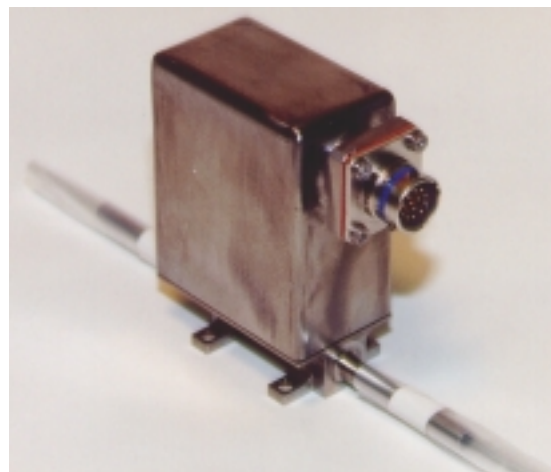


DESCRIPTION

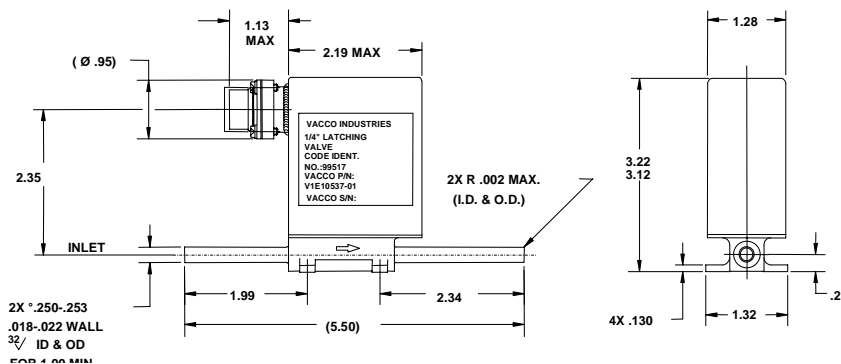
VACCO Industries maintains a product line of latching valves designed to meet industry's demand for high reliability, tight leakage, and quick response capabilities.

The 1/4" high-pressure latch valve utilizes VACCO's proven torque tube technology. The all titanium construction helps maintain its light weight. The valve is fully flight-qualified and proven.



FEATURES

- ⊕ 2000 psi Operating Pressure
- ⊕ All Titanium Construction
- ⊕ Low Weight – 340g/0.75 lbm
- ⊕ Integral Microswitch
- ⊕ 25,000 Cycle Life



OPERATING PARAMETERS

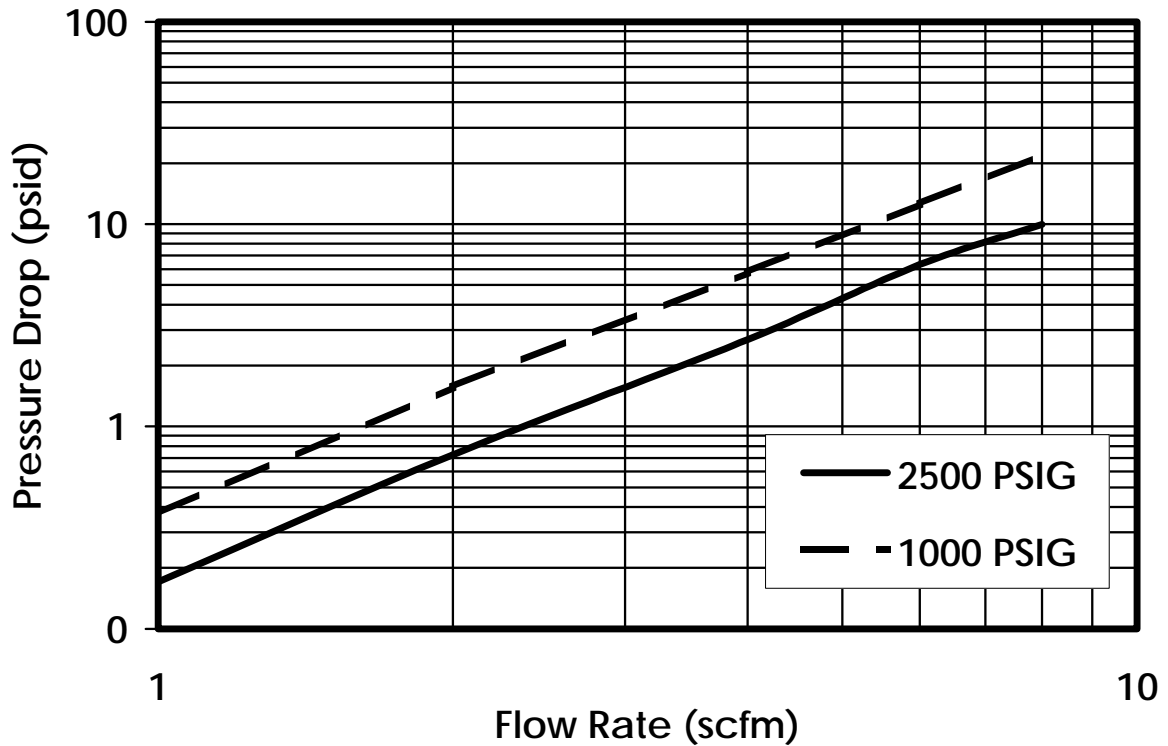
Operating Pressure Range	3000 psig
Proof Pressure	4500 psig
Burst Pressure	7500 psig
Flow / Pressure Drop	10 psid @ 5 scfm GHe
.....	0.003 psid @ 0.002 scfm GXe
Leakage:	
Internal	<3.0 scch GHe
External	<1 X 10 ⁻⁶ sccs GHe
Temperature	28°F to 122°F

