

Features

- Same RedHat II molded epoxy solenoid operators used on General Purpose ASCO valves
- Available in 4 standard wattages, AC or DC
- Mountable in any position

Construction

Valve Parts in Contact with Fluids	
Core Tube	305 Stainless Steel
Core and Plugnut	430F Stainless Steel
Seal	NBR
Shading Coil	Copper (AC only)
Additional Parts	
Disc	NBR and PA (3-way upper disc)
Spring	302 Stainless Steel

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 ^①	AC	DC	AC	DC
F	10.6	6.1	16	30	238210	238310	238214	238314
F	-	9.1	25	40	238210	-	238214	-
F	11.6	10.1	25	50	238610	238710	238614	238714
F	-	17.1	40	70	238610	-	238614	-
F	-	15.4	27	70	99257	-	99257	-
F	-	20	43	90	99257	-	99257	-

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 available when required.

Note: ① Core Stroke 1/16".

Specifications (English units)

Orifice Size (in)	Cv Flow Factor ^④	Operating Pressure Differential (psi)						Max. Fluid Temp. °F		Catalog Number	Const. Ref.	Watt Rating/Class of Coil Insulation ^⑥		Optional Inserted Seat Part Number
		Maximum AC			Maximum DC							AC	DC	
		Air-Inert Gas	Water ^⑦	Lt. Oil @ 300 SSU ^⑤	Air-Inert Gas	Water ^⑦	Lt. Oil @ 300 SSU ^⑤	AC	DC					
2-WAY SOLENOID OPERATORS, ① NORMALLY CLOSED (Closed when de-energized)														
3/64	.06	750	600	400	325	225	300	180	120	8200G001	4	6.1/F	10.6/F	096-429-4 ②
3/32	.17	275	200	130	110	100	100	180	120	8200G001	4	6.1/F	10.6/F	180-222-5D ③
1/8	.35	135	115	90	50	50	50	180	120	8200G001	4	6.1/F	10.6/F	180-222-1D ③
3-WAY SOLENOID OPERATORS, ① NORMALLY CLOSED (Closed when de-energized)														
3/64	.04	230	230	230	120	140	125	200	150	8329G001	5	10.1/F	11.6/F	096-429-4 ②
3/32	.15	125	100	100	60	70	30	200	150	8329G002	5	10.1/F	11.6/F	096-429-3 ②
1/8	.25	75	60	60	30	40	25	200	150	8329G003	5	10.1/F	11.6/F	180-222-1D ③
3-WAY SOLENOID OPERATORS, ① NORMALLY OPEN (Open when de-energized)														
3/64	.04	300	300	300	200	300	120	200	150	8329G007	5	10.1/F	11.6/F	096-429-4 ②
3/32	.15	175	175	175	70	90	45	200	150	8329G008	5	10.1/F	11.6/F	096-429-3 ②
1/8	.25	90	90	90	40	40	25	200	150	8329G009	5	10.1/F	11.6/F	180-222-1D ③

① Larger operators, orifice sizes, and higher pressure ratings are available. Consult your local ASCO sales office.
 ② Inserted seat has 1/4-32 thread for threading.
 ③ Inserted seat has 3/8-32 thread for threading.
 ④ Cv will depend upon size and location of connecting passages.
 ⑤ Maximum viscosity for 3-way solenoid operator is 45 SSU.
 ⑥ On 50 hertz service, the watt rating for the 6.1/F solenoid is 8.1 watts.
 ⑦ Water rating, CSA certified up to 232 psi.



Solenoid Enclosures

Standard: RedHat II - Watertight, Types 1, 2, 3, 3S, 4, and 4X. RedHat - Type 1.

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

See *Optional Features Section* for further details on *Open Frame Solenoids, Junction Box Enclosures, and Panel Mount Constructions.*

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.

Approvals

CSA certified.

Refer to *Engineering Section* for details.

