

# SV33 & SV43

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



Valcor General Purpose Series



## DESCRIPTION

These compact, 2-way direct acting solenoid valves are available in normally closed and normally open operating modes. They range from 1/8" to 3/8" NPT. These robust valves feature barstock bodies, and are designed to handle a wide range of fluids with an operating pressure range of 0 PSI up to 1050 PSI. For special applications, please contact your Valcor customer service representative.

## APPLICATION

The SV33 & SV43 series are suitable for a broad range of industrial applications.

Typical applications include:

- General on-off control of water, oil, and gas
- Gas and liquid distribution systems
- Process control and production piping
- Calibration and test stands
- Pilot plant control loops
- Economical choice for OEM applications.

## FEATURES

- Direct acting construction designed for high cycles and long life
- Wide selection of construction materials allow for use on a variety of fluids
- AC and DC solenoid coils in a wide range of standard voltages
- NEMA 4 as standard coil enclosure, NEMA 7 Explosion proof and others available
- Mountable in any position



## SV33 & SV43 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.)	1/8, 1/4, 3/8
Orifice Size (in.)	3/64 to 3/8
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, PTFE, ethylene propylene, PTFE
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		SV331		SV431	
Frequency		50	60	50	60	50	60	50	60
Power (VA)	Inrush	37	30	43	37	26	22	35	30
	Holding	18	13	23	16	14	11	19	14
Power Consumption (W)	AC	10		11		8		8	
	DC	10				9			

## SV33 & SV43 SPECIFICATIONS

### Specifications for SV33 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		
				Gas, Liquid		Steam			Brass	303 SS	
1/8	3/64	0.05	0	770	420	-	-	200	SV331GF02V8AC3	SV331GF02V2AC3	
	1/16	0.10	0	560	185	-	-	200	SV331GF02V8AC5	SV331GF02V2AC5	
	3/32	0.21	0	300	130	-	-	200	SV331GF02V8AC9	SV331GF02V2AC9	
	1/8	0.32	0	155	60	-	-	200	SV331GF02V8AD5	SV331GF02V2AD5	
	1/8	0.32	0	-	100	100	60	298	SV331GH02T8AD5	SV331GH02T2AD5	
	5/32	0.43	0	105	35	-	-	200	SV331GF02V8AD7	SV331GF02V2AD7	
	3/16	0.49	0	75	20	-	-	200	SV331GF02V8AE1	SV331GF02V2AE1	
	1/4	1/16	0.10	0	560	185	-	-	200	SV331GF02V8BC5	SV331GF02V3BC5
		3/32	0.21	0	300	130	-	-	200	SV331GF02V8BC9	SV331GF02V3BD9
		5/32	0.43	0	105	35	-	-	200	SV331GF02V8BD7	SV331GF02V3BD7
	1/4	3/64	0.05	0	1050	1000	-	-	200	SV330GF02V8BC3	SV330GF02V3BC3
		1/16	0.10	0	700	300	-	-	200	SV330GF02V8BC5	SV330GF02V3BC5
5/64		0.14	0	500	240	-	-	200	SV330GF02V8BC7	SV330GF02V3BC7	
3/32		0.21	0	400	200	-	-	200	SV330GF02V8BC9	SV330GF02V3BC9	
1/8		0.36	0	200	140	-	-	200	SV330GF02V8BD5	SV330GF02V3BD5	
5/32		0.44	0	150	100	-	-	200	SV330GF02V8BD7	SV330GF02V3BD7	
3/16		0.65	0	100	70	-	-	200	SV330GF02V8BE1	SV330GF02V3BE1	
3/16		0.65	0	-	-	100	70	298	SV330GH02T8BE1	SV330GH02T3BE1	
1/4		0.85	0	50	20	-	-	200	---	SV330GF02V3BE7	
3/8	1/8	0.36	0	200	140	-	-	200	SV330GF02V9CD5	SV330GF02V3CD5	
	3/16	0.65	0	100	70	-	-	200	SV330GF02V9CE1	SV330GF02V3CE1	
	9/32	1.00	0	35	15	-	-	200	SV330GF02V9CF1	SV330GF02V3CF1	
	3/8	1.70	0	20	5	-	-	200	SV330GF02V9CF5	SV330GF02V3CF5	

