## 2-WAY GENERAL PURPOSE **SOLENOID VALVES**

**Books** Available 🖁 Online!

ooks1.com



#### SV120 Series

Starts at



- Stainless Steel Valve **Body Resists Corrosion**
- ✓ Rugged NEMA 4 (IP65) Housing
- ✓ Mounts in Any Position
- ✓ Rated for Continuous Duty
- ✓ High-Pressure Models

#### TYPICAL APPLICATIONS

- Automation
- Humidifiers
- **✓** Water Treatment
- Dispensing
- ✓ Laundry, Dry Cleaning Equipment
- Machine Tools
- Vending Machines

The direct-acting SV121 to SV127 solenoid valves consist of a coil, plunger, and sleeve assembly. In a normally closed state, a plunger return spring holds the plunger against the orifice, preventing flow through the valve. When current flows through the coil, a magnetic field is produced and it turns the stop into an electromagnet that attracts the magnetic plunger. This action compresses the return spring, allows the body orifice to open, and permits fluid flow through the valve. The pressure and flow capabilities of the direct-acting valves are limited by the power of the solenoid.

The SV128 is a pilot-operated solenoid valve. It uses the energy stored in the pressurized fluid to actuate the valving mechanism. The valves require the minimum pressure differential specified for proper valve operation. A direct-acting solenoid valve is an integral part of the pilot-operated valve and is used to affect the balance of pressure above and below a diaphragm or piston.





### DIRECT-ACTING OR PILOT-OPERATED SOLENOID VALVES, NORMALLY CLOSED, STAINLESS STEEL VALVE BODY

**Note:** 5 to 11 psi is the operating pressure range for bubble-tight sealing. Valves may leak if the pressure differential falls below

#### **SPECIFICATIONS**

Operation:

SV121 to SV127: Direct acting

SV128: Pilot operated

Wetted Parts: Stainless steel,

copper and seal

Medium: Liquid or gases

Max Static Pressure: 1.5 times max psid, vacuum (>5 microns ABS)

Ambient Temp: -9 to 50°C

(15 to 122°F)

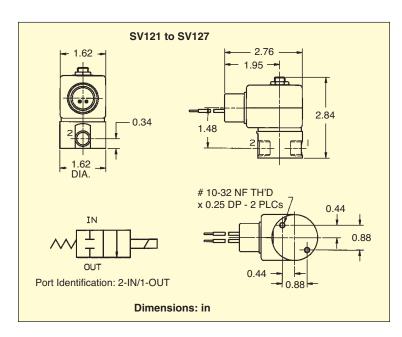
Mounting: Pipe mounting.

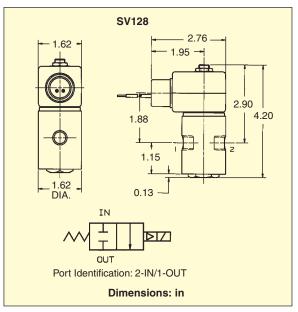
any direction

Power: 10 W, 120 Vac coils,

50 to 60 Hz

Weight: 500 g (1.1 lb)





#### MOST POPULAR MODELS HIGHLIGHTED!

To Order (	Specify	Model .	Number)									
MODEL NO.	PRICE	NPT FITTING	ORIFICE	Cv	SEAL	PRE	IFF SSURE sid) MAX	TE °C	MP (°F)	RESPONSE TIME OPEN CLOSE		
SV121	\$75	1/4	3%4	0.06	KEL-F	0	1000	74	(165)	4 to 15 ms	4 to 15 ms	
SV122	90	1/4	3/64	0.06	Viton®	0	450	116	(240)	4 to 15 ms	4 to 15 ms	
SV123	90	1/4	1/16	0.10	Viton®	0	350	116	(240)	4 to 15 ms	4 to 15 ms	
SV124	90	1/4	3/32	0.18	Viton®	0	275	116	(240)	4 to 15 ms	4 to 15 ms	
SV125	90	1/4	1/8	0.28	Viton®	0	200	116	(240)	4 to 15 ms	4 to 15 ms	
SV126	90	1/4	5/32	0.40	Viton®	0	90	116	(240)	4 to 15 ms	4 to 15 ms	
SV127	90	1/4	1/4	0.75	Viton®	0	40	116	(240)	4 to 15 ms	4 to 15 ms	
SV128*	205	1/4	1/4	0.76	PTFE	5	1500	99	(210)	30 to 60 ms	30 to 60 ms	

Note: To order 24 Vdc valves, add suffix "-24VDC" to the part number, no extra charge.

Ordering Example: SV121, direct-acting stainless steel normally closed valve with 34" orifice and KEL-F seal, \$75.

710020011120		
MODEL NO.	PRICE	DESCRIPTION
SVCOIL-110AC	\$45	Replacement coil, 110 Vac
SVCOIL-220AC	45	Replacement coil, 220 Vac
SVCOIL-24DC	45	Replacement coil, 24 Vdc
GE-2317	100	Reference Book: Valve Handbook
* Pilot operated.		

<sup>\*</sup> Pilot operated.



