

S30 & S31 Series

Compact 2-Way Direct Acting Solenoid Valves

S301, S311 • Normally Closed
S302, S312 • Normally Open

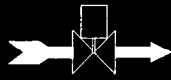
Available in normally closed and normally open operating modes, the S30 and S31 series of compact 2-way direct acting solenoid valves are equipped with 1/8" to 1/4" NPT pipe connections for the S311 series, and 1/4" to 3/8" for the S30 series. Orifice sizes range from 3/64" to 5/32" for the S31 series, and from 3/64" to 3/8" for the S30 series. Operating pressure ranges extend to 750 psi for the S31 series, and to 1050 psi for the S30 series. A wide selection of body materials, sealing/seat materials, housings and voltages are offered.



Specifications

Operating Mode	Normally Closed	Open when energized, closed when de-energized.		
	Normally Open	Closed when energized, open when de-energized.		
NPT Pipe Size		1/8 • 1/4 • 3/8		
Orifice Size		3/64 to 3/8		
Materials	Body		Brass, 430F and 303 Stainless Steel	
	Sealing/Seat		Buna N, Viton, Teflon, Ethylene Propylene	
	Housing	Standard	Conduit (NEMA1)	
Options		Explosion-proof NEMA VII, Grommet, Open frame, Junction box, Watertight NEMA IV, Etc.		
Available Voltages		AC24V 60Hz AC110V 50Hz AC220V 50Hz	AC120V 60Hz AC240V 60Hz	DC 12V DC 24V
Voltage Tolerance		+10% to -15% of applicable voltage		
Coil		Class F and H		
Lead Length		24 Inch		
Temperature Ratings		Ambient Temp.—40°F to 150°F max. with Class F Coil; 175°F max. with Class H Coil. Fluid Temp. See the "HOW TO ORDER" Table.		
Mounting position		Mounts in any position (Best position is Solenoid vertical and upright direction)		
Agency Listings		UL Listed, CSA Certified (Consult factory for further details.)		
Options		Manual Override, Mounting Bracket, Neon Lamp, Surge Suppressor		

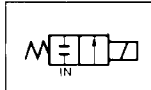
•Consult the factory for specifications other than those listed above.



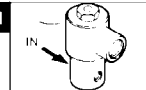
Valve Selection List

Pipe Connection (In.) NPT	Orifice Size IN	Cv Factor	Operating Pressure Range (PSI)				Max. Fluid Temp. (°F)	Housing	Power Consumption (W)		Coil 60 Hz	Voltage (V)	Model Code					
			Min.	Max.		AC			DC	AC			DC	Brass Body	Body SS430F	Body SS303		
				Air, Gas, Water, Light Oil													Steam	
				AC	DC												AC	DC

