



Piston/Poppet Solenoid Valves

Pilot Operated
Brass Body • 1/4" to 1" NPT

4/2
SERIES
8344

Features

- Sturdy, robust construction
- Piston-operated poppet design provides high flow
- For use with air or water
- Wide range of sizes and flow rates
- Single or dual solenoid constructions
- Dual solenoid can be shifted with a momentary signal and remain in position even if electrical power is lost
- Mountable in any position

Construction

Valve Parts in Contact with Fluids	
Body	Brass
Seals and Disc	NBR
Core Tube	305 Stainless Steel
Core and Plugnut	430F Stainless Steel
Springs	302 Stainless Steel / 17-7PH Stainless Steel
Shading Coil	Copper
Pilot Seat Cartridge and Disc-Holder	CA
Shaft Gasket	PA

Electrical

Standard Coil and Class of Insulation	Watt Rating and Power Consumption				Spare Coil Part Number			
	DC Watts	AC			General Purpose		Explosionproof	
		Watts	VA Holding	VA Inrush	AC	DC	AC	DC
F	10.6	6.1	16	30	238210	238310	238214	238314
F	11.6	10.1	25	50	238610	238710	238614	238714
F	22.6	17.1	40	70	238610	238710	238614	238714

Dual Solenoid Operation: Minimum coil on-time for dual solenoid valves is 0.3 seconds on air service and 1.0 seconds on liquids.

Caution: Do not energize both solenoids simultaneously. Refer to Engineering Section for details.

Standard Voltages: 24, 120, 240, 480 volts AC, 60 Hz (or 110, 220 volts AC, 50 Hz). 6, 12, 24, 120, 240 volts DC. Must be specified when ordering. Other voltages are available when required.

Solenoid Enclosures

Standard: Watertight, Types 1, 2, 3, 3S, 4, and 4X.

Optional: Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9. (To order, add prefix "EF" to the catalog number.)

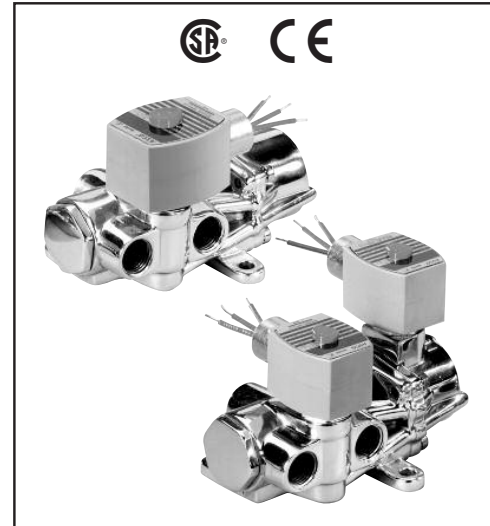
See *Optional Features Section* for other available options.

Nominal Ambient Temp. Ranges

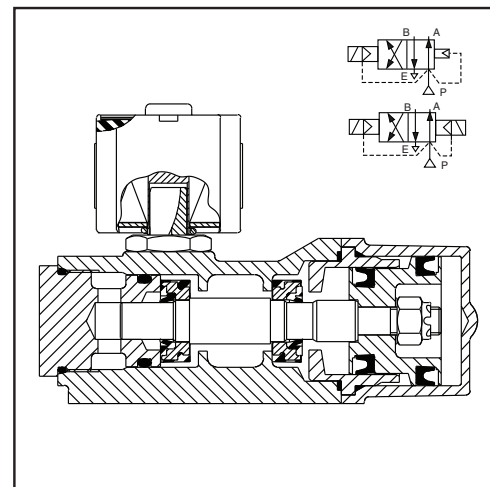
AC: 32°F to 125°F (0°C to 52°C)

DC: 32°F to 104°F (0°C to 40°C)

Refer to *Engineering Section* for details.



4-WAY



Approvals

CSA certified. Meets applicable CE directives.

ATEX/IECEx certified with prefix "EV" as listed. Refer to *Optional Features Electrical Section* for details.

Important

A Minimum Operating Pressure Differential must be maintained between the pressure and exhaust ports. Supply and exhaust piping must be full area, unrestricted. ASCO flow controls and other similar components must be installed in the cylinder lines only.

- Loss of air pressure may allow valve to shift on dual solenoid constructions.

