

# SV97

## 2-Way Normally Closed Cryogenic Solenoid Valve



Valcor Engineering Corporation



### DESCRIPTION

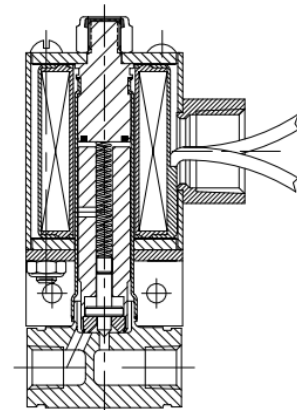
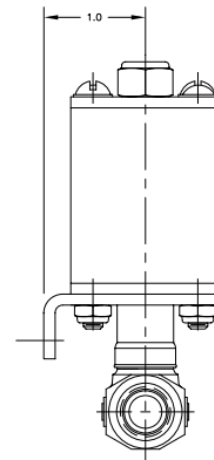
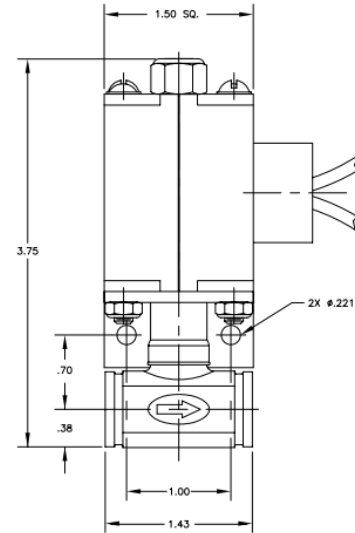
The SV97 series are direct acting 2-way normally closed poppet-style cryogenic solenoid valves designed to control the flow of cryogenic gases and liquids. They feature all-welded construction to eliminate external leakage at any temperature and utilize Valcor's tapered PTFE poppet design which provides tight shut-off, long service life without leaking. PTFE rider rings around the plunger minimize friction to extend the operating life of the valves. These valves do not require system pressure to operate. The compact size and low weight allow these valves to be used in the tightest space available. Their low mass minimizes thermal loss as well.

### APPLICATION

The SV97 series are designed for controlling cryogenic liquids such as LN<sub>2</sub> and LCO<sub>2</sub>. Examples include: environmental test chambers, gas and liquid chromatography, analytical and medical instruments and equipment, low temperature electronic component testing, beverage carbonation, and calibration and test stands.

### FEATURES

- Maximum Operating Pressure: 1000 PSI
- Flow Rate: Body Cv of 0.04 to .8 available
- Leak rate: Internal: bubble tight on gas, drip tight on liquid. External: 0 cc/min at 1000 PSIG
- Temperature: -320° F to 150° F max standard
- 14 watts at 115/60 Hz or 21 watts @ 24 VDC 70° F; continuous duty
- Optional NEMA 4 molded coil with 18 mm DIN connector
- Electrical connection: 18" AWG pigtailed with ½" NPT conduit hub
- Optional panel mounting bracket available



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### Valve Parts in Contact with Fluid

Body	Stainless Steel
Seal Disc	PTFE
Plunger Tube	303 SS
Plunger	430F SS
Plunger Stop	430F SS
Spring	303 SS
Rider Rings	PTFE
Shading Coil	Silver

### Electrical

Standard Voltages	115/60 AC & 24 VDC. Consult factory for other voltages available.
Standard Coil Housing	General purpose with 1/2" NPT conduit. Explosion proof, grommated pigtails, and DIN are available. Consult factory. Replace 1st "C" in part number with "ER" for explosion proof. Replace 1st "C" in part number with "G" for grommated pigtails. Example: SV97ER88C8-4 for explosion proof solenoid. Encapsulated with DIN terminals for 18 mm (43650A) connector is available. Consult factory for part numbers.

### Specifications

Port Size (NPT)	Orifice Size (ins.)	C <sub>v</sub>	Max. Pressure (PSI)				Model Number		Wattage	
			AC		DC		Normally Closed		115/60Hz	24/DC
			Gas	Liquid	Gas	Liquid	AC	DC		
<b>2-Way Normally Closed</b>										
1/4	5/64	0.04	1000	1000	1000	1000	SV97C88C1B	SV97C84C1B	14	21
1/4	3/32	0.20	775	675	750	650	SV97C88C2B	SV97C84C2B	14	21
1/4	1/8	0.40	550	300	400	275	SV97C88C3B	SV97C84C3B	14	21
1/4	5/32	0.50	275	175	200	165	SV97C88C4B	SV97C84C4B	14	21
1/4	3/16	0.60	175	125	125	100	SV97C88C5B	SV97C84C5B	14	21
1/4	1/4	0.80	75	75	50	45	SV97C88C6B	SV97C84C6B	14	21