

## Features

- Flow rates adjustable between 0% and 100% of rating.
- Control achieved by applying straight voltage between 0 and 24 VDC via potentiometer or other variable power supply.
- Flow rate can also be regulated by a range of electrical inputs (sensors, transmitters, PLC, etc.) via an ASCO Electronic Control Unit or similar circuit.
- Suitable for use in air/gas, low vacuum service, as well as to precisely control flow of water.

## Construction

Valve Parts in Contact with Fluids		
<b>Body</b>	Brass	303 Stainless Steel
<b>Seals and Disc</b>	FKM	
<b>Core Tube</b>	305 Stainless Steel	
<b>Core and Plugnut</b>	430F Stainless Steel	
<b>Springs</b>	302 Stainless Steel	
<b>Rider Rings</b>	PTFE	
<b>Breaker Piece</b>	Brass	303 Stainless Steel

## Electrical

Standard voltage: 24 VDC

Coil: Molded Class F

Coil resistance: 25 Ohm at 68°F (20°C)

Operating current: 100 - 500 mA

Electrical coil input: 0 - 24 VDC

Recommended PWM frequency: 300 Hz Air/Gas;

200 Hz Water/Light Oil

Hysteresis: <5% ①

Repeatability: <3% (<1% for 1/8" NPT Valves)①

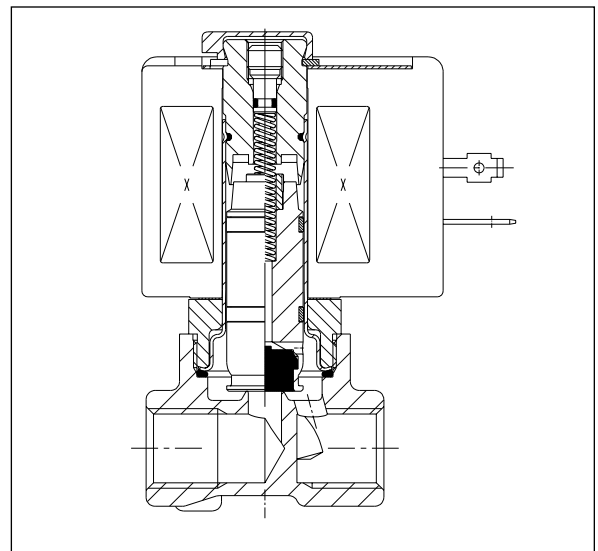
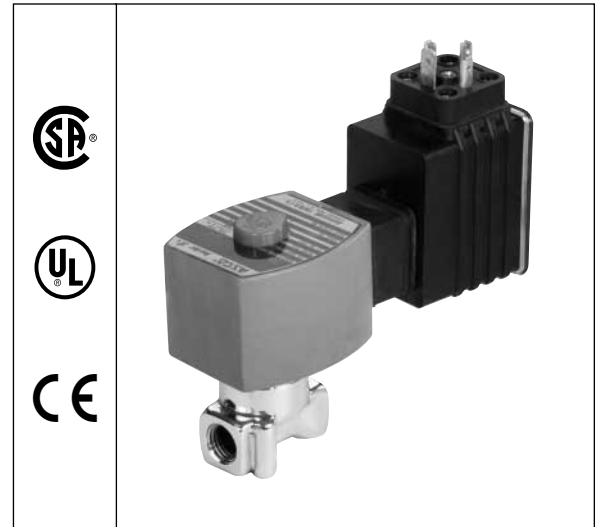
Sensitivity: <2% (<1% for 1/8" NPT Valves)①

① Percentage of max. value with 24 VDC, PWM, 300 Hz voltage supply at constant differential pressure.

## Solenoid Enclosures

**Standard:** Red-Hat II Class F coil with DIN connection (meets ISO 4400/DIN 43650A standards).

**Optional:** For Class H coil, use prefix "SV" (for use with customer supplied electronics): General Purpose and Watertight, Types 1, 2, 3, 3S, and 4X. See *Optional Features Section* for other available options.



## Nominal Ambient Temperature Ranges:

14°F to 167°F (-10°C to 75°C)

Refer to *Engineering Section* for details.