Cycle Life	>25,000 Cycles
Response Time:	
Opening	30 msec @ 20 VDC
Closing	30 msec @ 20 VDC
Optional Inlet Filter	40 microns absolute
Dielectric Strength	500 VAC RMS @ 60 Hz – 1 min
Operating Voltage	20 – 54 VDC
Weight	<340 grams (0.75 lb)

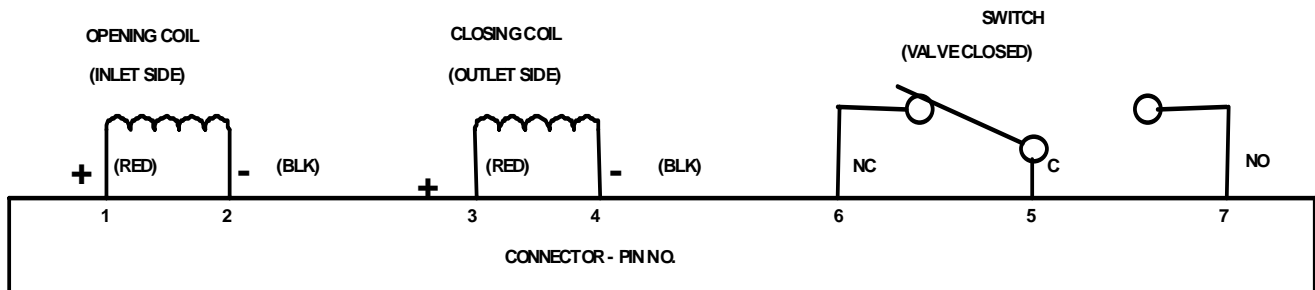
Performance characteristics are based upon customer requirements, as such, are not representative of component capabilities or limitations

PERFORMANCE CHARACTERISTICS

Flow vs Pressure Drop



ELECTRICAL SCHEMATIC



DESCRIPTION

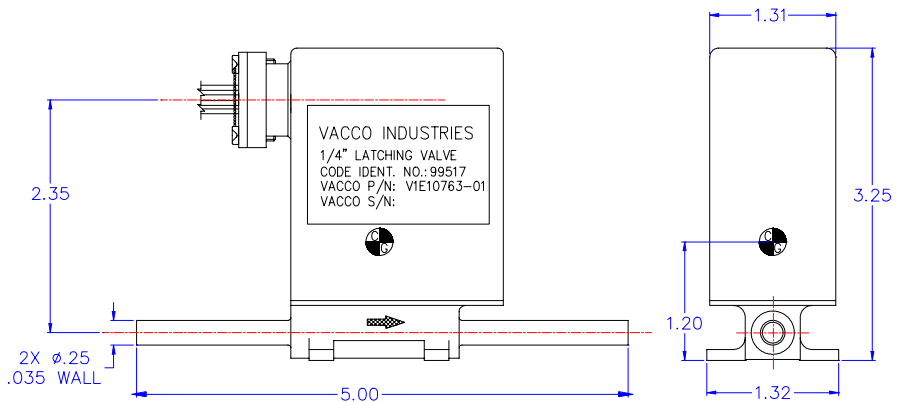
VACCO Industries maintains a product line of titanium latching valves designed to meet industry's demand for high reliability, tight leakage, and quick response capabilities.

