spirax sarco®

Electric Pilot Operated On/Off Regulator
1/2" to 4" 25E

The 25E is controlled by an electric pilot valve. The main valve opens wide when the pilot is energized; it closes tight when the pilot is de-energized. The 25E does not modulate or throttle steam at part load.

Note: For pressures below 15 psig, the E pilot is not recommended for use with valves 2-1/2" and larger.

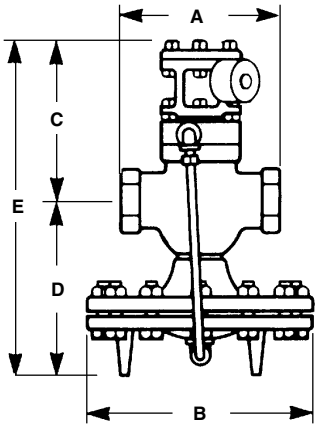
Model ➪	25E			
Sizes	1/2" to 2"	2-1/2", 3", 4"	1/2" to 2"	2-1/2", 3", 4"
Connections	NPT	ANSI 125 flgd.	NPT	ANSI 300 flgd.
Construction	Cast Iron		Cast Steel	
Options		ANSI 250 flgd.		ANSI 150 flgd.
Electric Pilot Specifications	Enclosure: NEMA 4 & 7 (C&D) 115v/60Hz Holding: 23 VA Inrush: 45 VA Normally closed 200 psig Max. operating pressure			
Electric Pilot Options	140 psig Max. operating pressure (for faster response time) 230 volt coil			

Typical Applications

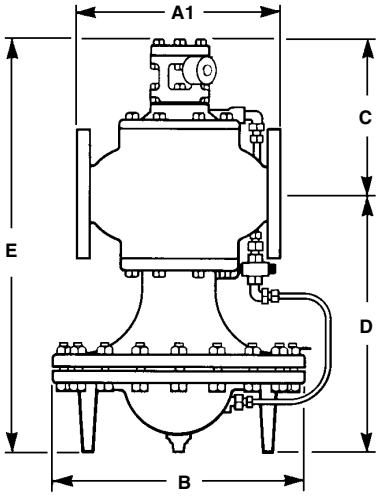
On/Off control of steam flow in response to remote manual or automatic electrical signals which may originate at safety switches, timers, manual switches, etc.

Sample Specification

The On/Off operation of the main valve shall be controlled by an electrical solenoid pilot which is bolted directly to the main valve and may be removed without disturbing the control tubing connections. The main valve shall be single seated with hardened stainless steel trim. The valve body shall be cast iron (cast steel). The electric pilot shall have a NEMA 4&7 (C&D) enclosure with 115v (230v) 60 Hz coil.



1/2" to 2"



2-1/2" to 4"

Limiting Operating Conditions

Max. Operating Pressure (PMO)

NPT:	200 psig (*14 barg)* @ 392˚F *(200˚C)*
ANSI 125:	125 psig (*8 barg)* @ 392˚F *(200˚C)*
ANSI 250:	200 psig (*14 barg)* @ 392˚F *(200˚C)*
ANSI 150:	185 psig (*12barg)* @ 392˚F *(200˚C)*
ANSI 300:	200 psig (*14barg)* @ 392˚F *(200˚C)*

Max. Operating Temperature (TMO) 392˚F *(200˚C)*

Pressure Shell Design Conditions

PMA Max. allowable pressure	Cast Iron:	250 psig/0-450˚F	*17 barg/0-232˚C*
	Cast Steel:	300 psig/0-450˚F	20 *barg/0-232˚C*
TMA Max. allowable temperature	Cast Iron:	450˚F/0-250 psig	*232˚C/0-17 barg*
	Cast Steel:	450˚F/0-300 psig	*232˚C/0- barg*

Capacities

For selection and sizing,data, see TIS 1.1114.

