

TH13

Modular RTD thermometer, US style

Best in class temperature measurement technology for general applications



More information and current pricing:

www.ch.endress.com/TH13

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 $\leq 0.05\%$ 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

Thermometer**Material protection tube/ thermowell**

316/316L
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)

Max. process pressure (static)

at 20 °C: 100 bar (1.450 psi)
depends on configuration

Thermometer

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.ch.endress.com/TH13