

# 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

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 ¼" 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 ¼" 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

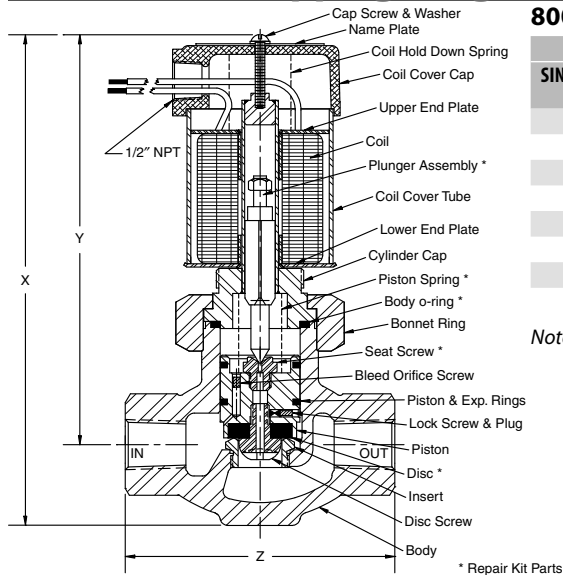
Double wound coils normally closed only ¼" through 1½" 8004–8604

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 ½" 8200 valve, shown with a NEMA 1 coil housing and a metal pilot seat

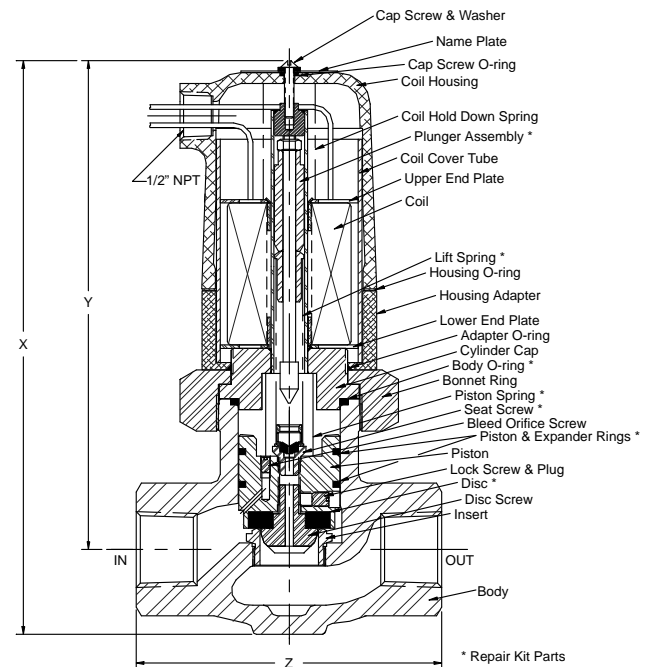
### 8000 Series Normally Closed, Single and Double Wound Coils

CATALOG NUM. PREFIX		PIPE SIZE	MAIN SEAT ORIFICE	X	Y	Z	SHIPPING WEIGHT (lbs)	Cv
SINGLE WOUND COIL	DOUBLE WOUND COIL							
8000	8004	¼"	⅜"	7"	6½"	3"	6	1.1
8100	8104	⅜"	⅜"	7"	6½"	3"	6	2.5
8200	8204	½"	¾"	8½"	7⅝"	4⅝"	9	5.1
8300	8304	¾"	¾"	8½"	7⅝"	4⅝"	9	7.5
8400	8404	1"	1"	9⅝"	7⅞"	5¼"	14	12.5
8510	8504	1¼"	1½"	9½"	7⅝"	5⅝"	20	19.5
8610	8604	1½"	1½"	9½"	7⅝"	5⅝"	20	21.0
8710	—	2"	2"	11⅝"	9½"	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	¼"	⅜"	8⅝"	7⅞"	3"	6	1.1
8101	⅜"	⅜"	8⅝"	7⅞"	3"	6	2.5
8201	½"	¾"	9⅝"	8½"	4⅝"	9	5.1
8301	¾"	¾"	9⅝"	8½"	4⅝"	9	7.5
8401	1"	1"	10⅝"	8⅜"	5¼"	14	12.5
8511	1¼"	1½"	10⅞"	8⅜"	5⅝"	20	19.5
8611	1½"	1½"	10⅞"	8⅜"	5⅝"	20	21.0
8711	2"	2"	13"	10⅝"	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

CONNECTION SIZES

0 1/4"

1 3/8"

2 1/2"

3 3/4"

4 1"

5 1 1/4"

6 1 1/2"

7 2"

8 2 1/2"

9 3"

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

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

8

X

X

X

-

X

X

X

X

X

X

X

X

X

X

X

Viton® is a registered trademark of DuPont Dow Elastomers.  
Teflon® is a registered trademark of DuPont.

38 | **ATKOMATIC Solenoid Valves**