

V5000

2-Way Normally Open or Normally Closed Solenoid Valve



Valcor Engineering Corporation



DESCRIPTION

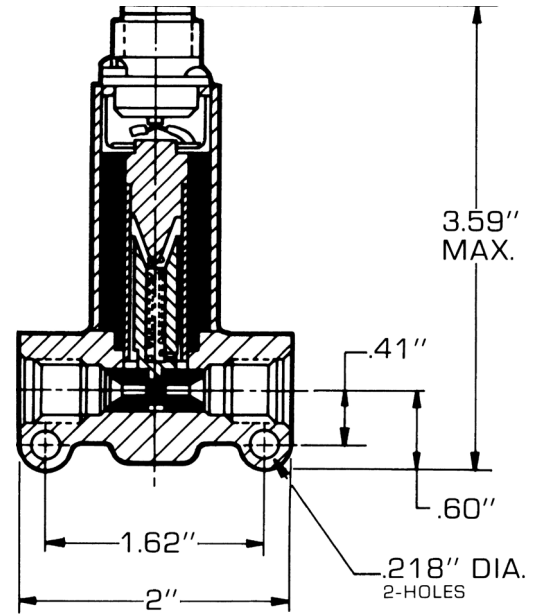
V5000 solenoid valves are designed for use with aviation fuels, non-corrosive gases, and non-aromatic hydraulic fluids. They are well-suited for the extreme vibration, temperature, and cycle life requirements found in the most severe aircraft operating conditions. Compact size and low weight allow these valves to be used in the tightest space available. Valcor's proprietary floating seal technology provides tight shut-off, long service life, and the ability to handle particulates in the fluid stream without leaking. These valves are direct acting, do not require system pressure to operate, and are available in normally closed or normally open configuration.

APPLICATION

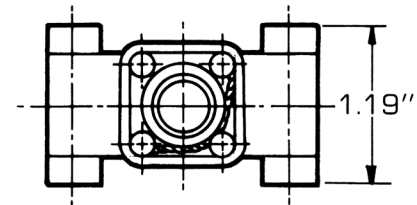
V5000 valves are typically used on aircraft APUs and engines. They are frequently manifolded together to control air for engine starting, de-icing systems and fuel system purge manifolds. They are particularly suitable for low pressure drop applications, and where particulate in the process fluid may be present.

FEATURES

- Maximum Operating Pressure: 1200 PSIG
- Proof Pressure: 1500 PSIG
- Burst Pressure: 3000 PSIG
- Leak Rate: Internal is 0.5 cc/hr liquid and 15 cc/min gas. External is 0 cc/min at 1500 PSIG
- Temperature: -65°F to +350°F
- Current: 0.68 amps at 30 VDC at 70°F; 18-30 VDC
- Electrical Connection: MS 3102A-10SL-4P side-mount standard
- Wetted Materials: Aluminum, CRES 303, 430F, 302, Carbon, Fluorosilicone
- 1/4" ports
- Weight: 0.34 lbs.
- 0.218" dia. clearance panel-mounting holes in body



◀ FLOW ▶



Custom designs are our specialty. Contact us today to see how we can help on your next project.

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(973) 467-8400 | aircraft@valcor.com
www.valcor.com

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Operating Pressure & Flow Ranges

	Equiv. Sharp Edged Orifice CD=0.65	Cv	Operating Pressure (PSIG)		Ambient Temp.	Min. Volts DC
			30 OHM Coil	47 OHM Coil		
Normally Closed Configuration	0.085	0.14	0-1200	0-1000	165°F	18
	0.102	0.21	1-600	0-400	165°F	18
	0.185	0.67	0-90	0-60	165°F	18
Normally Open Configuration	0.085	0.14	1-1200	0-1000	165°F	18
	0.102	0.21	0-800	0-600	165°F	18
	0.185	0.67	0-110	0-90	165°F	18

These ratings are based on using JP4 Aviation Fuel. 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
Duty	30 OHM Coil, Continuous or Intermittent 47 OHM Coil, Continuous (Depends on application, cooling effect of fluid, etc.)
Current	At 30 VDC and 70°F 1.07 amps max., for 30 OHM Coil 0.68 amps max. for 40 OHM Coil
Electrical Connector	MS 3102A-10SL-4P is standard. Other types are available. Receptacle location can be on top or side of the solenoid. Contact Valcor for other options.

Leakage

External	Zero over range of 0 to 1500 PSIG
Internal	Liquid Service: 0.5 cc/hr max. Gas Service: As low as 15 scc/min. depending on application.

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