

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	0-180 PSIG
PS2	180-250 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 ordered)

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.

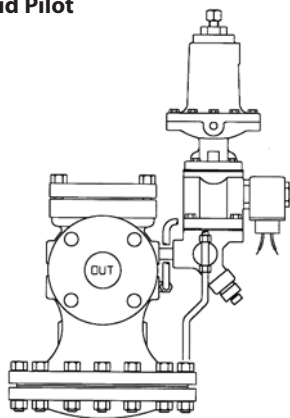
Model Code Configuration Chart

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 ordered)	N7	Meets NEMA 4 & 7 Rating (water proof & explosion proof)
PS1-LP	0-20 PSIG	240	220 - 240 VAC				

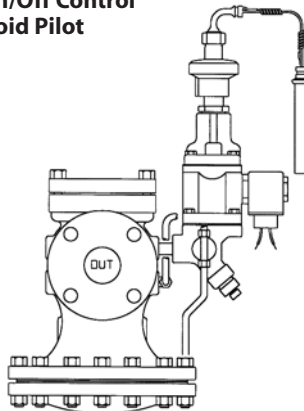
Example Model Codes:

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

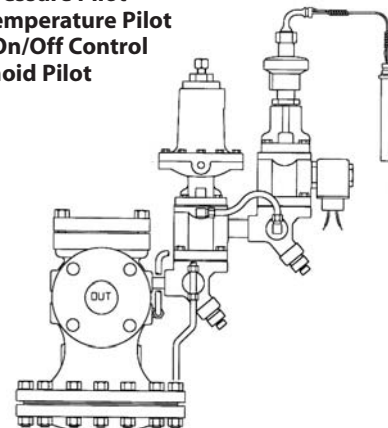
HD Main Valve
 with
PS1 On/Off Control
Solenoid Pilot



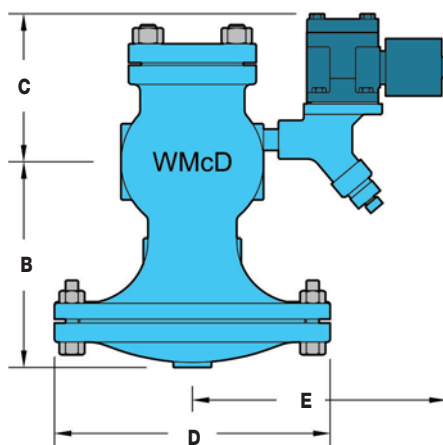
HD Main Valve
 with
 • **PT-Temperature Pilot**
 • **PS1 On/Off Control**
Solenoid Pilot



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



Pilot-Operated
 REGULATORS



DIMENSIONS HD-Series – inches

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

MATERIALS for On/Off Solenoid Pilot

Pilot Body & Cover	Ductile 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	Ductile Iron/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 PSIG (Standard Main Valve)

5 PSIG (Low Pressure Main Valve)

Minimum Differential Pressure:

10 PSI (Standard Main Valve)

3 PSI (Low Pressure Main Valve)