### 2-WAY ANTI-WATERHAMMER **SOLENOID VALVES**

#### SV280 Series

Starts at **\$185** 





- ✓ Durable Brass Valve Body
- ✓ SV283 to SV287 Offer Adjustable Closing Time and Manual Override

#### TYPICAL APPLICATIONS

- ✓ Water Treatment
- Irrigation
- Cooling
- Car Washing Equipment
- ✓ Petroleum Processing
- Dish and Bottle Washing

The SV281 through SV287 Series valves are 2-way, pilot-operated, anti-waterhammer, and normally closed. These valves are designed to reduce or control waterhammer, which typically occurs with incompressible fluids when the closing of a valve creates a sudden change of the fluid velocity. Restriction of the pilot flow in these valves will prevent them from slamming closed. Valve and piping system life is enhanced since the noise, vibration, and shock of waterhammer are reduced.

Where small flows (Cv <3.0) at relatively low pressure differentials are present, the waterhammer is eliminated by the fixed restriction of the pilot flow. This is the standard design in the industry. The SV283 through SV287 valvés offer additional features. To reduce



waterhammer in high-flow applications, a unique field adjustment device can effectively control the waterhammer in an application. The closing time on these valves can be adjusted by a 4-position selector. Position 1 allows the fastest closing, position 4 the slowest. There is also a manual override screw that is only used if the coil has failed.

#### **SPECIFICATIONS**

Operation: SV281 to SV287 pilot

operated

Wetted Parts: Brass, stainless steel,

copper, and seal

(SV281 and SV282, also Viton®)

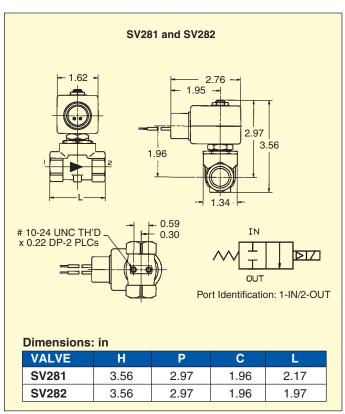
Medium: Liquid or gases

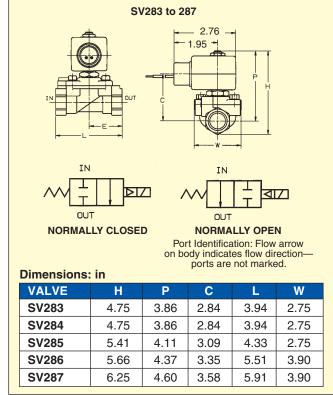
Max Static Pressure: 5 times max psid Ambient Temp: 9 to 50°C (15 to 122°F) Mounting: Pipe mounting, any direction

Power: 10 W, 120 Vac, Class F

### PILOT-OPERATED, NORMALLY CLOSED, BRASS VALVE BODY, 2-WAY ANTI-WATERHAMMER SOLENOID VALVES







#### MOST POPULAR MODELS HIGHLIGHTED!

To Order (	To Order <i>(Specify Model Number)</i>										
		NPT				DIFF PRES (psid)				RESPONSE TIME	
MODEL NO.	PRICE	FITTING	ORIFICE	Cv	SEAL	MIN	MAX	ပ္	(°F)	OPEN	CLOSE
SV281*	\$185	3/8	7/16	2.5	Buna-N	3	150	85	(185)	15 ms	850 ms
SV282*	185	1/2	%6	2.5	Buna-N	3	150	85	(185)	15 ms	850 ms
SV283	240	3/4	3/4	9.6	Buna-N	5	230	85	(185)	100 to 250 ms	0.6 to 4.5 s
SV284	460	1	1	12.5	Buna-N	5	230	85	(185)	100 to 250 ms	0.5 to 4.5 s
SV285	440	11/4	1%	19.3	Buna-N	5	230	85	(185)	250 to 500 ms	0.8 to 5.8 s
SV286	660	1½	<b>1</b> %6	29.0	Buna-N	5	230	85	(185)	250 to 400 ms	1.5 to 9.0 s
SV287	755	2	<b>1</b> %6	38.6	Buna-N	5	230	85	(185)	250 to 450 ms	1.5 to 9.5 s

<sup>\*</sup> Response time is non-adjustable.

Note: To order 24 Vdc valves, add suffix "-24VDC" to the part number, no extra charge.

Ordering Example: SV283, 2-way, anti-waterhammer, pilot-operated, brass body NC valve with ¾" orifice and Buna-N seal, \$240.

ACCECCOTTEC		
MODEL NO.	PRICE	DESCRIPTION
SVCOIL-110AC	\$30	Replacement coil, 110 Vac
SVCOIL-220AC	30	Replacement coil, 220 Vac
SVCOIL-24DC	30	Replacement coil, 24 Vdc
GE-2317	100	Reference Book: Valve Handbook



3-WAY AND 4-WAY SOLENOID VALVES DIRECT-ACTING OR PILOT-OPERATED, NORMALLY OPEN

OR CLOSED, BRASS VALVE BODY

**SV240 Series** 3-Way General Purpose **SV250 Series** 3-Way Switchable NO/NC **SV260 Series** 3-Way Quick Exhaust **SV270 Series** 4-Way General Purpose

Starts at \$120



- General Purpose, Quick Exhaust, and Selectable NO/NC Models
- ✓ Rugged NEMA 4 (IP65) Housing
- ✓ Mounts in Any Position
- Rated for Continuous Duty

#### TYPICAL APPLICATIONS

- ✓ Mobile Equipment
- Gas Sampling
- ✓ Compressors
- ✓ Ball Valve Actuators
- Cylinders
- Dispensing
- Laundry Equipment
- ✓ Machine Tool Equipment

The SV241, SV242, and SV261 Series valves are 3-way, direct-acting, and normally closed. The SV241 and SV242 can be used for liquids or gases, while the SV261 offers a quick-exhaust feature and is limited to air use. The most common application for these 3-way valves is the control of single-acting cylinders or spring-return actuators. The pressure inlet port is blocked in the de-energized position.

