DV83 SERIES DIAPHRAGM VALVES

DV83 series ultra-high purity diaphragm valves are designed for special gas industry, high pressure and ultra-high purity systems.

Manual

Pneumatic

Features

- 316L Stainless Steel enhances weldability and resistance to corrosion
- Both manual and pneumatic actuation are available
- Internally spingless and threadless design minimizes particle generation and ensures “purity integrity” in the flow pasages
- Metal-to-metal diaphragm seals
- Tied diaphragm seal type
- FSR seal fittings (FSR), compression tube fittings or butt weld connections.
- 100% Helium-leak tested

Materials

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

Specifications

- Cv: 0.16
- Maximum Leak Rate
  Inboard：$1X10^{-9}$ atm.cc/sec He
  Outboard：$4X10^{-9}$ atm.cc/sec He

Operating Conditions

- Maximum operating pressure：3500 psi (241 bar)
- Minimum working pressure：Vacuum
- Temperature：-40°C ~ 65°C (40°F ~ 150°F)

Pneumatic Actuator Specifications

- Driving pressure：70 ~ 125 psi (4.8 ~ 8.6 bar)
- Inlet connection：1/8” NPT (F)
- Setting：Normally Closed

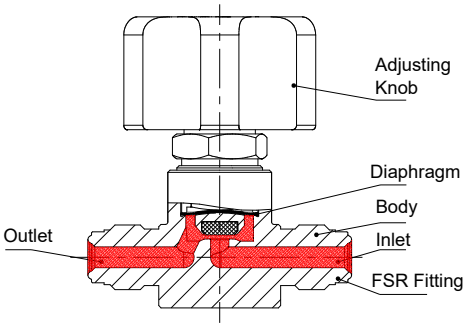
Surface Finish

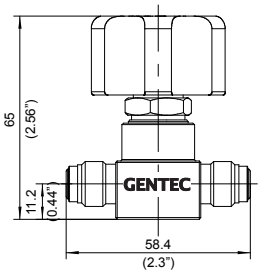
- Standard Ra (EP)：0.15 μm

Internal Volume

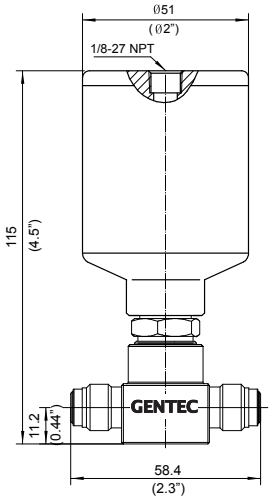
- 0.8 cc

Dimensions (mm)

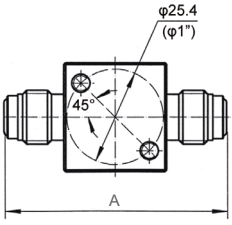




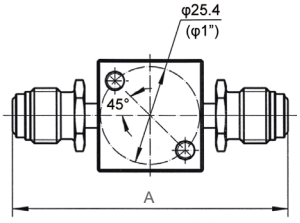
Manual



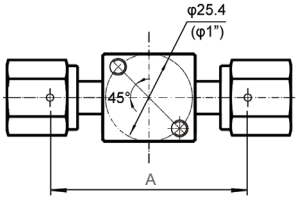
Pneumatic



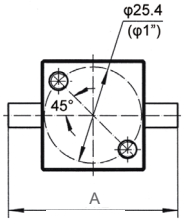
VM Face seal male



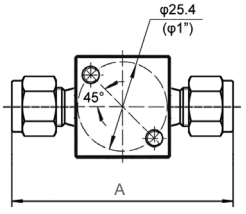
VSM Face seal swivel male



VSF Face seal swivel female



TW Butt weld



TF Tube fitting

Connection Type	VM4	VM8	VSM4	VSF4	TW4	TW8	TF4
A Dim: (mm)	58.4	67.6	70.8	70.6	44.2	44.2	63.4

Ordering Information

Ex: SL	- DV83	- M	- H	- VM4	- K	- IS
Body	Serial Number	Valve Type	Working Pressure	Inlet/Outlet Connection*	Seat Material	Options for Pneumatic
SL: 316L	DV83	M: Manual P: Pneumatic	H: 3500 psi	VM4: 1/4" Face seal male (FSR fittings) VM8: 1/2" Face seal male (FSR fittings) VSM4: 1/4" Face seal swivel male (FSR fittings) VSF4: 1/4" Face seal swivel female (FSR fittings) TW4: 1/4" Butt weld TW8: 1/2" Butt weld TF4: 1/4" Tube fitting	K: PCTFE V: Vespel®	Blank: Normally Closed IS: Indicator switch

* For standard models, if the inlet connections and outlet connections are same, only one is listed. If different, the prior represents inlet connection, and the latter represents outlet connection.

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