

T55

Explosion proof TC thermometer, US style

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



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

More information and current pricing:

www.endress.com/T55

Specs at a glance

- **Accuracy** Standard acc. to ASTM E-230 Special acc. to ASTM E-230
- **Response time** 63% $t_r = 1$ s
- **Max. process pressure (static)** not applicable
- **Operating temperature range** Type T: $-270\text{ }^{\circ}\text{C} \dots 400\text{ }^{\circ}\text{C}$ ($-454\text{ }^{\circ}\text{F} \dots 752\text{ }^{\circ}\text{F}$) Type J: $-210\text{ }^{\circ}\text{C} \dots 1200\text{ }^{\circ}\text{C}$ ($-346\text{ }^{\circ}\text{F} \dots 2.192\text{ }^{\circ}\text{F}$) Type E: $-270\text{ }^{\circ}\text{C} \dots 1.000\text{ }^{\circ}\text{C}$ ($-454\text{ }^{\circ}\text{F} \dots 1.832\text{ }^{\circ}\text{F}$) Type K: $-270\text{ }^{\circ}\text{C} \dots 1.372\text{ }^{\circ}\text{C}$ ($-454\text{ }^{\circ}\text{F} \dots 2.500\text{ }^{\circ}\text{F}$) Type N: $-270\text{ }^{\circ}\text{C} \dots 1.300\text{ }^{\circ}\text{C}$ ($-454\text{ }^{\circ}\text{F} \dots 2.372\text{ }^{\circ}\text{F}$)
- **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)

Max. immersion length on request

up to 100" (2540 mm)

others on request

Material protection tube/ thermowell

Sensor sheath

316

Alloy 600

Thermometer**Optional coating**

not applicable

Process connection

Thermowell connection

male thread:

NPT1/2"

Tip shape

straight

Surface roughness Ra

not applicable

Operating temperature range

Type T:

-270 °C ...400 °C

(-454 °F ...752 °F)

Type J:

-210 °C ...1200 °C

(-346 °F ...2.192 °F)

Type E:

-270 °C ...1.000 °C

(-454 °F ...1.832 °F)

Type K:

-270 °C ...1.372 °C

(-454 °F ...2.500 °F)

Type N:

-270 °C ...1.300 °C

(-454 °F ...2.372 °F)

Max. process pressure (static)

not applicable

Accuracy

Standard acc. to ASTM E-230

Special acc. to ASTM E-230

Thermometer

Response time

63% rt = 1 s

Integration head transmitter

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

Ex - approvals

FM XP

CSA XP

FM/CSA XP

CSA GP

Certification

SIL (transmitter only)

More information www.endress.com/T55