

SV323 & SV424

3-Way Normally Closed and Normally Open Pilot Operated Solenoid Valves



Valcor Engineering Corporation



DESCRIPTION

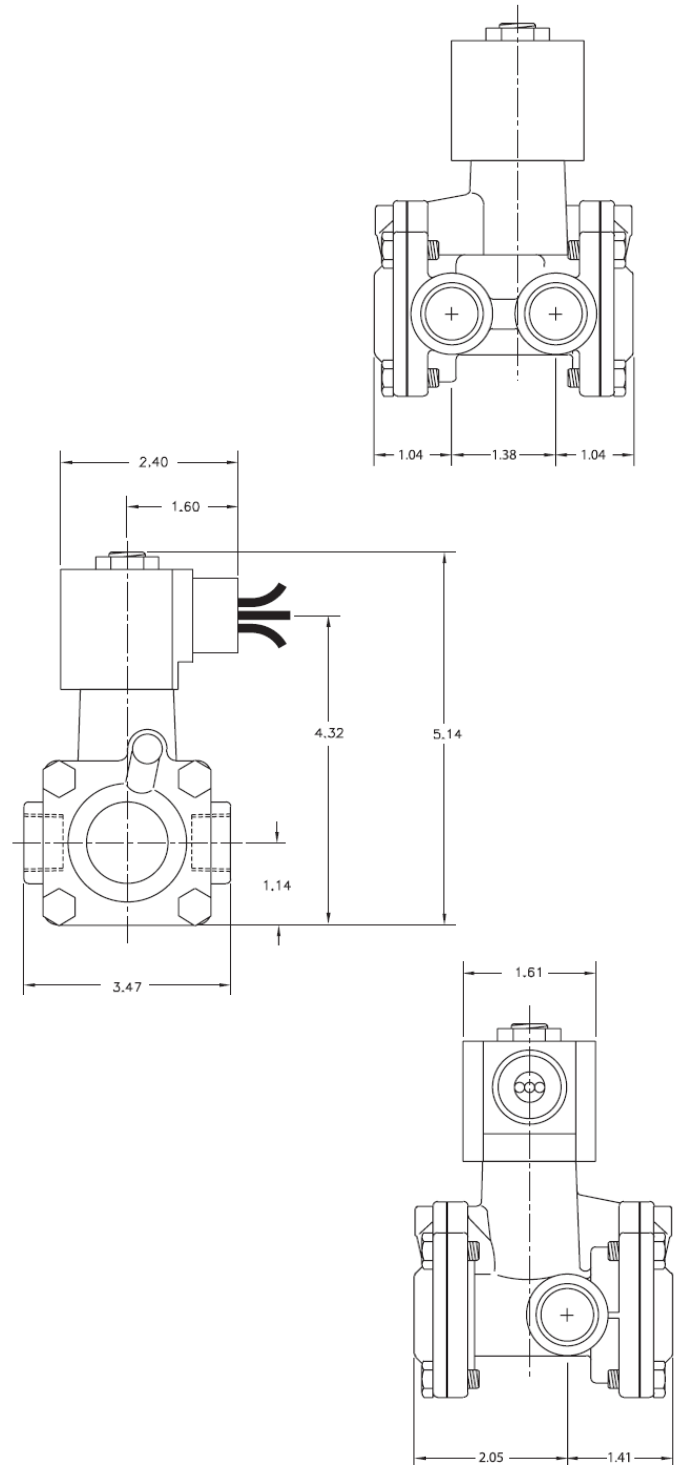
The SV323/SV424 series are pilot-operated high flow 3-way general purpose solenoid valves designed to control inert gases and liquids. Pilot operation requires a minimum operating pressure of 7 PSIG and enables the control of high flows of inert gases and liquids with low power consumption. Featuring cast bodies for exceptional durability in typical industrial applications, their compact size and low weight allow these valves to be used in the tightest space available. They are available with UL and CSA listing upon request.

APPLICATION

The SV323/SV424 series are typically used to control single-acting pneumatic and hydraulic cylinders and actuators.

FEATURES

- Maximum Operating Pressure: 150 PSI
- 7 PSI minimum operating pressure required
- Flow Rate: Cv of 3.3 to 4.4 available
- Leak rate: Internal: bubble tight on gas, drip tight on liquid. External: 0 cc/min at 150 PSIG
- Temperature: -40° F to 180° F max standard
- 10 watts @ 115/60 Hz or 24 VDC 70° F; continuous duty
- NEMA 4 coil housing standard, NEMA 7 available
- Electrical connection: 24" pigtails standard, with 1/2" conduit hub standard
- Brass or stainless steel bar stock body
- 3/8" or 1/2" NPT ports
- Mounting bracket available
- Mountable in any orientation
- Fully customizable for your application