Dimensions (nominal) in inches and millimeters

Size	A	A1 ANSI 125 ANSI 150	A1 ANSI 250 ANSI 300	B	C	D	E	Weight Cast Iron	Weight Cast Steel
1/2", 3/4"	5.5	–	–	7.6	6.1	6.2	12.25	28 lb	31 lb
	140	–	–	*194*	*154*	*157*	*311*	*12.7 kg*	*14.1 kg*
1"	6.0	–	–	8.6	6.0	6.75	12.75	35 lb	38 lb
	152	–	–	*219*	*152*	*171*	*324*	*15.9 kg*	*17.2 kg*
1-1/4", 1-1/2"	7.25	–	–	8.6	6.6	7.1	13.6	40.5 lb	44 lb
	184	–	–	*219*	*167*	*179*	*346*	*18.4 kg*	*20 kg*
2"	8.5	–	–	10.6	7.2	8.2	15.4	65 lb	71 lb
	216	–	–	*270*	*183*	*208*	*391*	*29.5 kg*	*32.2 kg*
2-1/2"	–	10.9	11.5	13.6	7.9	13.9	21.8	153.5 lb	167 lb
	_	*276*	*292*	*346*	*200*	*354*	*554*	*69.6 kg*	*75.8 kg*
3"	–	11.75	12.5	13.6	7.9	14.4	22.25	184 lb	201 lb
	–	*298*	*318*	*346*	*198*	*367*	*565*	*83.7 kg*	*91.2 kg*
4"	–	13.9	14.5	15.6	9.1	16.1	25.25	280.5 lb	305 lb
	–	*352*	*368*	*397*	*232*	*410*	*641*	*127 kg*	*138 kg*

Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.
In the interests of development and improvement of the product, we reserve the right to change the specification.

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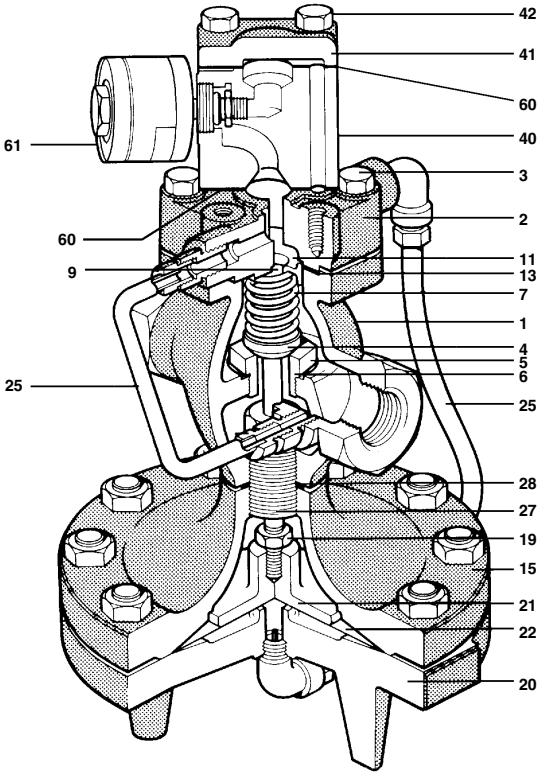

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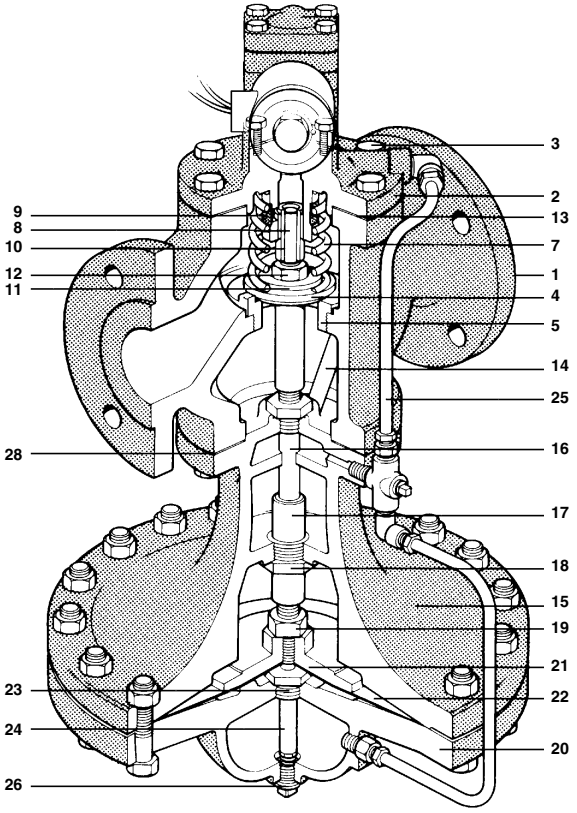

