

V14100

3-Way Normally Open or Normally Closed Solenoid Valve



Valcor Engineering Corporation



DESCRIPTION

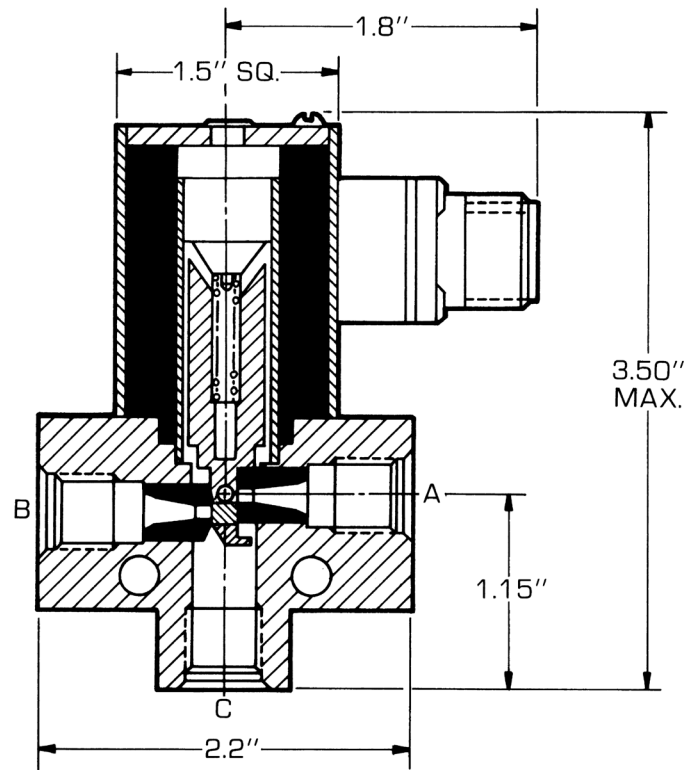
V14100 are 3-way, 2-position, direct acting solenoid valves designed for use with non-corrosive liquids and gases typically found on aircraft and spacecraft. They are well-suited for the extreme vibration, temperature, and cycle life requirements found in the most severe in-flight operating conditions. The compact size and low weight allow these valves to be used in the tightest space available. They utilize Valcor's proprietary floating seal technology which provides tight shut-off, long service life, and the ability to handle particulates in the fluid stream without leaking. These valves are direct acting, and do not require system pressure to operate.

APPLICATION

V14100 valves are typically used to select flow from one of two sources or to divert flow to one of two process streams. Media includes: engine bleed air, hydraulic fluid, aviation fuel, and inert gases used for other purposes.

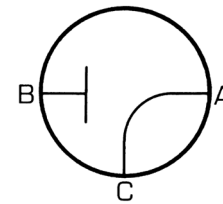
FEATURES

- Maximum Operating Pressure: 0-150 PSIG (higher MAWP available)
- Proof Pressure: 175 PSIG / Burst Pressure: 300 PSIG
- Flow Rate: Cv=0.07; Cd=0.65
- Temperature: -65°F to +275°F (standard), -65°F to +650°F available.
- Wetted Materials: Aluminum, CRES 303, 430F, 302, Carbon, Fluorosilicone
- 1/4" OD line
- Weight: 0.52 lbs
- Manifold mount option available
- Used in a Selector, Diverter, Normally Open or Normally Closed configuration
- Fully customizable for your application

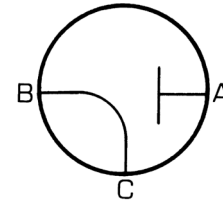


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Operating Pressure & Flow Ranges

Equiv. Sharp Edged Orifice CD=0.65	Cv	Standard Construction	Special Construction	Ambient Temp.	Min. Volts DC
.06	.07	1-150	0-500	275°F	18

These ratings are based on using JP4 Aviation Fuel. Other orifice sizes, both larger and smaller, are available. However, ratings would change accordingly. For higher temperatures, the pressure rating must be reduced. The following table approximates the derating required.

Temperature	Derating Factor
250°F	0.71
350°F	0.62

Electrical Data

Voltage	18 to 30 VDC (higher ratings available)
Duty	Continuous
Current	1 amp max. at 30 VDC and at 70°F
Electrical Connector	MS3102-10SL-4P side-mount standard.

Leakage

External	0 cc/min at 2200 PSIG
Internal	Liquid Service: 0.5 cc/hr Gas Service: 15 cc/min maximum

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