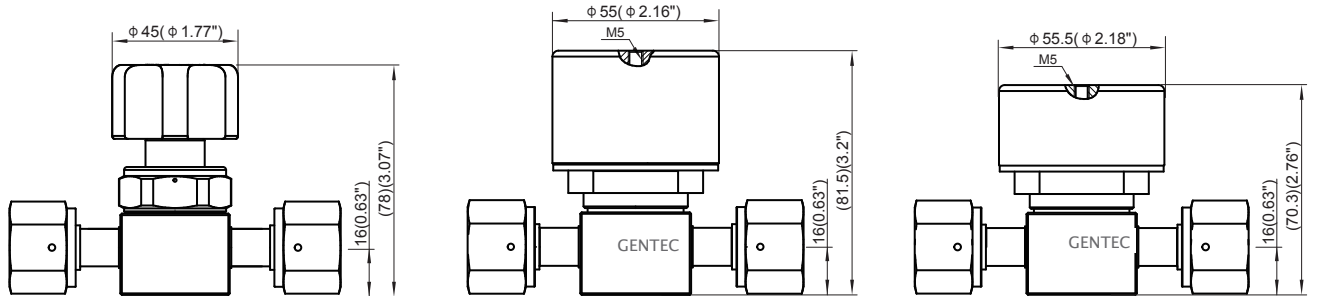
- Maximum operating pressure (Manual):
300 psi (20.7 bar)
- Maximum operating pressure (Pneumatic):
150 psi (10.3 bar)
- Minimum working pressure: Vacuum
- Temperature: $-40^{\circ}\text{C} \sim 65^{\circ}\text{C}$ ($-40^{\circ}\text{F} \sim 150^{\circ}\text{F}$)

Pneumatic Actuator Specifications

- Driving pressure: 60 ~ 85 psi (0.4~0.6 MPa)
- Inlet connection: M5 (F)
- Setting: Normally Closed or Normally Open

Surface Finish

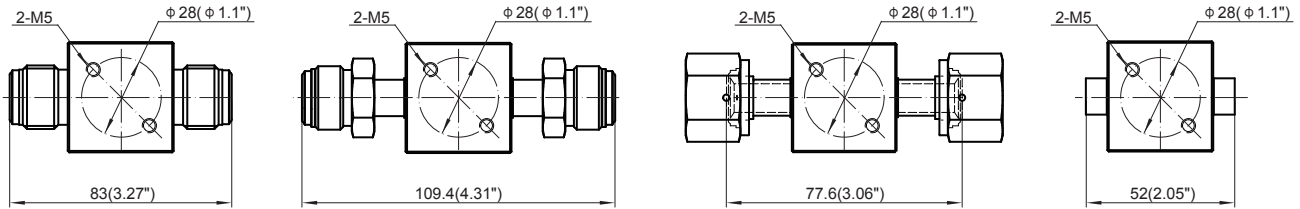
- Standard Ra (EP): 0.15 μm

Dimensions (mm)


Manual

Pneumatic (Normally Closed)

Pneumatic (Normally Open)



Face seal male (FSR fittings)

Face seal swivel male (FSR fittings)

Face seal swivel female (FSR fittings)

Butt weld

Ordering Information

Ex:	SL	- DV87	P	L	- VSF8	- K	- NO
	Body	Series	Valve Type	Working Pressure	Inlet/Outlet Connection	Seat Material	Options
	SL: 316L	DV87	M: Manual	L: 300 psi	VM8, VSM8, VSF8, TW8	K: PCTFE V: Vespel®	Blank
			P: Pneumatic	S: 150 psi	VM8, VSM8, VSF8, TW8	K: PCTFE V: Vespel®	Blank: Normally Closed NO: Normally Open

* Various inlet and outlet gas connection standards are available, please contact Gentec for details.

Inlet & Outlet Connections	
Type	Dimensions
VM: Face seal male (FSR fittings)	4, 8 4 = 1/4"
VSM: Face seal swivel male (FSR fittings)	4, 8 6 = 3/8" 8 = 1/2"
VSF: Face seal swivel female (FSR fittings)	4, 8
TW: Butt weld	4, 6, 8