



DV3 Series

3-way Diaphragm Valves

The DV3 Series Diaphragm Valves are totally free of springs, bellows, packing, o-rings and lubricants in the process wetted area. Metal-to-metal seals to atmosphere ensure that there is no leaching of undesirable elements into the flow stream and no leakage of process material into the atmosphere. Elgiloy® diaphragms ensure the utmost in corrosion resistance and life span.



Typical Applications

- Analytical Instrumentation
- Petrochemical
- Pharmaceutical
- Chemical

Technical Data

BODY	316L stainless steel, Monel® and Hastelloy® C-276
SEATS	PCTFE (Kel-F®), Polyimide (Vespel®), Tefzel® and PEEK™
DIAPHRAGMS	Elgiloy® AMS 5876
ORIFICE SIZE	0.110"
FLOW CAPACITY	0.17 Cv
VALVE INTERNAL VOLUME*	0.25cc
LEAKAGE	1 × 10 ⁻⁹ cc/sec helium (inboard)

Operating Pressures

OPERATING PRESSURE	Vacuum (50 torr) to 800 psig
PROOF PRESSURE	1600 psig
BURST PRESSURE	3200 psig

* Dead volume in machined passages of the valve body between mounting surface and sealing diaphragm(s).

Features & Benefits

- 3-way switching on/off control
- Metal-to-metal seals to atmosphere
- Wide variety of materials for virtually all applications
- No o-rings, springs, or lubricant in wetted flow path
- Very low internal volume (0.25cc)
- Pneumatic actuation
- Pressures from vacuum to 800 (50 torr) psig (55.2 bar)
- 40µ sintered stainless steel air inlet filter extends life of pneumatic actuator

Operating Temperatures

SEAT MATERIAL	TEMPERATURE
Tefzel®	-40° F to +140° F (-40° C to +60° C)
PCTFE (Kel-F®)	-40° F to +300° F (-40° C to +149° C)
Polyimide (Vespel®)	-40° F to +400° F (-40° C to +204° C)
PEEK™	-40° F to +400° F (-40° C to +204° C)

diaphragm valves

HOKE Incorporated

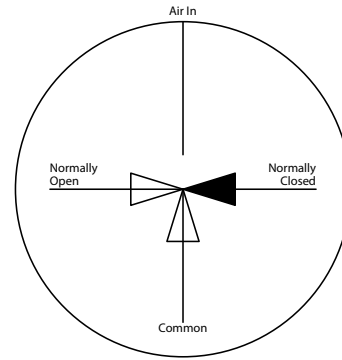
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DV3 Series

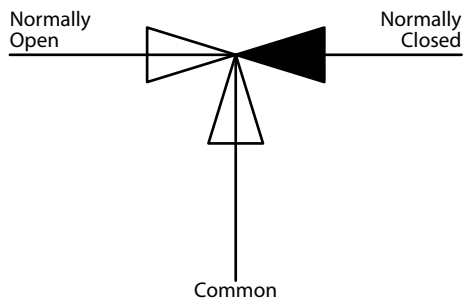
Air Actuation Pressure Requirements

(psig nominal)

	PROCESS PRESSURE	ACTUATION PRESSURE
SINGLE PISTON	0-250	44
	251-500	76
	501-800	100
DOUBLE PISTON	0-250	22
	251-500	38
	501-800	50

