

# ATKOMATIC

## 500 Series

Bronze, Pilot-piston, Pressure 5 to 300 psig (0.4 to 21 bar)  
Low Pressure Valve Configurable for Variety of Fluid Applications



### Features

- Pressures to 300 psig (21 bar)
- Fluid temperatures from  $-100^{\circ}\text{F}$  to  $+450^{\circ}\text{F}$  ( $-73^{\circ}\text{C}$  to  $+232^{\circ}\text{C}$ )
- For use with any gas or liquid (max. viscosity of 150 SUS), including steam, that is not harmful to bronze
- Pipe sizes from  $\frac{1}{4}$ " through  $1\frac{1}{2}$ " NPT (British BSPT ports available)
- Full ported valves: Cv from 1.4 to 21
- Pilot operated: requires a minimum pressure differential of 5 psig
- Available in normally open and normally closed versions
- Optional pilot and piston seat materials of PTFE, PCTFE, Buna N, Viton®, EPR, or metal (316 stainless steel pilot and/or brass piston seat) depending on fluid type and pressure
- Body seal materials of PTFE, Viton®, Buna N, or EPR.
- Bronze valve material (naval M Bronze)
- Coil housings available in NEMA 1 (standard), NEMA 4 (waterproof), NEMA 7 (explosion-proof for hazardous locations), and combination NEMA 4 & 7
- Manual opening and throttling devices are available as options
- Class B coils are available for media temperatures of  $0^{\circ}\text{F}$  through  $+220^{\circ}\text{F}$  ( $-18^{\circ}\text{C}$  through  $+104^{\circ}\text{C}$ )
- Class H coils are available: recommended for media temperatures of  $-100^{\circ}\text{F}$  through  $+450^{\circ}\text{F}$  ( $-73^{\circ}\text{C}$  through  $+232^{\circ}\text{C}$ )
- Treated 416 stainless steel plunger material for increased corrosion resistance

### Circle Seal Controls

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atkomatic solenoid

# 500 Series

## Operational Pressures (5 psid minimum pressure differential)

Normally Closed 500–560 ¼"–1½"

GASES		LIQUIDS TO 40 SUS		LIQUIDS OVER 40 SUS		STEAM	
AC	DC	AC	DC	AC	DC	AC	DC
300	300	300	300	300	100	125	125

Normally Open 501–561 ¼"–1½"

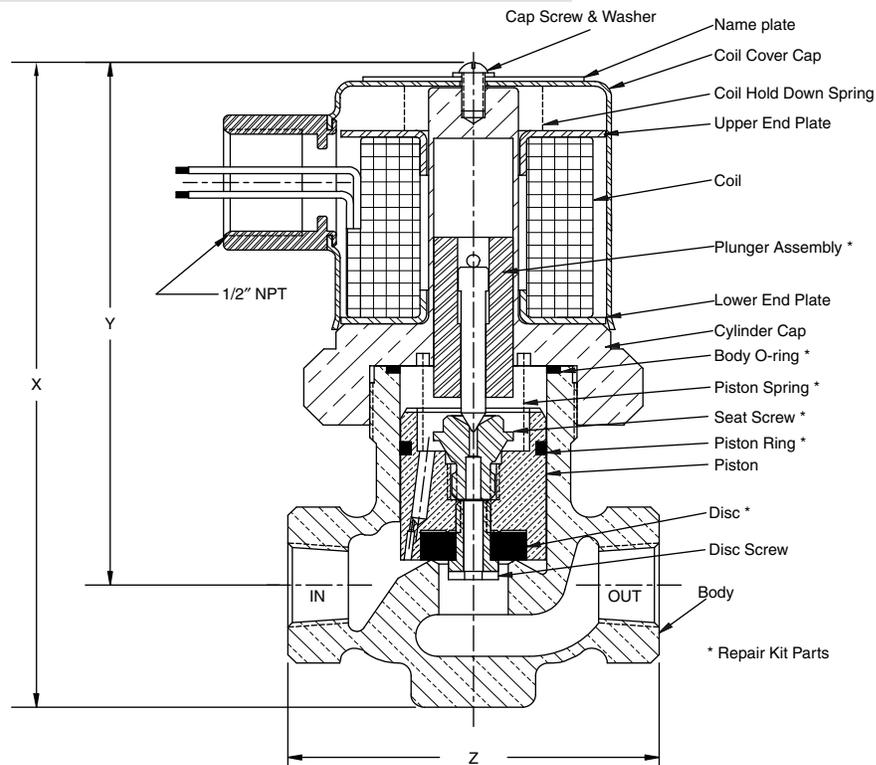
GASES		LIQUIDS TO 40 SUS		LIQUIDS OVER 40 SUS		STEAM	
AC	DC	AC	DC	AC	DC	AC	DC
300	300	200	200	100	100	125	125

NOTE: Normally open valves are rated for intermittent duty only on 500 Series valves and are not recommended for cryogenic service.