The VACCO 5000 psi 1/4" latch valve utilizes proven torque tube technology. The all titanium construction helps reduce weight while bolstering reliability; qualified to a minimum 13,000 life cycles while maintaining performance. The valve is fully qualified and is scheduled for flight in 2002.



FEATURES

- ⊕ 5,000 psig Operating Pressure
- ⊕ 13,000 Operating Cycles
- ⊕ Ti Body with CRES Interface
- ⊕ Low Weight – 0.75 LB (340 Grams)
- ⊕ Integral Microswitch
- ⊕ 40 Micron Absolute Etched Disc Inlet Filter



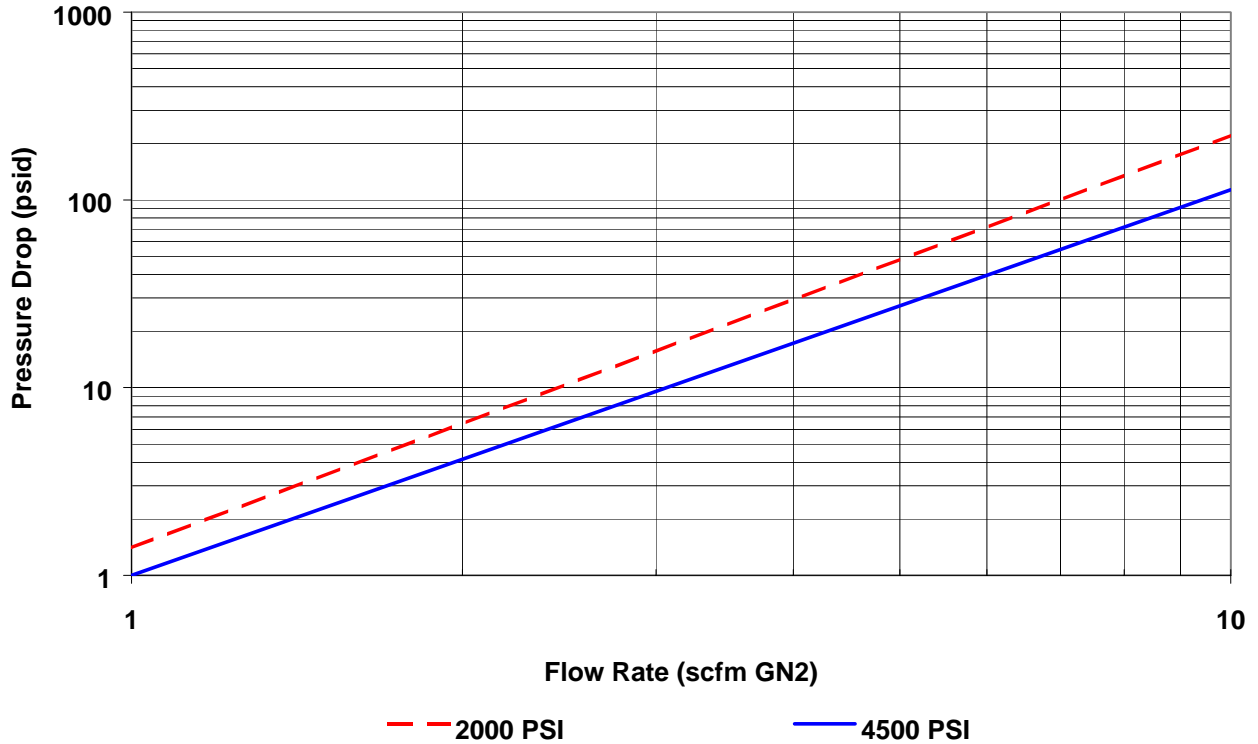
OPERATING PARAMETERS

Operating Pressure..... 5000 psig
 Proof Pressure..... 7500 psig
 Burst Pressure 12,500 psig
 Flow/Pressure Drop <10 psid @ 1.06
 Leakage:
 Internal..... < 5.0 scch GHe @ 5000 psid
 External..... 1x10⁻⁶ sccs GHe @ 5000 psid
 Back Pressure Relief 1500 ± 500 psid

