



Combination Pressure/Temperature Regulator with Electric Override 6" 25PTE

Description

The 25PTE has all of the features of the 25PT pressure/temperature regulator, with the addition of an electric pilot which permits an electrical signal to override the temperature and pressure pilots. The valve meets Class IV shut-off specifications but is not suitable for dead-end service. Standard capillary tubing lengths are 8ft (2.4 m) and 15ft (4.6 m).

Model	25PTE	
Sizes	6" (DN150)	
Connections	ANSI 125, 250	ANSI 150, 300
Construction	Cast Iron	Cast Steel
Options	Reduce Orifice Designated by "S"	
	Non-standard capillary tubing length in 5 ft (1.5 m) intervals to a maximum of 50ft (15.2). (See TI-P235-07-US)	
Electric pilot specifications	Enclosure: NEMA 4 and 7 (C and D) 115v (230v)/60Hz Inrush: 45 VA Normally closed 200 psi g (14 bar g) Max. operating pressure	
Electric pilot options	At pressures below 125 psi g (9 bar g), use the following electric pilot: Enclosure: NEMA 4 and 7 (C and D) 115v (230v)/60Hz Inrush: 45 VA Normally closed 140 psi g (10 bar g) Max Operating Pressure	

Typical applications

Pressure/Temperature control applications where the regulator must also respond to an electrical program timer, safety or limit switch, or remote manual switch.

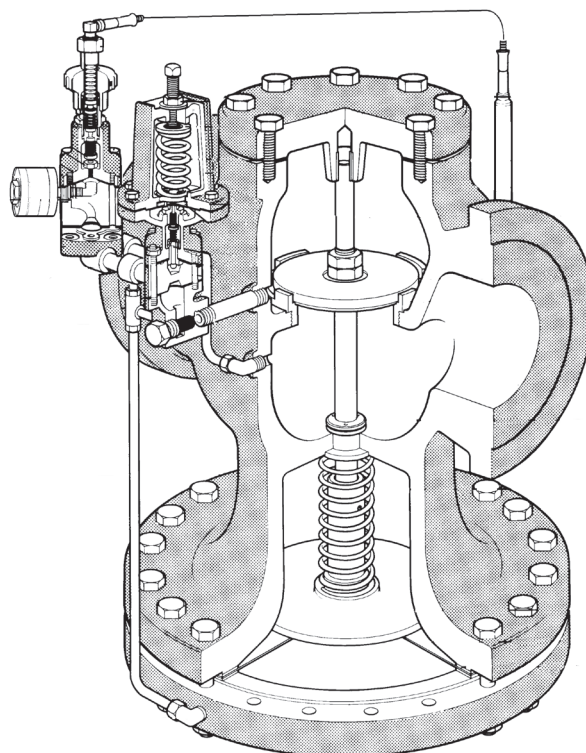
Standard temperature ranges

30 °F to 90 °F	(0 °C to 32 °C)
60 °F to 120 °F	(16 °C to 49 °C)
160 °F to 220 °F	(71 °C to 104 °C)
100 °F to 160 °F	(38 °C to 71 °C)
200 °F to 260 °F	(93 °C to 127 °C)
120 °F to 180 °F	(49 °C to 82 °C)
260 °F to 320 °F	(127 °C to 160 °C)