A 3-way normally closed valve has 3 ports labeled 1, 2, and 3. When de-energized, no flow occurs from port 1, but there is flow from port 2 to 3. When energized, flow occurs from port 1 to 2, but no flow occurs

Technical **Books** Available 🍹 Online! SV251, \$120, shown larger books1.con than actual size. SV271, \$195, shown larger than actual size. from port 3. Usually, 3-way valves are used to

from port 3. Usually,
3-way valves are used to
control larger pneumatically activated
valves. Port 1 is connected to the
pressure source, port 2 is connected to the
cylinder controlling the pneumatic
activation, and port 3 is the exhaust port
vented to the room.

The SV251 is a multipurpose 3-way valve and can be used as normally open or

normally closed. During installation, for normally closed select port 1 as supply pressure. Port 2 is connected to the pneumatic cylinder, and port 3 is the exhaust port. To configure as normally open, select port 3 as supply pressure. Port 2 is connected to the pneumatic cylinder, and port 1 is the exhaust port. The SV251 can be used for liquids or gases.

SV242, \$120, shown larger than actual size.

SV261, \$260,

shown larger than actual size.

The SV271 is a 4-way, 5-ported solenoid valve, rated for air applications only. It is a 2-position, pilot-operated valve typically used to control double-acting cylinders or pneumatic actuators. A 4-way valve has

## DIRECT-ACTING OR PILOT-OPERATED, NORMALLY OPEN OR CLOSED, BRASS VALVE BODY, 3-WAY OR 4-WAY SOLENOID VALVES



ports labeled 1, 2, 3, 4, and 5. When de-energized, pressure is supplied to port 1, which is open to cylinder port 4 and closed to cylinder port 2. Port 4 is closed to exhaust port 3. When energized, pressure port 1 is closed to cylinder port 4 and open to cylinder port 2. Cylinder port 2 is closed to exhaust

port 3. Cylinder port 4 is open to exhaust port 5.

#### **SPECIFICATIONS**

Operation:

SV241, SV242 and SV251:

Direct acting

SV261, SV271: Pilot operated

Wetted Parts: Brass, stainless steel,

copper and seal

SV241: Also Delrin®,

SV271: Aluminum, Delrin®, stainless

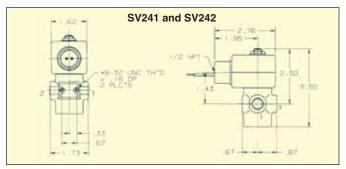
steel, copper and seal

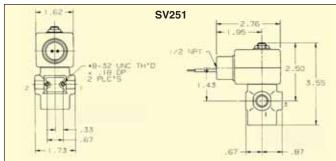
Medium: Liquid or gases as specified in

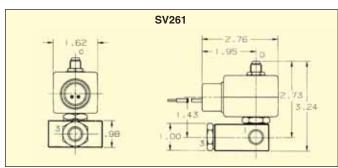
"To Order" chart

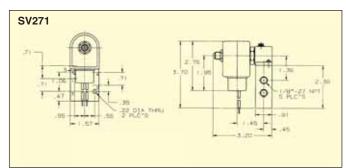
Max Static Pressure: 5 times max psid Ambient Temp: -9 to 50°C (15 to 122°F) Mounting: Pipe mounting, any direction

Power: 10 W, 120 Vac coils, 50 to 60 Hz









#### MOST POPULAR MODELS HIGHLIGHTED!

To Order (	Specif	y Mode	Number)								
		NPT				DIFF PRES (psid)		TEMP		RESPON	ISE TIME
MODEL NO.	PRICE	FITTING	ORIFICE	C <sub>V</sub>	SEAL	MIN	MAX	°C	(°F)	OPEN	CLOSE
3-Way General Purpose, Direct Acting, Normally Closed, Brass Body											
SV241	\$120	1/4	5∕ <sub>64</sub> , 1⁄ <sub>8</sub>	0.17, 0.31	Viton®	0	150	116	(240)	10 ms	10 ms
SV242	120	1/4	3/32 <b>,</b> 9/64	0.24, 0.38	Viton®	0	100	116	(240)	10 ms	10 ms
3-Way Select	3-Way Selectable Service, Direct Acting, User-Selectable NO or NC, Brass Body										
SV251	\$120	1/4	5/64, 5/64	0.17, 0.17	Viton®	0	100	116	(240)	10 ms	10 ms
3-Way Quick	Exhaust	, Pilot Ope	rated, Norma	ally Closed,	Brass Bod	ly, Air O	nly				
SV261	\$260	1/4	3/32, 1/4	0.20, 1.1	Buna-N	2	100	85	(185)	15 ms	45 ms
4-Way Gener	al Purpo	se, Pilot O	perated, Nor	mally Closed	d, Aluminu	ım Body	, Air On	ly			
SV271	\$195	1/8	5/32	0.35	Buna-N	15	150	74	(165)	10 to 30 ms	10 to 30 ms

Note: To order 24 Vdc valves, add suffix "-24VDC" to the part number, no extra charge.

