

V20000

2-Way Normally Open or Normally Closed High Flow Shut-Off Solenoid Valve



Valcor Engineering Corporation



DESCRIPTION

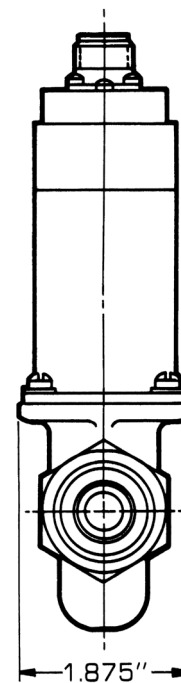
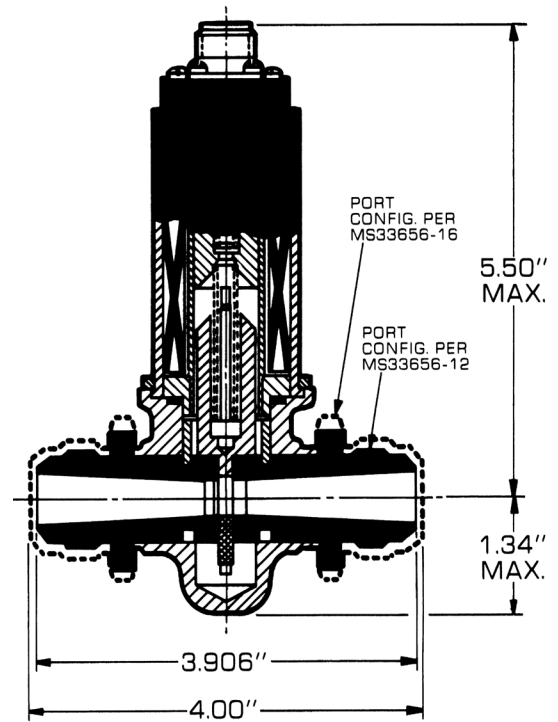
V20000 solenoid valves are designed to control high flows of fuel vapor and non-corrosive liquids and gases. The use of venturi-style coaxial flow path enhances the flow capacity of the valve for its size. They are well-suited for the extreme vibration, temperature, and cycle life requirements found in the most severe aircraft operating conditions. 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. They are direct acting and do not require system pressure to operate. V20000 valves are available in a normally closed or normally open configuration and are available in single or dual-stage coils.

APPLICATION

V20000 valves are typically used on aircraft APUs and engine onboard refueling vapor control systems. They are also suitable for many non-corrosive gases and liquids.

FEATURES

- Maximum Operating Pressure: 0-400 PSIG
- Proof Pressure: 600 PSIG
- Burst Pressure: 1000 PSIG
- Leak Rate: Internal is 0.5 cc/hr liquid, 15 cc/min gas. External is 0 cc/min at 750 PSIG
- Temperature: -65°F to +350°F
- Current: 0.9 amps at 28 VDC at 70°F; 18-30 VDC (single coil version)
- Electrical Connection: MS 3102A-10SL-4P side-mount standard
- Wetted Materials: CRES 303, 430F, 302, Carbon, Fluorosilicone
- MS or 1" OD tube end ports
- Weight: 2.1 lbs.
- Meets explosion proof test of MIL-E-5272



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

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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	0.37	2.75	1-150	0-550	165°F	18
	0.55	6.00	1-120	0-210	165°F	18
	0.75	11.00	1-60	0-80	165°F	18
Normally Open Configuration	0.37	2.75	1-150	0-900	165°F	18
	0.55	6.0	1-40	0-430	165°F	18
	0.75	11.00	1-10	0-150	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
350°F	0.62

Electrical Data

Voltage	18 to 30 VDC
Duty	Continuous
Current (Dual Coil)	At 28 VDC and ad 70°F Inrush - 17.0 amps max. for a duration of 50 milliseconds max. Holding - 0.9 amps max.
Current (Single Coil)	At 28 VDC and ad 70°F, 1.4 amps max.
Electrical Connector	MS 3102A-10SL-4P is standard. Pigtail leads or other receptacles can be provided. Receptacle location can be on top or side of the solenoid. Contact Valcor for other options.

Leakage

External	Zero over range of 0 to 750 PSIG
Internal	Liquid Service: 0.5 cc/hr max. Gas Service: As low as 15 scc/min. depending on application.

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