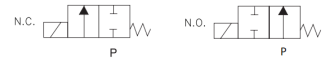


# SV320 & SV420

2-Way Differential Normally Open and Normally Closed  
Pilot Diaphragm Solenoid Valves



Valcor General Purpose Series



## DESCRIPTION

These 2-way piloted diaphragm solenoid valves are designed to operate at zero differential pressure. These sturdy construction valves are capable of handling a wide range of fluids with an operating pressure range of 0 to 200 PSI. For special applications, contact your Valcor customer service representative.

## APPLICATION

The SV320 & SV420 series are suitable for a broad range of industrial applications. Typical applications include:

- Tank drain valves
- Process control and production piping
- General on-off control of water, oil, and gas
- Gas and liquid distribution systems
- Economical choice for OEM applications.

## FEATURES

- Zero differential pilot operated construction
- Wide selection of construction materials allow for use on a variety of fluids
- Interchangeable AC and DC solenoid coils in a wide range of standard voltages
- NEMA4 as standard coil enclosure, NEMA7 Explosion proof and others available
- Differential pressures down to zero PSI
- Pressure rating up to 250 psi



## SV320 & SV420 SPECIFICATIONS

### Construction

Operating Mode	Normally Closed: Open when energized, closed when de-energized Normally Open: Closed when energized, open when de-energized
Port Size (in.)	3/8, 1/2, 3/4, 1, 1 1/4, 1 1/2
Orifice Size (in.)	5/8, 3/4, 1, 1 1/4
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	UL listed, CSA approved by order
Options	Manual override, mounting bracket

### Valve Parts in Contact With Fluid

Body	Brass, 303 stainless steel
Seals	Viton, Buna N, Ethylene propylene
Internal Metal Parts	304 and 430F stainless steel, copper

### Electrical

Standard Voltages (AC and DC coils are interchangeable)	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: Conduit, grommet, DIN, explosion proof NEMA 7, open frame, junction box
Coil	Class F and H
Lead Length	24 inches

### Coil Data

Model		SV320		SV420	
Frequency		50	60	50	60
Power (VA)	Inrush	37	30	35	30
	Holding	18	13	19	14
Power Consumption	AC	10		11	
	DC	10		10	

## SV320 & SV420 SPECIFICATIONS

### Specifications for SV320 Normally Closed

Port Size	Orifice Size (ins.)	C <sub>v</sub>	Min PSI	Operating Pressure Differential							Max Fluid Temp °F	Model Number	
				Max Pressure (PSI)								Normally Closed	
				Air/Gas		Water		Lt. Oil		Steam		Brass	Stainless Steel
AC	DC	AC	DC	AC	DC	AC							
3/8	5/8	4.3	0	140	90	100	90	90	70	-	180	SV320GF02N5CG4	SV320GF02J7CG4
	5/8	4.3	0	140	90	100	90	-	-	-	295	SV320GF02C5CG4	SV320GF02E7CG4
	5/8	4.3	0	-	-	-	-	-	-	50	295	SV320GH02C5CG4	SV320GH02E7CG4
1/2	5/8	4.3	0	140	90	140	90	90	70	-	180	SV320GF02N5DG4	SV320GF02J7DG4
	5/8	4.3	0	140	90	140	50	-	-	-	210	SV320GF02C5DG4	SV320GF02E7DG4
	5/8	4.3	0	-	-	-	-	-	-	50	295	SV320GH02C5DG4	SV320GH02E7DG4
3/4	3/4	6.7	0	140	90	140	190	90	70	-	180	SV320GF02N5EG5	SV320GF02J7EG5
	3/4	6.7	0	140	90	100	90	-	-	-	210	SV320GF02C5EG5	SV320GF02E7EG5
	3/4	6.7	0	-	-	-	-	-	-	50	295	SV320GH02C5EG5	SV320GH02E7EG5
1	1	11	0	100	100	100	100	-	-	-	180	SV320GF02N5FG9	SV320GF02J7FG9
	1	11	0	100	100	100	100	-	-	-	210	SV320GF02C5FG9	SV320GF02E7FG9
	1	11	0	-	-	-	-	-	-	50	295	SV320GH02C5FG9	SV320GH02E7FG9
1 1/4	1 1/4	18	0	100	100	100	100	-	-	-	180	SV320GF02N5GJ2	SV320GF02J7GJ2
	1 1/4	18	0	-	-	-	-	-	-	50	295	SV320GH02C5GJ2	SV320GH02E7GJ2
1 1/2	1 1/4	23	0	100	100	100	100	-	-	-	180	SV320GF02N5HJ2	SV320GF02J7HJ2
	1 1/4	23	0	-	-	-	-	-	-	50	295	SV320GH02C5HJ2	SV320GH02E7HJ2