Ordering Example: SV251, 3-way direct-acting valve, user-selectable NO/NC with brass body and % orifice with Viton® seals, \$120.

MODEL NO.	PRICE	DESCRIPTION					
SVCOIL-110AC	\$45	Replacement coil, 110 Vac					
SVCOIL-220AC	45	Replacement coil, 220 Vac					
SVCOIL-24DC	45	Replacement coil, 24 Vdc					
ME-1723	225	Reference Book: Handbook of Industrial Robotics					



### 2-WAY STEAM SOLENOID VALVES DIRECT LIFT, NORMALLY CLOSED, BRASS VALVE BODY, EPDM SEALS

#### SV230 Series





- ✓ Rated for 141°C (285°F) Steam
- Rugged NEMA 4 (IP65) Housing
- Mounts in Any Position
- Rated for Continuous Duty

#### TYPICAL APPLICATIONS

- Heating and Cooling
- Commercial Dish Washing Equipment
- Car Washing Equipment
- ✓ Food Processing
- Commercial Laundry Equipment
- Bottle Washing
- Sterilizing Equipment

The SV230 Series valves are designed for low-pressure steam applications in which the valve must operate when the pressure drop across the valve falls into the 0 to 5 psi range. These valves are able to control steam up to 45 psi at 143°C (290°F). All seals are made of ethylene propylene for compatibility with steam over a wide temperature range and for trouble-free, bubble-tight service.

The SV231 through SV235 are direct-lift valves, which combine the features of a direct-acting valve with those of a pilot-operated valve. Because of a flexible link between the solenoid plunger and the diaphragm, the direct-lift valve functions as a direct-acting valve at low pressures and as a pilot-operated valve at high pressures. It is sometimes referred to as a zero delta pressure valve or a hung diaphragm valve.



# DIRECT LIFT, NORMALLY CLOSED, BRASS VALVE BODY, STEAM SOLENOID VALVES, EPDM SEALS



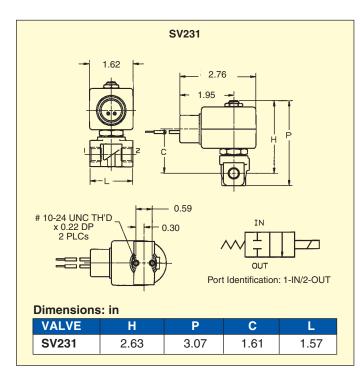
#### **SPECIFICATIONS**

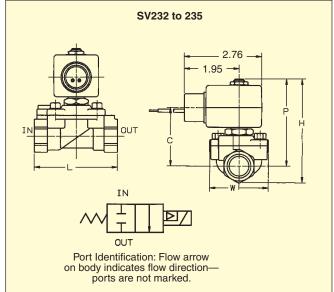
**Operation:** Direct lift

Wetted Parts: Brass, stainless steel, copper and seal

Medium: Liquid or gases

Max Static Pressure: 5 times max psid Ambient Temp: -9 to 50°C (15 to 122°F) Mounting: Pipe mounting, any direction Power: 22 W, 120 Vac, 50 to 60 Hz, Class H





#### **Dimensions: in**

VALVE	Н	P	С	L	W
SV232	3.66	3.07	2.06	2.95	2.09
SV233	3.66	3.07	2.06	2.95	2.09
SV234	3.75	3.07	2.06	3.15	2.09
SV235	4.25	3.35	2.34	3.94	2.75

#### **MOST POPULAR MODELS HIGHLIGHTED!**

To Order <i>(</i>	To Order (Specify Model Number)										
MODEL NO.	PRICE	NPT FITTING	ORIFICE	Cv	SEAL	DIFF PR	ES (psid) MAX	°C	MP (°F)	RESPON OPEN	ISE TIME CLOSE
SV231	\$85	1/4	13/64	0.76	EDPM	0	40	141	285	4 to 8 ms	4 to 8 ms
SV232	135	3/8	5/8	4.4	EDPM	0	45	145	293	30 to 100 ms	350 to 900 ms
SV233	145	1/2	5%	4.4	EDPM	0	45	145	293	30 to 100 ms	350 to 900 ms
SV234	150	3/4	5%	5.5	EDPM	0	45	145	293	30 to 100 ms	350 to 900 ms
SV235	286	1	1	11.7	EDPM	0	45	145	293	30 to 100 ms	350 to 900 ms

Note: To order 24 Vdc valves, add suffix "-24VDC" to the part number, no extra charge.

Ordering Example: SV232, 2-way direct-lift steam valve, NC with a brass body and 5/4" orifice with EDPM seal, \$135.

#### **ACCESSORY**

MODEL NO.	PRICE	DESCRIPTION
CM-4333	\$115	Reference Book: Plantwide Process Control



## 2-WAY HOT WATER SOLENOID VALVES DIRECT LIFT, NORMALLY CLOSED, BRASS VALVE BODY

#### SV220 Series

Starts at \$75



- ✓ Rated for 99°C (210°F) Hot Water
- ✓ Rugged NEMA 4 (IP65) Housing
- Mounts in Any Position
- ✓ Rated for Continuous Duty

#### TYPICAL APPLICATIONS

- Heating and Cooling
- Commercial Dish Washing Equipment
- Car Washing Equipment
- ✓ Food Processing
- Commercial Laundry Equipment
- Bottle Washing
- Sterilizing Equipment

The SV220 Series valves are designed for hot water applications in which the valve must operate at times when the pressure drop across the valve falls into the 0 to 5 psi range. The SV222 through SV225 valves are able to control hot water up to 150 psi at 99°C (210°F). The seals are made of ethylene propylene, for hot water compatibility over a wide temperature range as well as trouble-free, bubble-tight service.

