

# ATKOMATIC

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

## 2000 Series

**Stainless Steel, Direct Lift  
Medium Pressure Valve Configurable for Variety of  
Fluid Applications**

### Features

- Direct acting valve
- Pressure to 10,000 psig depending on fluid and orifice size
- Barstock body construction
- Stainless steel construction on all wetted parts—316 for pressure containing parts and plunger material is 416 stainless that is treated for increased corrosion resistance
- Will handle fluids with viscosity up to 200 SUS
- Fluid temperatures from -423° to +500° F
- Suitable for use with wide variety of fluid including: air, gasses, liquids, hydraulic fluids, steam, cryogenic fluids, and corrosive fluids
- Optional seat materials of Teflon®, Kel-F, Buna-N, Viton®, EPR, or 316 Stainless Steel depending on fluid type and pressure. These are available with 1/16<sup>2</sup> through 3/16<sup>2</sup> orifices
- Seat material is Stellite with 1/32<sup>2</sup> and 3/64<sup>2</sup> orifices
- Body seal materials of Teflon®, Viton®, Buna-N, or EPR.
- Flow orifice sizes of 1/32<sup>2</sup>, 3/64<sup>2</sup>, 1/16<sup>2</sup>, 3/32<sup>2</sup>, 1/8<sup>2</sup>, and 3/16<sup>2</sup>
- Pipe sizes of 1/8<sup>2</sup>, 1/4<sup>2</sup>, 3/8<sup>2</sup>, and 1/2<sup>2</sup> NPT
- British BSPT, AND, and AMINCO ports available
- C<sub>v</sub> from .020 to .72
- 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
- Coil housings available in NEMA 1 (standard), NEMA 4 (waterproof), NEMA 7 (explosion-proof for hazardous locations), and combination NEMA 4 & 7
- Class H coil is standard

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# 2000 Series

## Operational Pressures (No minimum pressure differential)

### Single Wound Coils—Series 2000—2300 Metal (Stellite) Seats

Orifice Size	Gases		Liquids to 40 SUS		Liquids over 40 SUS		Steam	
	A.C.	D.C.	A.C.	D.C.	A.C.	D.C.	A.C.	D.C.
1/32"	8000	3000	8000	3000	6000	2000	300	300
3/64"	3500	1800	3500	1000	3000	750	300	300

### Single Wound Coils—Series 2000—2300 Metal Seats

Orifice Size	Gases		Liquids to 40 SUS		Liquids over 40 SUS		Steam	
	A.C.	D.C.	A.C.	D.C.	A.C.	D.C.	A.C.	D.C.
1/16"	2500	1500	1800	1000	1500	500	300	300
3/32"	1000	500	800	350	500	170	300	300
1/8"	500	200	400	125	250	60	300	125
3/16"	175	55	125	35	125	15	125	35

### Single Wound Coils—Series 2000—2300 Soft Seats (Buna-N, Viton®, EPR, Teflon®, and Kel-F)

Orifice Size	Gases		Liquids to 40 SUS		Liquids over 40 SUS		Steam	
	A.C.	D.C.	A.C.	D.C.	A.C.	D.C.	A.C.	D.C.
1/16"	2500	1275	1500	765	1500	500	300	300
3/32"	850	425	675	300	425	150	300	200
1/8"	425	170	350	100	200	50	300	100
3/16"	150	40	100	30	100	17	110	30

### Double Wound Coils—Series 2004—2304 Metal (Stellite) Seats

Orifice Size	Gases		Liquids to 40 SUS		Liquids over 40 SUS		Steam	
	A.C.	D.C.	A.C.	D.C.	A.C.	D.C.	A.C.	D.C.
1/32"	10000	10000	10000	10000	10000	6000	300	300
3/64"	9000	4000	9000	4000	9000	4000	300	300