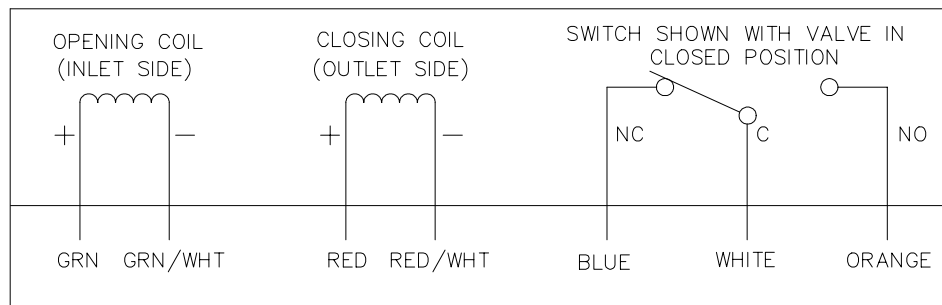
Cycle Life..... > 13,000 Cycle
 Operating Temp. 14 - 140°F)
 Response Time:
 Opening:..... 20 msec @ 29 VDC @ 5000 psid
 Closing:20 msec @ 29 VDC, 5000 psid
 Opening Voltage.....24 - 32 VDC.
 Power Consumption..20 W max @ 29 VDC and 76°F
 Dielectric Strength..... 500 VAC RMS @ 60 Hz-1 min

PERFORMANCE CHARACTERISTICS

Flow v Pressure Drop



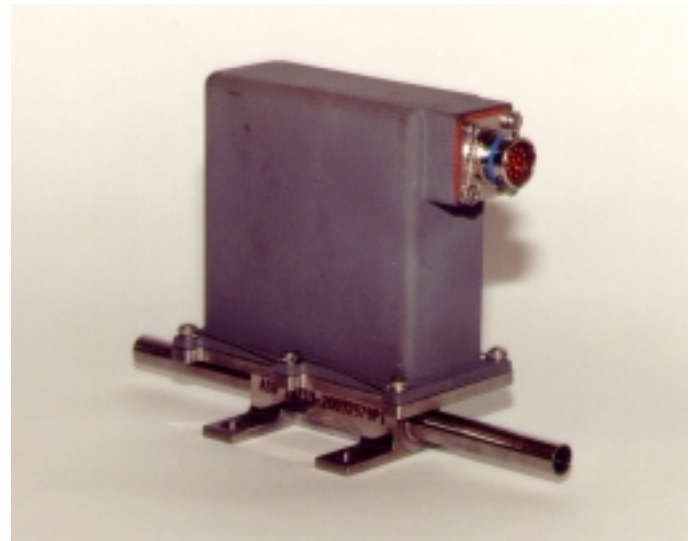
SCHEMATIC



DESCRIPTION

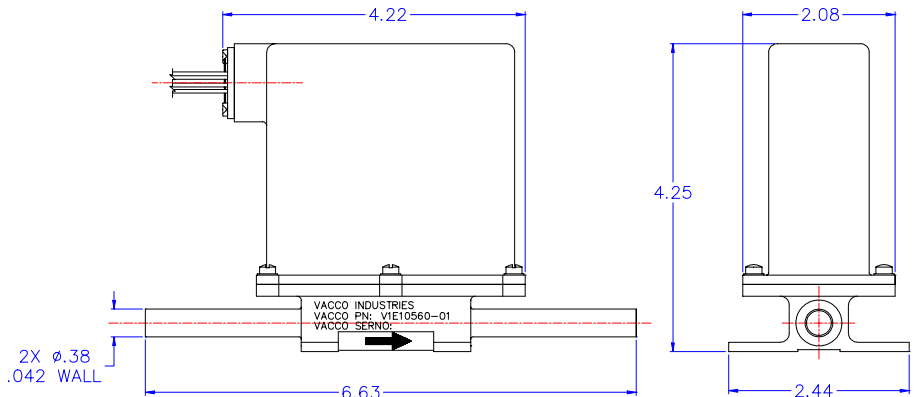
VACCO Industries maintains a product line of titanium latching valves designed to meet industry's demand for high reliability, tight leakage, and quick response capabilities.

The 3/8" high-pressure latch valve utilizes VACCO's proven torque tube technology. The all titanium construction helps maintain its weight while the dual coils are provided for redundancy. The valve is fully flight-qualified and holds extensive heritage.