The SV221 through SV225 are direct-lift valves, which combine the features of a direct-acting valve with those of a pilot-operated valve. Because of a flexible link between the solenoid plunger and the diaphragm, the direct-lift valve functions as a direct-acting valve at low pressures and as a pilot-operated valve at high pressures. It is sometimes referred to as a zero delta pressure valve or a hung diaphragm valve.



## DIRECT LIFT, NORMALLY CLOSED, BRASS VALVE BODY, HOT WATER SOLENOID VALVES



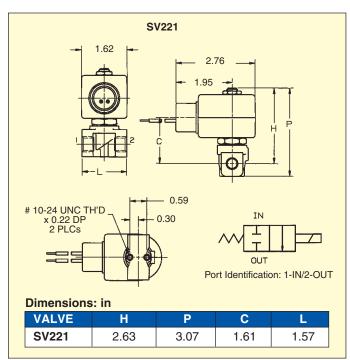
#### **SPECIFICATIONS**

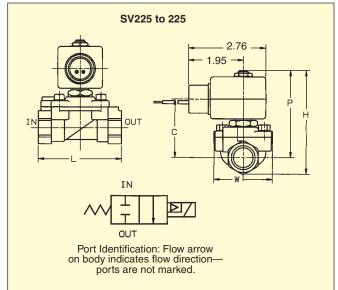
**Operation:** Direct lift

Wetted Parts: Brass, stainless steel, copper and seal

Medium: Liquid or gases

Max Static Pressure: 5 times max psid **Ambient Temp:** -9 to 50°C (15 to 122°F) Mounting: Pipe mounting, any direction Power: 10 W, 120 Vac, Class F





#### Dimensions: in

VALVE	Н	P	С	L	W
SV222	3.66	3.07	2.06	2.95	2.09
SV223	3.66	3.07	2.06	2.95	2.09
SV224	3.75	3.07	2.06	3.15	2.09
SV225	4.25	3.35	2.34	3.94	2.75

#### **MOST POPULAR MODELS HIGHLIGHTED!**

To Order (	To Order <i>(Specify Model Number)</i>										
MODEL NO.	DDICE	NPT	ORIFICE	Cv	SEAL	DIFF PRES (psid)		TEMP °C (°F)		RESPONSE TIME OPEN CLOSE	
SV221	\$75	1/4	13/64	0.76	EDPM	0	100	99	(210)	4 to 8 ms	4 to 8 ms
SV222	125	3/8	5/8	4.4	EDPM	0	150	99	(210)	30 to 100 ms	30 to 100 ms
SV223	130	1/2	5/8	4.4	EDPM	0	150	99	(210)	30 to 100 ms	30 to 100 ms
SV224	130	3/4	5%	5.5	EDPM	0	150	99	(210)	30 to 100 ms	30 to 100 ms
SV225	295	1	1	11.7	EDPM	0	150	99	(210)	30 to 100 ms	30 to 100 ms

Note: To order 24 Vdc valves, add suffix "-24VDC" to the part number, no extra charge.

Ordering Example: SV222, 2-way direct-lift hot water valve, NC with a brass body and %" orifice with EDPM seal, \$125.

MODEL NO.	PRICE	DESCRIPTION
SVCOIL-110AC	\$45	Replacement coil, 110 Vac
SVCOIL-220AC	45	Replacement coil, 220 Vac
SVCOIL-24DC	45	Replacement coil, 24 Vdc
GE-2106	100	Reference Book: Systems Engineering Guidebook

#### SV210 Series



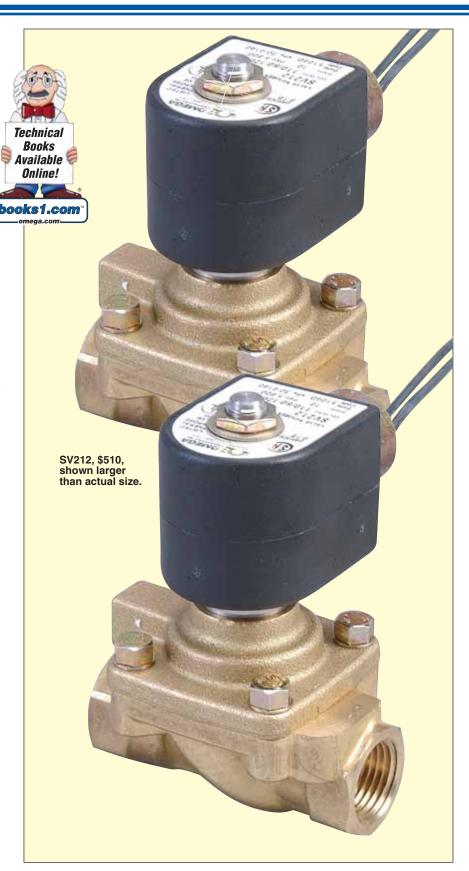


- Durable Brass Valve Body
- ✓ Rugged NEMA 4 (IP65) Housing
- Mounts in Any Position
- Rated for Continuous Duty

#### TYPICAL APPLICATIONS

- ✓ Water Treatment
- ✓ Dry Cleaning
- Commercial Laundry Equipment
- ✓ Irrigation
- Cooling
- ✓ Petroleum Processing
- ✓ Dish and Bottle Washing
- ✓ Pollution Control
- Heat Exchangers

The SV211 through SV217 are pilot-operated solenoid valves. These valves use the energy stored in the pressurized fluid to actuate the valving mechanism. They require the minimum pressure differential specified for proper valve operation. A direct-acting, normally open solenoid valve is an integral part of the pilot-operated valve and is used to affect the balance of pressure above and below a diaphragm or piston.



