

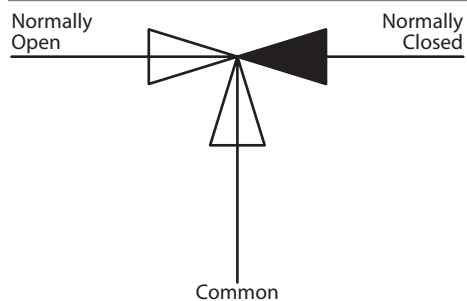
GO REGULATOR

DV3 Series

3-way Diaphragm Valves



Typical Flow Schematic



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. Elgiloy® diaphragms ensure the utmost in corrosion resistance and life span.

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 (0.01cc)
- Pneumatic actuation
- Pressures from vacuum to 800 psig
- Optimal diaphragm design provides cycle life greater than 5,000,000
- 40µ sintered stainless steel air inlet filter extends life of pneumatic actuator

diaphragm valves

GO Regulator

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DV3 Series

Specifications



BODY	316L stainless steel, Monel® and Hastelloy® C
SEATS	PCTFE (Kel-F®), Polyimide, Tefzel® and PEEK™
DIAPHRAGMS	Elgiloy® AMS 5876
WORKING TEMPERATURE RANGE	-40° to +400° F (-40° C to +204° C)
WORKING PRESSURE RANGE	Vacuum (50 torr) to 800 psig (55.2 BAR)
ORIFICE SIZE	0.110"
FLOW CAPACITY	0.17 Cv
LOW CAVITY VOLUME	0.01cc
LEAKAGE	1 × 10 ⁻⁹ cc/sec helium (inboard)
LIFE CYCLES	In excess of 5,000,000 cycles @ 250 psig

Operating Pressures

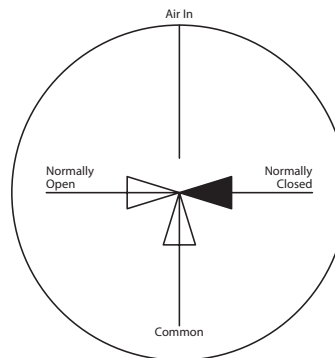
OPERATING PRESSURE	Vacuum (50 torr) to 800 psig
PROOF PRESSURE	1,600 psig
BURST PRESSURE	3,200 psig

Operating Temperatures

SEAT MATERIAL	TEMPERATURE	
Tefzel®	-40° F to +140° F	-40° C to +60° C
PCTFE/Kel-F®	-40° F to +175° F	-40° C to +79° C
Polyimide/Vespel®	-40° F to +400° F	-40° C to +204° C
PEEK™	-40° F to +400° F	-40° C to +204° C

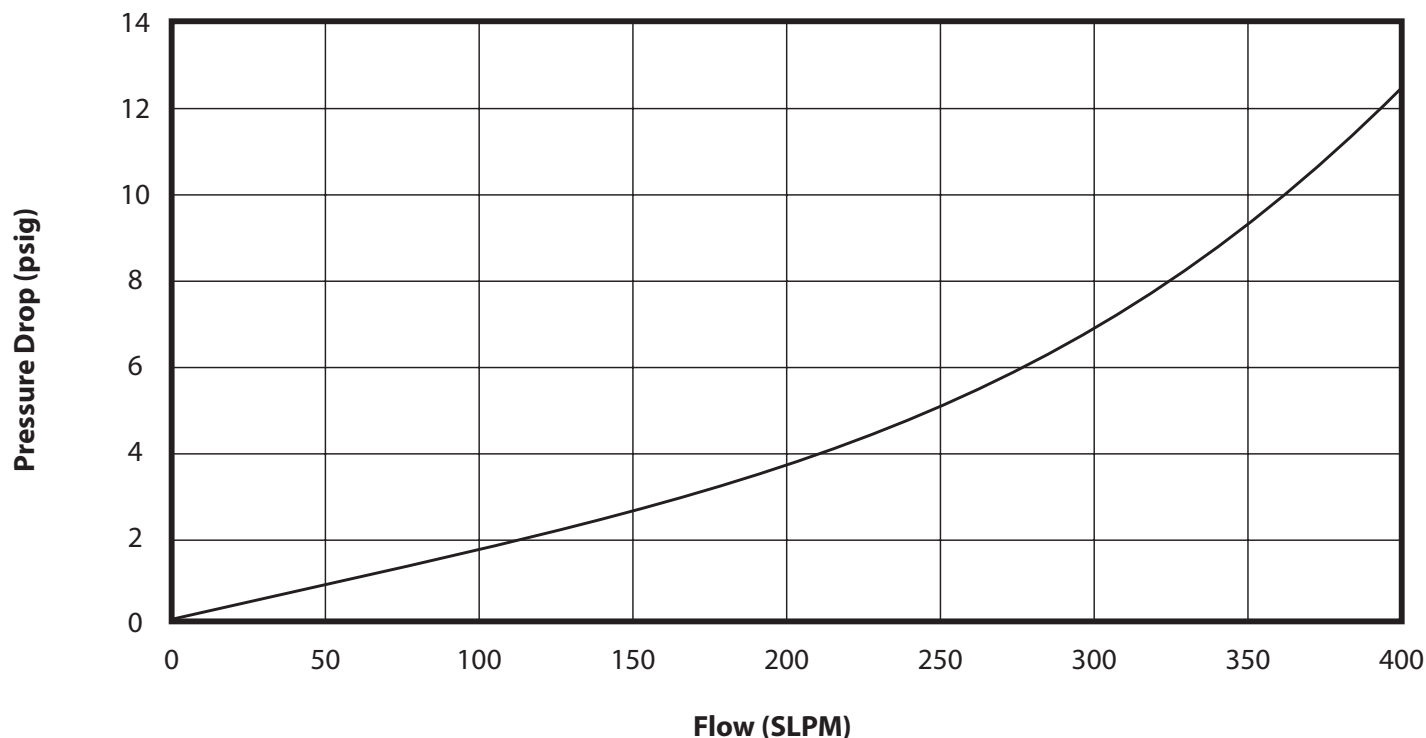
Air Actuation Pressure Requirements (psig nominal)

