RTD Thermometer TR88

Benefits:
- High degree of flexibility thanks to modular design with standard terminal heads as per DIN EN 50446 and customer-specific immersion lengths
- Variable total length in suitable thermowells thanks to compression fitting on extension neck
- Types of protection for use in hazardous locations: Intrinsic safety (Ex i.a.), non-sparking (Ex nA)
- Head transmitter with easy selection: Analog output 4 to 20 mA, HART®, PROFIBUS® PA or FOUNDATION Fieldbus™

Specs at a glance
- **Accuracy** class A acc. to IEC 60751 class AA acc. to IEC 60751
- **Response time** depending on configuration
- **Max. process pressure (static)** depending on Thermowell
- **Operating temperature range** PT100 TF StrongSens: -50 °C ...500 °C (-58 °F ...932 °F) PT100 WW: -200 °C ...600 °C (-328 °F ...1.112 °F) PT100 TF: -50 °C ...400 °C (-58 °F ...752 °F)
- **Max. immersion length on request** up to 30.000,00 mm (1.181,10")

Field of application: The high modular and robust thermometer finds its use in several applications in almost all industries. An optional head transmitter, with all common communication protocols, makes the device ready to use with enhanced measurement accuracy and reliability compared to directly wired sensors. A variety of process connections, dimensions and materials offer flexible application possibilities.

Features and specifications

<table>
<thead>
<tr>
<th>Thermometer</th>
<th>Measuring principle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Resistance Temperature Detector</td>
</tr>
</tbody>
</table>
**Thermometer**

**Characteristic / Application**
- metric style
- modular temperature assembly
- universal range of application
- suitable for hazardous areas
- with neck
- to use with thermowell
- usable with insert StrongSens

**Thermowell / protection tube**
- to be used with thermowell

**Insert / probe**
- mineral insulated (MI), flexible

**Outer diameter protection tube / Insert**
- Insert Diameter
  - 3,0 mm (0,12'')
  - 6,0 mm (0,24'')

**Max. immersion length on request**
- up to 30.000,00 mm (1.181,10'')

**Material protection tube/ thermowell**
- Not defined

**Optional coating**
- Not defined

**Process connection**
- Thermometer connection male thread:
  - G1/2"  
  - NPT1/2"  
  - M14x1.5  
  - M18x1.5  
  - M20x1.5  
  - R3/4"  
  - R1/2"
Tip shape
Not defined

Operating temperature range
PT100 TF StrongSens:
-50 °C ... 500 °C
(-58 °F ... 932 °F)
PT100 WW:
-200 °C ... 600 °C
(-328 °F ... 1,112 °F)
PT100 TF:
-50 °C ... 400 °C
(-58 °F ... 752 °F)

Max. process pressure (static)
depending on Thermowell

Accuracy
class A acc. to IEC 60751
class AA acc. to IEC 60751

Response time
depending on configuration

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

Ex - approvals
ATEX II
IECEx
EAC Ex

Certification
Gost Metrology
SIL (transmitter only)
More information www.us.endress.com/TR88