## LARGE ORIFICE, PILOT-OPERATED, NORMALLY OPEN, BRASS VALVE BODY



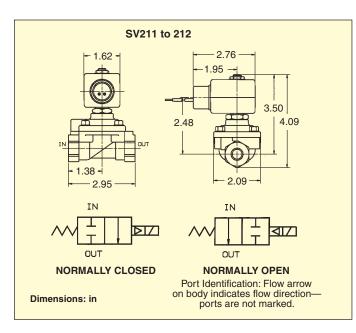
#### **SPECIFICATIONS**

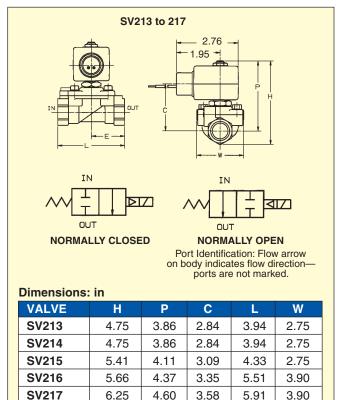
**Operation:** Pilot operated

Wetted Parts: Brass, stainless steel, copper and seal

Medium: Liquid or gases

Max Static Pressure: 5 times max psid Ambient Temp: -9 to 50°C (15 to 122°F) Mounting: Pipe mounting, any direction Power: 10 W, 120 Vac, Class F





#### MOST POPULAR MODELS HIGHLIGHTED!

To Order <i>(Specify Model Number)</i>											
MODEL NO.	PRICE	NPT FITTING	ORIFICE	Cv	SEAL	DIFF PI	RES (psid) MAX	°C	EMP (°F)	RESPON OPEN	NSE TIME CLOSE
SV211	\$350	3%	7/16	3.5	Buna-N	5	600	85	(185)	120 ms	200 ms
SV212	510	1/2	%6	4.1	Buna-N	5	600	85	(185)	120 ms	200 ms
SV213	260	3/4	3/4	9.6	Buna-N	5	230	85	(185)	50 to 80 ms	0.6 to 4.5 s
SV214	280	1	1	12.5	Buna-N	5	230	85	(185)	50 to 80 ms	0.6 to 4.5 s
SV215	290	11/4	11%	19.3	Buna-N	5	230	85	(185)	50 to 80 ms	0.8 to 5.8 s
SV216	495	1½	<b>1</b> %6	29.0	Buna-N	5	170	85	(185)	50 to 80 ms	1.5 to 9.0 s
SV217	630	2	<b>1</b> %6	38.6	Buna-N	5	170	85	(185)	50 to 80 ms	1.5 to 9.5 s

Note: To order 24 Vdc valves, add suffix "-24VDC" to the part number, no extra charge.

Ordering Example: SV212, pilot-operated brass body normally open valve with %" orifice and Buna-N seal, \$510.

MODEL NO.	PRICE	DESCRIPTION
SVCOIL-110AC	\$45	Replacement coil, 110 Vac
SVCOIL-220AC	45	Replacement coil, 220 Vac
SVCOIL-24DC	45	Replacement coil, 24 Vdc
GE-2428	110	Reference Book: Controls and Automation for Facilities Managers



## 2-WAY GENERAL PURPOSE SOLENOID VALVES

#### **SV200 Series**

Starts at \$120



- Durable Brass Valve Body
- ✓ Rugged NEMA 4 (IP65) Housing
- ✓ Mounts in Any Position
- Rated for Continuous Duty

#### TYPICAL APPLICATIONS

- ✓ Water Treatment
- Dry Cleaning
- Commercial Laundry Equipment
- Irrigation
- Cooling
- Petroleum Processing
- Dish and Bottle Washing
- Pollution Control
- Heat Exchangers

The SV201 and SV202 are direct-lift valves, which combine the features of a direct-acting valve with those of a pilot-operated valve. Because of a flexible link between the solenoid plunger and the diaphragm, the direct-lift valve functions as a direct-acting valve at low pressures and as a pilot-operated valve at high pressures. It is sometimes referred to as a zero delta pressure valve or a hung diaphragm valve.

The SV203 through SV207 are pilotoperated solenoid valves. These valves use the energy stored in the pressurized fluid to actuate the valving mechanism. They require



the minimum pressure differential specified for proper valve operation. A direct-acting, normally closed solenoid valve is an integral part of the pilot-operated valve and is used to affect the balance of pressure above and below a diaphragm or piston.

