

# ATKOMATIC

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

## 3000 Series

Medium Pressure Valve

Configurable for Variety of Fluid Applications

### Features

- Direct acting valve
- Pressure to 1500 psig depending on fluid and orifice size
- Available in normally open and normally closed versions
- Bronze valve material (naval M bronze) % plunger is electroless nickel plated 416 stainless
- For use with any gas or liquid (max viscosity of 200 SSU), including steam and cryogenic, that is not harmful to bronze
- Fluid temperatures from  $-423^{\circ}$  to  $+500^{\circ}$  F
- Optional 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 sizes of  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , and 1" NPT
- British BSPT ports available
- Flow orifice sizes of  $\frac{1}{6}$ ,  $\frac{3}{32}$ ,  $\frac{1}{8}$ , &  $\frac{3}{16}$ "
- Cv from .093 to 0.72
- Coils housings available in NEMA 1 (standard), NEMA 4 (waterproof), NEMA 7 (explosion-proof for hazardous locations), and combination NEMA 4 and 7
- Class B coils are available for media temperatures of  $0^{\circ}$  through  $220^{\circ}$  F
- Class H coils are available – recommended for media temperatures of  $-423^{\circ}$  through  $+500^{\circ}$  F – is standard on normally open version

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# 3000 Series

## Operational Pressures (No minimum pressure differential)

### Normally Closed 3000 - 3400 & 3008 - 3408 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	1000*	1000*	1000*	1000	1000*	500	250	250
3/32	1000*	500	800	350	500	150	250	250
1/8	500	200	400	125	250	60	250	125
3/16	175	50	125	35	125	20	165	35

### Normally Closed 3000 - 3400 & 3008 - 3408 Sofy seats (Buna-N, Viton, EPR, Teflon, & 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	1000*	1000*	1000*	765	1000*	500	250	250
3/32	1000*	425	675	300	425	170	250	250
1/8	425	170	350	100	200	50	250	100
3/16	150	40	100	30	100	17	140	30

### Normally Open 3001 - 3401 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	1000*	800	1000	350	700	300	250	250
3/32	500	250	300	150	275	90	250	250
1/8	225	100	200	50	125	35	200	150
3/16	65	25	40	15	25	10	50	25

### Normally Open 3001 - 3401 Sofy seats (Buna-N, Viton, EPR, Teflon, & 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	1000*	680	1000	300	600	250	250	250
3/32	425	200	250	125	230	75	200	200
1/8	190	85	170	40	100	30	170	125
3/16	65	20	35	12	20	8	40	20

\* 1500 psi for 1/4, 3/8, and 1/2" sizes only

NOTE: Normally open 3001 series valves are subject to the intermittent operation restrictions described on page \_\_\_\_.

NOTE: Rubber seats are limited to 500 psi

# 3000 Series

## Dimensions and Shipping Weights

### 3000 Series Normally Closed Bronze

Catalog Number Prefix		Pipe Size	X	Y	Z	Shipping Weight (lbs)
Class B coil	Class H coil					
3000	3008	1/4"	7 5/16"	6 1/2"	2 11/16"	5
3100	3108	3/8"	7 5/16"	6 1/2"	2 11/16"	5
3200	3208	1/2"	7 7/16"	6 1/2"	3"	6
3300	3308	3/4"	7 15/16"	6 5/8"	3 3/4"	7
3400	3408	1"	7 15/16"	6 5/8"	3 3/4"	7

### 3000 Series Normally Open Bronze

Catalog Number Prefix	Pipe Size	X	Y	Z	Shipping Weight (lbs)
Class H coil					
3001	1/4"	9 3/32"	8 3/16"	2 11/16"	7
3101	3/8"	9 3/32"	8 3/16"	2 11/16"	7
3201	1/2"	9 3/16"	8 3/16"	3"	7
3301	3/4"	9 1/2"	8 1/4"	3 3/4"	8
3401	1"	9 1/2"	8 1/4"	3 3/4"	8

Cv Flow Factors	
Orifice	Cv
1/16"	.093
3/32"	.22
1/8"	.44
3/16"	.72

Normally Closed 1/4" 3000 Valve - shown with a NEMA 1 coil housing and a soft seat

# 3000 Valve Series

## How to Order

3 x 0 x - x x x x x x x x x x

### PIPE THREAD SIZE

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

### PLUNGER/ORIFICE STYLE &

### COIL TYPE & NORMAL POSITION OF VALVE

- 0 Class B molded coil, normally closed valve
- 1 Class H molded coil, normally open valve
- 8 Class H molded coil, normally closed valve

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

### CONNECTION TYPE

- P NPT
- J British Pipe Thread

### COIL HOUSING

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

### FLUID MEDIA TYPE

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

### SEAL MATERIAL

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

### SEAT MATERIAL

- A Teflon®
- B Buna-N
- C Viton®
- D EPR
- E Kel-F
- F Stainless

### ORIFICE SIZE

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

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