	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



DV3

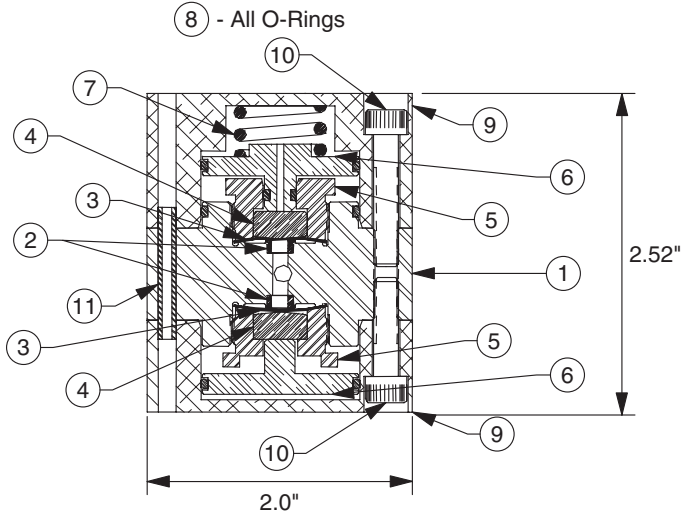
Pressure Drop vs Flow
500 psig Process Pressure



DV3 Series

Materials of Construction

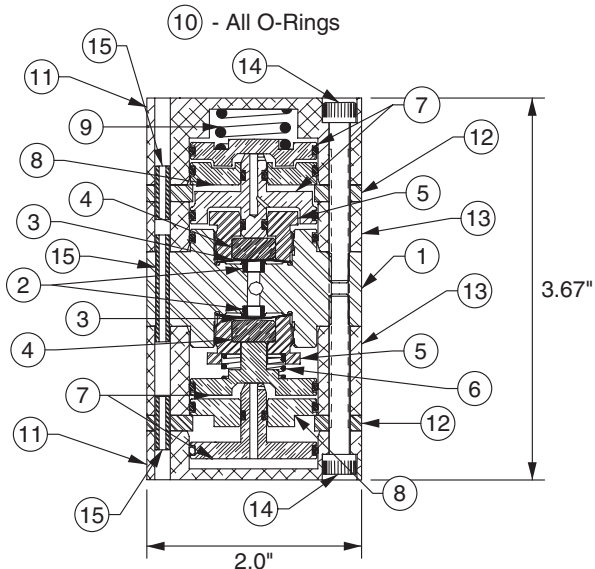
Single Piston Actuators



#	PART	MATERIALS
1	Body*	316L stainless steel, Monel® & Hastelloy® C
2	Seat*	PCTFE (Kel-F®), Polyimide (Vespel®), Tefzel®, PEEK™
3	Diaphragm*	Elgiloy® AMS 5876
4	Thrust plug	Brass
5	Diaphragm retainer	316 stainless steel
6	Piston	Brass
7	Spring	302 stainless steel
8	O-rings	Viton®
9	Cap	Aluminum, 316L stainless steel, Monel® & Hastelloy® C
10	Cap screw	18-8 stainless steel
11	Spring pin	420 stainless steel

*Wetted components

Double Piston Actuators



#	PART	MATERIALS
1	Body*	316L stainless steel, Monel® & Hastelloy® C
2	Seat*	PCTFE (Kel-F®), Polyimide (Vespel®), Tefzel®, PEEK™
3	Diaphragm*	Elgiloy® AMS 5876
4	Thrust plug	Brass
5	Diaphragm retainer	316 stainless steel
6	Spring	302 stainless steel
7	Piston	Brass
8	Chamber separator	Brass
9	Spring	302 stainless steel
10	O-rings	Viton®
11	Cap	Aluminum, 316L stainless steel, Monel® & Hastelloy® C
12	Ledge plate	Aluminum, 316L stainless steel, Monel® & Hastelloy® C
13	Riser	Aluminum, 316L stainless steel, Monel® & Hastelloy® C
14	Cap screw	18-8 stainless steel
15	Spring pin	420 stainless steel

*Wetted components

DV3 Series

How To Order

Standard items in bold

DV3 - 1 1 S 5 B F4 A 1

BODY MATERIAL

- 1** 316L stainless steel
- 4 Monel®
- 6 Hastelloy® C

VALVE TYPE

- 1** Switching

ACTUATOR TYPE

- S** Single piston
- D Double piston

ACTUATOR MATERIAL

- 1** 316L stainless steel
- 4 Monel®
- 5** Aluminum
- 6 Hastelloy® C

MAXIMUM PROCESS PRESSURE

- A** 250 psig
- B** 500 psig
- C 800 psig

OPTIONS

- 0** None
- 1** Cleaned for oxygen service
- 4** Mounting bracket
- 6** Mounting bracket & cleaned for oxygen service

SEAT MATERIAL

- A** Tefzel®
- C** Polyimide (Vespel®)
- H** PCTFE (Kel-F®)
- Q** PEEK™

CONNECTION TYPE

- G2** Gyrolok® 1/8"
- G4** Gyrolok® 1/4"
- F4** Female NPT 1/4"
- B4** Female BSP/ISO 7/1 1/4"

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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.