#### **SPECIFICATIONS**

Operation:

SV201 and SV202: Direct lift SV203 to SV207: Pilot operated Wetted Parts: Brass, stainless steel, copper and seal Medium: Liquid or gases Max Static Pressure: 5 times max psid Ambient Temp: -9 to 50°C

Books

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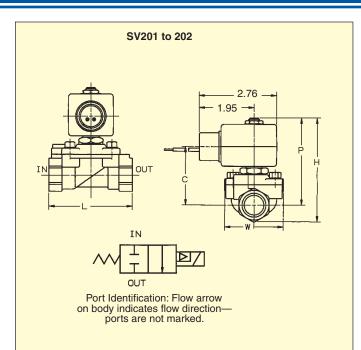
(15 to 122°F)

Mounting: Pipe mounting, any direction

Power: 10 W, 120 Vac, Class F

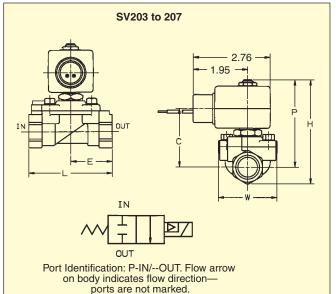
## LARGE ORIFICE, DIRECT-ACTING OR PILOT-OPERATED, NORMALLY CLOSED, BRASS VALVE BODY





#### **Dimensions: in**

VALVE	i.	P	С	L	W
SV201	3.66	3.07	2.06	2.95	2.09
SV202	3.66	3.07	2.06	2.95	2.09



#### Dimensions: in

VALVE	H	P	C	L	W
SV203	4.75	3.86	2.84	3.94	2.75
SV204	4.75	3.86	2.84	3.94	2.75
SV205	5.41	4.11	3.09	4.33	2.75
SV206	5.66	4.37	3.35	5.51	3.90
SV207	6.25	4.60	3.58	5.91	3.90

#### **MOST POPULAR MODELS HIGHLIGHTED!**

To Order <i>(Specify Model Number)</i>											
		NPT					DIFF PRES (psid)		EMP	RESPONSE TIME	
MODEL NO.	PRICE	FITTING	ORIFICE	C <sub>V</sub>	SEAL	MIN	MAX	ိုင	(°F)	OPEN	CLOSE
SV201	\$120	3/8	19/32	4.4	Buna-N	0	230	85	(185)	30 to 100 ms	350 to 900 ms*
SV202	120	1/2	19/32	4.4	Buna-N	0	230	85	(185)	30 to 100 ms	350 to 900 ms*
SV203	175	3/4	25/32	9.6	Buna-N	5	230	85	(185)	50 to 80 ms	1.8 to 3 s
SV204	215	1	1	12.5	Buna-N	5	230	85	(185)	50 to 80 ms	1.8 to 3 s
SV205	260	11/4	11%	19.3	Buna-N	5	230	85	(185)	50 to 80 ms	1.8 to 3 s
SV206	445	1½	<b>1</b> %6	29.0	Buna-N	5	230	85	(185)	50 to 80 ms	1.8 to 3 s
SV207	510	2	<b>1</b> %6	38.6	Buna-N	5	230	85	(185)	50 to 80 ms	1.8 to 3 s

<sup>\*</sup> Non-adjustable response time.

Note: To order 24 Vdc valves, add suffix "-24VDC" to the part number, no extra charge.

Ordering Example: SV203, pilot-operated brass body NC valve with ¾" orifice and Buna-N seal, \$160.

MODEL NO.	PRICE	DESCRIPTION
SVCOIL-110AC	\$45	Replacement coil, 110 Vac
SVCOIL-220AC	45	Replacement coil, 220 Vac
SVCOIL-24DC	45	Replacement coil, 24 Vdc
MS-1808	125	Reference Book: Plant Engineer's Handbook

## 2-WAY GENERAL PURPOSE SOLENOID VALVES



DIRECT ACTING, NORMALLY OPEN, STAINLESS STEEL VALVE BODY

#### SV130 Series

\$105



- Stainless Steel Valve Body Resists Corrosion
- ✓ Rugged NEMA 4 (IP65) Housing
- ✓ Mounts in Any Position
- Rated for Continuous Duty

#### TYPICAL APPLICATIONS

- Automation
- Humidifiers
- Water Treatment
- Dispensing
- Laundry, Dry Cleaning Equipment
- Machine Tools
- Vending Machines

The SV130 Series direct-acting solenoid valves consist of a coil, plunger, and sleeve assembly. In a normally open valve, a plunger return spring holds the plunger away from the orifice, allowing flow



SV133, \$105, shown larger than actual size.

through the valve. When current flows through the coil, a magnetic field is produced and it turns the stop into an electromagnet that attracts the magnetic plunger.

This action compresses the return spring and brings the plunger against the orifice to prevent

flow through the valve.

