

# TH11

## Modular RTD thermometer, US style

Best in class temperature measurement technology for general applications



More information and current pricing:

[www.cz.endress.com/TH11](http://www.cz.endress.com/TH11)

### 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 or field 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 B acc. to IEC 60751
- **Response time** 63%  $t_r = 2,0$  s
- **Max. process pressure (static)** at 20°C: 250 bar (3.626 psi) depends on configuration
- **Operating temperature range** PT 100: -200 °C ...600 °C -328 °F ...1.112 °F)
- **Max. immersion length on request** up to 96" (2439 mm) others on request

**Field of application:** The high modular thermometer is used for several applications in almost all industries. Examples are heat exchangers, dryers, process reactors, reactor stations, etc. With different head transmitter it's a complete unit ready for use with enhanced

measurement accuracy and reliability. It also enables very fast response times, due to direct contact measurement without thermowell. A variety of process connections and dimensions offer flexible application possibilities.

## Features and specifications

### Thermometer

**Measuring principle**

Resistance Temperature Detector

**Characteristic / Application**

US style  
modular temperature assembly  
threaded process connection  
direct immersion style

**Thermowell / protection tube**

without (not intended to be used with thermowell)

**Insert / probe**

mineral insulated (MI), flexible  
PTFE-insulated, rigid

**Outer diameter protection tube / Insert**

1/8" (3,18 mm)  
3/16"(4,76 mm)  
1/4" (6,35 mm)  
3/8" (9,53 mm)

**Max. immersion length on request**

up to 96" (2439 mm)  
others on request

**Material protection tube/ thermowell**

Sensor sheath  
316/316L

---

**Thermometer****Process connection**

male thread:

G1/2"

NPT1/2"

compression fitting:

NPT1/8"

NPT1/4"

---

**Tip shape**

straight

reduced

---

**Surface roughness Ra**

Not defined

---

**Operating temperature range**

PT 100:

-200 °C ...600 °C

-328 °F ...1.112 °F)

---

**Max. process pressure (static)**

at 20°C: 250 bar (3.626 psi)

depends on configuration

---

**Accuracy**

class A acc. to IEC 60751

class B acc. to IEC 60751

---

**Response time**

63% rt = 2,0 s

---

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

## Thermometer

### Ex - approvals

transmitter only

FM IS

CSA IS

FM/CSA IS

---

### Certification

SIL (transmitter only)

---

More information [www.cz.endress.com/TH11](http://www.cz.endress.com/TH11)