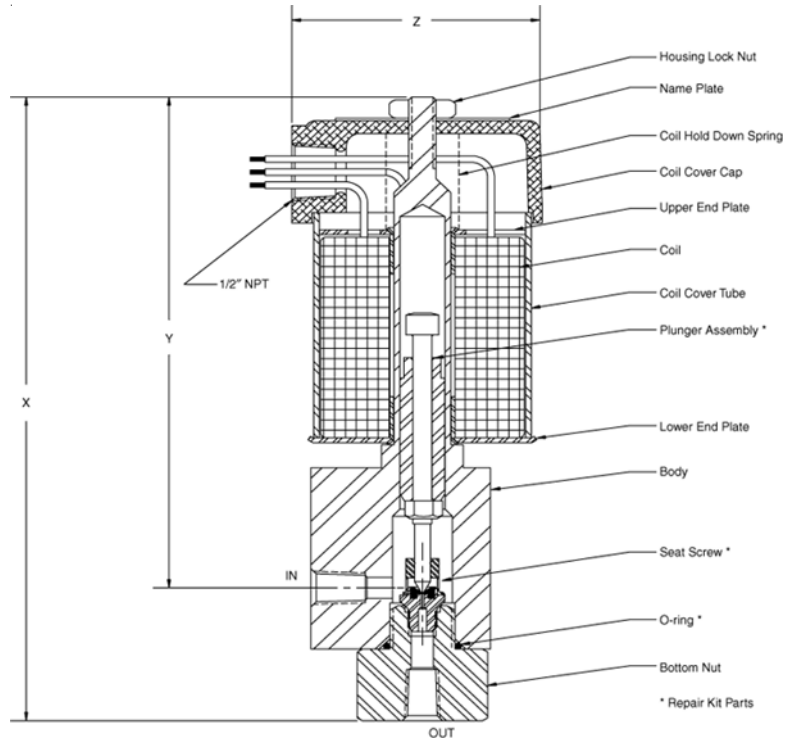
### Double Wound Coils—Series 2004—2304 Soft Seats (Buna-N, Viton®, EPR, Teflon®, and Kel-F)

Orifice Size	Gases		Liquids to 40 SUS		Liquids over 40 SUS		Steam	
	A.C.	D.C.	A.C.	D.C.	A.C.	D.C.	A.C.	D.C.
1/16"	6000	4000	6000	3500	6000	2500	300	300
3/32"	3500	2000	3000	1500	2000	1000	300	300
1/8"	1000	800	600	600	500	500	300	300

Note: Rubber seats are limited to 500 psi.

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## 2004 Valve 1/8" Valve Shown with NEMA 1 Coil Housing and a Soft Seat



### Dimensions and Shipping Weights

Catalog Num. Prefix		Pipe Size	X	Y	Z	Shipping Weight (lbs.)
Single Wound Coil	Double Wound Coil					
2000	2004	1/8"	7 9/16"	6"	2 3/4"	7
2100	2104	1/4"	7 9/16"	6"	2 3/4"	7
2200	2204	3/8"	7 9/16"	6"	2 3/4"	7
2300	2304	1/2"	7 9/16"	6"	2 3/4"	7

### C<sub>v</sub> Flow Factors

Orifice Size	C <sub>v</sub>
1/32"	.020
3/64"	.056
1/16"	.093
3/32"	.22
1/8"	.44
3/16"	.72

# 2000 Series

## How to Order

2 x 0 x - x x x x x x x x x x

### CONNECTION SIZE

- 0 1/8"    2 3/8"
- 1 1/4"    3 1/2"

### COIL TYPE

- 0 Class H molded single wound
- 4 Class H fiberglass wrapped double wound

### VOLTAGE AC/60 Hz

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

### VOLTAGE AC/50 Hz

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

### VOLTAGE DC

- 0 AC Voltage
- 2 12 VDC    3 24 VDC    4 32 VDC
- 5 48 VDC    6 72 VDC    7 125 VDC
- 8 250 VDC

### COIL HOUSING

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

### FLUID MEDIA TYPE

- 1 Gas
- 2 Liquid up to 40 SUS
- 3 Liquid 41 SUS to 200 SUS
- 4 Steam
- 5 Cryogenic

### SEAL MATERIAL

- A Teflon®    C Viton®
- B Buna-N    D EPR

### SEAT MATERIAL

- A Teflon®    B Buna-N    C Viton®
- D Kel-F    E Stellite    F 316 SS
- G EPR

### ORIFICE SIZE

- 1 1/32    2 3/64    3 1/16
- 4 3/32    5 1/8    6 3/16

### CONNECTION TYPE

- P NPT    A AND
- J British Pipe Thread    M Aminco

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Teflon® is a registered trademark of DuPont.*

For ordering wizard go to [www.circle-seal.com/atkomatic/product\\_selection\\_wizard.htm](http://www.circle-seal.com/atkomatic/product_selection_wizard.htm) or request disk from 909-270-6315