

# SV330 & SV430

2-Way Normally Closed and Normally Open Direct Acting Solenoid Valves



Valcor Engineering Corporation



## DESCRIPTION

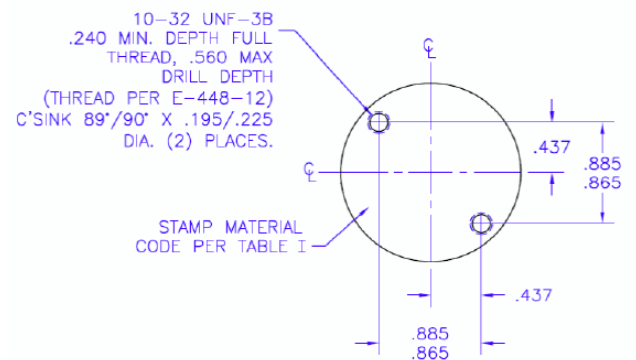
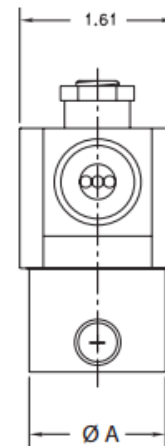
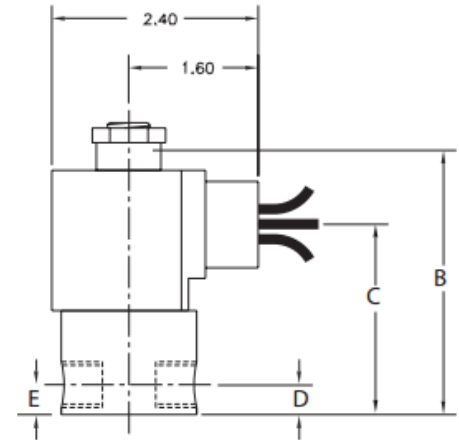
The SV330/SV430 series are direct acting, 2-way normally closed and normally open general purpose poppet-style solenoid valves designed to control inert gases and liquids. They feature machined bar stock bodies for exceptional durability in typical industrial applications. These valves are direct acting, and do not require system pressure to operate. The 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 SV330/SV430 series are suitable for a broad range of light industrial applications, including: industrial pneumatic, fuel gas and hydraulic systems, hydrogen fuel cells, CNG fuel systems, robotic pneumatic control systems, calibration and test stands, and air and water sampling for environmental analyzers.

## FEATURES

- Maximum Operating Pressure: 2400 PSI
- Flow Rate: Cv of 0.03 to 1.7 available
- Leak Rate: Internal is bubble tight on gas, drip tight on liquid. External is 0 cc/min at 2400 PSIG
- Temperature: +32°F to 125°F max standard
- 10 watts at 115/60 Hz or 24 VDC 70°F; continuous duty
- NEMA4 coil housing standard, NEMA 7 available
- Electrical Connection: 24" pigtailed standard, 1/2" conduit hub available
- Brass or stainless steel bar stock body
- 1/8", 1/4", and 3/8" NPT ports based on orifice size
- Two 10-32 UNF mounting holes in bottom of body
- 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.)	1/8, 1/4, 3/8
Orifice Size (in.)	3/64 to 3/8
Temperature Ratings	Ambient Temp: 32°F to 125°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, UL safety, UL recognized, CSA approved by order
Options	Manual override, mounting bracket

### Valve Parts in Contact With Fluid

Body	Brass, 303 stainless steel
Seals	FKM, Buna N, PTFE, EPR
Internal Metal Parts	303 and 430F stainless steel, copper or silver (AC valves only)

## Electrical

Standard Voltages	AC 24V 60Hz / 24V 50Hz 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		SV330		SV430	
Frequency		50	60	50	60
Power	Inrush	37	30	43	37
VA	Holding	18	13	23	16
Power	AC	10		11	
Consumption (W)	DC	10			

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## Specifications for SV330 Normally Closed

