Combination Pressure/ Temperature Regulator
6" 25PT

The 25PT eliminates the need for a separate pressure regulator and a temperature regulator. Normal operation is controlled by the temperature pilot, and the pressure pilot sets an upper limit on the downstream steam pressure. The temperature pilot has a calibrated dial for accurate temperature setting, and is available with a variety of solid-fill sensing bulbs (See TI-1-1123-US). Standard capillary tubing lengths are 8 ft and 15 ft. This valve meets Class IV shut-off specifications but is not suitable for dead-end service.

Limiting Operating Conditions

Cast Iron

![Steam saturation curve for Cast Iron](image)

The product should not be used in shaded area.

Cast Steel

![Steam saturation curve for Cast Steel](image)

The product should not be used in shaded area.

Downstream Pressure Ranges

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

- Yellow: 3 to 30 psi
- Blue: 20 to 100 psi
- Red: 80 to 250 psi

<table>
<thead>
<tr>
<th>Model</th>
<th>25PT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes</td>
<td>6&quot;</td>
</tr>
<tr>
<td>Connections</td>
<td>ANSI 125, 250 ANSI 150, 300</td>
</tr>
<tr>
<td>Construction</td>
<td>Cast Iron Cast Steel</td>
</tr>
<tr>
<td>Options</td>
<td>Reduced Orifice Designated by &quot;S&quot; Non-standard capillary tubing length in 5 ft. intervals to a maximum of 50 ft. (See TI-1-1123-US)</td>
</tr>
</tbody>
</table>

Capacities

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.

1/4" NPT Sensing Line Connection

![Diagram of 1/4" NPT Sensing Line Connection](image)

Dimensions (nominal) in inches and millimeters

<table>
<thead>
<tr>
<th>Size</th>
<th>A1</th>
<th>A1</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSI 125/150</td>
<td>460</td>
<td>481</td>
<td>502</td>
<td>408</td>
<td>435</td>
<td>843</td>
<td>127</td>
<td>270 kg</td>
</tr>
<tr>
<td>ANSI 250/300</td>
<td>460</td>
<td>481</td>
<td>502</td>
<td>408</td>
<td>435</td>
<td>843</td>
<td>127</td>
<td>270 kg</td>
</tr>
</tbody>
</table>

Cv Values

<table>
<thead>
<tr>
<th>Size</th>
<th>6&quot;</th>
<th>6&quot; &quot;S&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cv value</td>
<td>280</td>
<td>156</td>
</tr>
</tbody>
</table>

Standard Temperature Ranges

- 30°F to 90°F 0°C to 32°C
- 60°F to 120°F 15°C to 50°C
- 100°F to 160°F 40°C to 70°C
- 120°F to 180°F 50°C to 80°C

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

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.
### 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 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-1-1121-US and TI-3-0271-US.