

# ATKOMATIC

## 8000 Series

Stainless Steel, Pilot-piston, Pressure 5 to 4000 psig (0.4 to 276 bar)  
High Pressure Valve Configurable for Variety of Fluid Applications



### Features

- Pressure to 4000 psig depending on fluid and coil type (276 bar)
- Pilot operated: require a minimum pressure differential of 5 psig (0.4 bar)
- Full ported valves
- Available in normally open and normally closed versions
- Fluid temperatures of  $-423^{\circ}\text{F}$  ( $-253^{\circ}\text{C}$ ) through  $+500^{\circ}\text{F}$  ( $+260^{\circ}\text{C}$ )
- 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®, PCTFE, 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  $\frac{1}{4}$ " through 2" NPT ( $1\frac{1}{2}$ " max. in 4000 psig (276 bar) 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 (276 bar))
- Coil housings available in NEMA 1 (standard), NEMA 4 (waterproof), NEMA 7 (explosion-proof for hazardous locations), and combination NEMA 4 & 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 1/4" through 2" 8000-8710

GASES		LIQUIDS TO 40 SUS		LIQUIDS OVER 40 SUS		STEAM	
AC	DC	AC	DC	AC	DC	AC	DC
1500 / 104 bar	1500 / 104 bar	1500 / 104 bar	1000 / 69 bar	1500 / 104 bar	500 / 34.5 bar	300 / 21 bar	250 / 17.3 bar

Single wound coils normally open 1/4" through 2" 8001-8711

GASES		LIQUIDS TO 40 SUS		LIQUIDS OVER 40 SUS		STEAM	
AC	DC	AC	DC	AC	DC	AC	DC
1500 / 104 bar	800 / 55.2 bar	1000 / 69 bar	350 / 24.2 bar	700 / 48.3 bar	300 / 21 bar	250 / 17.3 bar	250 / 17.3 bar

Double wound coils normally closed only 1/4" through 1 1/2" 8004-8604

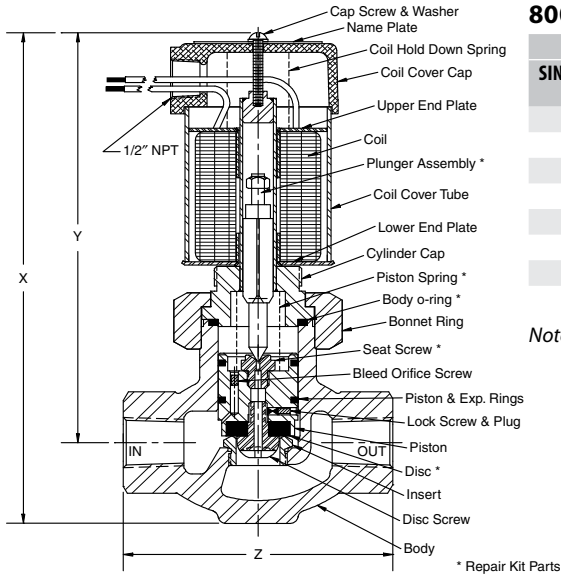
GASES		LIQUIDS TO 40 SUS		LIQUIDS OVER 40 SUS		STEAM	
AC	DC	AC	DC	AC	DC	AC	DC
4000 / 276 bar	3000 / 207 bar	4000 / 276 bar	2500 / 173 bar	4000 / 276 bar	2000 / 138 bar	300 / 21 bar	300 / 21 bar

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

**Note:** Buna N, Viton® and EPR seats are limited to 500 psig (34.5 barg).

## Dimensions, Shipping Weights, and Cv Flow Factors

### 8000 Series Normally Closed, Single and Double Wound Coils



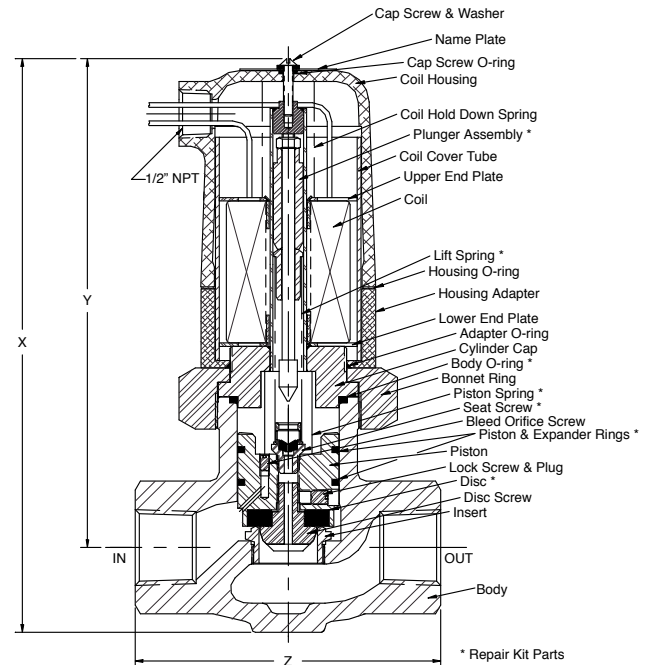
Normally closed 1/2" 8200 valve, shown with a NEMA 1 coil housing and a metal pilot seat

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	—	2"	2"	11 7/8"	9 1/2"	7"	28	45.0

Note: 2" size available in single wound, 1500 psi max. only (104 bar).

### 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 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 N pilot & Buna N disc  
 C Viton® pilot & Viton® disc  
 D EPR pilot & EPR disc  
 E PCTFE pilot & PCTFE disc  
 F Metal pilot & metal disc  
 G Metal pilot & TFE disc  
 H Metal pilot & Buna N disc  
 I Metal pilot & Viton® disc  
 J Metal pilot & EPR disc  
 K Metal pilot & PCTFE 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 |