

ATKOMATIC

 **CIRCLE SEAL CONTROLS, INC.**
A division of CIRCOR International, Inc.

40,000 Series

Stainless Steel, Semi-Direct Lift, 0 to 2500 PSIG
High Temperature High Pressure Valve Configurable for Variety of
Fluid Applications

Features

- Designed for high temperature fluids – up to 750° F
- Operational pressure up to 2500 psi.
- Extended neck to locate the solenoid at a distance from the hot fluid flow
- Carbon graphite piston rings
- Metal (316 stainless steel) body o-rings
- Pilot seats are made of Stellite (a cobalt alloy) for temperature and wear resistance
- Piston is made of 17-4 stainless steel and the piston seat is Stellite
- Available in Normally Open and Normally Closed versions
- Typically mounted with the coil oriented down to minimize convection heating of coil from the hot media
- Stainless steel construction on all pressure containing parts – 316 for machined parts and CF8M for cast parts.
- Plunger material is 416 stainless that is treated for increased corrosion resistance
- Semi-direct lift action for operation down to zero pressure differential
- Will handle fluids with viscosity up to 150 SUS
- Suitable for use with wide variety of fluid including: air, gasses, liquids, hydraulic fluids, steam, and corrosive fluids
- Heaviest duty and most rugged construction
- Removable 316 SS body inserts (stainless steel trim)
- Full ported valves
- Available in Normally Closed configuration from 1/4" to 1 1/2" ports
- Cv from 1.1 to 21.5 in Normally Closed version
- Available in Normally Open configuration from 1/4" to 1 " ports
- Cv from 1.1 to 21.0 in normally open version
- British BSPT ports are available
- Class H coils are standard
- Coils housings available in NEMA 1 (standard), NEMA 4 (waterproof), NEMA 7 (explosion-proof for hazardous locations), and combination NEMA 4 and 7

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40,000 Series

Operational Pressures (No minimum pressure differential)

All Gases		All Liquids	
A.C.	D.C.	A.C.	D.C.
Normally Closed			
2500	1500	2500	1000
Normally Open			
2500	2000	2500	1500

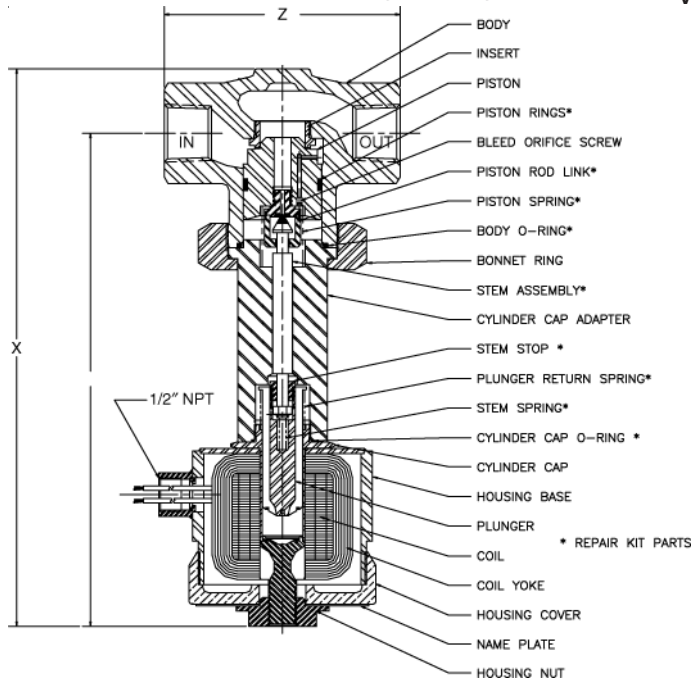
NOTE: The operational pressure is limited to a maximum of 1500 psi when the fluid temperature is between 650° F and 750° F. The operational pressure is limited to a maximum of 2000 psi when the fluid temperature is between 550° F and 650° F. For fluid temperatures below 550° F the operational pressure is 2500 psi maximum.

NOTE: Normally Open valves are rated for intermittent duty only on 40,000 Series valves.

