

## T55

# Explosion proof TC thermometer, US style

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



More information and current pricing:

[www.endress.com/T55](http://www.endress.com/T55)

### 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** Standard acc. to ASTM E-230 Special acc. to ASTM E-230
- **Response time** 63% rt = 1 s
- **Max. process pressure (static)** not applicable
- **Operating temperature range** Type T: -270 °C ...370 °C (-454 °F ...698 °F) Type J: -210 °C ...720 °C (-346 °F ...1.328 °F) Type E: -270 °C ...820 °C (-454 °F ...1.508 °F) Type K: -270 °C ...1.150 °C (-454 °F ...2.102 °F) Type N: -270 °C ...1.150 °C (-454 °F ...2.102 °F)
- **Max. immersion length on request** up to 100" (2540 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 is designed for use within an existing thermowell. With different head transmitter it's a complete unit ready for use with enhanced measurement accuracy and reliability.

## Features and specifications

### Thermometer

**Measuring principle**

Thermocouple

**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 use with thermowell

**Insert / probe**

mineral insulated (MI), flexible

**Outer diameter protection tube / Insert**

1/4" (6,35 mm)

3/8" (9,53 mm)

## Thermometer

**Max. immersion length on request**

up to 100" (2540 mm)

others on request

**Material protection tube/ thermowell**

Sensor sheath

316

Alloy 600

**Optional coating**

not applicable

**Process connection**

Thermowell connection

male thread:

NPT1/2"

**Tip shape**

straight

**Surface roughness Ra**

not applicable

## Thermometer

**Operating temperature range**

Type T:

-270 °C ...370 °C

(-454 °F ...698 °F)

Type J:

-210 °C ...720 °C

(-346 °F ...1.328 °F)

Type E:

-270 °C ...820 °C

(-454 °F ...1.508 °F)

Type K:

-270 °C ...1.150 °C

(-454 °F ...2.102 °F)

Type N:

-270 °C ...1.150 °C

(-454 °F ...2.102 °F)

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**Max. process pressure (static)**not applicable

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**Thermometer****Accuracy**

Standard acc. to ASTM E-230

Special acc. to ASTM E-230

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**Response time**63% rt = 1 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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