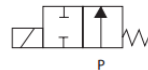
Normally Closed



### Specifications for SV420 Normally Open

Port Size	Orifice Size (ins.)	C <sub>v</sub>	Min PSI	Operating Pressure Differential							Max Fluid Temp °F	Model Number	
				Max Pressure (PSI)								Normally Closed	
				Air/Gas		Water		Lt. Oil		Steam		Brass	Stainless Steel
AC	DC	AC	DC	AC	DC	AC							
5/8	5/8	3.3	0	200	125	200	125	200	125	-	180	SV420GF02N5CG4	SV420GF02J7CG4
	5/8	3.3	0	200	125	200	125	-	-	-	295	SV420GF02C5CG4	SV420GF02E7CG4
	5/8	3.3	0	-	-	-	-	-	-	50	295	SV420GH02C5CG4	SV420GH02E7CG4
1/2	5/8	4.3	0	200	125	200	125	200	125	-	180	SV420GF02N5DG4	SV420GF02J7DG4
	5/8	4.3	0	200	125	200	125	-	-	-	295	SV420GF02C5DG4	SV420GF02E7DG4
	5/8	4.3	0	-	-	-	-	-	-	50	295	SV420GH02C5DG4	SV420GH02E7DG4
3/4	3/4	6.7	0	200	125	200	125	200	125	-	180	SV420GF02N5EG5	SV420GF02J7EG5
	3/4	6.7	0	200	125	200	125	-	-	-	295	SV420GF02C5EG5	SV420GF02E7EG5
	3/4	6.7	0	-	-	-	-	-	-	50	295	SV420GH02C5EG5	SV420GH02E7EG5

Normally Open



## SV320 & SV420 SPECIFICATIONS

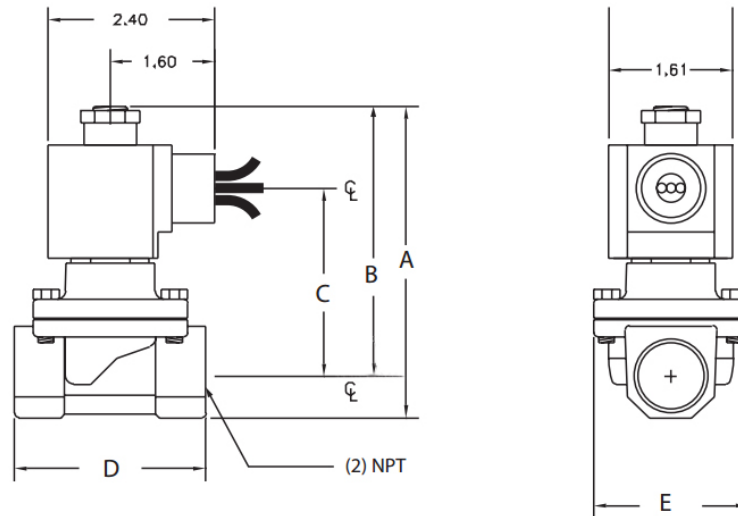
### Part Number Configurator

Example Part Number: **SV320GF02N5CG4**

Numbers 1 thru 5	6	7	8-9	10-11	12-13-14	15	
Series	Operating Mode	Housing	Coil Insulation	Applicable Voltage	Material (Seal, Body)	Port Connection (NPT) Orifice Size (in.)	Option
<b>SV320</b>	Normally Closed	<b>A</b> Conduit	<b>F</b> Class F	<b>02</b> 120V/60Hz 110V/50Hz	<b>N5</b> Buna N., Brass	<b>CG4</b> 3/8 (5/8)	<b>K</b> Mounting Bracket
		<b>P</b> Open Frame	<b>H</b> Class H	<b>04</b> 220V/60Hz 220V/50Hz	<b>V5</b> Viton, Brass	<b>DG4</b> 1/2 (5/8)	<b>M</b> Manual Override
<b>SV420</b>	Normally Open	<b>B</b> Grommet		<b>01</b> 24V/60Hz	<b>C5</b> EPR, Brass	<b>EG5</b> 3/4 (3/4)	<b>N</b> Neon Lamp with Surge Suppressor
		<b>X</b> Explosion Proof NEMA 7		<b>15</b> 12V DC	<b>J7</b> Buna N, 316 SS	<b>FG9</b> 1 (1)	<b>Z</b> Surge Suppressor
		<b>S</b> Junction Box		<b>16</b> 24V DC	<b>L7</b> Viton, 316 SS	<b>GJ2</b> 1 1/4 (1 1/4)	
		<b>G</b> Watertight NEMA4			<b>E7</b> Ethylene Propylene, 316 SS	<b>HJ2</b> 1 1/2 (1 1/4)	<b>NZ</b> Apply to housing with DIN (Y)
		<b>Y</b> DIN					

\*Class H Coil Recommended for Steam and Other High Temperature Applications

### External Dimensions



Series	Port Connection NPT (in.)	A	B	C	D	E	F	Weight (lbs)
<b>SV320 Normally Closed</b>	3/8 · 1/2	3.9	3.35	2.20	2.76	2.20	1.61	2.00
	3/4	4.09	3.46	2.32	2.76	2.20	1.61	2.20
	1	5.12	4.29	3.15	3.62	3.23		3.80
	1 1/4	5.71	4.61	3.46	4.33	3.62		5.30
	1 1/2	5.71	4.61	3.46	4.33	3.62		5.70
<b>SV420 Normally Open</b>	3/8 · 1/2	4.33	3.78	2.32	2.76	2.20	1.61	2.00
	3/4	4.53	3.90	2.44	2.76	2.20	1.61	2.20