TH13
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: 100 bar (1.450 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 robust device with a barstock thermowell is a complete unit ready for use with various housing transmitter heads to
meet the application and space requirement needs. The unit offers enhanced measurement accuracy and reliability. A variety of process connections, dimensions, and materials (like 316L SS and Hastelloy C276) offer flexible application possibilities.

### Features and specifications

#### Thermometer

**Measuring principle**
Resistance Temperature Detector

**Characteristic / Application**
- US style
- modular temperature assembly
- threaded process connection
- process connection as weld in version with extension
- incl. thermowell

**Thermowell / protection tube**
- bar stock (drilled)

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

**Outer diameter protection tube / Insert**
- 3/4" (19,05 mm)
- 1" (25,40 mm)
- 17/16" (26,99 mm)
- 15,88 mm ...33,40 mm
- (0,63" ...1,31")

**Max. immersion length on request**
- up to 24" (609 mm)
- others on request
Material protection tube/ thermowell
316/316L
A105
AlloyC276
others on request

Optional coating
Available on request

Process connection
male thread:
NPT1/2"
NPT3/4"
NPT1"
weld in version
socket weld version
1"

Tip shape
reduced
tapered
straight

Surface roughness Ra
32 μin (0.80 μm)

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)
Thermometer

Max. process pressure (static)
at 20 °C: 100 bar (1.450 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/TH13