## Approvals:

UL recognized component with DIN solenoid (prefix SD or SV). UL listed with threaded conduit (no prefix). CSA certified.

Refer to *Engineering Section* for details.

**Note:** The Electronic control unit (sold separately) is only compatible with DIN connections.

Refer to *Engineering Section* for details.

Specifications (English units)

Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor	Operating Pressure Differential (psi)			Temperature °F			Catalog Number		Constr. Ref. No.	Watt Rating/ Class of Coil Insulation ④
			Min.	Max.		Min. ②	Max.		Brass Body	Stainless Steel Body		
				Air/Gas/Low Vacuum	Liquid		Fluid	Ambient				
1/8	3/64	.04	0	115	75	32	180	104	SC8202A201V	SC8202A205V	5	8.6/F
1/8	1/16	.06	0	90	60	32	180	104	SC8202A202V	SC8202A206V	5	8.6/F
1/8	3/32	.14	0	60	45	32	180	104	SC8202A203V	SC8202A207V	5	8.6/F
1/8	1/8	.20	0	35	35	32	180	104	SC8202A204V	SC8202A208V	5	8.6/F
Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor	Operating Pressure Differential (psi)			Temperature °F			Catalog Number		Constr. Ref. No.	Watt Rating/ Class of Coil Insulation ③
			Min.	Max.		Min. ②	Max.		Air-Inert Gas	Water/Light Oil		
				Low Vacuum (Hg) ①	Air/Gas/Water/Oil		Fluid	Ambient				
<b>Brass Body</b>												
1/4	3/64	.06	0	29	230	32	150	104	SD8202G1V	SD8202G51V	1	22.6/F
1/4	3/32	.14	0	29	115	32	150	104	SD8202G2V	SD8202G52V	1	22.6/F
1/4	1/8	.28	0	29	60	32	150	104	SD8202G3V	SD8202G53V	1	22.6/F
1/4	5/32	.50	0	29	35	32	150	104	SD8202G4V	SD8202G54V	1	22.6/F
1/4	7/32	.85	0	29	20	32	150	104	SD8202G6V	SD8202G56V	1	22.6/F
1/4	9/32	1.06	0	29	15	32	150	104	SD8202G7V	SD8202G57V	1	22.6/F
3/8	1/8	.28	0	29	60	32	150	104	SD8202G23V	SD8202G73V	2	22.6/F
3/8	5/32	.50	0	29	35	32	150	104	SD8202G24V	SD8202G74V	2	22.6/F
3/8	7/32	.85	0	29	20	32	150	104	SD8202G26V	SD8202G76V	2	22.6/F
3/8	9/32	1.06	0	29	15	32	150	104	SD8202G27V	SD8202G77V	2	22.6/F
<b>Stainless Steel Body</b>												
1/4	3/64	.06	0	29	230	32	150	104	SD8202G11V	SD8202G61V	3	22.6/F
1/4	3/32	.14	0	29	115	32	150	104	SD8202G12V	SD8202G62V	3	22.6/F
1/4	1/8	.28	0	29	60	32	150	104	SD8202G13V	SD8202G63V	3	22.6/F
1/4	5/32	.50	0	29	35	32	150	104	SD8202G14V	SD8202G64V	3	22.6/F
1/4	7/32	.85	0	29	20	32	150	104	SD8202G16V	SD8202G66V	3	22.6/F
1/4	9/32	1.06	0	29	15	32	150	104	SD8202G17V	SD8202G67V	3	22.6/F
3/8	1/8	.28	0	29	60	32	150	104	SD8202G33V	SD8202G83V	4	22.6/F
3/8	5/32	.50	0	29	35	32	150	104	SD8202G34V	SD8202G84V	4	22.6/F
3/8	7/32	.85	0	29	20	32	150	104	SD8202G36V	SD8202G86V	4	22.6/F
3/8	9/32	1.06	0	29	15	32	150	104	SD8202G37V	SD8202G87V	4	22.6/F

