



D-Series

Standard Diaphragm Shut-Off Valve



Features

Body Design

Fully customizable configuration, offering wide range of use. Various fitting configuration with standard Moduline dimensions.
Metal / metal sealing between diaphragm and valve's body.
All tube connections are TIG orbital welded.
Extremely low internal volume and wetted area.

Materials

Body.....316L VAR Stainless Steel
O⁺ Process.....electropolished, Ra0.15 μm (6 μin)
Diaphragm.....NiCo Alloy (Elgiloy®)
Seat.....PCTFE (Voltalet®)

Actuator Design

Interchangeable actuators: ¼ turn manual or toggle, pneumatic NO or NC.
Permanent color identification for NO or NC.
Black anodized actuator in aluminum.
Actuator O-ring in Viton®.

Verification & Packaging

100% inspection with boroscope.
Warranty and leak test certificate.
Vacuum sealed double packaging with N₂ purge.

Options & Accessories

Manual ¼ turn actuator with valve position indicator (VPI).
Position indicators for pneumatic operators, two positions.
Position indicators for ¼ turn operators, two positions.
Security locker for manual toggle.
Special mounting plates.
Surface mounting (C-seal, others upon request).

Ratings

Specifications

Dead volume.....1.12 cm³ with butt weld ends (0.068in³)
Flow coefficient.....Cv = 0.24
Orifice size.....4.5 mm (0.177in)

Temperature

Operating.....-10°C to 60°C (14°F to 140°F)

Pressure Ratings

Valve.....Vacuum to 10 bar (145 psi)
Pneumatic operator.....5-7 bar (72-100 psi)

FLOW DATA Max flow / ΔP

ΔP (bars)	N ₂ flow (L/mn) at 21°C
0.1	30
0.5	100
1	170
2	220

Valve Life Expectancy

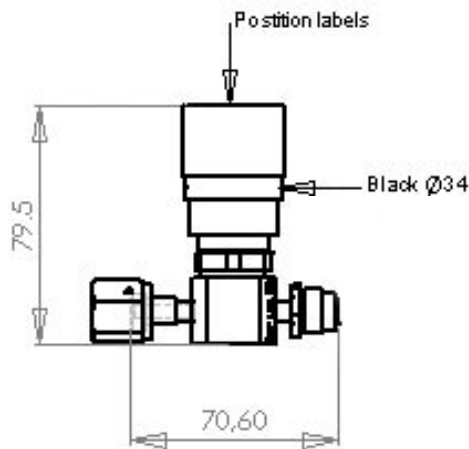
.....> 2,000,000 cycles with non-corrosive gas

Helium Leak Rate

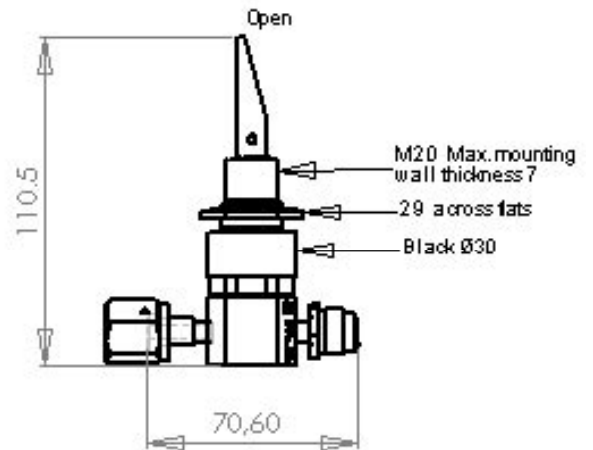
External.....< 5.10⁻¹⁰ atm cm³/s
Across seat.....< 2.10⁻⁹ atm cm³/s

Dimensions

MANUAL ¼ TURN

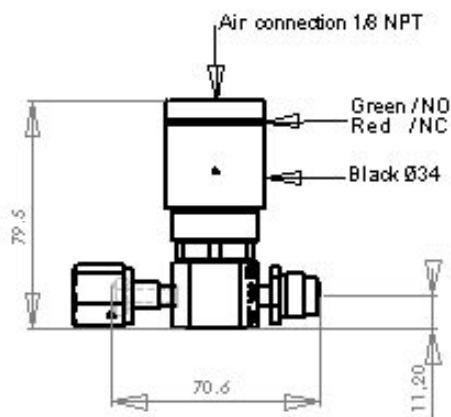


MANUAL TOGGLE

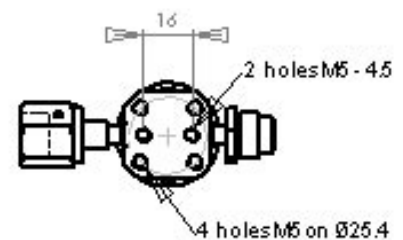


PITCH	VCR ¼"	Swagelok ¼"	Welded ends
mm	70.6	70.6	44.2
inch	2.78	2.78	1.74

PNEUMATIC NO or NC



MOUNTING DIMENSIONS



qualiflow therm