

ATKOMATIC

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

8000 Series

Stainless Steel, Pilot-Piston, 5 to 4000 PSIG
High Pressure Valve Configurable for Variety of Fluid Applications



Features

Pressure to 4000 psig depending on fluid and coil type
Pilot operated—require a minimum pressure differential of 5 psig

Full ported valves

Available in normally open and normally closed versions

Fluid temperatures of -423° F through +500° F

Stainless steel construction on all wetted parts—316 for machined parts and CF8M for cast parts. Plunger material is 416 stainless that is treated for increased corrosion resistance

Will handle fluids with viscosity up to 200 SUS

Suitable for use with wide variety of fluid including: air, gasses, liquids, hydraulic fluids, steam, cryogenic fluids, and corrosive fluids

Removable 316 stainless steel body inserts (stainless steel trim)

Optional pilot and piston seat materials of Teflon®, Kel-F®, Buna-N, Viton®, EPR, or 316 stainless steel depending on fluid type and pressure

Body seal materials of Teflon®, Viton®, Buna-N, or EPR

Pipe ports of ¼", through 2" NPT (1½" max in 4000 psi version); British BSPT ports available

Cv from 1.1 through 45

Class H coils standard

Can use a class H double wound coil (requires use with a relay to drop put primary coil winding after valve actuation) depending on pressure (for operation up to 4000 psi)

Coils housings available in NEMA 1 (standard), NEMA 4 (waterproof), NEMA 7 (explosion-proof for hazardous locations), and combination NEMA 4 and 7

Manual opening device is available as an option

Circle Seal Controls

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atkomatic solenoid

8000 Series

Operational Pressures (5 psid minimum pressure differential)

Single wound coils normally closed ¼" through 2" 8000–8710

GASES		LIQUIDS TO 40 SUS		LIQUIDS OVER 40 SUS		STEAM	
AC	DC	AC	DC	AC	DC	AC	DC
1500	1500	1500	1000	1500	500	300	250

Single wound coils normally open ¼" through 2" 8001–8711

GASES		LIQUIDS TO 40 SUS		LIQUIDS OVER 40 SUS		STEAM	
AC	DC	AC	DC	AC	DC	AC	DC
1500	800	1000	350	700	300	250	250

Double wound coils normally closed only ¼" through 1½" 8004–

GASES		LIQUIDS TO 40 SUS		LIQUIDS OVER 40 SUS		STEAM	
AC	DC	AC	DC	AC	DC	AC	DC
4000	3000	4000	2500	4000	2000	300	300

Note: Normally open valves are rated for intermittent duty only on 8000 series.

Note: Rubber seats are limited to 500 psi.

8000 Series

Dimensions, Shipping Weights, and Cv Flow Factors

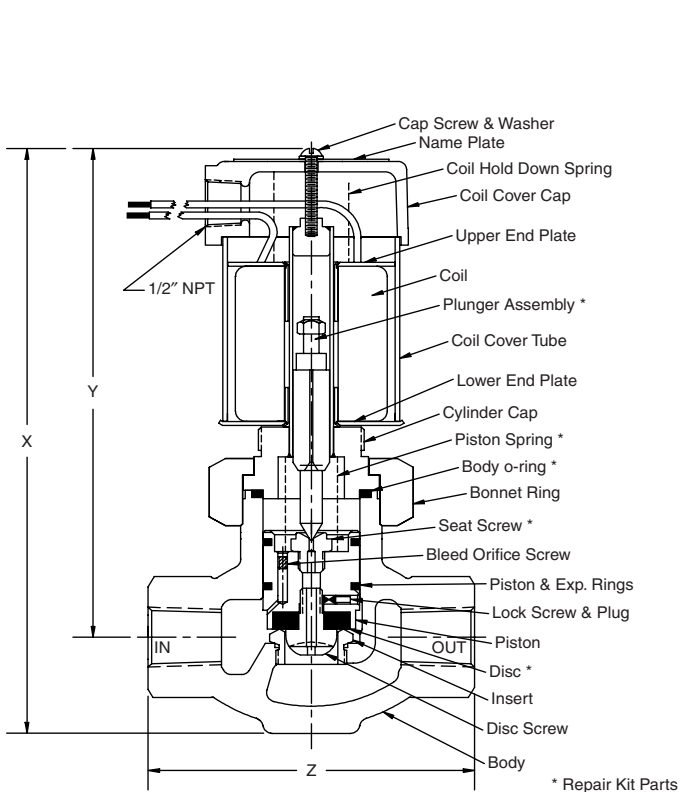
8000 Series Normally Closed, Single and Double Wound Coils

