

V14500

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

Valcor Aerospace 2-Way Direct Acting Solenoid Valve



DESCRIPTION

Series V14500 are direct acting, solenoid shut-off valves with inline porting. They are 2-way valves which seal tight, with flow and/or pressure possible in either direction. The flow path is straight through type rather than circuitous. Series 14500 valves are extremely reliable because their simple construction employs only two moving parts. They are lightweight and compact. Valve shut-off is accomplished by use of Valcor's "Floating Seal" Principle. This utilizes an optically flat seal disc against an equally flat seat. The gate-type action actually wipes the seat clean with each valve operation and virtually keeps the valve from being affected by contaminants.

APPLICATION

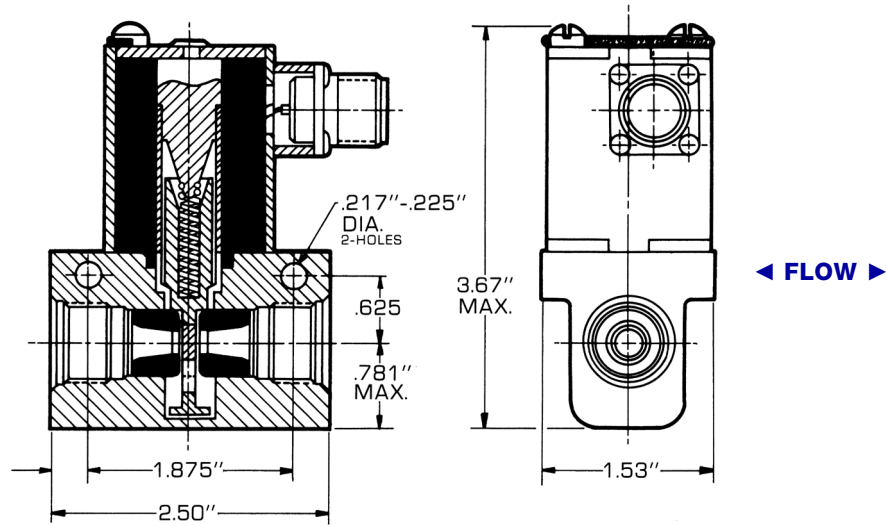
Series V14500 valves are applicable to all commonly used non-corrosive fluids and gases. They are widely used in many current aircraft fuel systems. Military Specifications MIL-F-8615 and MIL-V-8610 are applicable to these valves.

FEATURES

- 2-way Shut-Off
- Gate-Type Design
- Floating Seal
- 1/2" O.D. Line
- Configurations: Normally Closed, Normally Open
- Temperature: -65°F to +165°F (Standard Static Seals), -65°F to +450°F (Special Static Seals)
- Pressure range: 0-1000 PSIG Maximum
- Proof pressure: 1500 PSIG
- Burst pressure: 3000 PSIG Minimum
- Weight: 1.25 lbs (approx.)



SOLENOID VALVE SERIES V14500



Specifications

Operating Pressure and Flow Ratings

NORMALLY CLOSED CONFIGURATION

Equiv. Sharp Edged Orifice CD = .65	Operating Pressure (PSIG)		Ambient Temp.	Min. Volts DC	Cv
	30 OHM Coil	47 OHM Coil			
.11	1-850	0-550	165°F	18	.25
.15	1-330	0-210	165°F	18	.46
.23	1-125	0-80	165°F	18	1.03
.31	1-63	0-40	165°F	18	1.85
.37	1-31	0-20	165°F	18	2.70

NORMALLY OPEN CONFIGURATION

.11	1-1000	0-900	165°F	18	.25
.15	1-700	0-430	165°F	18	.46
.23	1-230	0-150	165°F	18	1.03
.31	1-110	0-70	165°F	18	1.85
.37	1-55	0-35	165°F	18	2.70

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	.71
350°F	.62
450°F	.54

Electrical Data

Voltage	18 to 30 VDC
Duty	19 OHM Coil, Continuous or Intermittent 30 OHM Coil, Continuous (Depends on application, cooling effect of fluid, etc.)
Current	At 30 VDC and at 72°F 1.07 amps max., for 19 OHM Coil 1.07 amps max., for 30 OHM Coil
Electrical Connector	MS 3102A-10SL-4P is standard. Receptacle location can be on top or side of the solenoid. For other options, contact your Valcor representative.

Leakage

External	Zero over range of 0 to 1000 PSIG
Internal	Liquid Service, 0.5 cc/hr max. range from 12" head to max. operating pressure. Gas service, as low as 15 scc/min., depending on application.