Normally Closed



De-energized

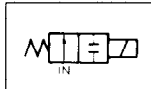


Energized

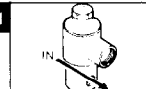


1/8	3/64	0.05	0	770	420	—	—	200	G	8	9	F	120	S311GF02V8AC3	S311GF02V2AC3	S311GF02V2AC3S
	1/16	0.10	0	560	185	—	—	200	G	8	9	F	120	S311GF02V8AC5	S311GF02V2AC5	S311GF02V2AC5S
	3/32	0.21	0	300	130	—	—	200	G	8	9	F	120	S311GF02V8AC9	S311GF02V2AC9	S311GF02V2AC9S
	1/8	0.32	0	155	60	—	—	200	G	8	9	F	120	S311GF02V8AD5	S311GF02V2AD5	S311GF02V2AD5S
	1/8	0.32	0	—	—	100	60	298	G	8	9	H	120	S311GH02T8AD5	S311GH02T2AD5	S311GH02T2AD5S
	5/32	0.43	0	105	35	—	—	200	G	8	9	F	120	S311GF02V8AD7	S311GF02V2AD7	S311GF02V2AD7S
	3/16	0.49	0	75	20	—	—	200	G	8	9	F	120	S311GF02V8AE1	S311GF02V2AE1	S311GF02V2AE1S
1/4	1/16	0.10	0	560	185	—	—	200	G	8	9	F	120	S311GF02V8BC5	S311GF02V3BC5	S311GF02V3BC5S
	3/32	0.21	0	300	130	—	—	200	G	8	9	F	120	S311GF02V8BC9	S311GF02V3BC9	S311GF02V3BC9S
	5/32	0.43	0	105	35	—	—	200	G	8	9	F	120	S311GF02V8BD7	S311GF02V3BD7	S311GF02V3BD7S
	3/64	0.05	0	1050	1000	—	—	200	G	10	10	F	120	S301GF02V8BC3	S301GF02V3BC3	S301GF02V3BC3S
	1/16	0.10	0	700	300	—	—	200	G	10	10	F	120	S301GF02V8BC5	S301GF02V3BC5	S301GF02V3BC5S
	5/64	0.14	0	500	240	—	—	200	G	10	10	F	120	S301GF02V8BC7	S301GF02V3BC7	S301GF02V3BC7S
	3/32	0.21	0	400	200	—	—	200	G	10	10	F	120	S301GF02V8BC9	S301GF02V3BC9	S301GF02V3BC9S
1/2	1/8	0.36	0	200	140	—	—	200	G	10	10	F	120	S301GF02V8BD5	S301GF02V3BD5	S301GF02V3BD5S
	5/32	0.44	0	150	100	—	—	200	G	10	10	F	120	S301GF02V8BD7	S301GF02V3BD7	S301GF02V3BD7S
	3/16	0.65	0	100	70	—	—	200	G	10	10	F	120	S301GF02V8BE1	S301GF02V3BE1	S301GF02V3BE1S
	3/16	0.65	0	—	—	100	70	298	G	10	10	H	120	S301GH02T8BE1	S301GH02T3BE1	S301GH02T3BE1S
	1/4	0.85	0	50	20	—	—	200	G	10	10	F	120	—	S301GF02V3BE7	S301GF02V3BE7S
	1/8	0.36	0	200	140	—	—	200	G	10	10	F	120	S301GF02V9CD5	S301GF02V3CD5	S301GF02V3CD5S
	3/16	0.65	0	100	70	—	—	200	G	10	10	F	120	S301GF02V9CE1	S301GF02V3CE1	S301GF02V3CE1S
3/8	5/32	1.0	0	35	15	—	—	200	G	10	10	F	120	S301GF02V9CF1	S301GF02V3CF1	S301GF02V3CF1S
	3/8	1.7	0	20	5	—	—	200	G	10	10	F	120	S301GF02V9CF5	S301GF02V3CF5	S301GF02V3CF5S

Normally Open



De-energized



Energized



1/8	3/64	0.05	0	350	350	—	—	200	G	8	9	F	120	S312GF02V8AC3	S312GF02V2AC3	S312GF02V2AC3S
	1/16	0.10	0	200	200	—	—	200	G	8	9	F	120	S312GF02V8AC5	S312GF02V2AC5	S312GF02V2AC5S
	3/32	0.20	0	105	105	—	—	200	G	8	9	F	120	S312GF02V8AC9	S312GF02V2AC9	S312GF02V2AC9S
	1/8	0.30	0	60	60	—	—	200	G	8	9	F	120	S312GF02V8AD5	S312GF02V2AD5	S312GF02V2AD5S
1/4	3/16	0.65	0	—	—	30	—	298	G	8	9	H	120	S312GH02T8BE1	S312GH02T3BE1	S312GH02T3BE1S
	3/64	0.05	0	600	600	—	—	200	G	11	10	F	120	S302GF02V8BC3	S302GF02V3BC3	S302GF02V3BC3S
	1/16	0.10	0	325	325	—	—	200	G	11	10	F	120	S302GF02V8BC5	S302GF02V3BC5	S302GF02V3BC5S
	3/32	0.20	0	150	150	—	—	200	G	11	10	F	120	S302GF02V3BC9	S302GF02V3BC9	S302GF02V3BC9S
	1/8	0.30	0	100	100	—	—	200	G	11	10	F	120	S302GF02V8BD5	S302GF02V3BD5	S302GF02V3BD5S
	3/16	0.65	0	40	40	—	—	200	G	11	10	F	120	S302GF02V8BE1	S302GF02V3BE1	S302GF02V3BE1S

☐ Indication above shows the standard products.



