

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°F (-253°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 PTFE, PCTFE, Buna N, Viton®, EPR, or 316 stainless steel depending on fluid type and pressure
- Body seal materials of PTFE, 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

2301 Wardlow Circle • P.O. Box 3300 • Corona, CA 92880

Phone (951) 270-6200 Fax (951) 270-6201

www.circlesealcontrols.com • am_sales@circlesealcontrols.com • ind_sales@circlesealcontrols.com

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

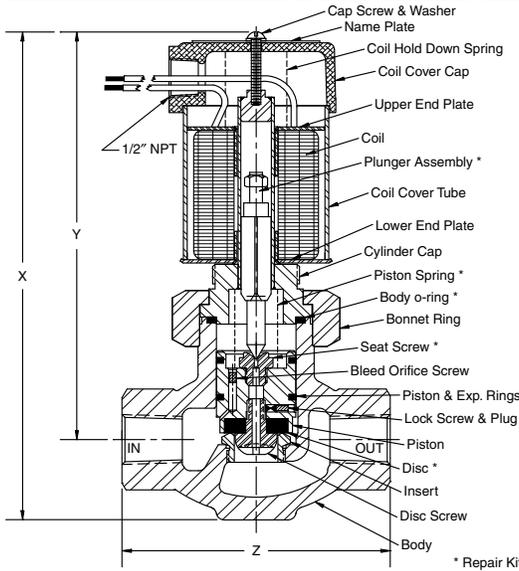
Double wound coils normally closed only 1/4" through 1 1/2" 8004-8604

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



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

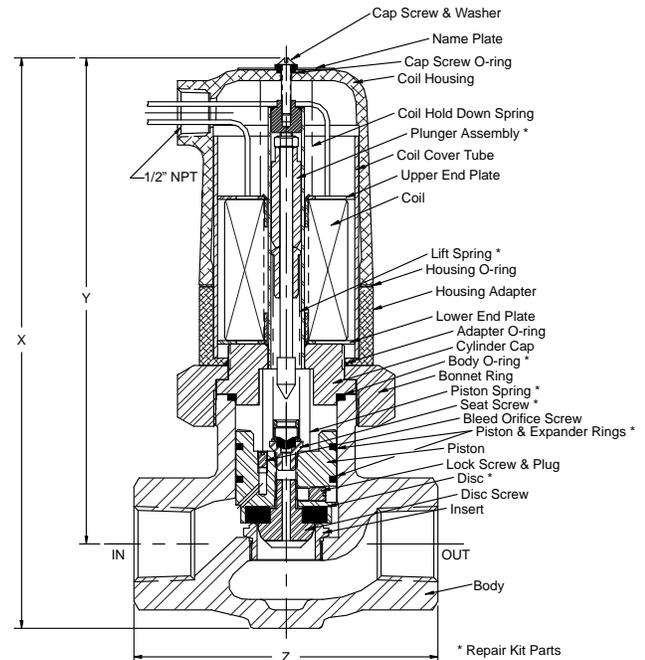
8000 Series Normally Closed, Single and Double Wound Coils

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 1/2"	3"	6	1.1
8100	8104	3/8"	3/8"	7"	6 1/2"	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 1/16"	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 3/16"	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

8 X X X - X X X X X X X X X X X

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** PTFE **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 |