

# TH14

## Modular RTD thermometer, US style

### Best in class temperature measurement technology for general applications



More information and current pricing:

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

#### 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: 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

### Thermometer

**Measuring principle**

Resistance Temperature Detector

**Characteristic / Application**

US style  
modular temperature assembly  
flanged process connection  
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)  
17/16" (26,99 mm)  
22,23 mm ... 26,99 mm  
(0,88" ... 1,06")

**Max. immersion length on request**

up to 24" (609 mm)  
others on request

**Material protection tube/ thermowell**

316/316L  
others on request

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**Thermometer****Optional coating**available on request

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**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)

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**Tip shape**

straight

tapered

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**Surface roughness Ra**32 µin (0.80 µm)

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## 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)

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### Max. process pressure (static)

at 20 °C: 500 bar (7.252 psi)

depends on configuration

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### Accuracy

class AA acc. to IEC 60751

class A acc. to IEC 60751

class B acc. to IEC 60751

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### Response time

depending on configuration

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### Integration head transmitter

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

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### Ex - approvals

transmitter only

FM IS

CSA IS

FM/CSA IS

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### Certification

SIL (transmitter only)

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