

SV320 & SV420

2-Way Zero Differential Normally Open & Normally Closed Pilot Diaphragm Solenoid Valves



Valcor Engineering Corporation



DESCRIPTION

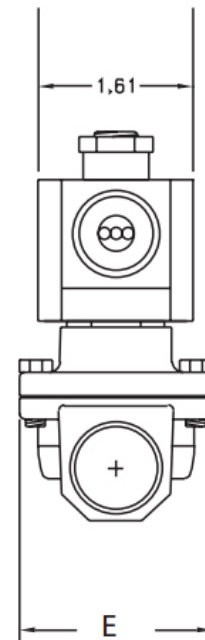
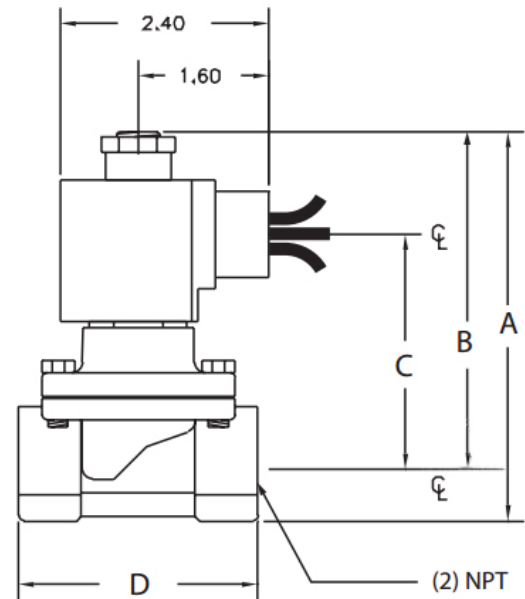
The SV320/SV420 series are pilot operated, 2-way normally closed and normally open general purpose solenoid valves designed to operate with no minimum operating or differential pressure and control the high flow of inert gases and liquids. Pilot operation enables these valves to control high flows with low power consumption in a compact envelope. They feature forged bodies for exceptional durability in typical industrial applications. Compact size and low weight allow these valves to be used in the tightest space available. UL and CSA listing available upon request.

APPLICATION

The SV320/SV420 series are suitable for a broad range of light industrial applications including industrial pneumatic, fuel gas and hydraulic systems, potable and wastewater treatment plants, associated gas purification systems, high BTU burner combustion gas control, tank drains, air humidifiers, and hot water in car/truck washes.

FEATURES

- Maximum Operating Pressure: 200 PSI
- No minimum operating or differential pressure
- Flow Rate: Cv of 3.3 to 23 available
- Leak rate: Internal: bubble tight on gas, drip tight on liquid. External: 0 cc/min at 200 PSIG
- Temperature: -140°F to 150°F standard
- 10 watts at 115/60 Hz or 24 VDC 70° F; continuous duty
- NEMA 4 coil housing standard, NEMA 7 available
- Electrical connection: 24" pigtailed standard, 1/2" conduit hub available
- Brass or stainless steel forged body
- 3/8" to 1 1/2" NPT ports based on orifice size
- Optional 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: 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	FKM, Buna N, Ethylene propylene
Internal Metal Parts	303 and 430F stainless steel, copper

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: Conduit, grommet, DIN, explosion proof NEMA 7, open frame, junction box
Coil	Class F and H
Lead Length	24 inches

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

Coil Data

Model		SV320		SV420	
Frequency		50	60	50	60
Power VA	Inrush	37	30	43	37
	Holding	18	13	23	16
Power Consumption (W)	AC	10		11	
	DC	10		10	

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Specifications for SV320 Normally Closed

Port Size	Orifice Size (ins.)	C _v	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

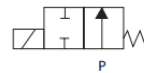
Normally Closed



Specifications for SV420 Normally Open

Port Size	Orifice Size (ins.)	C _v	Min PSI	Operating Pressure Differential							Max Fluid Temp °F	Model Number	
				Max Pressure (PSI)								Normally Open	
				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



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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
SV320	Normally Closed	A Conduit	F Class F	02	120V/60Hz 110V/50Hz	N5	Buna N., Brass	CG4	3/8 (5/8)	K Mounting Bracket
		P Open Frame	H Class H	04	220V/60Hz 220V/50Hz	V5	FKM, Brass	DG4	1/2 (5/8)	M Manual Override
SV420	Normally Open	B Grommet		01	24V/60Hz	C5	EPR, Brass	EG5	3/4 (3/4)	N Neon Lamp with Surge Suppressor
		X Explosion Proof NEMA 7		15	12V DC	J7	Buna N, 316 SS	FG9	1 (1)	Z Surge Suppressor
				16	24V DC	L7	FKM, 316 SS	GJ2	1 1/4 (1 1/4)	
		S Junction Box				E7	Ethylene Propylene, 316 SS	HJ2	1 1/2 (1 1/4)	
		G Watertight NEMA4 Y DIN								N Apply to housing with DIN (Y) Z

*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)
SV320 Normally Closed	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
SV420 Normally Open	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

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