Specifications (Metric units)

Orifice Size (mm)	Kv Flow Factor (m³/h) ④	Operating Pressure Differential (bar)						Max. Fluid Temp. °C		Catalog Number	Const. Ref.	Watt Rating/ Class of Coil Insulation ⑥		Optional Inserted Seat Part Number
		Maximum AC			Maximum DC							AC	DC	
		Air-Inert Gas	Water ⑦	Lt. Oil @ 300 SSU ⑤	Air-Inert Gas	Water ⑦	Lt. Oil @ 300 SSU ⑤	AC	DC					
2-WAY SOLENOID OPERATORS, ① NORMALLY CLOSED (Closed when de-energized)														
1.2	.05	52	41.4	34.5	22.4	15.5	20.7	82	49	8200G001	4	6.1/F	10.6/F	096-429-4 ②
2.4	.15	19	13.8	9.0	7.6	6.9	6.9	82	49	8200G001	4	6.1/F	10.6/F	180-222-5D ③
3.2	.30	9	7.9	6.2	3.4	3.4	3.4	82	49	8200G001	4	6.1/F	10.6/F	180-222-1D ③
3-WAY SOLENOID OPERATORS, ① NORMALLY CLOSED (Closed when de-energized)														
1.2	.03	16	15.9	15.9	8.3	9.7	8.6	93	66	8329G001	5	10.1/F	11.6/F	096-429-4 ②
2.4	.13	9	6.9	6.9	4.1	4.8	2.1	93	66	8329G002	5	10.1/F	11.6/F	096-429-3 ②
3.2	.21	5	4.1	4.1	2.1	2.8	1.7	93	66	8329G003	5	10.1/F	11.6/F	180-222-1D ③
3-WAY SOLENOID OPERATORS, ① NORMALLY OPEN (Open when de-energized)														
1.2	.03	21	20.7	20.7	13.8	20.7	8.3	93	66	8329G007	5	10.1/F	11.6/F	096-429-4 ②
2.4	.13	12	12.1	12.1	4.8	6.2	3.1	93	66	8329G008	5	10.1/F	11.6/F	096-429-3 ②
3.2	.21	6	6.2	6.2	2.8	2.8	1.7	93	66	8329G009	5	10.1/F	11.6/F	180-222-1D ③

① Larger operators, orifice sizes, and higher pressure ratings are available. Consult your local ASCO sales office.
 ② Inserted seat has 1/4-32 thread for threading.
 ③ Inserted seat has 3/8-32 thread for threading.
 ④ Kv will depend upon size and location of connecting passages.
 ⑤ Maximum viscosity for 3-way solenoid operator is 45 SSU.
 ⑥ On 50 hertz service, the watt rating for the 6.1/F solenoid is 8.1 watts.
 ⑦ Water rating, CSA certified up to 16 bar.

Specifications (Solenoids)

Catalog Number	8016G001	8016G002	8003G001	8003G002	8017 001	8017 002
Const. Ref. and Fig. No.	1A	1B	2A	2B	3A	3B
Watt Rating/ ③ Class of Coil Insulation	6.1/F	9.1/F	10.1/F	17.1/F	15.4/F	20/F
VA Holding	16	25	25	40	27	43
VA Inrush ①	30	40	50	70	70	90
Min. Return Spring Force or Load Value ②	11 oz.	11 oz.	1.3 lb.	1.3 lb.	1.75 lb.	1.75 lb.

① Core Stroke 1/16". ② Customer to supply return spring, required in solenoid sealed position for proper operation, in accordance with value given.
 ③ On 50 hertz service, the watt rating for the 6.1/F solenoid is 8.1 watts; the watt rating for the 9.1/F solenoid is 11.1 watts.

Dimensions inches (mm)

Const. Ref.		A	B	C
1A & 1B	in	2.76	1.82	0.30
	mm	70	46	8
2A & 2B	in	3.03	2.00	1.13
	mm	77	51	29
3A & 3B	in	2.67	2.28	0.23
	mm	68	58	6
4	in	2.76	1.82	0.32
	mm	70	46	8
5	in	3.03	3.03	0.30
	mm	77	77	8

Pull Curves (AC Only)

Figs 1 (A and B)

Figs 2 (A and B)

Figs 3 (A and B)

Const. Ref. 1A, 1B, 2A, 2B

Const. Ref. 3A, 3B

Const. Ref. 4

Const. Ref. 5

1/2 NPT
.9375-26 UNS-2A THREAD
.250-28 UNF-2B

ø.88 [ø.22] HOLE FOR 1/2 COUDIT CONN.
1/2 NPT
.9375-26 UNS-2A THREAD
.250-28 UNF-2B

1/2 NPT
.9375-26 UNS-2A THREAD

A
1/8, 1/4 OR 3/8 NPT
1/2 NPT
.9375-26 UNS-2A THREAD

ACCESSORIES