Model Code

1	2	3	4	5	6	7	8	9	10	11	12	13	14
S	3	1	1	G	F	0	2	N	2	A	D	5	
1 • 2 • 3	4	5	6	7 • 8	9	10	11	12 • 13	14				
Series	Operating Mode	Housing	Coil Insulation	Applicable Voltage	*Seat Material	Body Code	Pipe Connection	Orifice Size	Option				
S30 S31	1: Normally Closed 2: Normally Open	A: Conduit P: Open Frame B: Grommet X: Explosion Proof NEMA VII S: Junction Box G: Water-tight NEMA IV	F: Class F H: Class H	02=AC 120V 60 Hz AC 110V 50 Hz 04=AC 220V 50 Hz AC 240V 60 Hz 01=AC 24V 60 Hz 15=12V DC 16=24V DC See the "Valve Selection Guide" for other voltages.	N: Buna N V: Viton C: Ethylene Propylene T: Teflon J: Buna N L: Viton E: Ethylene Propylene	2 = Stainless Steel 3 = Stainless Steel 9 = Brass 5 = 303 Stainless Steel	A = 1/8 B = 1/4 C = 3/8	C3 = 3/64 C5 = 1/16 C7 = 5/64 C9 = 3/32 D5 = 1/8 D7 = 5/32 E1 = 3/16 E7 = 1/4 F1 = 9/32 F5 = 3/8	M: Manual Override K: Mounting Bracket S: 303 Stainless Steel				

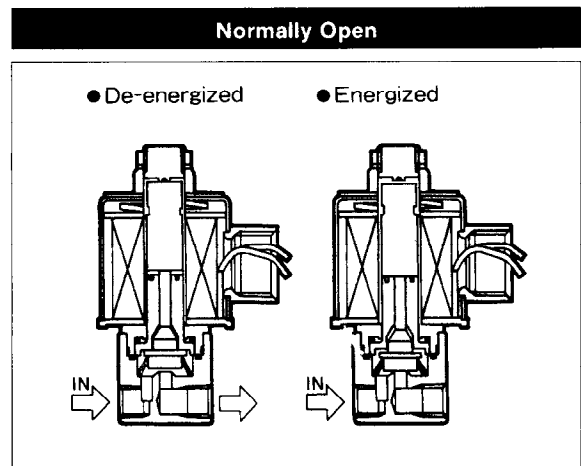
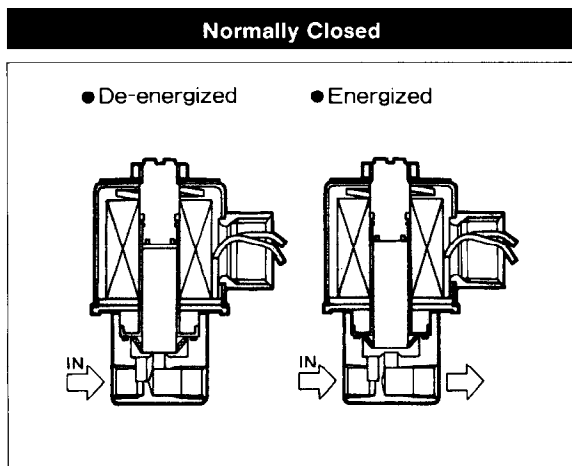
Notes: 1. Indication above shows the standard products.
2. See the "Valve Selection Guide" for combination of seat materials with * mark and shading ring.

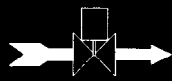
Coil Data

Model	S301	S302	S311	S312	
Frequency (Hz)	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	

Note: AC power consumption at 120V/60 Hz, 110V/50 Hz.