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ASCO®

Specifications (English units)

Pipe Size (in)	Orifice Size (in)	Cv Flow Factor		Operating Pressure Differential (psi)							Max. Fluid Temp. °F		Brass Body		Watt Rating/ Class of Coil Insulation	
				① Min.	Max. AC			Max. DC								
		Press.	Exh.		Air-Inert Gas	Water ④	Lt. Oil @ 300 SSU	Air-Inert Gas	Water ④	Lt. Oil @ 300 SSU	AC	DC	Catalog Number	Const. Ref.	AC	DC
SINGLE SOLENOID																
1/4	1/4	.80	1.0	10	150	125	125	125	125	125	180	150	8344G070 ⑤	1	10.1/F	11.6/F
1/4	1/4	.80	1.0	10	250 ②	250 ②	250 ②	250 ②	250 ②	250 ②	180	180	8344G000	1	17.1/F	22.6/F
3/8	3/8	1.4	2.2	10	150	125	125	125	125	125	180	150	8344G072	2	10.1/F	11.6/F
3/8	1/4	.80	1.0	10	250 ②	250 ②	250 ②	250 ②	250 ②	250 ②	180	180	8344G001	1	17.1/F	22.6/F
1/2	3/8	1.4	2.2	10	150	125	125	125	125	125	180	150	8344G074	2	10.1/F	11.6/F
1/2	3/8	1.4	2.2	10	250 ②	250 ②	250 ②	250 ②	250 ②	250 ②	180	180	8344G027	2	17.1/F	22.6/F
3/4	3/4	5.2	5.6	10	150	125	125	125	125	125	180	150	8344G076	3	10.1/F	11.6/F
3/4	3/4	5.2	5.6	10	250 ②	250 ②	250 ②	250 ②	250 ②	250 ②	180	180	8344G029	3	17.1/F	22.6/F
1	3/4	5.2	5.6	10	150	125	125	125	125	125	180	150	8344G078	3	10.1/F	11.6/F
1	3/4	5.2	5.6	10	250 ②	250 ②	250 ②	250 ②	250 ②	250 ②	180	180	8344G031	3	17.1/F	22.6/F
DUAL SOLENOID ③																
1/4	1/4	.80	1.0	10	250	200	125	125	125	100	180	120	8344G044	4	6.1/F	10.6/F
3/8	3/8	1.4	2.2	10	250	200	125	125	125	100	180	120	8344G080	6	6.1/F	10.6/F
3/8	3/8	1.4	2.2	10	300	300	200	-	-	-	180	-	8344G050	7	10.1/F	-
1/2	3/8	1.4	2.2	10	250	200	125	125	125	100	180	120	8344G082	6	6.1/F	10.6/F
3/4	3/4	5.2	5.6	10	300	300	200	125	125	100	180	120	8344G054	8	10.1/F	10.6/F
1	3/4	5.2	5.6	10	300	300	200	125	125	100	180	120	8344G056	8	10.1/F	10.6/F

① 25 psi (1.7 bar) minimum on light oil service. ② For best results, do not use valve rated 250 psi (17 bar) on mainline pressure of less than 125 psi (9 bar).
③ On 50 hertz service, the watt rating for the 6.1/F solenoid is 8.1 watts. ④ Water rating, CSA certified up to 232 psi. ⑤ ATEX/IECEx certified with prefix "EV".

Specifications (Metric units)

Pipe Size (in)	Orifice Size (mm)	Kv Flow Factor (m3/h)		Operating Pressure Differential (bar)							Max. Fluid Temp. °C		Brass Body		Watt Rating/ Class of Coil Insulation	
				① Min.	Max. AC			Max. DC								
		Press.	Exh.		Air-Inert Gas	Water ④	Lt. Oil @ 300 SSU	Air-Inert Gas	Water ④	Lt. Oil @ 300 SSU	AC	DC	Catalog Number	Const. Ref.	AC	DC
SINGLE SOLENOID																
1/4	6	.69	.86	0.7	10	9	9	9	9	9	82	65	8344G070 ⑤	1	10.1/F	11.6/F
1/4	6	.69	.86	0.7	17 ②	17 ②	17 ②	17 ②	17 ②	17 ②	82	82	8344G000	1	17.1/F	22.6/F
3/8	10	1.2	1.89	0.7	10	9	9	9	9	9	82	65	8344G072	2	10.1/F	11.6/F
3/8	6	.69	.86	0.7	17 ②	17 ②	17 ②	17 ②	17 ②	17 ②	82	82	8344G001	1	17.1/F	22.6/F
1/2	10	1.2	1.89	0.7	10	9	9	9	9	9	82	65	8344G074	2	10.1/F	11.6/F
1/2	10	1.2	1.89	0.7	17 ②	17 ②	17 ②	17 ②	17 ②	17 ②	82	82	8344G027	2	17.1/F	22.6/F
3/4	19	4.5	4.80	0.7	10	9	9	9	9	9	82	65	8344G076	3	10.1/F	11.6/F
3/4	19	4.5	4.80	0.7	17 ②	17 ②	17 ②	17 ②	17 ②	17 ②	82	82	8344G029	3	17.1/F	22.6/F
1	19	4.5	4.80	0.7	10	9	9	9	9	9	82	65	8344G078	3	10.1/F	11.6/F
1	19	4.5	4.80	0.7	17 ②	17 ②	17 ②	17 ②	17 ②	17 ②	82	82	8344G031	3	17.1/F	22.6/F
DUAL SOLENOID ③																
1/4	6	.80	.86	0.7	17	14	9	9	9	7	82	49	8344G044	4	6.1/F	10.6/F
3/8	10	1.4	1.89	0.7	17	14	9	9	9	7	82	49	8344G080	6	6.1/F	10.6/F
3/8	10	1.4	1.89	0.7	21	21	14	-	-	-	82	-	8344G050	7	10.1/F	-
1/2	10	1.4	1.89	0.7	17	14	9	9	9	7	82	49	8344G082	6	6.1/F	10.6/F
3/4	19	5.2	4.80	0.7	21	21	14	9	9	7	82	49	8344G054	8	10.1/F	10.6/F
1	19	5.2	4.80	0.7	21	21	14	9	9	7	82	49	8344G056	8	10.1/F	10.6/F