FEATURES

- ⊕ 4500 psia Operating Pressure
- ⊕ All Titanium Construction
- ⊕ Low Weight – 800g/1.76 lbm
- ⊕ Integral Microswitch
- ⊕ 3,000 Cycle Life



OPERATING PARAMETERS

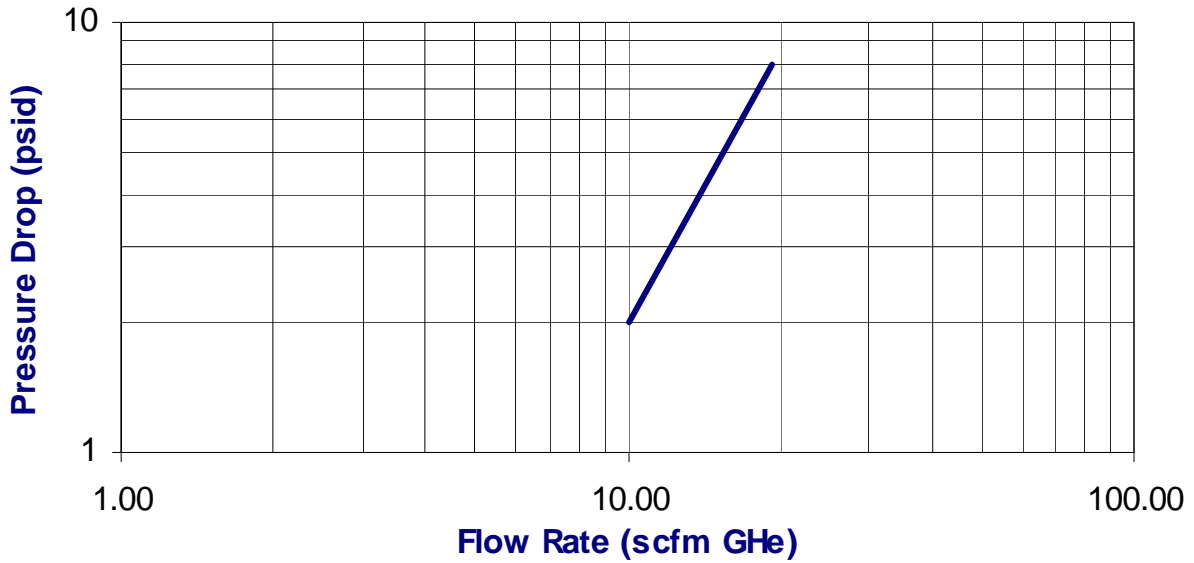
Operating Pressure Range 4500 psia (310 bar)
 Proof Pressure 6750 psig (465 bar)
 Burst Pressure 12000 psig (828 bar)
 Flow 0.0099 lbm/sec of H₂O
 Pressure Drop <14.5 psid (at rated flow)
 Internal Leakage 1 x 10⁻³ sccs He
 External Leakage <1 x 10⁻⁶ sccs GHe
 Weight 1.76 lbm (800 grams)

Operating Temperature -13° to +113° F
 Response Time:
 Opening 50 msec @ 20 VDC
 Closing 50 msec @ 20 VDC
 Back Pressure Relief 800 to 1500 psid
 Operating Voltage 22 – 32 VDC
 Dielectric Strength 500 VAC RMS @ 60 Hz – 1 min

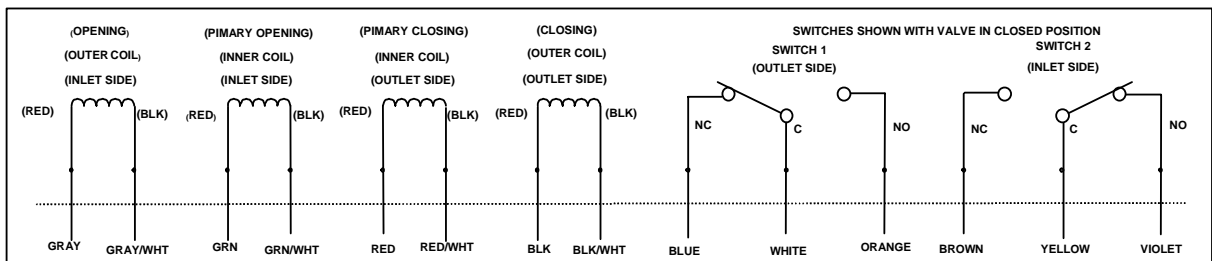
Performance characteristics are based upon customer requirements, as such, are not representative of component capabilities or limitations

PERFORMANCE CHARACTERISTICS

Pressure Drop vs Flow Rate Test Results



ELECTRICAL SCHEMATIC





1/4" HIGH PRESSURE MINIATURE LATCH VALVE V8E10580-01

DESCRIPTION

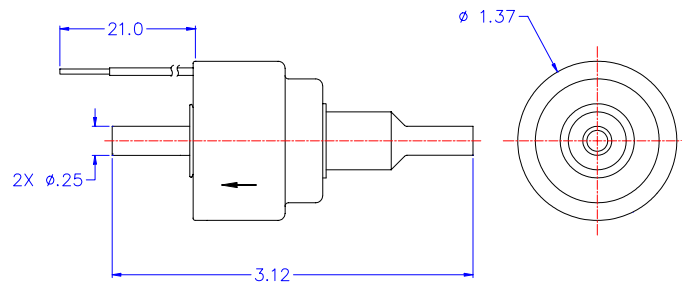
VACCO Aerospace Products maintains a product line of latching valves designed to meet industry's demand for high reliability, tight leakage, and quick response capabilities.