Construction/Operation





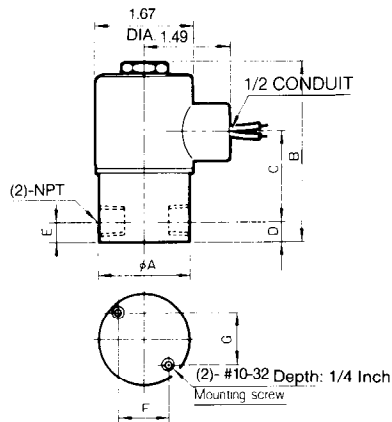
GC Valves

S30 & S31 Series 2-Way Solenoid Valves

External Dimensions

(Conduit coil housing: Type A)

Body Code 2, 3, 8



units: inch

Body Code	Pipe Conn. (In.)	Model	A	B	C	D	E	F	G	Weight (LB)
2, 3, 8	1/8	S301	1.22	3.10	1.71	.29		.61	.73	0.9
		S302		3.43						
		S311		2.78	1.63					0.9
		S312		2.94						
	1/4	S301	1.63	3.14	1.71	.37		.91	1.1	
		S302		3.51						
3/8	S301	1.63	3.63	2.12	.45	.98		1.3		
	9		1/8	S311	1.63	2.90	1.63	.37		—
S312		3.06								
1/4		S301	3.14	1.71		0.9				
		S302	3.51							
3/8	S301	1.89	3.30	1.43	.44		—	1.1		

GC Valves

Toll Free 1-800-582-4232












Western Region
 4525 E. Industrial Street
 Unit 4C
 Simi Valley, CA 93063
 Phone 805-582-0065
 Fax 805-582-0210



Eastern Region
 456 Crompton St.
 P.O. Box 7066
 Charlotte, NC 28241
 Phone 704-588-3300
 Fax 704-588-5831

DDD Brand
www.autovalve.tw

ELECTRICAL INFORMATION

DESCRIPTION	WHEN THE 8TH CHARACTER OF MODEL NUMBER IS:	INSTRUCTIONS	COIL PART NUMBER ** = VOLTAGE	
Encapsulated coil for ATEX Ex II 2G. M20 Conduit entry. IP65 ATEX EExme II T5 Stainless-Steel		9	Order coil separately (specify voltage code from below)	AV6360900**
Intrinsically safe coil for Zones 0,1 and 2. M20 x 1.5 conduit entry. BASEEFA EExia IIC T6		B	Coil and Connector included with valve (24VDC only)	AV6360A00B
Flameproof coil for Zones 1& 2. M20 x 1.5 conduit entry. BASEEFA and SAA approvals EExd IIC T4 and T6 Stainless-Steel		D	Order coil separately (specify voltage code from below)	AV6360D00**
Non-incendive coil for Zone 2 M20 x 1.5 conduit entry BASEEFA approved ExN Stainless- Steel		N	Order coil separately (specify voltage code from below)	AV6360500**
Intrinsically safe for Zone 0,1 & 2. M20 x 1.5 Conduit entry. BASEEFA , FM, CSA & SAA approvals EExia IIC T6 Stainless-Steel		S	Coil and Connector included with valve (24VDC only)	AV6360S00B
NEMA 4X WITH DIN 43650 CONNECTION		W	Order coil separately (specify voltage code from below)	7019-9**
NEMA 4X WITH 18" LEADS		W	Order coil separately (specify voltage code from below)	7019-9**G
NEMA 4X 1/2" CONDUIT WITH 30" LEADS		W	Order coil separately (specify voltage code from below)	7019-9**C 7019-9**CT (high temperature 82°C maximum)
Explosion-Proof 1/2" Conduit with 23" leads CSA 202633X FM Approved CL. I; ZONE1 Exm II T4 AExm II CL. I; Div. 1; GR. A, B, C, D CL. II; GR. E, F, G CL. III T4 NEMA: 4, 4X, 7C, 7D		W	Order coil separately (specify voltage code from below)	7019-**Y
Class F Coil x 1.5 Conduit entry. IP67 - Box (Cable Entry 1/2"NPT)		IP67 W **(KNE)	Order coil separately (specify voltage code from below) Use for UB2 Series (K0223) Solenoid Valves	AL14**
INTRINSICALLY-SAFE WITH STRAIN RELIEF (EEx ia IIC T6) CL. I: Div. 1; GR. A, B, C, D CL. II: GR. E, F, G CL. III: Div. 1 Hazardous Location		V	Coil and Connector included with valve (24VDC only)	A7106-374

** CODE	DA	AA	AB	DA	DB	DBL
VOLTAGE +/- 10%	22/50 24/60	110/50 120/60	220/50 240/60	12 VDC	24 VDC	24 VDC