

TH52

US style thermocouple sensor, cable probe

Cost efficient TC sensor designed for use in many process and laboratory applications



More information and current pricing:

www.cz.endress.com/TH52

Benefits:

- 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.
- Improved galvanic isolation on most devices (2 kV)
- One source shopping for temperature measurement solutions. Remove and install straight out of the box!
- All iTEMP® transmitters provide long term stability ≤ 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 = 0.3 s
- **Max. process pressure (static)** at 20°C: 40 bar (580 psi)' depends on configuration
- **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 96" (2438 mm) others on request

Field of application: The thermocouple cable probe is easy to install and provide a high operational safety due to reliable and accurate temperature measurement in common processes. The probe is used in many process and laboratory applications such as heat exchangers, furnaces or dryers. Without additional thermowell the probe sheath is

directly in contact with the process medium. This enables the cable probe to detect rapid temperature changes fast and accurate.

Features and specifications

Thermometer

Measuring principle

Thermocouple

Characteristic / Application

US style
cable probe
process connection as compression fitting

Thermowell / protection tube

without (not intended to use with thermowell)

Insert / probe

mineral insulated (MI), flexible

Outer diameter protection tube / Insert

1/16" (1,59 mm)
1/8" (3,18 mm)
3/16" (4,76 mm)
1/4" (6,35 mm)

Max. immersion length on request

up to 96" (2438 mm)
others on request

Material protection tube/ thermowell

316
Alloy 600

Optional coating

Not applicable

Thermometer

Process connection

compression fitting:

NPT1/8"

NPT1/4"

Tip shape

straight

Surface roughness Ra

nicht definiert

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. process pressure (static)

at 20°C: 40 bar (580 psi)'

depends on configuration

Accuracy

Standard acc. to ASTM E-230

Special acc. to ASTM E-230

Response time

63% rt = 0.3 s

Thermometer

Integration head transmitter

Not applicable

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