TH14
Modular RTD thermometer, US style

Best in class temperature measurement technology for general applications

Benefits:
- High flexibility due to modular assembly with standard terminal heads and customized immersion length
- One source shopping for temperature measurement solutions. World class transmitter with integrated sensor offering for heavy process industry applications. Remove and install straight out of the box!
- Improved galvanic isolation on most devices (2 kV)
- Simplified model structure: Competitively priced, offers great value. Easy to order and reorder. A single model number includes sensor and transmitter assembly for a complete point solution
- All iTEMP® transmitters provide long term stability ≤ 0.05 % per year
- Fast response time with reduced/tapered tip form
- Head transmitter with easy selection: Analog output 4 to 20 mA, HART®, PROFIBUS® PA or FOUNDATION Fieldbus™

Specs at a glance
- **Accuracy** class AA acc. to IEC 60751 class A acc. to IEC 60751 class B acc. to IEC 60751
- **Response time** depending on configuration
- **Max. process pressure (static)** at 20 °C: 500 bar (7.252 psi) depends on configuration
- **Operating temperature range** PT100 WW: -200 °C ... 600 °C (-328 °F ... 1.112 °F) StrongSens: -50 °C ... 500 °C (-58 °F ... 932 °F) PT100 TF: -50 °C ... 200 °C (-58 °F ... 392 °F)
- **Max. immersion length on request** up to 24" (609 mm) others on request

Field of application: The high modular thermometer is used for several applications with harsh environments, e.g. in power plants, refineries or...
in the chemical or petrochemical industry. The robust device with barstock thermowell and flange connection in SS316 or INCONEL600 and different head transmitter is a complete unit ready for use with enhanced measurement accuracy and reliability.

Features and specifications

<table>
<thead>
<tr>
<th>Thermometer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring principle</td>
</tr>
<tr>
<td>Resistance Temperature Detector</td>
</tr>
<tr>
<td>Characteristic / Application</td>
</tr>
<tr>
<td>US style</td>
</tr>
<tr>
<td>modular temperature assembly</td>
</tr>
<tr>
<td>flanged process connection</td>
</tr>
<tr>
<td>with extension</td>
</tr>
<tr>
<td>incl. thermowell</td>
</tr>
<tr>
<td>Thermowell / protection tube</td>
</tr>
<tr>
<td>bar stock (drilled)</td>
</tr>
<tr>
<td>Insert / probe</td>
</tr>
<tr>
<td>mineral insulated (MI), flexible</td>
</tr>
<tr>
<td>PTFE-insulated, rigid</td>
</tr>
<tr>
<td>Outer diameter protection tube / Insert</td>
</tr>
<tr>
<td>3/4&quot; (19,05 mm)</td>
</tr>
<tr>
<td>17/16&quot; (26,99 mm)</td>
</tr>
<tr>
<td>22,23 mm ... 26,99 mm</td>
</tr>
<tr>
<td>(0,88&quot; ... 1,06&quot;)</td>
</tr>
<tr>
<td>Max. immersion length on request</td>
</tr>
<tr>
<td>up to 24&quot; (609 mm)</td>
</tr>
<tr>
<td>others on request</td>
</tr>
<tr>
<td>Material protection tube/ thermowell</td>
</tr>
<tr>
<td>316/316L</td>
</tr>
<tr>
<td>others on request</td>
</tr>
</tbody>
</table>
Optional coating
available on request

Process connection
flange:
ASME 1" 150 RF (B16.5)
ASME 1" 300 RF (B16.5)
ASME 1" 600 RF (B16.5)
ASME 1" 900/1500 RF (B16.5)
ASME 1.5" 150 RF (B16.5)
ASME 1.5" 300 RF (B16.5)
ASME 1.5" 600 RF (B16.5)
ASME 1.5" 900/1500 RF (B16.5)
ASME 2" 150 RF (B16.5)
ASME 2" 300 RF (B16.5)
ASME 2" 600 RF (B16.5)
ASME 2" 900/1500 RF (B16.5)
ASME 3" 150 RF (B16.5)
ASME 3" 300 RF (B16.5)
ASME 3" 600 RF (B16.5)
ASME 3" 900/1500 RF (B16.5)

Tip shape
straight
tapered

Surface roughness Ra
32 μin (0.80 μm)
## Thermometer

**Operating temperature range**
- **PT100 WW:**
  - -200 °C ... 600 °C
  - (-328 °F ... 1.112 °F)
- **StrongSens:**
  - -50 °C ... 500 °C
  - (-58 °F ... 932 °F)
- **PT100 TF:**
  - -50 °C ... 200 °C
  - (-58 °F ... 392 °F)

**Max. process pressure (static)**
- at 20 °C: 500 bar (7.252 psi)
- depends on configuration

**Accuracy**
- class AA acc. to IEC 60751
- class A acc. to IEC 60751
- class B acc. to IEC 60751

**Response time**
- depending on configuration

**Integration head transmitter**
- yes (4 ... 20 mA; HART; PROFIBUS PA; FOUNDATION FIELDBUS)

**Ex - approvals**
- transmitter only
  - FM IS
  - CSA IS
  - FM/CSA IS

**Certification**
- SIL (transmitter only)

More information [www.endress.com/TH14](http://www.endress.com/TH14)