CATALOG NUM. PREFIX		PIPE SIZE	MAIN SEAT ORIFICE	X	Y	Z	SHIPPING WEIGHT (LBS)	CV
SINGLE WOUND COIL	DOUBLE WOUND COIL							
8000	8004	1/4"	3/8"	7"	6 1/8"	3"	6	1.1
8100	8104	3/8"	3/8"	7"	6 1/8"	3"	6	2.5
8200	8204	1/2"	3/4"	8 1/2"	7 3/8"	4 5/8"	9	5.1
8300	8304	3/4"	3/4"	8 1/2"	7 3/8"	4 5/8"	9	7.5
8400	8404	1"	1"	9 3/16"	7 11/16"	5 1/4"	14	12.5
8510	8504	1 1/4"	1 1/2"	9 1/2"	7 5/8"	5 7/8"	20	19.5
8610	8604	1 1/2"	1 1/2"	9 1/2"	7 5/8"	5 7/8"	20	21.0
8710	N/A	2"	2"	11 7/8"	9 1/2"	7"	28	45.0

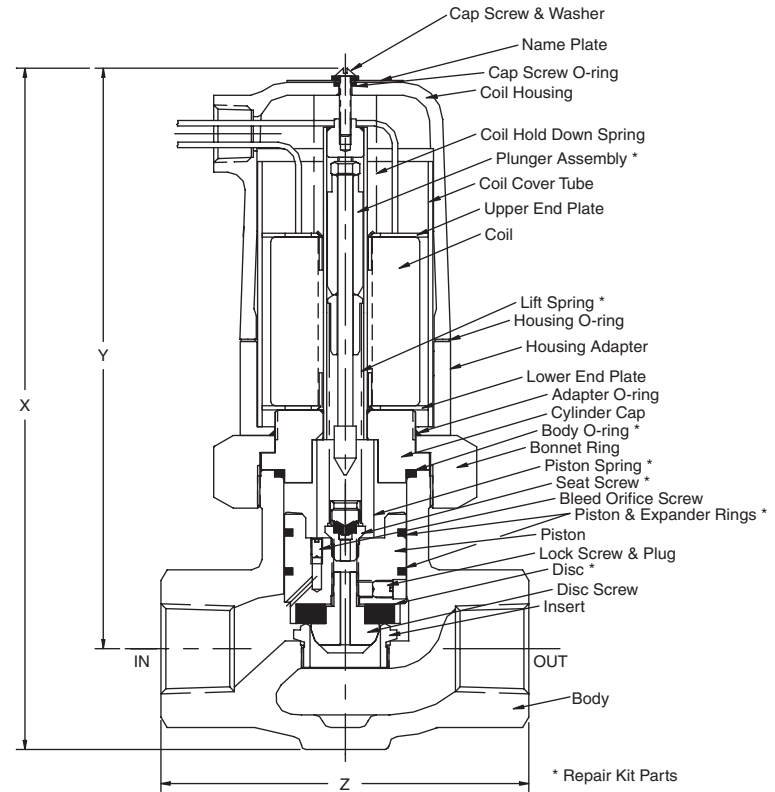
Note: 2" size available in single wound, 1500 psi max. only.