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

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Construction

| | |
|---------------------|---|
| Operating Mode | Normally Closed: De-energized, the flow is from the cylinder port through the exhaust port. Energized, the flow is from the inlet port through the cylinder port. Normally Open: De-energized, the flow is from the inlet port through the cylinder port. |
| Port Size (in.) | 3/8, 1/2 |
| Temperature Ratings | Ambient Temp: -40°F to 150°F max. with class F coil 175°F max. with class H coil Fluid Temp: See specifications on next page. |
| Mounting Position | Mounts in any position (Best position is solenoid upright and vertical) |
| Agency Listings | Consult factory. |
| Options | Manual override, mounting bracket, neon lamp, surge suppressor |

Valve Parts in Contact With Fluid

| | |
|----------------------|------------------------------|
| Body | Brass |
| Seals | Buna N, FKM, EPR |
| Poppet Fork | Polyacetals |
| Cartridge | Polyacetals |
| Internal Metal Parts | 303 and 430F stainless steel |

Electrical

| | |
|-----------------------|---|
| Standard Voltages | AC 24V 60Hz AC 110V 50Hz, AC 120V 60Hz AC 220V 50Hz, AC 240V 60Hz DC 12V, DC 24V |
| Voltage Tolerance | +10% to -15% of applicable voltage |
| Standard Coil Housing | Standard: Watertight NEMA 4 Options: Explosion proof NEMA 7, open frame, junction box, grommet DIN |
| Coil | Class F and H |
| Lead Length | 24 inches |

*Consult the factory for specifications other than those listed above.

Coil Data

| Model | | SV323 | SV424 |
|-----------------------------|---------|---|-------|
| Frequency | | 50 | 60 |
| Power VA | Inrush | 37 | 30 |
| | Holding | 18 | 13 |
| Power Consumption (W) | AC | 10 (Note: AC power consumption at 110V/50HZ, 120V/60HZ data.) | |
| | DC | 10 | |

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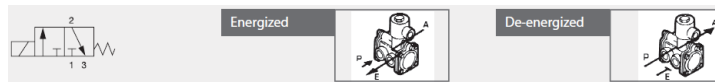
Specifications for SV323 Normally Closed

| Port Size | Orifice Size (ins.) | C _v | Min PSI | Max Pressure (PSI) | | Max Fluid Temp °F | Model Number Normally Closed Brass |
|-----------|---------------------|----------------|---------|--------------------|-----|-------------------|------------------------------------|
| | | | | Air/Gas, Water | | | |
| | | | | AC | DC | | |
| 3/8 | 5/8 | 3.3 | 7 | 150 | 150 | 180 | SV323GF02N5CG4 |
| 1/2 | 5/8 | 4.4 | 7 | 150 | 150 | 180 | SV323GF02N5DG4 |



Specifications for SV424 Normally Open

| Port Size | Orifice Size (ins.) | C _v | Min PSI | Operating Pressure Differential | | Max Fluid Temp °F | Model Number Normally Closed Brass |
|-----------|---------------------|----------------|---------|---------------------------------|-----|-------------------|------------------------------------|
| | | | | Max Pressure (PSI) | | | |
| | | | | AC | DC | | |
| 3/8 | 5/8 | 3.3 | 7 | 150 | 150 | 180 | SV424GF02N5CG4 |
| 1/2 | 5/8 | 4.4 | 7 | 150 | 150 | 180 | SV424GF02N5DG4 |



Part Number Configurator

Example Part Number: SV323GF02N5CG4



| Numbers 1 thru 5 | | 6 | 7 | 8-9 | 10 | 11 | 12 | 13-14 | 15 | |
|------------------|-----------------|-----------------------------|-----------------|---------------------------|---------------|-----------|-----------------------|-------------------------|--------------------|-------------------------------|
| Series | Operating Mode | Housing | Coil Insulation | Applicable Voltage | Seal Material | Body Code | Port Connection (NPT) | Orifice Size Body x Top | Option | |
| SV323 | Normally Closed | A Conduit | F Class F | 02 120V/60Hz 110V/50Hz | N Buna N | 5 Brass | C 3/8" | G4 5/8" | K Mounting Bracket | |
| | | P Open Frame | H Class H | 04 220V/60Hz 220V/50Hz | V FKM | | D 1/2" | | M Manual Override | |
| SV424 | Normally Open | B Grommet | | 01 24V/60Hz | E EPR* | | | | N Neon Lamp | |
| | | X Explosion Proof NEMA 7 | | 15 12V DC | C EPR | | | | Z Surge Suppressor | |
| | | 16 24V DC | L FKM* | | | | | | | |
| | | S Junction Box | | | | | | | | |
| | | G Watertight NEMA4 Y DIN | | | | | | | | Apply to housing with DIN (Y) |

Standard shading coil material is copper. "E", "L*", has silver shading coil.