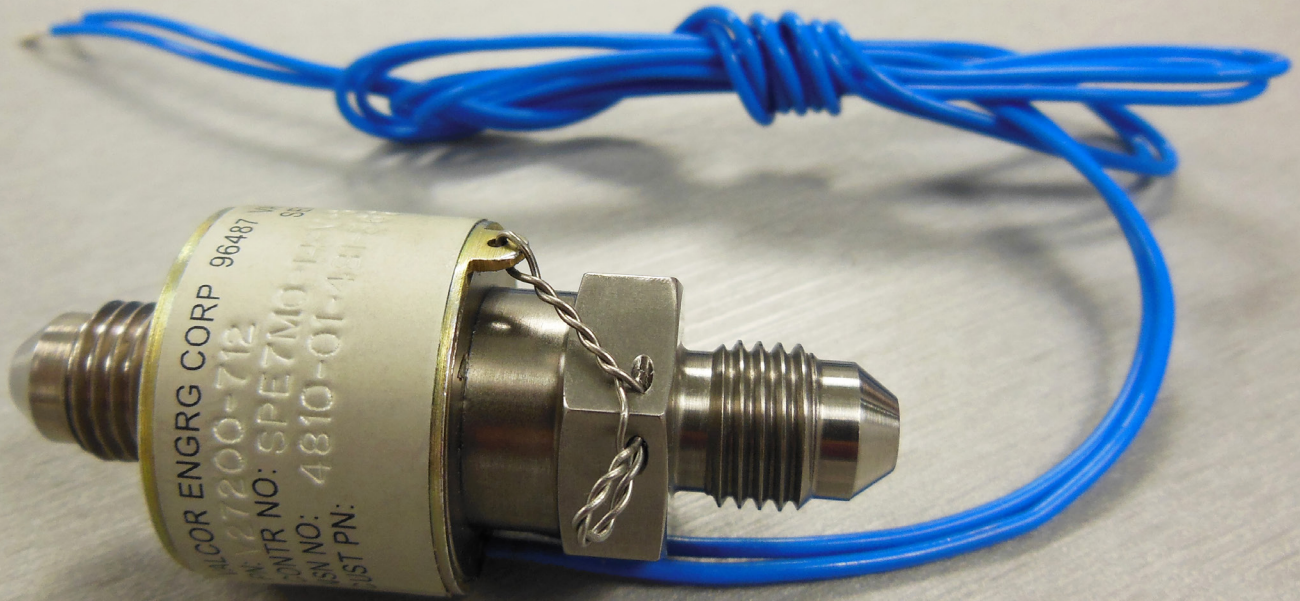


V27200 - Miniaturized

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

Valcor Aerospace 2-Way Direct Acting Solenoid Valve



DESCRIPTION

Series 27200-Miniaturized are direct acting coaxial, poppet solenoid shut-off valves. They are miniaturized versions of series 27200. They are extremely compact (0.97" dia. x 2.063" long) and lightweight. The compactness is achieved by using the solenoid plunger to carry the valve poppet seal. Series 27200-Miniaturized valves employ a simple construction containing only one moving part. Each valve consists of a ported solenoid and an orifice in the seat. Ports are in-line along the solenoid axis.

APPLICATION

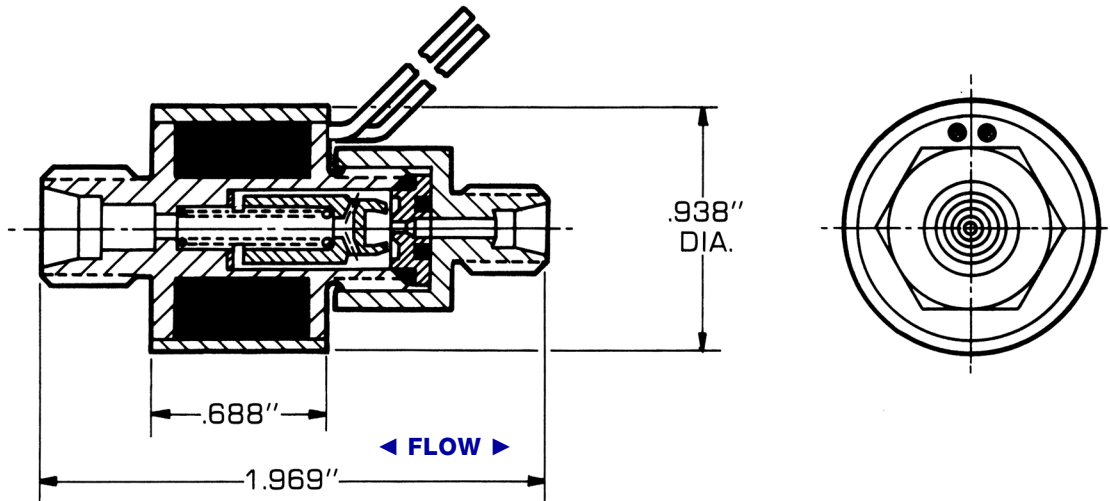
Series 27200-Miniaturized valves are applicable to all commonly used non-corrosive fluids and gases. They are extensively used for missile and satellite applications where size and weight limitations are critical.

FEATURES

- 2-Way Shut-Off
- Poppet Design
- 1/4" OD Line
- Configuration: Normally Closed, Normally Open
- Temperature: -65°F to +450°F
- Pressure Range: 0-1500 PSIG Maximum
- Proof Pressure: 2250 PSIG
- Burst Pressure: 3000 PSIG
- Weight: 0.22 lbs (approx.)



SOLENOID VALVE SERIES 27200 MINIATURIZED



Specifications

Operating Pressure and Flow Ratings

Equiv. Sharp Edged Orifice CD = .65	Operating Pressure (PSIG)		Ambient Temp.	Min. Volts DC	Cv
	Normally Closed	Normally Open			
.033	1-1000	0-1500	165°F	18	.02
.045	1-350	0-525	165°F	18	.04
.062	1-230	0-350	165°F	18	.07
.093	1-75	0-150	165°F	18	.15
.125	1-20	0-40	165°F	18	.30

Temperature	Derating Factor
250°F	.71
350°F	.62
450°F	.54

These ratings are based on using JP4 Aviation Fuel. Other orifice size, 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.

Electrical Data

Voltage	18 to 30 VDC
Duty	Continuous
Current	0.65 amps max. at 30 VDC and at 70°F
Other Available Coils	Coils can be made with higher or lower resistance, specifically 80 or 32 ohms. A 32 OHM coil would berated intermittent, but the valve pressur rating could be increased by as much as 25%. An 80 OHM coil will reduce the current draw, but will also reduce the pressure rating by as much as 25%.
Electrical Connector	Pigtail leads (36" long) made of #22 or #24 wire to MIL-W-1687A Type EE are standard. MS receptacles mounted on the solenoid shell can be provided.

Leakage

External	Zero over range of 0 to 1500 PSIG
Internal	Liquid Service, 0 drops/3min. Gas Service, 10 scc/hr. typical. Better ratings are achievable via special sealing techniques