8000 Series Normally Open Single Wound Coils Only

CATALOG NUM. PREFIX	PIPE SIZE	MAIN SEAT ORIFICE	X	Y	Z	SHIPPING WEIGHT (LBS)	CV
8001	1/4"	3/8"	8 1/8"	7 5/16"	3"	6	1.1
8101	3/8"	3/8"	8 1/8"	7 5/16"	3"	6	2.5
8201	1/2"	3/4"	9 5/8"	8 1/2"	4 5/8"	9	5.1
8301	3/4"	3/4"	9 5/8"	8 1/2"	4 5/8"	9	7.5
8401	1"	1"	10 5/16"	8 13/16"	5 1/4"	14	12.5
8511	1 1/4"	1 1/2"	10 11/16"	8 13/16"	5 7/8"	20	19.5
8611	1 1/2"	1 1/2"	10 11/16"	8 13/16"	5 7/8"	20	21.0
8711	2"	2"	13"	10 5/8"	7"	28	45.0



Normally Closed 1/2" 8200 Valve—shown with a NEMA 1 coil housing and a metal pilot seat



Normally Open 1" 8401 Valve—shown with a NEMA 4 waterproof coil housing and a soft pilot seat

8000 Series

How to Order

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CONNECTION SIZES

- | | | |
|--------|----------|----------|
| 0 1/4" | 4 1" | 7 2" |
| 1 3/8" | 5 1 1/4" | 8 2 1/2" |
| 2 1/2" | 6 1 1/2" | 9 3" |
| 3 3/4" | | |

PRODUCT PREFIX

- 0 1/4", 3/8", 1/2", 3/4" and 1" single wound coils and double wound coils.
 1 1 1/4", 1 1/2", and 2" single wound coils.
 This field conveys no meaning and is used only to match historic catalog numbers

NORMAL POSITION OF VALVE

COIL TYPE (DE-ENERGIZED)

- 0 Normally Closed valve & single wound coil
 1 Normally Open valve & single wound coil
 4 Normally Closed valve & double wound coil

VOLTAGE AC/60 HZ

- | | | |
|--------------------------|-----------|-----------|
| 0 AC/50 Hz or DC Voltage | | |
| 1 24 VAC | 3 115 VAC | 5 230 VAC |
| 2 100 VAC | 4 200 VAC | 6 460 VAC |

VOLTAGE AC/50 HZ

- | | |
|--------------------------|-----------|
| 0 AC/60 Hz or DC Voltage | |
| 1 24 VAC | 3 220 VAC |
| 2 110 VAC | 4 380 VAC |

VOLTAGE DC

- | | | |
|----------|----------|-----------|
| 1 12 VDC | 3 32 VDC | 5 125 VDC |
| 2 24 VDC | 4 72 VDC | 6 250 VDC |

CONNECTION TYPE

- P NPT
 J British Pipe Thread

OPTIONS

- P Position Indicator
 M Manual Opening

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

SEAL MATERIAL

- A Teflon® B Buna-N
 C Viton® D EPR

SEAT/PILOT MATERIAL

- A TFE pilot & TFE disc
 B Buna pilot & Buna disc
 C Viton® pilot & Viton® disc
 D EPR pilot & EPR disc
 E Kel-F® pilot & Kel-F® disc
 F Metal pilot & Metal disc
 G Metal pilot & TFE disc
 H Metal pilot & Buna disc
 I Metal pilot & Viton® disc
 J Metal pilot & EPR disc
 K Metal pilot & Kel-F® disc

MAX. OPERATING PRESS (PSIG)

- | | | |
|-------|-------|--------|
| A 50 | F 300 | K 1000 |
| B 75 | G 400 | L 1500 |
| C 100 | H 500 | M 2000 |
| D 150 | I 600 | N 2500 |
| E 200 | J 750 | O 3000 |
| | | P 4000 |