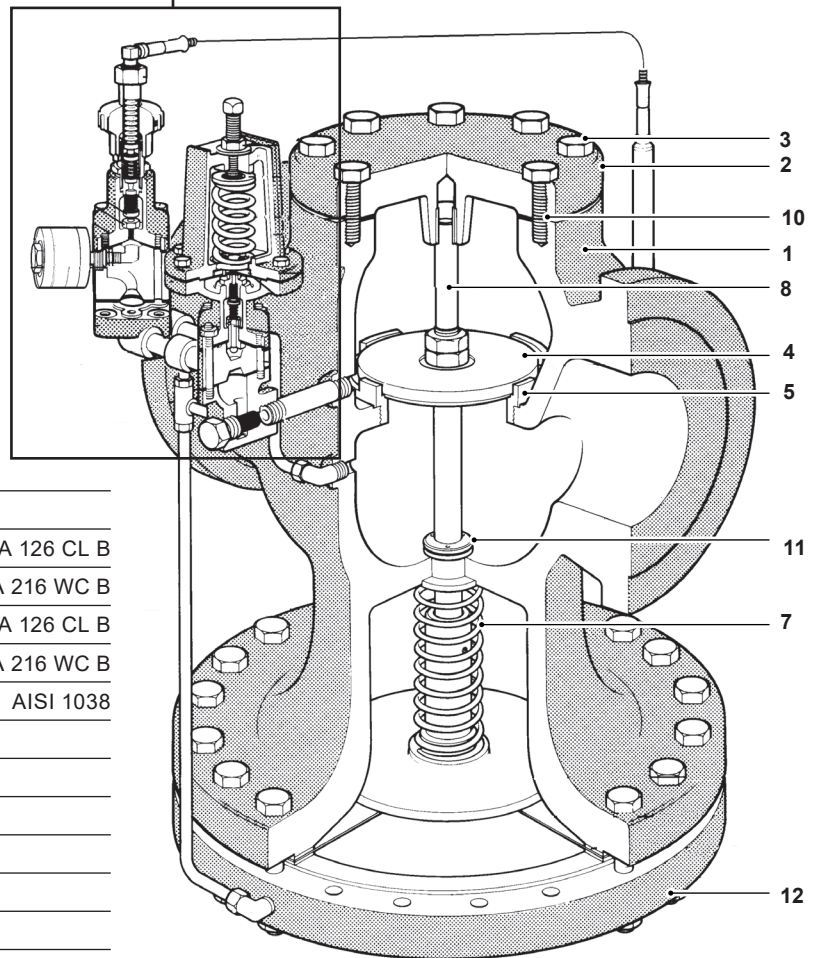
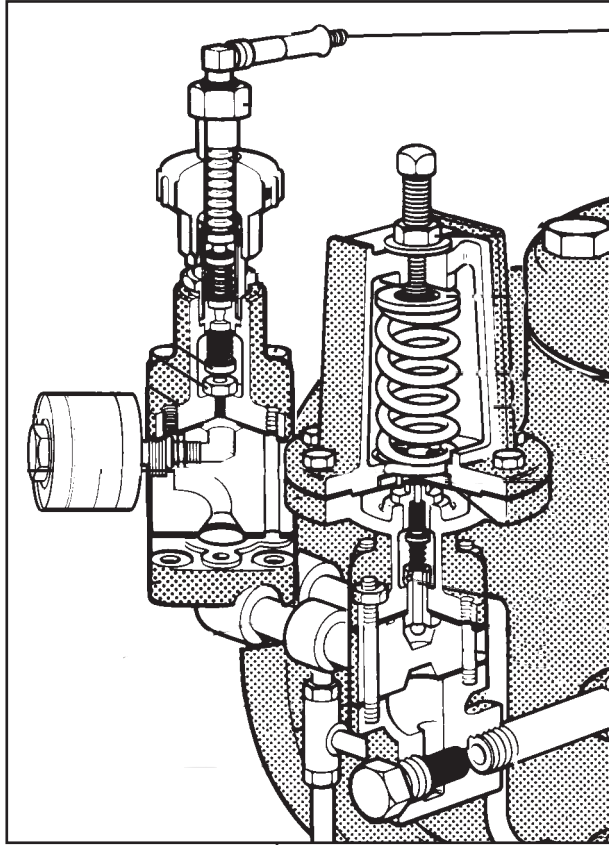
Downstream pressure ranges

For the following downstream pressures, 3 color-coded pilot valve springs are available:

Yellow	Blue	Red
3 to 30 psi (0.21 to 2.1 bar)	20 to 100 psi (1.4 to 6.9 bar)	80 to 190 psi (5.5 to 13.1 bar)