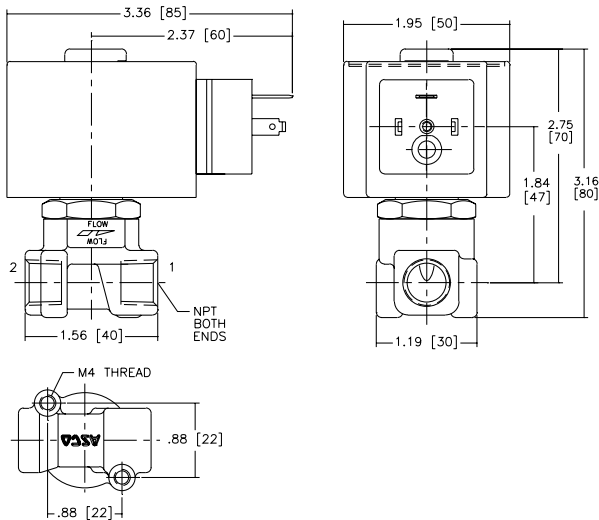
**Notes:** ① Applicable to air-Inert gas valves only.  
 ② Does not apply to liquids, which may solidify above specified minimum temperature.  
 ③ Will vary with duty cycle (8.5 watts at 500 mA with ambient temp. = 104°F (40°C)).  
 ④ Will vary with duty cycle (Cold = 6.8 watts, hot 9.1 watts at 450 mA with ambient temp. = 69°F (20°C)). (Cold = 6.3 watts, hot 8.6 watts at 450 mA with ambient temp. = 104°F (40°C)).

Specifications (Metric units)

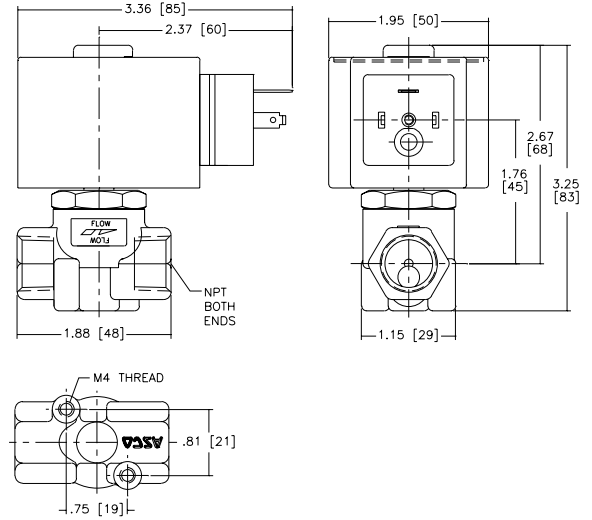
Pipe Size (ins.)	Orifice Size (ins.)	Kv Flow Factor (m3/h)	Operating Pressure Differential (bar)			Temperature °C			Catalog Number		Constr. Ref. No.	Watt Rating/ Class of Coil Insulation ④
			Min.	Max.		Min. ②	Max.		Brass Body	Stainless Steel Body		
				Air/Gas/Low Vacuum	Liquid		Fluid	Ambient				
1/8	1.2	.03	0	8	5	0	81	40	SC8202A201V	SC8202A205V	5	8.6/F
1/8	1.6	.05	0	6	4	0	81	40	SC8202A202V	SC8202A206V	5	8.6/F
1/8	2.4	.12	0	4	3	0	81	40	SC8202A203V	SC8202A207V	5	8.6/F
1/8	3.2	.17	0	2	2	0	81	40	SC8202A204V	SC8202A208V	5	8.6/F
Pipe Size (ins.)	Orifice Size (mm)	Kv Flow Factor (m3/h)	Operating Pressure Differential (bar)			Temperature °C			Catalog Number		Constr. Ref. No.	Watt Rating/ Class of Coil Insulation ③