Energized



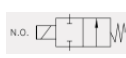
De-energized



### Specifications for SV43 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	
				Gas, Liquid		Steam			Brass	303 SS
1/8	3/64	0.05	0	350	350	-	-	200	SV431GF02V8AC3	SV431GF02V2AC3
	1/16	0.1	0	200	200	-	-	200	SV431GF02V8AC5	SV431GF02V2AC5
	3/32	0.2	0	105	105	-	-	200	SV431GF02V8AC9	SV431GF02V2AC9
	1/8	0.3	0	60	60	-	-	200	SV431GF02V8AD5	SV431GF02V2AD5
1/4	3/64	0.05	0	600	600	-	-	200	SV430GF02V8BC3	SV430GF02V3BC3
	1/16	0.1	0	325	325	-	-	200	SV430GF02V8BC5	SV430GF02V3BC5
	3/32	0.2	0	150	150	-	-	200	SV430GF02V8BC9	SV430GF02V3BC9
	1/8	0.3	0	100	100	-	-	200	SV430GF02V8BD5	SV430GF02V3BD5
	3/16	0.65	0	40	40	-	-	200	SV430GF02V8BE1	SV430GF02V3BE1
3/16	0.65	0	-	-	30	-	298	SV430GH02T8BE1	SV430GH02T3BE1	

Normally Open



Energized



De-energized



# SV33 & SV43 SPECIFICATIONS

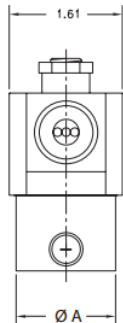
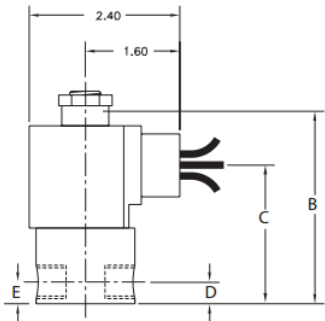
## Part Number Configurator

Example Part Number: **SV330GF02N2A D5**

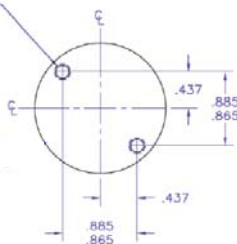
S	V	3	3	0	G	F	0	2	N	2	A	D	5				
Numbers 1 thru 5					6	7	8-9		10	11	12	13-14		15			
Series	Operating Mode	Housing		Coil Insulation		Applicable Voltage		Seal Material		Body Code		Port Connection		Orifice Size (in.)		Option	
SV330	Normally Closed	A	Conduit	F	Class F	02	120V/60Hz	N	Buna N	2	SS 1/8" NPT	A	1/8	C3	3/64	M	Manual Override
		P	Open Frame	H	Class H	04	220V/60Hz 220V/50Hz	V	Viton	3	SS 1/4" & 3/8" NPT	B	1/4	C5	1/16	L	Latching
SV430	Normally Open	B	Grommet			01	24V/60Hz	T	PTFE	8	Brass 1/8" & 1/4" NPT	C	3/8	C7	5/64	NSF	NSF-61 / ANSI61 Seals
SV331	Normally Closed	X	Explosion Proof NEMA 7			15	12V DC	J	Buna N*	9	Brass 3/8" NPT			C9	3/32		
		S	Junction Box			16	24V DC	C	Ethylene Propylene**					D5	1/8		
SV431	Normally Open	G	Watertight NEMA4					L	Viton*					D7	5/32		
								E	Ethylene Propylene*					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 SV331 8W on AC and 9 watts on DC for SV430 11W on AC and 10W on DC, for SV431 8W on AC and 9W on DC.
- 3.) \*\*Use Seal Material "C" with optional NSF seal selection.

## External Dimensions



10-32 UNF-3B  
.240 MIN. DEPTH FULL  
THREAD. .560 MAX  
DRILL DEPTH  
(THREAD PER E-448-12)  
C'SINK B9°/90° X .195/.225  
DIA. (2) PLACES.



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						
		SV331		2.78	1.63					
		SV431		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				0.45	0.98
9	1/8	SV331	1.63	2.90	1.63	0.37	---	0.90		
		SV431		3.06						
	1/4	SV330		3.14	1.71					
		SV430							3.51	
	3/8	SV330	1.89	3.30	1.43	0.44	---	1.10		