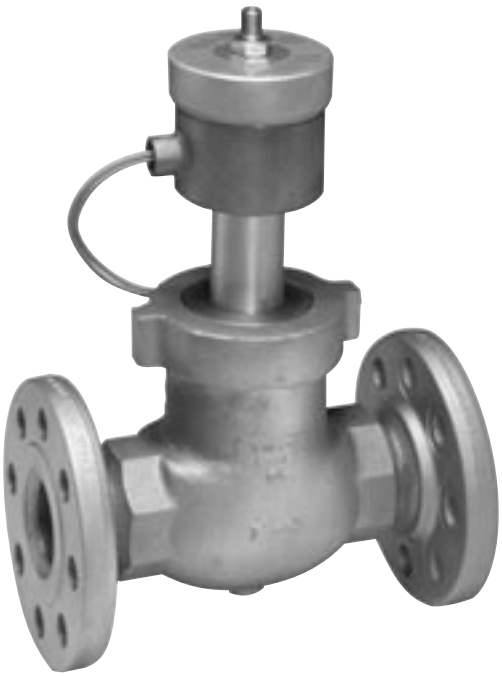
ATKOMATIC

35800 Series

Stainless Steel, Pilot-piston, Pressure 35 to 2000 psig (2.4 to 138 bar)
High Pressure Valve Configurable for Variety of Fluid Applications



Features

- Rapid response time: achieved by use of an external pilot source
- Pilot operated valve
- Operation up to 2000 psig (138 bar)
- 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
- Available in ½″ through 2″ NPT pipe size
- Full ported valves; heavy duty, rugged construction
- Cv from 5.1 to 45
- British BSPT ports available
- Media temperatures from –15° F to +400° F (-26° C to 204° C)
- Optional piston seat materials of Teflon®, Kel-F®, Buna N, Viton®, EPR, or 316 stainless steel depending on fluid type and pressure
- Body seal materials of Teflon®, Viton®, Buna N, or EPR
- Stellite® pilot seats (cobalt alloy for wear and corrosion resistance)
- Piston lip seals are Viton®
- Optional piston seat materials of Teflon®, Kel-F®, Buna N, Viton®, EPR or 316 stainless steel depending on fluid type and pressure.
- Removable 316 stainless steel body inserts (stainless steel trim)
- Will handle fluids with viscosity up to 150 SUS
- Suitable for use with wide variety of fluid including: air, gasses, liquids, hydraulic fluids, steam, cryogenic fluids, and corrosive fluids
- Class H coils are standard
- Coils 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
- Valve position indicator option is available

atkomatic solenoid

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35800 Series

Operational Pressures (35 psid minimum pressure differential)

Normally closed and open ½″–1″, 35820–35840

GASES		LIQUIDS TO 40 SUS		LIQUIDS OVER 40 SUS		STEAM	
AC	DC	AC	DC	AC	DC	AC	DC
3000 / 207 bar	1500 / 103 bar	3000 / 207 bar	1000 / 69 bar	3000 / 207 bar	1000 / 69 bar	300 / 21 bar	300 / 21 bar

Normally closed and open 1¼″–2″, 35851–35871

GASES		LIQUIDS TO 40 SUS		LIQUIDS OVER 40 SUS		STEAM	
AC	DC	AC	DC	AC	DC	AC	DC
3000 / 207 bar	1500 / 103 bar	3000 / 207 bar	1000 / 69 bar	3000 / 207 bar	1000 / 69 bar	300 / 21 bar	300 / 21 bar