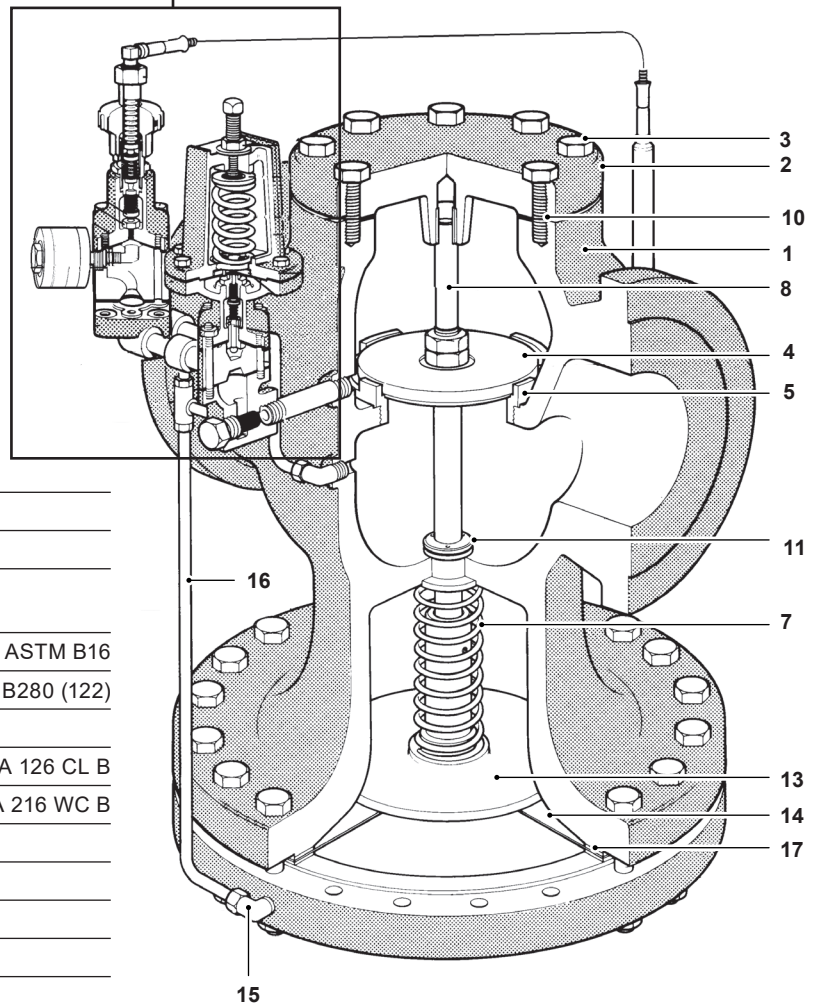
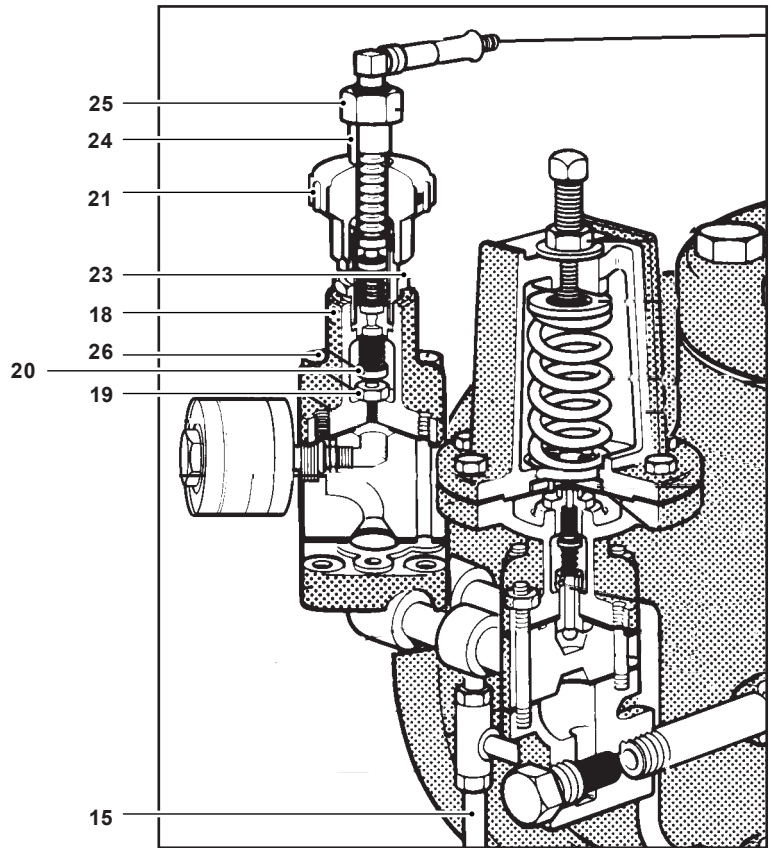