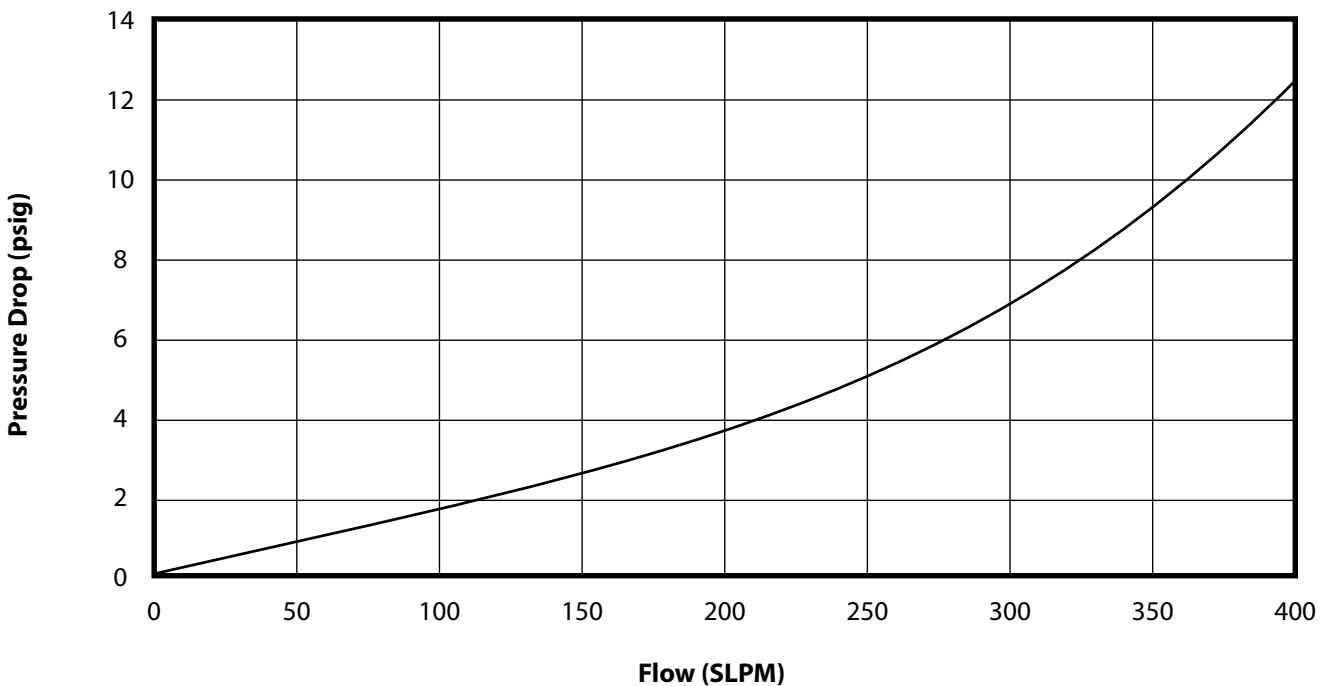


Typical Flow Schematic



Pressure Drop vs. Flow Curve

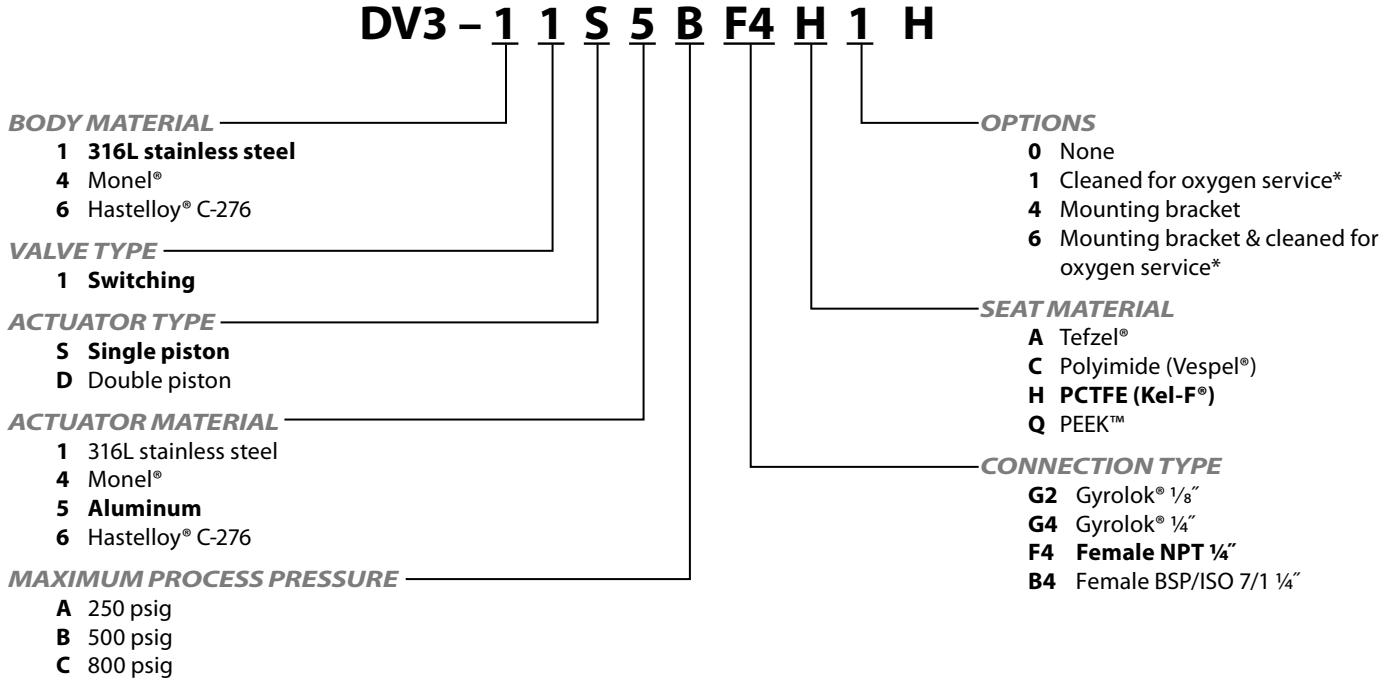
DV3
Pressure Drop vs. Flow
 500 psig Process Pressure



DV3 Series

How To Order

Standard items in bold



* Valve body will be marked that it is cleaned for oxygen.

For Your Safety

It is solely the responsibility of the system designer and user to select products suitable for their specific application requirements and to ensure proper installation, operation, and maintenance of these products. Material compatibility, product ratings and application details should be considered in the selection. Improper selection or use of products described herein can cause personal injury or property damage.

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