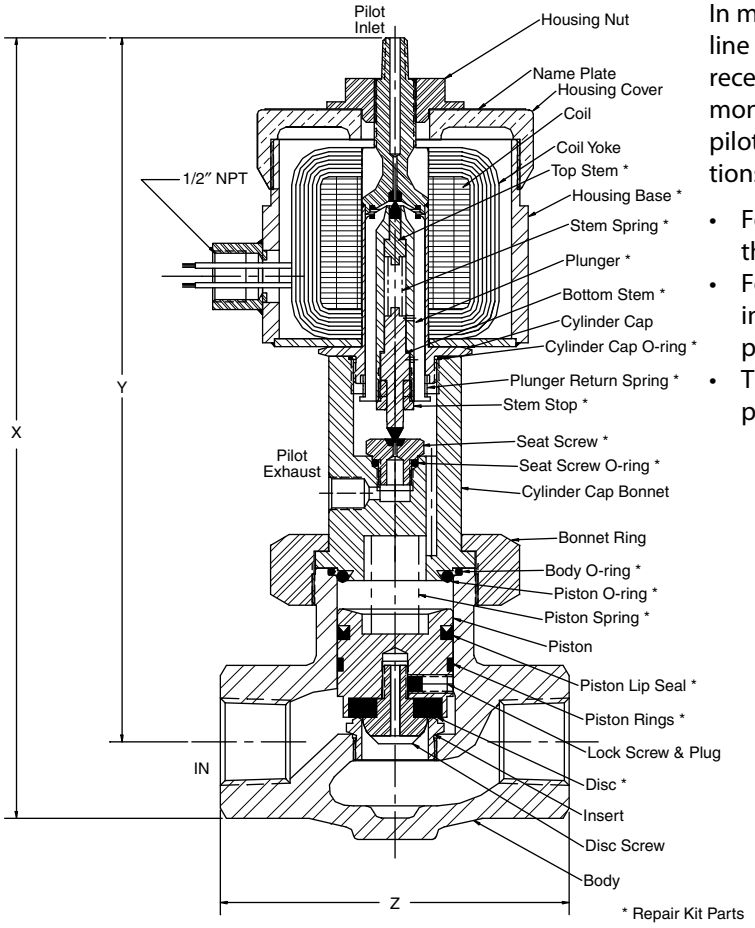
Note: Both the pilot inlet and pilot exhaust ports are ¼″ NPT male and female respectively.
Note: On normally open valves the position of the pilot inlet and exhaust are reversed.

Dimensions, Shipping Weights, and Cv Flow Factors

35800 Series Normally Closed or Normally Open Stainless Steel

CATALOG NUM. PREFIX	PIPE SIZE	MAIN SEAT ORIFICE	X	Y	Z	SHIPPING WEIGHT *(lbs)*	Cv
35820	½″	¾″	11 11/16″	10¼″	4⅝″	15	5.1
35830	¾″	¾″	11 11/16″	10¼″	4⅝″	15	7.5
35840	1″	1″	12⅛″	10 15/16″	5¼″	21	12.5
35851	1¼″	1½″	12 9/16″	10 5/16″	5⅞″	25	21.0
35861	1½″	1½″	12 9/16″	10 5/16″	5⅞″	25	21.5
35871	2″	2″	14⅞″	12⅜″	7″	34	45.0

Note: Restrictions that apply to other normally open valves do not affect the 35800 Series normally open valves.



35840 1″ valve, shown as a normally closed valve, with a NEMA 7 coil housing, and AC coil.

In most systems, pilot pressure is tapped off the valve's inlet line and pilot exhaust is routed to atmosphere or a low pressure receptacle. Independent sources for pilot pressure are also commonly used and occasionally the valve's outlet pipe is used for pilot exhaust. For valve operation, the following minimum conditions must be met:

- For opening, pilot exhaust pressure must be at least 35 psi less than the valve's inlet pressure.
- For closing, pilot pressure must be at least equal to the valve's inlet pressure and at least 35 psi greater than the valve's outlet pressures.
- The fastest operational speeds are obtained at maximum pressure differentials.

35800 Series

How to Order

358 *x x* – *x x x x x x x x x x*

CONNECTION SIZE
- **2** ½″
- **3** ¾″
- **4** 1″
- **5** 1¼″
- **6** 1½″
- **7** 2″

Not significant—is a 0 except for 1¼ to 2″ normally closed stainless steel valves, where it is a 1

NORMAL (DE-ENERGIZED) VALVE POSITION
- **O** Normally closed
- **P** Normally open

VOLTAGE AC/60 Hz
- **0** AC/50 Hz or DC voltage
- **1** 100 VAC
- **2** 115 VAC
- **3** 200 VAC
- **4** 230 VAC
- **5** 460 VAC

VOLTAGE AC/50 Hz
- **0** AC/60 Hz or DC voltage
- **1** 110 VAC
- **2** 220 VAC

VOLTAGE DC
- **0** AC voltage
- **1** 12 VDC
- **2** 24 VDC
- **3** 48 VDC
- **4** 125 VDC
- **5** 250 VDC

CONNECTION TYPE
- **P** NPT
- **J** British pipe thread

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®

BOTTOM PILOT SEAT MATERIAL (TOP STEM SEATS ALWAYS STELLITE®)
- **A** Teflon®
- **B** Buna N
- **C** Viton®
- **D** EPR
- **E** Kel-F®
- **F** Stellite®

MAX. OPERATING PRESSURE (psig)
- **A** 300
- **B** 600
- **C** 900
- **D** 1,200
- **E** 1,400
- **F** 2000
- **I** 750

Note: For PED applications, the 35800 Series is only approved for room temperature applications and at a lower pressure. Please consult the factory.

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Kel-F® is a registered trademark of 3M Company.
Stellite® is a registered trademark of Deloro Stellite Company Inc.