			Min.	Max.		Min. ②	Max.		Air-Inert Gas	Water/Light Oil		
				Low Vacuum (Hg) ①	Air/Gas/Water/Oil		Fluid	Ambient				
<b>Brass Body</b>												
1/4	1	.04	0	2	16	0	65	40	SD8202G1V	SD8202G51V	1	22.6/F
1/4	2	.08	0	2	8	0	65	40	SD8202G2V	SD8202G52V	1	22.6/F
1/4	3	.17	0	2	4	0	65	40	SD8202G3V	SD8202G53V	1	22.6/F
1/4	4	.30	0	2	2	0	65	40	SD8202G4V	SD8202G54V	1	22.6/F
1/4	6	.51	0	2	1	0	65	40	SD8202G6V	SD8202G56V	1	22.6/F
1/4	7	.64	0	2	1	0	65	40	SD8202G7V	SD8202G57V	1	22.6/F
3/8	3	.17	0	2	4	0	65	40	SD8202G23V	SD8202G73V	2	22.6/F
3/8	4	.30	0	2	2	0	65	40	SD8202G24V	SD8202G74V	2	22.6/F
3/8	6	.51	0	2	1	0	65	40	SD8202G26V	SD8202G76V	2	22.6/F
3/8	7	.64	0	2	1	0	65	40	SD8202G27V	SD8202G77V	2	22.6/F
<b>Stainless Steel Body</b>												
1/4	1	.04	0	2	16	0	65	40	SD8202G11V	SD8202G61V	3	22.6/F
1/4	2	.08	0	2	8	0	65	40	SD8202G12V	SD8202G62V	3	22.6/F
1/4	3	.17	0	2	4	0	65	40	SD8202G13V	SD8202G63V	3	22.6/F
1/4	4	.30	0	2	2	0	65	40	SD8202G14V	SD8202G64V	3	22.6/F
1/4	6	.51	0	2	1	0	65	40	SD8202G16V	SD8202G66V	3	22.6/F
1/4	7	.64	0	2	1	0	65	40	SD8202G17V	SD8202G67V	3	22.6/F
3/8	3	.17	0	2	4	0	65	40	SD8202G33V	SD8202G83V	4	22.6/F
3/8	4	.30	0	2	2	0	65	40	SD8202G34V	SD8202G84V	4	22.6/F
3/8	6	.51	0	2	1	0	65	40	SD8202G36V	SD8202G86V	4	22.6/F
3/8	7	.64	0	2	1	0	65	40	SD8202G37V	SD8202G87V	4	22.6/F

