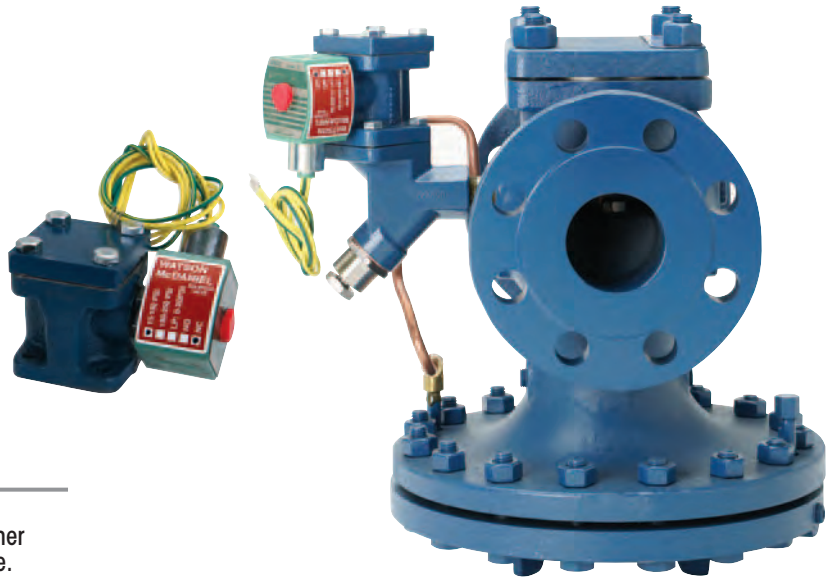
Solenoid Pilot
HD Series

On/Off Control using an Electric Solenoid

- **Max Inlet Pressure: 250 PSIG**

Solenoid Pilot (Electric)	**PS1 & PS2**
Pilot Body Material	**Cast Iron**
Valve Head & Seat	**Stainless Steel**
Max Inlet Pressure	**250 PSIG**
Pressure Range	
PS1	**15-180 PSIG**
PS2	**180-250 PSIG**
PS1-LP	**0-20 PSIG**



Typical Applications

Typically used for automatic operation, remote control, programmed cycling, sequential function interlocks with other equipment, and emergency shut-off in case of power failure.

How it Works

The **PS-Solenoid Pilot** can be used in conjunction with Pressure, Temperature, or Air Pilots to electrically control on/off operation of the **HD** Regulator. When the solenoid pilot is used, the regulator can be turned on or off by electrically activating or de-activating the solenoid.

Normally Closed (NC) – Standard
The normally CLOSED Solenoid Pilot remains closed in the non-activated state. The regulating valve will remain closed until an electrical signal is sent to the solenoid pilot. The signal is required to allow the regulator to operate. This is known as a fail-safe condition.

Normally Open (NO) – Optional
The normally OPENED Solenoid Pilot remains open in the non-activated state. The regulating valve will function normally unless an electrical signal is used to shut off the solenoid pilot.

Features

- Available normally opened (NO) or normally closed (NC)
- Full-port strainer and blow-down valve on pilot adapter to eliminate failure caused by contaminated steam systems

Options

- Normally open solenoid
- NEMA Ratings: NEMA 4 and NEMA 7
- Voltage: 24 VAC*, 120 VAC, 240 VAC

Standard Solenoid Pilots Available	
Steam Inlet Pressure	0-180 PSIG 180-250 PSIG
NEMA Ratings	NEMA 4 – Waterproof (standard) NEMA 7 – Explosion-proof (optional)
Voltage	24 Volts AC* 110-120 Volts AC 220-240 Volts AC
Control Action	Normally Closed (standard) Normally Open (special order)

Model Code	PMO PSIG	Weight lbs
PS1	15-180	4.5
PS2	180-250	5.5
PS1-LP	0-20	4.5

Use PS1-LP for Low Pressure applications under 15 PSI.

Model Code Configuration Chart

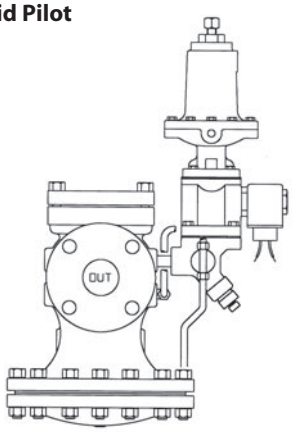
Models	Pressure PSI	Code	Voltage	Code	Action	Code	Rating
PS1	15-180 PSIG	**24**	24 VAC*	**NC**	Normally Closed (Standard)	**N4**	Standard. Meets enclosure Type 4 (water proof).
PS2	180-250 PSIG	**120**	110 -120 VAC	**NO**	Normally Open (special order)	**N7**	Meets NEMA 4 & 7 Rating (water proof & explosion proof)
PS1-LP	0-20 PSIG	**240**	220 - 240 VAC				