Materials



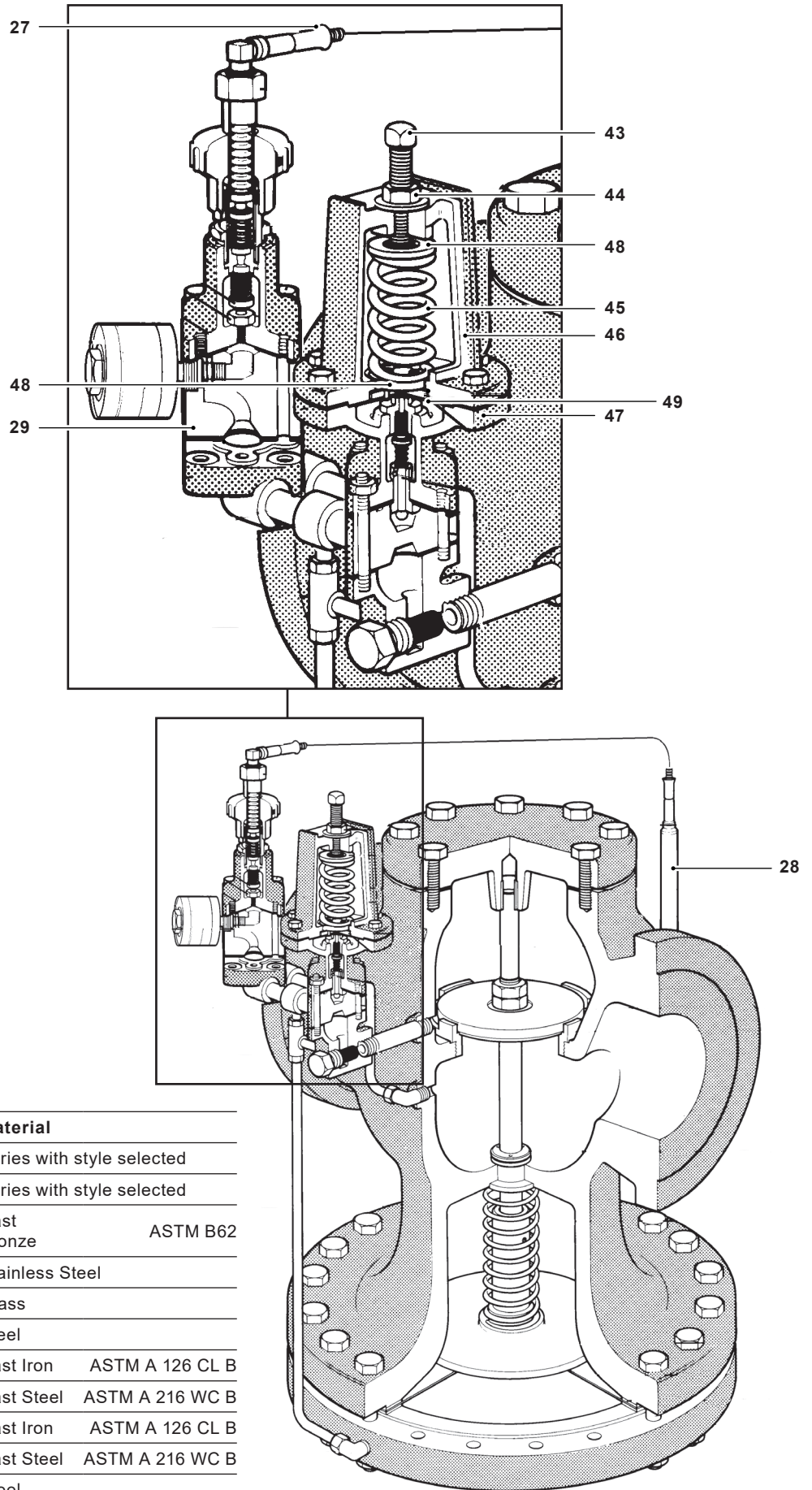
No.	Part	Material
1	Valve Body	Cast Iron ASTM A 126 CL B
		Cast Steel ASTM A 216 WC B
2	Cover	Cast Iron ASTM A 126 CL B
		Cast Steel ASTM A 216 WC B
3	Cover Bolts	Steel AISI 1038
4	Main Valve Head	Stainless Steel
5	Main Valve Seat	Stainless Steel
7	Valve Return Spring	Stainless Steel
8	Valve Stem	Stainless Steel
10	Cover Gasket	Graphite
11	Stem Bushing	Brass
12	Lower Diaphragm Case	Cast Iron ASTM A 126 CL B
		Cast Steel ASTM A 216 WC B