#### **SPECIFICATIONS**

Wetted Parts: Stainless steel, copper and seal Medium: Liquid or gases Max Static Pressure:

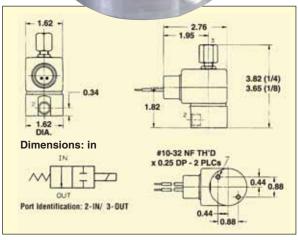
1.5 times max psid, vacuum (>5 microns ABS) Ambient Temp: -9 to 50°C

(15 to 122°F)

Mounting: Pipe mounting,

any direction

**Power:** 10 W, 120 Vac coils, 50 to 60 Hz **Weight:** 500 g (1.1 lb)



#### MOST POPULAR MODELS HIGHLIGHTED!

#### To Order (Specify Model Number) DIFF PRES (psid) MIN MAX **NPT TEMP RESPONSE TIME** MODEL NO. **PRICE FITTING ORIFICE** $C_{v}$ **SEAL** °C (°F) **OPEN CLOSE SV131** \$105 1/4 3/64 0.05 Viton® 0 400 116 (240)4 to 15 ms 4 to 15 ms SV132 105 1/4 0.11 Viton® 0 325 4 to 15 ms 4 to 15 ms 1/16 116 (240)**SV133** 105 1/4 Viton® 250 3/32 0.15 0 116 (240)4 to 15 ms 4 to 15 ms

Note: To order 24 Vdc valves, add suffix "-24VDC" to the part number, no extra charge.

Ordering Example: SV131, direct-acting stainless steel normally open valve with a 3/4" orifice and Viton® seal, \$105.

MODEL NO.	PRICE	DESCRIPTION
SVCOIL-110AC	\$45	Replacement coil, 110 Vac
SVCOIL-220AC	45	Replacement coil, 220 Vac
SVCOIL-24DC	45	Replacement coil, 24 Vdc
MS-1783	58	Reference Book: Bottom-Line Automation

## 2-WAY ANTI-WATERHAMMER SOLENOID VALVES

#### SV290 Series





- Durable Brass Valve Body
- Adjustable Closing Time
- ✓ Rugged NEMA 4 (IP65) Housing
- ✓ Mounts in Any Position
- Rated for Continuous Use

#### TYPICAL APPLICATIONS

- ✓ Water Treatment
- Irrigation
- Cooling
- Car Washing Equipment
- Petroleum Processing
- Dish and Bottle Washing

The SV291 through SV295 Series valves are 2-way, pilot operated, anti-waterhammer, and normally open. These valves are designed to reduce or control waterhammer, which typically occurs with incompressible fluids when the closing of a valve creates a sudden change of the fluid velocity. Restriction of the pilot flow in these valves will prevent them from slamming closed. Valve and piping system life is enhanced since the noise, vibration, and shock of waterhammer are reduced.

Where small flows ( $C_V < 3.0$ ) at relatively low pressure differentials are present, the waterhammer is eliminated by the fixed restriction of



the pilot flow. This is the standard design for the industry. However, to reduce waterhammer in high-flow applications, a unique field adjustment device can effectively control the waterhammer in an application. The closing time on these valves can be adjusted by a 4-position selector. Position 1 allows the fastest closing, position 4 the slowest.

#### SPECIFICATIONS

Operation: Pilot operated

Wetted Parts: Brass, stainless steel,

copper, and seal

Medium: Liquid or gases

Max Static Pressure: 5 times max psid

Ambient Temp: -9 to 50°C

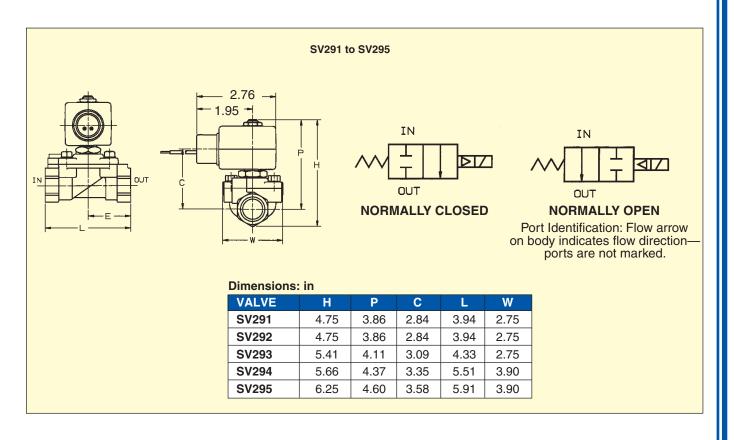
(15 to 122°F)

Mounting: Pipe mounting, any direction

Power: 10 W, 120 Vac, Class F

### PILOT-OPERATED, NORMALLY OPEN, BRASS VALVE BODY, 2-WAY ANTI-WATERHAMMER SOLENOID VALVES





#### MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)											
MODEL NO.	PRICE	NPT FITTING	ORIFICE	Cv	SEAL	DIFF PF MIN	RES (psid) MAX	°C	EMP (°F)	RESPON OPEN	SE TIME CLOSE
SV291	\$340	3/4	3/4	9.6	Buna-N	5	230	85	(185)	100 to 250 ms	0.6 to 4.5 s
SV292	480	1	1	12.5	Buna-N	5	230	85	(185)	100 to 250 ms	0.5 to 4.5 s
SV293	495	11/4	11%	19.3	Buna-N	5	230	85	(185)	250 to 500 ms	0.8 to 5.8 s
SV294	685	1½	<b>1</b> %6	29.0	Buna-N	5	170	85	(185)	250 to 400 ms	1.5 to 9.0 s
SV295	845	2	<b>1</b> %6	38.6	Buna-N	5	170	85	(185)	250 to 450 ms	1.5 to 9.5 s

 $\textbf{Note:}\ \textit{To order 24 Vdc valves, add suffix "-24VDC"}\ \textit{to the model number, no extra charge}.$ 

Ordering Example: SV291, 2-way, anti-waterhammer, pilot-operated, brass body NO valve with ¾" orifice and Buna-N seal, \$340.

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