The 1/4" high-pressure miniature latch valve is close derivative of our qualified 1/4" low pressure miniature latch valve per V1E10728-01. Originally built and tested for a NASA advanced development program, these valves provide a low cost, light weight alternative for systems with lower flow demands.



FEATURES

- ⊕ 3,000 psi Operating Pressure
- ⊕ CRES Interface
- ⊕ Low Weight – 160 Grams (0.35 LB)
- ⊕ Optional Position Indicator
- ⊕ Optional Etched Disc Inlet Filter
- ⊕ Kel-F Poppet
- ⊕ Parent Design Fully Qualified



OPERATING PARAMETERS

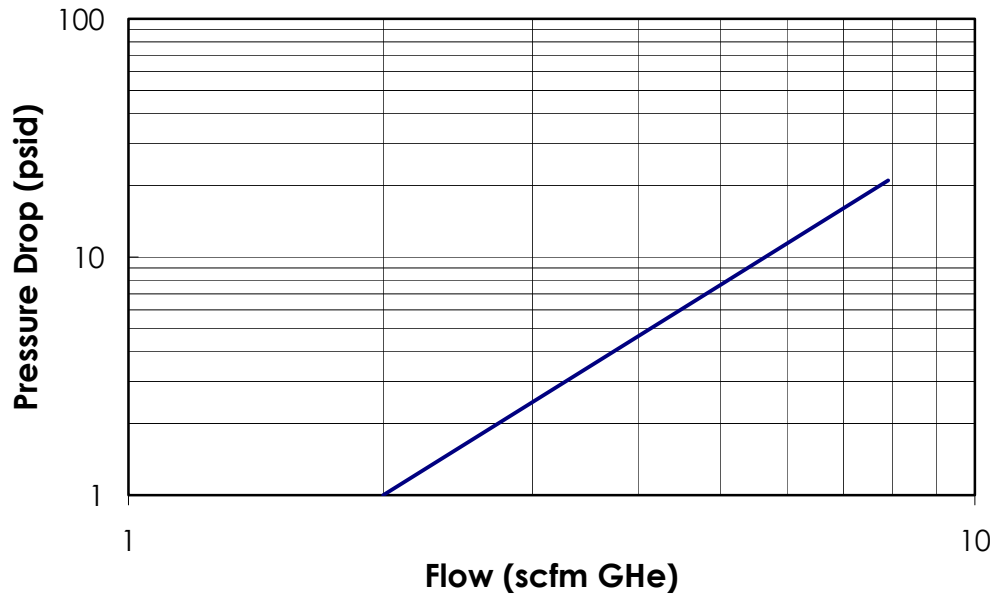
Operating Pressure Range	3000 psig
Proof Pressure	4500 psig
Burst Pressure.....	7500 psig
Flow / Pressure Drop.....	8 psid @ 5 scfm GHe
	0.014 psid @ 0.002 scfm GXe
Leakage:	
Internal.....	<3.0 scch GN ₂
External	<1 x 10 ⁻⁶ sccs Ghe
Temperature.....	10° to +170°F
Cycle Life.....	>20,000 Cycles

Response Time:	
Opening	15 msec @ 20 VDC
Closing	15 msec @ 20 VDC
Optional Inlet Filter.....	40 microns absolute
Dielectric Strength	500 VAC RMS @ 60 Hz-1 min
Operating Voltage.....	21-38.6 VDC
Pull-In Voltage.....	20 VDC Max @ 450 psi & 120°F
Power.....	28 Watts Max @ 20 VDC & 70°F
Weight.....	160 grams

Performance characteristics are based upon customer requirements, as such, are not representative of component capabilities or limitations

PERFORMANCE CHARACTERISTICS

Flow vs Pressure Drop @ 3000 psi



ELECTRIC SCHEMATIC

ELECTRICAL SCHEMATIC