2-1/2" to 4"

Construction Materials

No.	Part	Material	
1	Valve Body	Cast Iron	ASTM A 126 CL B
		Cast Steel	ASTM A216 Gr WCB
2	Cover	Cast Iron	ASTM A 126 CL B
		Cast Steel	ASTM A216 Gr WCB
3	Cover Bolts	Steel	ASTM A449
4	Main Valve Head	Stainless Steel	AISI 420F
5	Main Valve Seat	Stainless Steel 1/2"-2"	AISI 420F
		2-1/2" - 4"	AISI 303
6	Main Valve Seat Gasket	Copper	ASTM-B272
7	Valve Return Spring	Stainless Steel	AISI 631
8	Valve Stem	Stainless Steel	AISI 303
9	Strainer Screen	Stainless Steel	AISI 304
10	Valve Stem Sleeve	Stainless Steel	AISI 420F
11	Spring Guide	Cast Iron 1/2"-2"	ASTM A 126 CL B
		CRS 2-1/2" - 4"	AISI 1117
12	Nut	Steel	ASTM 304
13	Cover Gasket	Graphite	
14	Pressure Equalizer Pipe	Stainless Steel	AISI 304
15	Upper Diaphragm Case	Cast Iron	ASTM A 126 CL B
		Cast Steel	ASTM A216 Gr WCB
16	Stem Bushing (2-1/2" - 4" Cast Steel only)	Stainless Steel	AISI 303
17	Diaphragm Plate Stem	Stainless Steel	AISI 304
18	Diaphragm Stem Guide	Stainless Steel	AISI 303
19	Nut	Brass 1/2" - 2"	ASTM B16
		Steel 2-1/2" - 4"	ASTM A307
20	Lower Diaphragm Case	Cast Iron	ASTM A 126 CL B
		Cast Steel	ASTM A216 Gr WCB
21	Diaphragm Plate	Brass 1/2" - 2"	ASTM B124 (377)
		C.I. 2-1/2" - 4"	ASTM A126 CL B
22	Main Diaphragm (2 ply)	Stainless Steel	ASTM A240
23	Bushing	CRS	AISI 1117
24	Tube & Orifice	Stainless Steel	AISI 304
25	Tubing Assembly	Copper	ASTM B280 (122)
		Brass	ASTM B16
26	Plug (Cast Iron)	Brass	ASTM B16
	(Cast Steel)	Steel	ASTM A105
27	Connector Stud	Stainless Steel	AISI 303
28	Body Gasket	1/2" - 2" Copper Clad	Non-Asbestos Fill
		2-1/2" - 4" Graphite	
40	Electric Pilot Body	Cast Iron	ASTM A 126 CL B
		Cast Bronze	ASTM B62
41	Electric Pilot Cover	Cast Iron	ASTM A 126 CL B
42	Cap Screws	Steel	ASTM A449
60	Pilot Gasket	Stainless Steel	AISI 302
61	Electric Solenoid Valve		

Installation

The valve should be installed in a horizontal pipe with suitable bypass and isolating valves. A steam trap should be installed upstream to prevent condensate from reaching the valve. The trap and valve should both be protected with a strainer.

Maintenance

Complete installation and maintenance instructions are given in IMI 650-D76, a copy of which is supplied with each valve. Available spare parts are shown on TIS 1.1120 and 1.1121.

Spirax Sarco, Inc., 1150 Northpoint Blvd, Blythewood, SC 29016 Telephone: (803) 714-2000 FAX (803) 714-2222