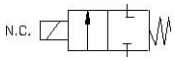
# SV91

2-Way Normally Closed and Normally Open
Floating Seal Construction
Cryogenic Solenoid Valve




Valcor Cryogenic Series


## DESCRIPTION

The SV91 series is a 2-way, direct acting, floating seal design solenoid valve for control of cryogenic fluids down to -454°F. It is available in normally closed and normally open configurations. The direct acting design is less prone to hang-up during operation and the floating seal has self wiping action for tight shut-off. The SV91 series has all welded joints eliminating external leakage. Along with the standard construction, Valcor offers a high flow design and a design made specifically for LCO2. Consult a Valcor application engineer for help in specifying a valve.

## APPLICATION

The SV91 series is a rugged construction suitable for a variety of cryogenic applications such as the following:

- Food processing/freezing
- Backup system for biologic freezers
- Environmental chambers
- Dewar transfer
- Gas chromatography
- Fogging machines
- Cryogenic surgery equipment

## FEATURES

- Self wiping floating seal design for cryogenic fluids to -454°F
- Direct acting design with no minimum operating pressure
- All welded construction eliminates external leakage
- Special constructions for high flow and LCO2
- Pressure rating up to 1200 PSI
- Straight thru flow path yields high flow with less turbulence
- Mountable in any position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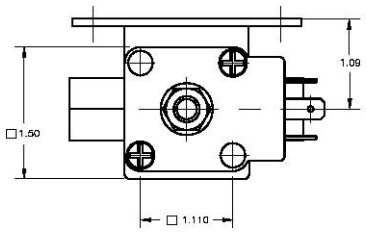
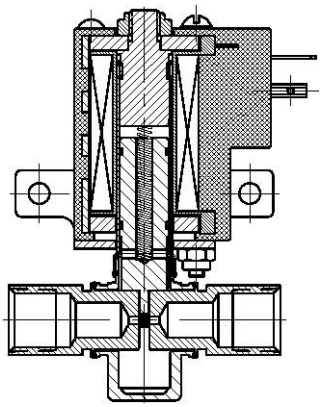
REV 04/15

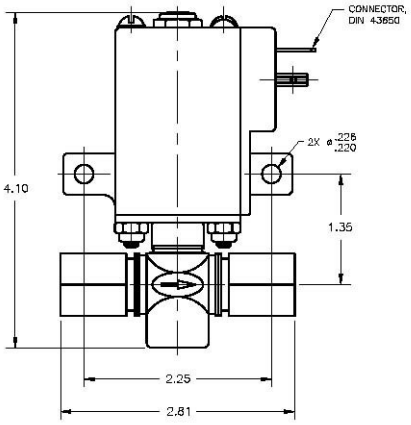
## VALCOR SV91 SPECIFICATIONS

### Construction

| Valve Parts in Contact With Fluid | |
|---|---|
| Body | SS |
| Seal Disc | Vespel |
| Plunger Tube | 303 SS |
| Plunger | 430F SS |
| Plunger Stop | 430F SS |
| Spring | 303 SS |
| Rider Rings | PTFE |






### Electrical

| | |
|---|---|
| Standard Voltages | 115/60 AC & 24 VDC. Consult factory for other voltages (available). |
| Standard Coil Housing | Encapsulated with DIN terminals for 18 mm (43650A) connector. General purpose with 1/2" NPT conduit, explosion proof, and grommeted pigtails are available. Consult factory. |

### Specifications

| Port Size (NPT) | Orifice Size (ins.) | $C_V$ | Max. Pressure (PSI) AC Gas | AC Liquid | DC Gas | DC Liquid | Model Number Normally Closed AC | Normally Closed DC | Normally Open AC | Normally Open DC | Wattage 115/60Hz | Wattage 24/DC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Way Normally Closed & Normally Open | | | | | | | | | | | | |
| 3/8 | 3/32 | 0.20 | 1200 | 800 | 400 | 125 | SV91D28C1C | SV91D24C1C | SV91D28OC1C | SV91D24OC1C | 14 | 21 |
| 3/8 | 5/32 | 0.46 | 650 | 300 | 125 | 100 | SV91D28C3C | SV91D24C3C | SV91D28OC3C | SV91D24OC3C | 14 | 21 |
| 3/8 | 15/64 | 1.00 | 300 | 180 | 100 | 90 | SV91D28C5C | SV91D24C5C | SV91D28OC5C | SV91D24OC5C | 14 | 21 |
| 3/8 | 5/16 | 1.85 | 150 | 75 | 65 | 25 | SV91D28C6C | SV91D24C6C | SV91D28OC6C | SV91D24OC6C | 14 | 21 |
| 3/8 | 3/8 | 2.70 | 75 | 45 | 20 | 17 | SV91D28C7C | SV91D24C7C | SV91D28OC7C | SV91D24OC7C | 14 | 21 |
| 2-Way High Flow Construction | | | | | | | | | | | | |
| 1/2 | 5/16 | 3.60 | 150 | 75 | 65 | 25 | SV91D28C6VF | SV91D24C6VF | SV91D28O6VF | SV91D24O6VF | 14 | 21 |
| 3/4 | 3/8 | 4.90 | 75 | 45 | 20 | 17 | SV91D28C7VG | SV91D24C7VG | SV91D28O7VG | SV91D24O7VG | 14 | 21 |
| 2-Way Normally Closed - LCO2 Construction* | | | | | | | | | | | | |
| 3/8 | 5/32 | 0.46 | - | 1000 | - | - | SV91C94HC3C-AE2 | - | - | - | 32* | - |
| 3/8 | 15/64 | 1.00 | - | 350 | - | - | SV91C94HC5C-AE3 | - | - | - | 32* | - |

Bi-directional flow is available for some constructions. Contact factory for details.
Minimum pressure differential of 1 PSI in the direction of flow is required for bubble tight shut-off.
(*) This construction is intermittent duty with a maximum on time 20 mins with a 25% duty cycle.
Consult factory for other duty cycle applications.
Liquid $O_2$ cleaning and testing is available. Consult factory.