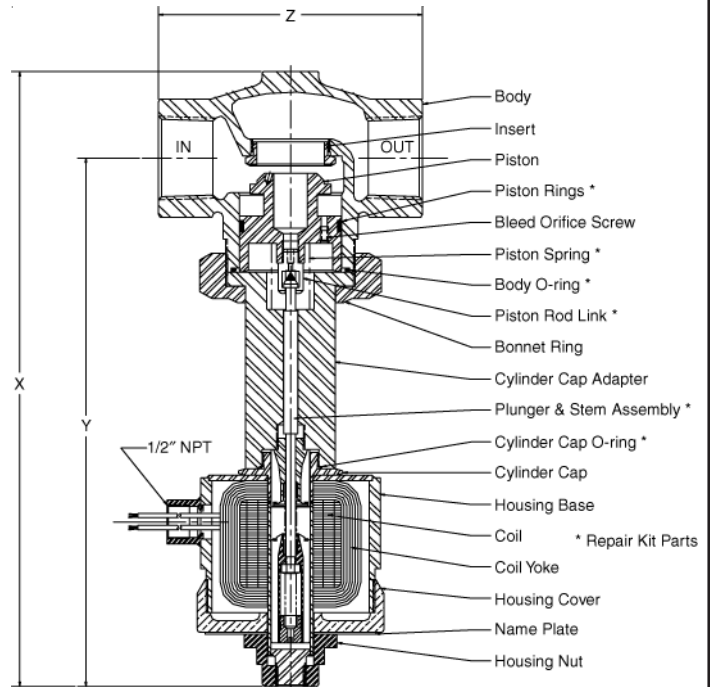
NOTE: Normally Open 40,000 Series valves are not available with 50 Hz coils for operational pressures above 1500 psi.

40,000 Series

Dimensions, Shipping Weights, and C_v Flow Factors



Normally Closed 1" 41840 Valve – (shown with NEMA 7 explosion-proof coil housing and a AC coil)



Normally Open 1 1/2" 42861 Valve – (shown with a NEMA 7 explosion-proof coil housing and a AC coil)

40,000 Series Normally Closed

Catalog Num. Prefix	Pipe Size	Main Seat Orifice Dia	X	Y	Z	Shipping Weight (lbs.)	C _v
41800	1/4"	3/8"	11 3/8"	10 7/16"	3"	14	1.1
41810	3/8"	3/8"	11 3/8"	10 7/16"	3"	14	2.5
41820	1/2"	3/4"	12 5/16"	10 7/8"	4 5/8"	17	5.1
41830	3/4"	3/4"	12 5/16"	10 7/8"	4 5/8"	17	7.5
41840	1"	1"	12 11/16"	11 1/4"	5 1/4"	23	12.5
41851	1 1/4"	1 1/2"	13 5/16"	13 11/16"	5 7/8"	22	21.0
41861	1 1/2"	1 1/2"	13 5/16"	13 11/16"	5 7/8"	22	21.5

40,000 Series Normally Open

Catalog Num. Prefix	Pipe Size	Main Seat Orifice Dia	X	Y	Z	Shipping Weight (lbs.)	C _v
42800	1/4"	3/8"	11 1/2"	10 9/16"	3"	14	1.1
42810	3/8"	3/8"	11 1/2"	10 9/16"	3"	14	2.5
42820	1/2"	3/4"	12 9/16"	11 1/8"	4 5/8"	17	5.1
42830	3/4"	3/4"	12 9/16"	11 1/8"	4 5/8"	17	7.3
42840	1"	1"	13 1/16"	11 9/16"	5 1/4"	23	12.5

40,000 Series

How to Order

4 X 8 X X - X X X X X X X

NORMAL POSITION OF VALVE (DE-ENERGIZED)

- 1 Normally Closed
- 2 Normally Open

CONNECTION SIZES

- | | | | | | |
|---|------|---|--------|---|--------|
| 0 | 1/4" | 3 | 3/4" | 6 | 1 1/2" |
| 1 | 3/8" | 4 | 1" | | |
| 2 | 1/2" | 5 | 1 1/4" | | |

- 0 Normally insignificant
- 1 1 1/4"-2" with screwed cylinder cap (1500 PSIG max.)

VOLTAGE AC/60 Hz

- 0 AC/50 Hz or DC Voltage
- 1 100 VAC 3 200 VAC 5 460 VAC
- 2 115 VAC 4 230 VAC

VOLTAGE AC/50 Hz

- 0 AC/60 Hz or DC Voltage
- 1 110 VAC 2 220 VAC

VOLTAGE DC

- 0 AC Voltage
- 1 12 VDC 3 48 VDC 5 250 VDC
- 2 24 VDC 4 125 VDC

COIL HOUSING

- E Explosion-proof
- S Standard
- W Waterproof
- C Combined Water- & Explosion-proof

FLUID MEDIA TYPE

- 1 Gas
- 2 Liquid up to 40 SUS
- 3 Liquid from 41 SUS to 150 SUS
- 4 Steam
- 5 Cryogenic

MAX. OPERATING PRESSURE (psig)

- | | | | | | |
|---|-----|---|------|---|------|
| A | 75 | E | 350 | I | 1500 |
| B | 100 | F | 750 | J | 2000 |
| C | 200 | G | 1000 | K | 2500 |
| D | 250 | H | 1200 | | |

CONNECTION TYPE

- P NPT
- J British Pipe Thread