Materials (continued)



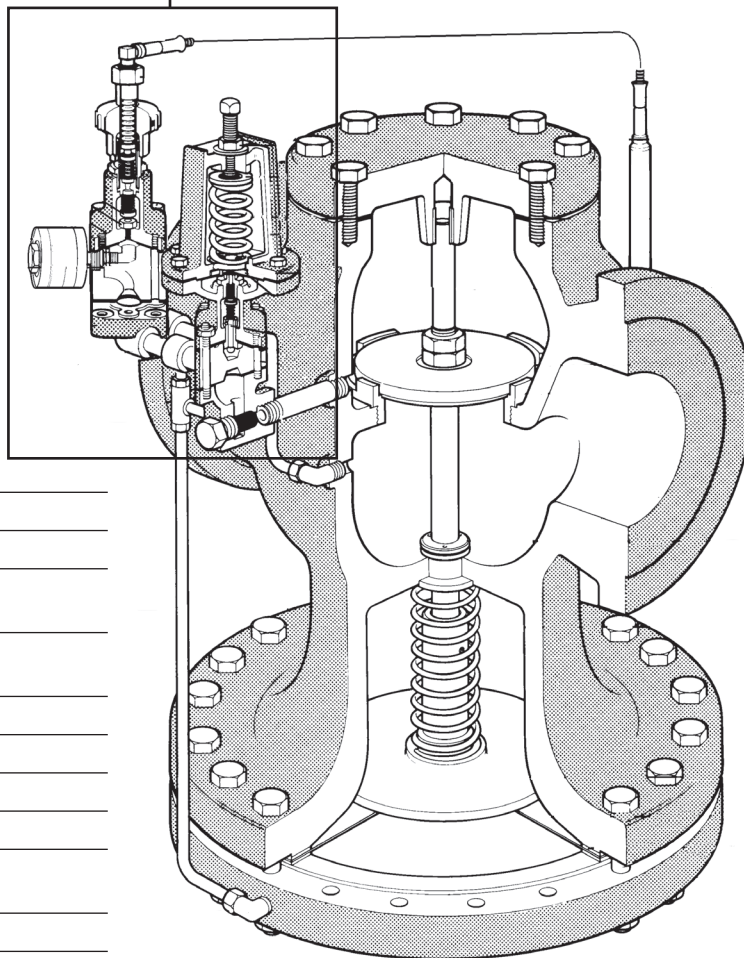
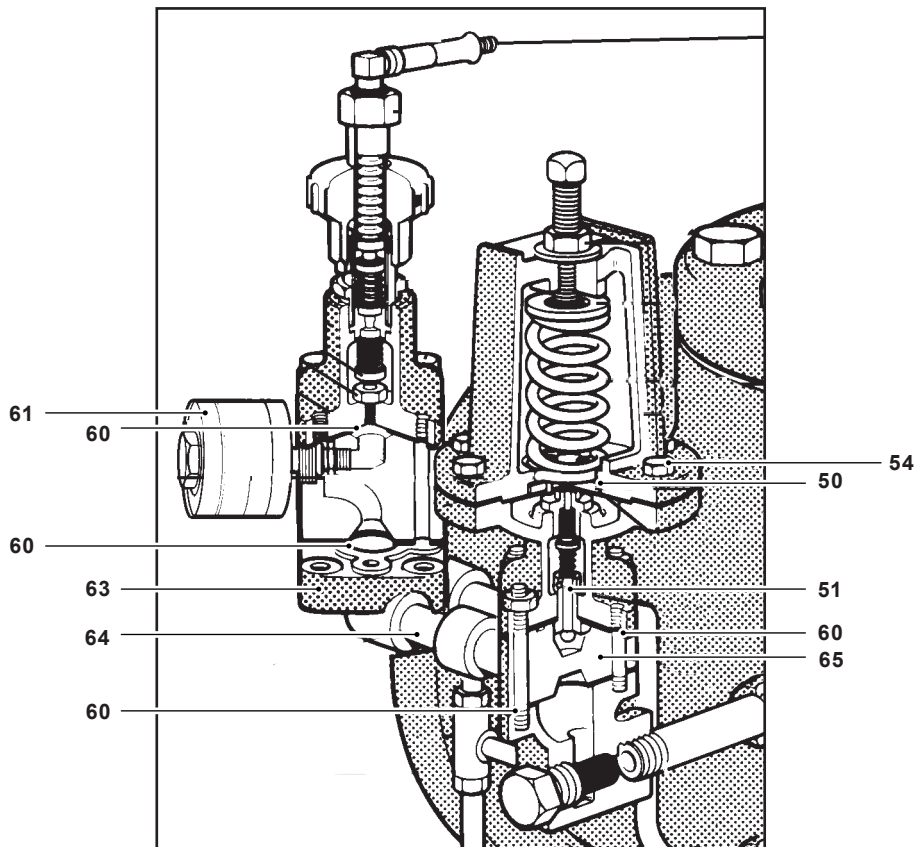
No.	Part	Material
13	Diaphragm Plate	Stainless Steel
14	Main Diaphragm (2 ply)	Stainless Steel
15	Tube and Orifice	Brass ASTM B16
16	Tubing Assembly	Copper ASTM B280 (122)
17	Diaphragm Gasket (2)	Graphite
18	Pilot Valve Body	Cast Iron ASTM A 126 CL B Cast Steel ASTM A 216 WC B
19	Pilot Valve Seat	Stainless Steel
20	Pilot Valve Head	Stainless Steel
21	Adjustment Knob	Phenolic
23	Extension Nut	Brass
24	Case Tube	Brass
25	Retaining Nut	Brass
26	Pilot Mounting Screws	Steel ASTM A 449