* Note: Max. PMO with 24 VAC is 50 PSIG

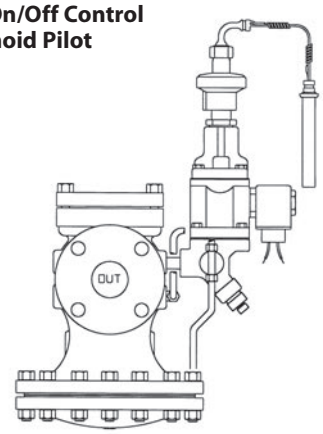
Example Model Codes:

1) **PS1-120-NC-N4** NEMA 4 (standard)
2) **PS1-120-NC-N7** NEMA 4 & 7 (waterproof & explosion proof)

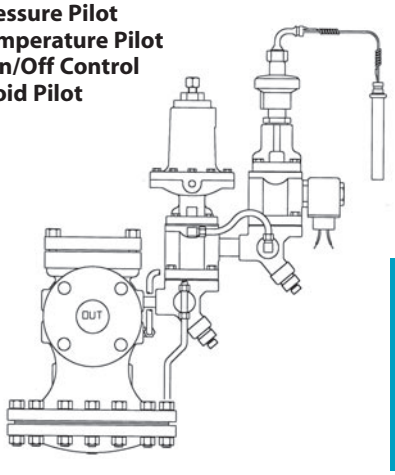
HD Main Valve
with
PS1 On/Off Control Solenoid Pilot

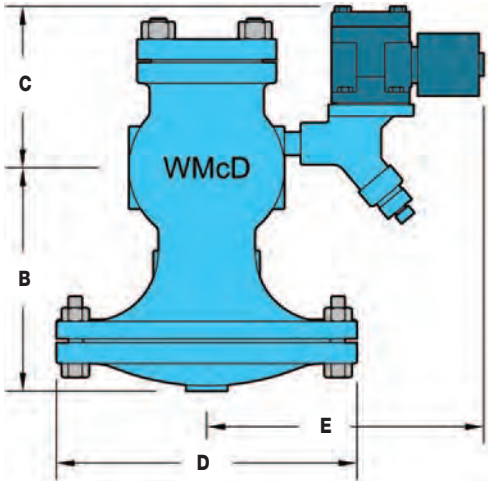


HD Main Valve
with
- **PT-Temperature Pilot**
- **PS1 On/Off Control Solenoid Pilot**



HD Main Valve
with
- **PP-Pressure Pilot**
- **PT-Temperature Pilot**
- **PS1 On/Off Control Solenoid Pilot**





DIMENSIONS HD-Series – *inches*

Size	Face-To-Face NPT	Face-To-Face 150#	Face-To-Face 300#	B	C	D	E	Weight (lbs) NPT	Weight (lbs) FLG
1/2"	4 3/8			5 5/8	7 5/8	6 3/4	7 3/4	18	
3/4"	4 3/8			5 5/8	7 1/2	6 3/4	7 3/4	18	
1"	5 3/8	5 1/2	6	6 1/4	7 1/2	7 1/8	7 3/4	23	35
1 1/4"	6 1/2			7 3/8	7 1/2	8 7/8	8 3/8	43	
1 1/2"	7 1/4	6 7/8	7 3/8	7 3/8	7 1/2	8 7/8	8 3/8	43	60
2"	7 1/2	8 1/2	9	8 1/4	7 1/2	10 7/8	8 3/4	65	85
2 1/2"		9 3/8	10	9	7 1/2	11 3/4	8 3/4		105
3"		10	10 3/4	8 7/8	7 1/2	13 1/4	9 1/2		145
4"		11 7/8	12 1/2	11	7 1/2	14 3/4	10 1/2		235
6"		15 1/8	16	14 1/2	8 1/4	19 3/4	12 1/4		470

MATERIALS for On/Off Solenoid Pilot

Pilot Body & Cover	**Cast Iron**
Seat Gasket	302 SS
Cover Screws	Steel, GR5
Internals	Stainless Steel

MATERIALS for HD Main Valve

Body	**Ductile Iron**
Cover	**Ductile Iron**
Gasket	Grafoil/Garlock
Cover Screws	Steel
Pilot Adapter	**Cast Steel**
Screen	Stainless Steel
Tubing	Copper
Valve Seat	Hardened SST (55 Rc)
Valve Disc	Hardened SST (55 Rc)
Diaphragm	Phosphor Bronze

OPERATING PRESSURES

Inlet Pressure Range:
15-300 PSIG (Standard Main Valve)
5-20 PSIG (Low Pressure Main Valve)

Minimum Differential Pressure:
10 PSI (Standard Main Valve)
3 PSI (Low Pressure Main Valve)