

# Diaphragm Valves

## ■ DV86 SERIES DIAPHRAGM VALVES



Manual  
(High Pressure)

### ■ Features

- Suitable for ultra high purity applications
- Both manual and pneumatic actuation are available
- End connections: Face seal fittings (FSR) and butt welded
- Internal spring-less design and metal-to-metal seal minimizes particle generation and ensures “purity integrity” in the flow passages
- Cleaned and degreased for oxygen service according to CGA G-4.1 and ASTM G93 Class C, respectively
- Long service life
- 100% Helium-leak tested



Pneumatic  
(Low Pressure)

### ■ Specifications

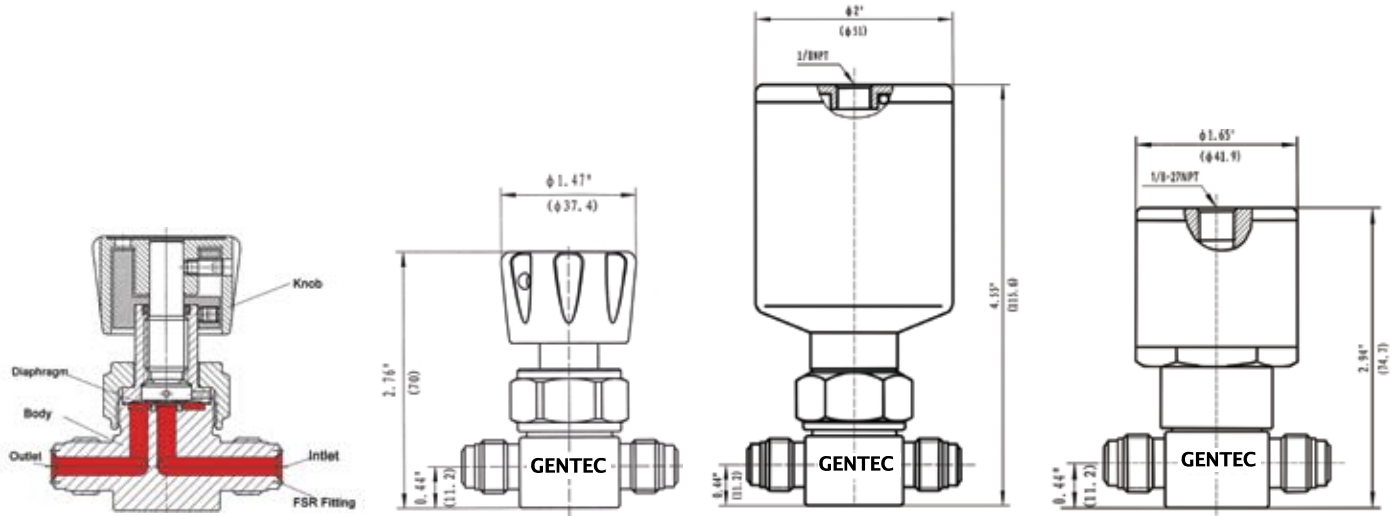
- Body: 316L stainless steel
- Seat: PCTFE\*, Vespel®\*\*
- Diaphragm: Elgiloy®
- Maximum operating pressure:  
300 psi (20 bar), 3500 psi (240 bar)
- Operating temperature:  
-40°F ~ 150°F (-40°C ~ 65°C)
- Cv: 0.3
- Standard Ra: 15 µin (BA)  
Optional: 7 µin (EP)

\* Standard Material

\*\* Vespel® seat is recommended for Nitrous Oxide (N<sub>2</sub>O) service but is not available for low pressure pneumatic actuation.

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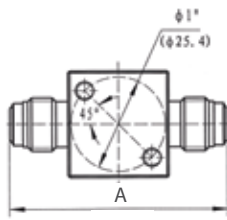
### Dimensions



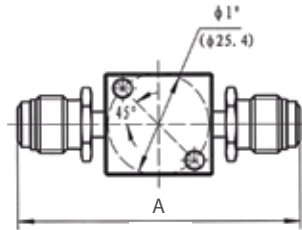
Manual (Low Pressure)

Pneumatic (High Pressure)

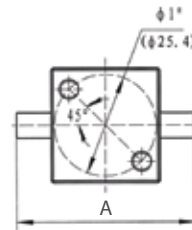
Pneumatic (Low Pressure)



Face seal male (FSR fittings)



Face seal swivel male (FSR fittings)



Butt welded

Connections*	A (mm)
VM4	58.4
VM8	67.6
VSM4	70.8
VSF4	70.6
TW4	44.2
TW8	44.2

\*: Applies to both inlet & outlet connections

### Ordering Information

<b>SL - DV86</b>	<b>M</b>	<b>L - VM4</b>	<b>K</b>	<b>E - IS</b>
<b>Body Material:</b> SL: 316 L	<b>Model:</b> DV86	<b>Actuation:</b> M: Manual P: Pneumatic (Normally closed)	<b>Working Pressure:</b> H: 3500 psi L: 300 psi	<b>Inlet / Outlet:</b> VM4, VM8 VSM4, VSM8 VSF4, VSF8 TW4, TW6, TW8
			<b>Valve Seat:</b> K: PCTFE V: Vespel®	<b>Options:</b> None: 15 µin E: 7 µin (EP)
				<b>Option:</b> IS: Electronic indicator (for 3500 psi pneumatic only) NO: Normally open (for 300 psi pneumatic only)

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