Materials (continued)



No.	Part	Material
27	Capillary Tube	Varies with style selected
28	Bulb	Varies with style selected
29	Electric Pilot Adaptor	Cast Bronze ASTM B62
43	Adjustment Screw	Stainless Steel
44	Jam Nut	Brass
45	Pilot Valve Spring	Steel
46	Upper Diaphragm Case	Cast Iron ASTM A 126 CL B
		Cast Steel ASTM A 216 WC B
47	Lower Diaphragm Case	Cast Iron ASTM A 126 CL B
		Cast Steel ASTM A 216 WC B
48	Spring Plate	Steel
49	Diaphragm	Stainless Steel

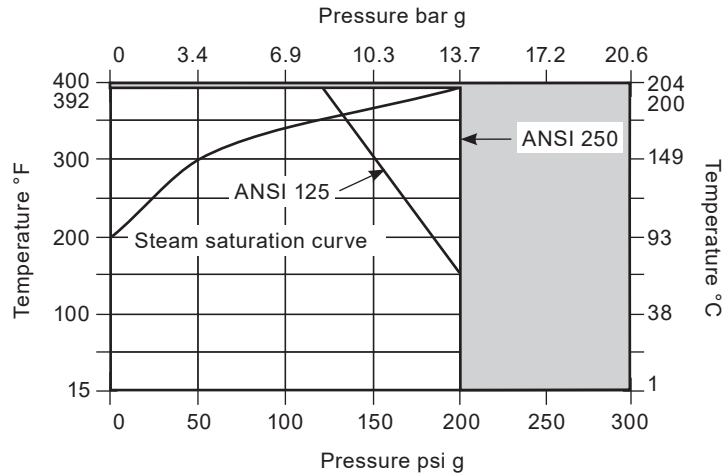
Materials (continued)



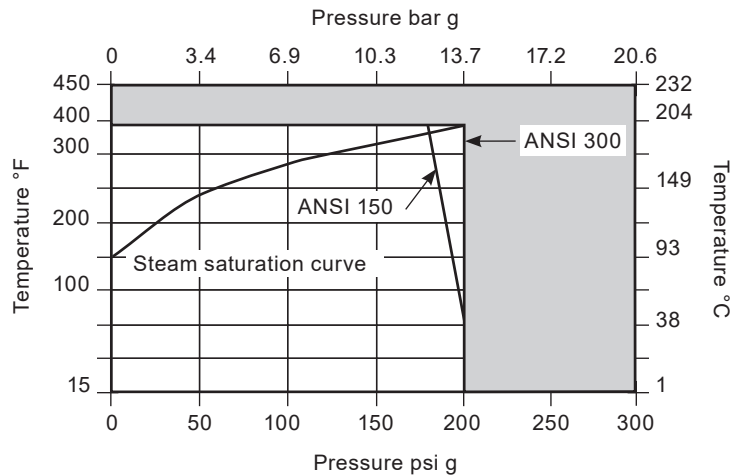
No.	Part	Material
50	Diaphragm Plate	Brass
51	Head and Seat Assembly	Stainless Steel
54	Diaphragm Case Screws	Steel 5/16" - 18 x 1"
60	Pilot Gasket	Graphite
61	Electric Solenoid Valve	
63	"T" Pilot Adaptor	Brass
64	Adaptor Pipe	Steel
65	"P" Pilot Adaptor	Ductile Iron Cast Steel