Normally Closed



Energized



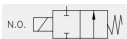
De-energized



Port Size	Orifice Size (ins.)	C <sub>v</sub>	Min PSI	Operating Pressure Differential				Model Number	
				Max Pressure (PSI)				Normally Closed	
				Gas, Liquid		Steam		Brass	303 SS
1/8	1/32	0.03	0	2400	2400	150	150	SV330GF02N8AC1	SV330GF02V2AC1
	3/64	0.05	0	1050	1000	150	150	SV330GF02N8AC3	SV330GF02V2AC3
	1/16	0.10	0	700	300	150	150	SV330GF02N8AC5	SV330GF02V2AC5
	5/64	0.15	0	500	240	150	150	SV330GF02N8AC7	SV330GF02V2AC7
	3/32	0.21	0	400	200	150	150	SV330GF02N8AC9	SV330GF02V2AC9
	7/64	0.29	0	350	170	150	150	SV330GF02N8AD3	SV330GF02V2AD3
	1/8	0.36	0	200	140	150	140	SV330GH02N8AD5	SV330GF02V2AD5
	5/32	0.44	0	150	100	150	100	SV330GF02N8AD7	SV330GF02V2AD7
	3/16	0.65	0	100	70	100	70	SV330GF02N8AE1	SV330GF02V2AE1
	1/14	0.85	0	50	20	50	20	SV330GF02N8AE7	SV330GF02V2AE7
1/4	9/32	1.0	0	35	15	35	15	SV330GF02N8AF1	SV330GF02V2AF1
	1/32	0.03	0	2400	2400	-	-	SV330GF02N8BC1	SV330GF02V3BC1
	3/64	0.05	0	1050	1000	-	-	SV330GF02N8BC3	SV330GF02V3BC3
	1/16	0.10	0	700	300	-	-	SV330GF02N8BC5	SV330GF02V3BC5
	5/64	0.15	0	500	240	-	-	SV330GF02N8BC7	SV330GF02V3BC7
	3/32	0.21	0	400	200	-	-	SV330GF02N8BC9	SV330GF02V3BC9
	7/64	0.29	0	350	170	-	-	SV330GF02N8BD3	SV330GF02V3BD3
	1/8	0.36	0	200	140	-	-	SV330GF02N8BD5	SV330GF02V3BD5
	5/32	0.44	0	150	100	-	-	SV330GF02N8BD7	SV330GF02V3BD7
	3/16	0.65	0	100	70	-	-	SV330GF02N8BE1	SV330GF02V3BE1
3/8	3/16	0.65	0	-	-	100	70	SV330GH02T8BE1	SV330GF02N3BE1
	1/4	0.85	0	50	20	-	-	---	SV330GF02V3BE7
	9/32	1.0	0	35	15	-	-	---	SV330GF02V3BF1
	1/8	0.36	0	200	140	-	-	SV330GF02N9CD5	SV330GF02V3CD5
	3/16	0.65	0	100	70	-	-	SV330GF02N9CE1	SV330GF02V3CE1
	9/32	1.00	0	35	15	-	-	SV330GF02N9CF1	SV330GF02V3CF1
	3/8	1.70	0	20	5	-	-	SV330GF02N9CF5	SV330GF02V3CF5

## Specifications for SV430 Normally Open

Normally Open



Energized



De-energized



Port Size	Orifice Size (ins.)	C <sub>v</sub>	Min PSI	Operating Pressure Differential				Model Number	
				Max Pressure (PSI)				Normally Open	
				Gas, Liquid		Steam		Brass	303 SS
1/8	3/64	0.05	0	350	350	-	-	SV430GF02N8AC3	SV430GF02V2AC3
	1/16	0.1	0	200	200	-	-	SV430GF02N8AC5	SV430GF02V2AC5
	3/32	0.2	0	105	105	-	-	SV430GF02N8AC9	SV430GF02V2AC9
	1/8	0.3	0	60	60	-	-	SV430GF02N8AD5	SV430GF02V2AD5
1/4	3/64	0.05	0	600	600	-	-	SV430GF02N8BC3	SV430GF02V3BC3
	1/16	0.1	0	325	325	-	-	SV430GF02N8BC5	SV430GF02V3BC5
	3/32	0.2	0	150	150	-	-	SV430GF02N8BC9	SV430GF02V3BC9
	1/8	0.3	0	100	100	-	-	SV430GF02N8BD5	SV430GF02V3BD5
	3/16	0.65	0	40	40	-	-	SV430GF02N8BE1	SV430GF02V3BE1
	3/16	0.65	0	-	-	30	-	SV430GH02N8BE1	SV430GH02T3BE1

Temperature ratings are based on seal components:

- EPR is rated at 295°F.
- FKM is rated at 230°F.
- Nitrile is rated at 180°F.
- PTFE is rated at 366°F.

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## Part Number Configurator

Example Part Number: SV330GF02N2AD5

Series		Operating Mode		Housing		Coil Insulation		Applicable Voltage		Seal Material		Body Code		Port Connection		Orifice Size (in.)		Option	
SV330	Normally Closed	A	Conduit	F	Class F	02	120V/60Hz 110V/50Hz	N	Buna N	2	SS 1/8" NPT	A	1/8	C1	1/32	M	Manual Override		
		P	Open Frame	H	Class H	04	220V/60Hz 220V/50Hz	V	FKM	3	SS 1/4" & 3/8" NPT	B	1/4	C3	3/64	L	Latching		
SV430	Normally Open	B	Grommet			01	24V/60Hz	T	PTFE	8	Brass 1/8" & 1/4" NPT	C	3/8	C5	1/16	NSF	NSF-61 / ANSI61 Seals		
		X	Explosion Proof NEMA 7			15	12V DC	J	Buna N*	9	Brass 3/8" NPT			C7	5/64				
		S	Junction Box			16	24V DC	C	EPR**					C9	3/32				
		G	Watertight NEMA4					L	FKM*					D5	1/8				
								E	EPR*					D7	5/32				
														E1	3/16				
														E7	1/4				
														F1	9/32				
														F5	3/8				

- 1.) \*Standard shading coil material is copper. "J", "L", "E" has silver shading coil.
- 2.) Coil wattage for SV330 is 10W for AC & DC, for SV430 11W on AC and 10W on DC. Contact Valcor for low wattage options.
- 3.) \*\*Use Seal Material "C" with optional NSF seal selection.

## External Dimensions

Body Code	Port Connection NPT (in.)	Model	A	B	C	D	E	F	G	Weight (lbs)
2, 3, 8	1/8	SV330	1.22	3.10	1.71	0.29		0.61	0.73	0.90
		SV430		3.43						
				2.78 2.94						
	1/4	SV330	1.63	3.14	1.71	0.37		0.91	1.10	
		SV430		3.51						
		SV330		3.63						2.12
9	1/8	SV330	1.63	2.90	1.63	0.37		---	0.90	
		SV430		3.06						
	1/4	SV330	1.63	3.14	1.71					
		SV430		3.51						
	3/8	SV330	1.89	3.30	1.43	0.44		---	1.10	

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