

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°F to $+450^{\circ}\text{F}$ (-73°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 Teflon®, 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 Teflon®, 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°F through $+220^{\circ}\text{F}$ (-18°C through $+104^{\circ}\text{C}$)
- Class H coils are available: recommended for media temperatures of -100°F through $+450^{\circ}\text{F}$ (-73°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"

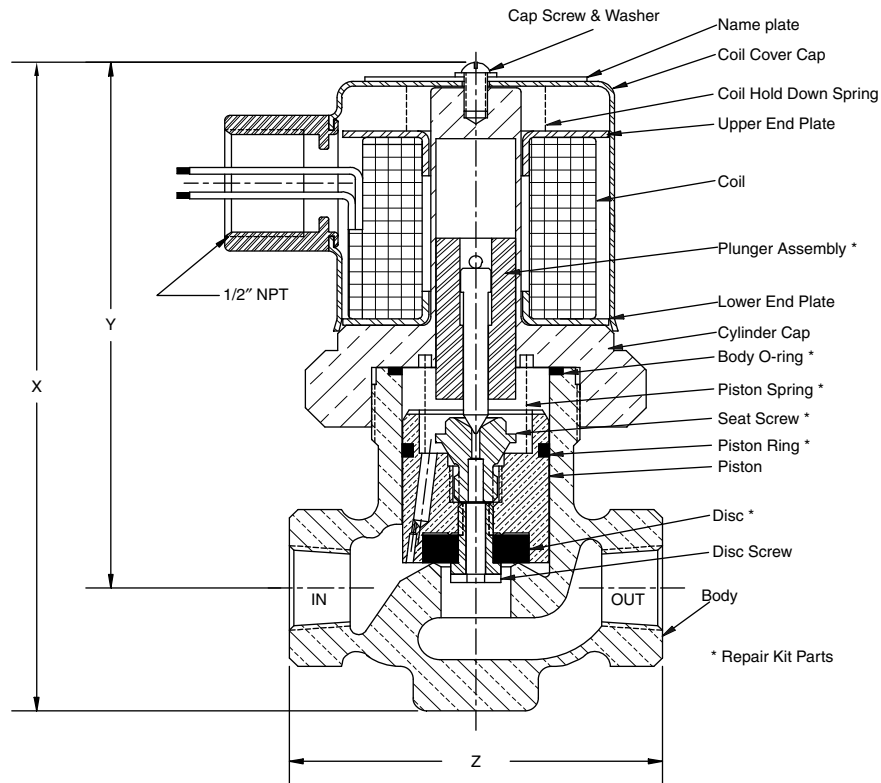
GASES		LIQUIDS TO 40 SUS		LIQUIDS OVER 40 SUS		STEAM	
AC	DC	AC	DC	AC	DC	AC	DC
300	300	200	200	100	100	125	125

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			MAIN SEAT ORIFICE DIA.	X	Y	Z	SHIPPING WEIGHT (lbs)	Cv
N.C.	N.O.	PIPE SIZE						
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"	5⅝"	5⅞"	13	19.5
560	561	1½"	1½"	7"	5⅝"	5⅞"	13	21.0



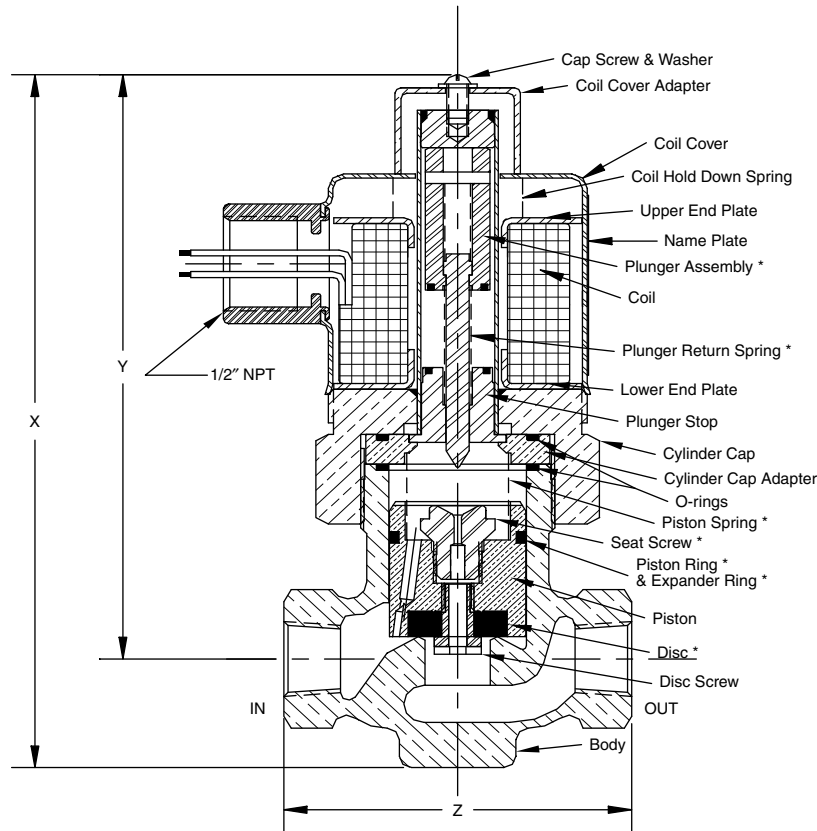
Normally closed ¼" 500 Valve: shown with a standard NEMA 1 coil housing and a metal pilot seat

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

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 Teflon® | 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