Limiting operating conditions

Cast iron



Cast steel



The product **should not** be used in shaded area.

*The temperature of the sensing bulb must not exceed 350 °F (177 °C)

Sample specification

Pressure/Temperature Regulators shall be of the pilot-actuated, diaphragm-operated type with separate pressure and temperature pilots. The main valve shall be single-seated, with hardened stainless steel trim; the regulator body shall be cast iron. The pilots shall be removable without disturbing the control connections. The temperature setting shall be adjustable without the use of tools, and the set point shall be indicated on a calibrated dial. The thermostatic system shall be solid fill, and shall incorporate overheat protection.

Capacities

The regulator is sized according to the temperature control requirements. For selection and sizing, see TI-P717-08-US.

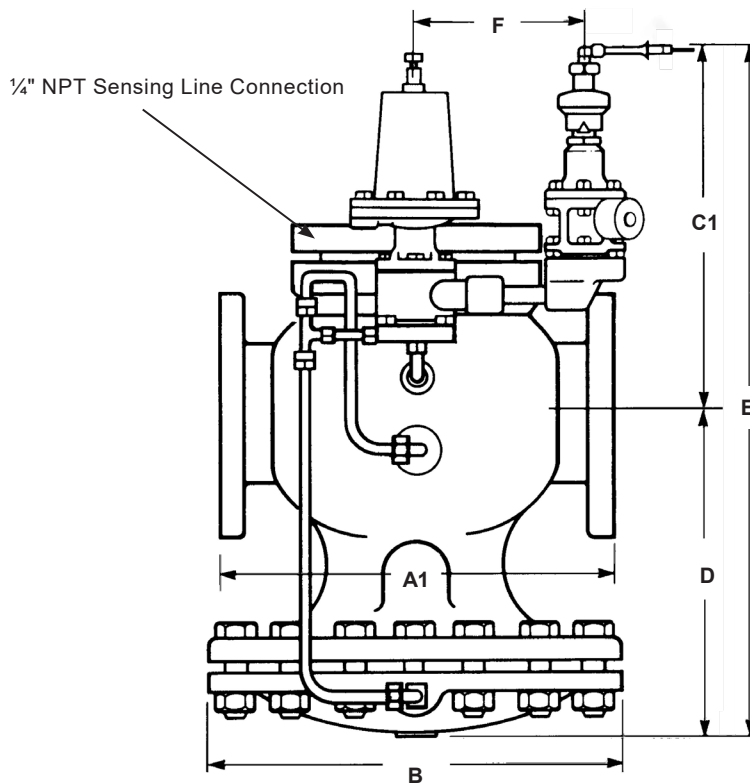
Installation

The regulator should be installed in a horizontal line with suitable bypass and isolating valves. A steam trap should be installed upstream to prevent condensate from reaching the regulator. The trap and regulator should both be protected with a strainer separator set. The thermostatic bulb must be carefully located in the medium being heated. The pressure sensing line may be located either in the downstream piping or in the steam space. Complete installation instructions are given in IM-3-000-US.

Maintenance

Complete installation and maintenance instructions are given in IM-3-000-US and ADVP 3029, a copy of which is supplied with each regulator. Available spare parts are shown on TI-P717-09-US and TI-P235-02-US.

Dimensions/weights (approximate) in inches (mm) and lbs (kg)



Size	ANSI 125/150 A1	ANSI 250/300 A1	B	C1	D	E	F	Weight
6"	18.1	18.9	19.75	16.0	17.1	33.2	5.0	595 lb
	(460)	(480)	(502)	(406)	(434)	(843)	(127)	(270 kg)

Cv Values

Size	6"	6" "S"
Cv value	280	156