

# T15

## Explosion proof RTD thermometer, US style

Safe monitoring of process temperatures in challenging applications e. g. in the Oil & Gas industry



More information and current pricing:

[www.casc.endress.com/T15](http://www.casc.endress.com/T15)

### Benefits:

- FM/CSA XP Class I, Div. 1 approved temperature assemblies for maximum safety
- 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, thermowell and transmitter assembly for a complete point solution
- All iTEMP transmitters provide long term stability  $\leq 0.05\%$  per year

### Specs at a glance

- **Accuracy** class A acc. to IEC 60751 class B acc. to IEC 60751
- **Response time** 63%  $t_r = 3$  s
- **Max. process pressure (static)** Not applicable
- **Operating temperature range** PT100 WW:  $-200\text{ }^{\circ}\text{C} \dots 600\text{ }^{\circ}\text{C}$  ( $-328\text{ }^{\circ}\text{F} \dots 1.112\text{ }^{\circ}\text{F}$ ) PT100 TF:  $-50\text{ }^{\circ}\text{C} \dots 200\text{ }^{\circ}\text{C}$  ( $-58\text{ }^{\circ}\text{F} \dots 392\text{ }^{\circ}\text{F}$ )
- **Max. immersion length on request** up to 100" (2540 mm) others on request

**Field of application:** The robust device is a unit ready for use within and existing thermowell and includes various housing transmitter heads to meet the application and space requirement needs. The unit offers enhanced measurement accuracy and reliability. A variety of 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**

Explosion Proof US style  
modular temperature assembly  
for heavy duty applications  
with extension  
to be used with existing thermowell

**Thermowell / protection tube**

to be used with thermowell

**Insert / probe**

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

**Outer diameter protection tube / Insert**

Not applicable

**Max. immersion length on request**

up to 100" (2540 mm)  
others on request

**Material protection tube/ thermowell**

Sensor sheath  
316/316L

**Optional coating**

Not defined

**Process connection**

male thread:  
NPT1/2"

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**Thermometer**

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**Tip shape**

straight

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**Surface roughness Ra**

Not defined

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**Operating temperature range**

PT100 WW:

-200 °C ... 600 °C

(-328 °F ... 1.112 °F)

PT100 TF:

-50 °C ... 200 °C

(-58 °F ... 392 °F)

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**Max. process pressure (static)**

Not applicable

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**Accuracy**

class A acc. to IEC 60751

class B acc. to IEC 60751

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**Response time**

63% rt = 3 s

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

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**Ex - approvals**

FM XP

CSA XP

FM/CSA XP

CSA GP

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**Certification**

SIL (transmitter only)

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