## Dimensions, Shipping Weights, and Cv Flow Factors

### Normally Closed

CATALOG NUM. PREFIX		PIPE SIZE	MAIN SEAT ORIFICE DIA.	X	Y	Z	SHIPPING WEIGHT (lbs)	Cv
N.C.	N.O.							
500	501	¼"	½"	4¾"	3⅞"	2⅛"	3	1.4
510	511	⅜"	½"	4¾"	3⅞"	2⅛"	3	2.7
520	521	½"	½"	4¾"	3⅞"	3"	4	3.5
530	531	¾"	1"	5¼"	4"	3¾"	5	7.5
540	541	1"	1"	5¼"	4"	3¾"	5	9.1
550	551	1¼"	1½"	7"	5⅞"	5⅞"	13	19.5
560	561	1½"	1½"	7"	5⅞"	5⅞"	13	21.0



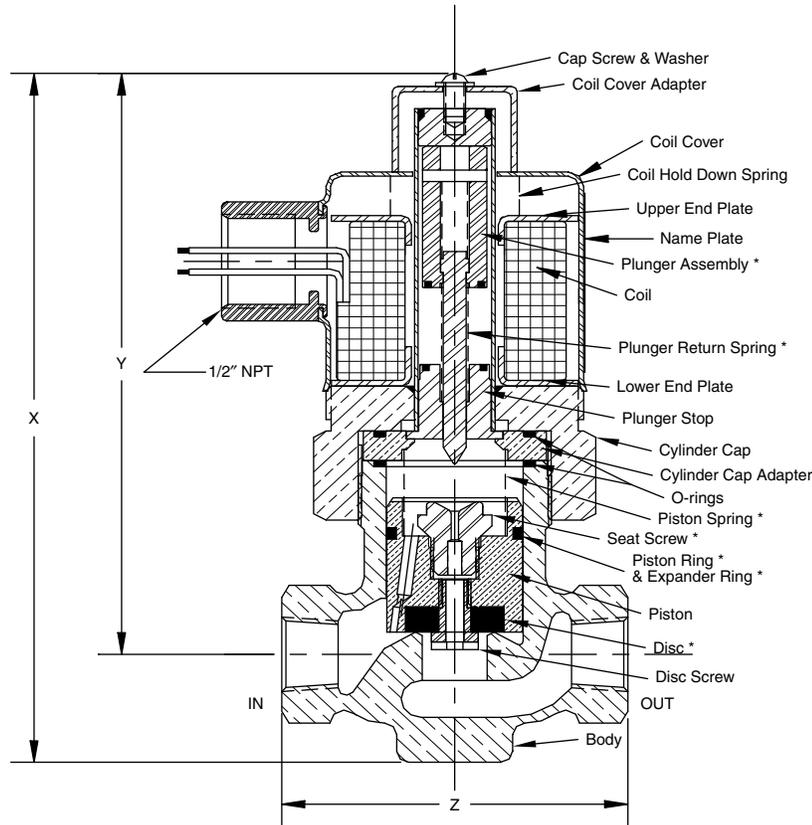
Normally closed ¼" 500 Valve: shown with a standard NEMA 1 coil housing and a metal pilot seat

# 500 Series

## Dimensions, Shipping Weights, and Cv Flow Factors

### Normally Open

CATALOG NUM. PREFIX		PIPE SIZE	MAIN SEAT ORIFICE DIA.	DIMENSIONS			SHIPPING WEIGHT (lbs)	Cv
N.C.	N.O.			X	Y	Z		
500	501	1/4"	1/2"	5 3/4"	4 13/16"	2 1/16"	3	1.4
510	511	3/8"	1/2"	5 3/4"	4 13/16"	2 1/16"	3	2.7
520	521	1/2"	1/2"	5 3/4"	4 13/16"	3"	4	3.5
530	531	3/4"	1"	6 1/8"	4 7/8"	3 3/4"	5	7.5
540	541	1"	1"	6 1/8"	4 7/8"	3 3/4"	5	9.1
550	551	1 1/4"	1 1/2"	8"	6"	5 1/8"	13	19.5
560	561	1 1/2"	1 1/2"	8"	6"	5 1/8"	13	21.0



\* Repair kit parts

Normally open 1/4" 501 Valve: shown with a standard NEMA 1 coil housing and metal pilot seat.

# 500 Series

## How to Order

5 x x - x x x x x x x x x x x x

### CONNECTION SIZES

- |        |          |          |
|--------|----------|----------|
| 0 1/4" | 3 3/4"   | 6 1 1/2" |
| 1 3/8" | 4 1"     |          |
| 2 1/2" | 5 1 1/4" |          |

### NORMAL (DE-ENERGIZED)

#### POSITION OF VALVE

- 0 Normally closed
- 1 Normally open

#### VOLTAGE AC

- |              |              |
|--------------|--------------|
| 0 DC voltage | 5 230-60 VAC |
| 1 24-60 VAC  | 6 460-60 VAC |
| 2 100-60 VAC | 7 110-50 VAC |
| 3 115-60 VAC | 8 220-50 VAC |
| 4 200-60 VAC | 9 380-50 VAC |

#### VOLTAGE DC

- |               |           |
|---------------|-----------|
| 0 AC voltage  | 4 100 VDC |
| 1 12 VDC      | 5 125 VDC |
| 2 24 & 32 VDC | 6 250 VDC |
| 3 48 VDC      |           |

#### COIL INSULATION RATING

- B Class B
- H Class H

#### CONNECTION TYPE

- P NPT
- J British pipe thread

#### MAX. OPERATING PRESSURE (psig)

- |      |       |       |
|------|-------|-------|
| A 20 | E 75  | I 200 |
| B 25 | F 100 | J 250 |
| C 50 | G 125 | K 275 |
| D 60 | H 150 | L 300 |

### OPTIONS

- M Manual opening
- T Manual throttling device

### 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 pilot & Buna 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 disc
- I Metal pilot & Viton® disc
- J Metal pilot & EPR disc
- L Metal pilot & PCTFE disc