Dimensions: inches (mm)

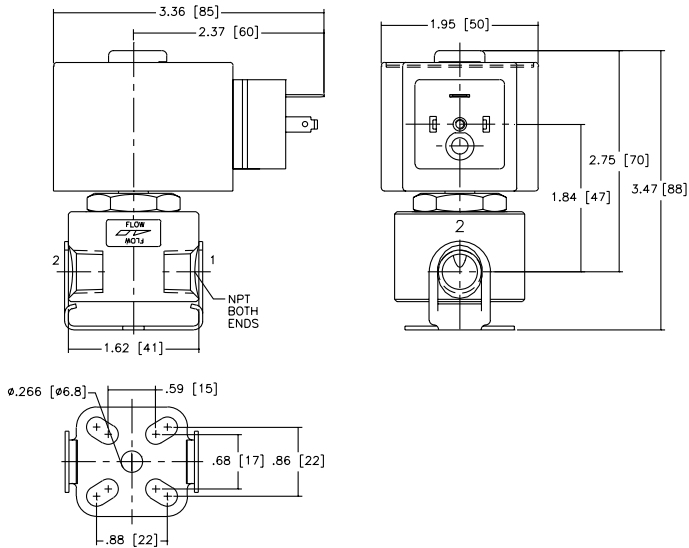
**Constr. Ref. 1**



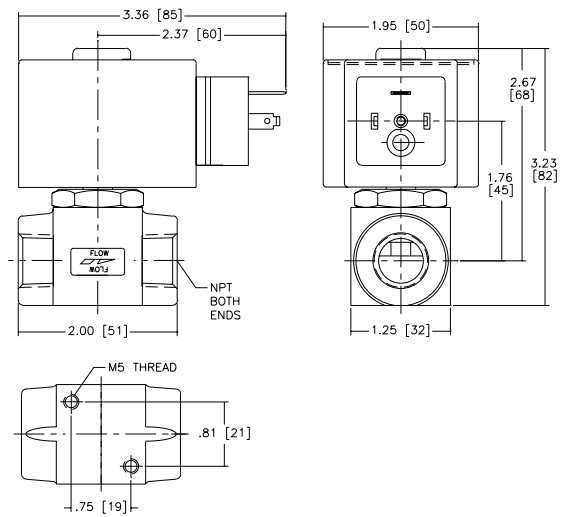
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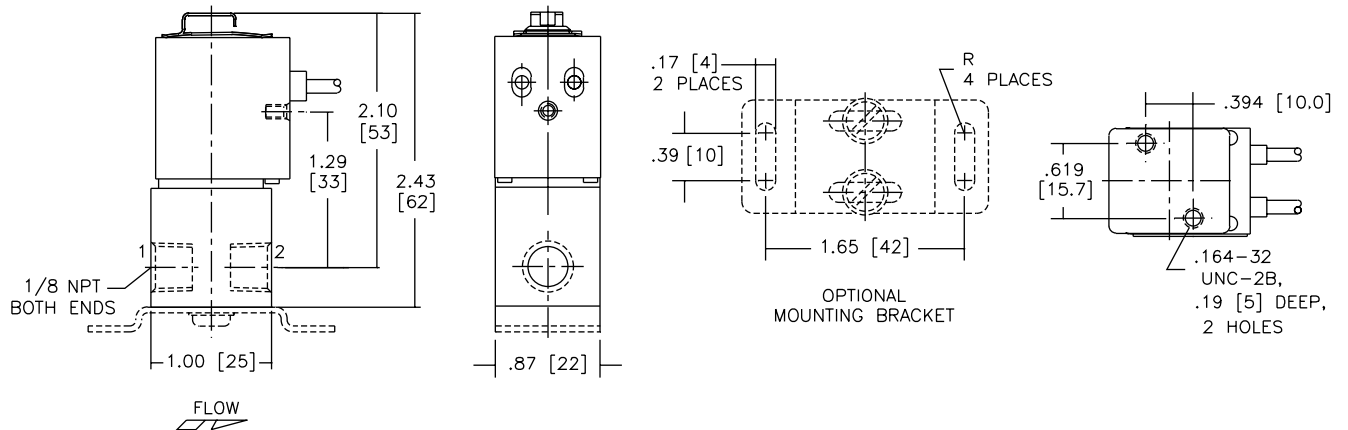
**Constr. Ref. 3**



**Constr. Ref. 4**



**Constr. Ref. 5**





## Electronic Control Unit

### Description

One unit, Catalog Number 8908A001, can be used for all 1/4" and 3/8" Posiflow valves with DIN solenoids. Another unit, Catalog Number 8908A003, can be used for all 1/8" Posiflow valves with DIN solenoids.

To maintain a specific flow rate, current through the coil must be kept constant and substantially independent from changes in the coil winding resistance (caused by temperature variation). The Electronic Control Unit will accomplish this quite efficiently via pulse width modulation. Voltage to the coil is cut into rectangular pulses by rapidly switching it on and off. By varying the "on" time (pulse width) percentage to compensate for temperature variations, current through the coil is kept constant.

### Construction

<b>Housing Assembly</b>	PA + FV
<b>Cover</b>	PA + FV
<b>Screw</b>	Zinc plated steel
<b>Gasket</b>	NBR
<b>Connector Specification</b>	ISO 4400
<b>Protection</b>	IP 65 (Dust-tight Protection against water jets from any direction)

### Electrical Characteristics:

Nominal supply voltage: 24 VDC  $\pm$  10%,  
maximum ripple 10%

Maximum full-load current: 1100 mA  
(factory set at 500 mA)

Input control signal (selectable): 0-10 VDC or 0-20 mA  
or 4-20 mA

Switch-off current: <2% of max. input control signal

Adjustable off-set: 15-50% of pulse width  
modulation voltage

Adjustable full-load: 30-100% of pulse width  
modulation voltage

Ramp time: Manually activated via on/off switch;  
adjustable 0.1-3 seconds

Adjustable PWM frequency: 40-700 Hz

Power consumption: 0.8 watts

### Dimensions: inches (mm)