① 25 psi (1.7 bar) minimum on light oil service. ② For best results, do not use valve rated 250 psi (17 bar) on mainline pressure of less than 125 psi (9 bar).
③ On 50 hertz service, the watt rating for the 6.1/F solenoid is 8.1 watts. ④ Water rating, CSA certified up to 16 bar. ⑤ ATEX/IECEx certified with prefix "EV".



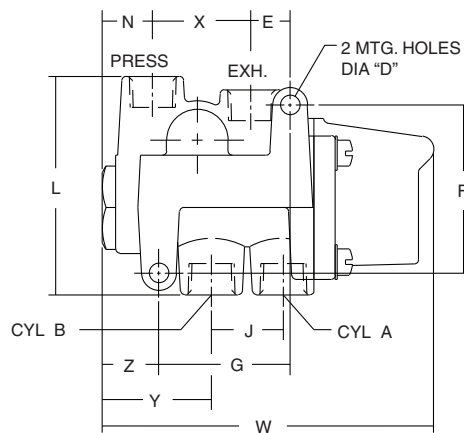
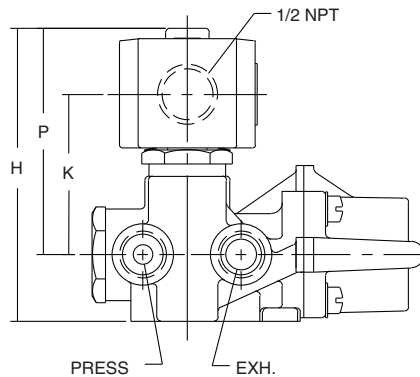
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Dimensions inches (mm)

Const. Ref.		ØD	E	F	G	H	J	K	L	N	P	W	X	Y	Z	Exhaust Pipe Size
1	in	Ø .28	.56	2.41	1.88	4.08	1.03	2.15	3.13	.72	3.12	4.75	1.41	1.56	.81	3/8
	mm	Ø 7.1	14	61	48	104	26	55	80	18	79	121	36	40	21	3/8
2	in	Ø .34	.75	3.12	2.63	4.06	1.50	1.97	3.18	.83	2.94	6.06	1.88	1.90	.84	1/2
	mm	Ø 8.6	19	79	67	103	38	50	81	21	75	154	47	48	21	1/2
3	in	Ø .34	1.34	3.81	3.88	4.86	2.09	2.34	4.56	1.56	3.31	8.25	2.12	2.63	1.16	1
	mm	Ø 8.6	34	97	99	123	53	59	116	39	84	210	54	67	30	1
4	in	Ø .28	.56	2.41	1.88	4.34	1.03	2.52	3.13	.72	3.38	4.81	1.41	1.56	.81	3/8
	mm	Ø 7.1	14	61	48	110	26	64	80	18	86	122	36	40	21	3/8
6	in	Ø .34	.75	3.12	2.63	4.50	1.50	2.52	3.18	.83	3.38	6.06	1.88	1.90	.84	1/2
	mm	Ø 8.6	19	79	67	114	38	64	81	21	86	154	47	48	21	1/2
7	in	Ø .34	.75	3.12	2.63	4.68	1.50	2.59	3.18	.83	3.56	6.06	1.88	1.90	.84	1/2
	mm	Ø 8.6	19	79	67	119	38	66	81	21	90	154	47	48	21	1/2
8	in	Ø .34	1.34	3.81	3.88	5.56	2.09	3.03	4.56	1.55	4.00	8.25	2.12	2.63	1.16	1
	mm	Ø 8.6	34	97	99	141	53	77	116	39	102	210	54	67	30	1

4-WAY

Const. Ref 1 - 3



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Dimensions inches (mm)

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Const. Ref. 4 - 8

