

## TH56

### US style thermocouple sensor, with plug connection

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



More information and current pricing:

[www.cz.endress.com/TH56](http://www.cz.endress.com/TH56)

#### 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  $\leq 0.05$  % per year

#### Specs at a glance

- **Accuracy** Standard acc. to ASTM E-230 Special acc. to ASTM E-230
- **Response time** 63% rt = 0,3 s
- **Max. process pressure (static)** Standard acc. to ASTM E-230 Special acc. to ASTM E-230
- **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 sensor with plug connection 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**

Industrial 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**

Sensor sheath  
316  
Alloy 600

**Optional coating**

not applicable

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**Thermometer****Process connection**

compression fitting:

NPT1/8"

NPT1/4"

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**Tip shape**

straight

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**Surface roughness Ra**

not defined

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**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:

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-270 °C ... 1.150 °C

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**Max. process pressure (static)**

Standard acc. to ASTM E-230

Special acc. to ASTM E-230

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**Accuracy**

Standard acc. to ASTM E-230

Special acc. to ASTM E-230

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**Response time**

63% rt = 0,3 s

Thermometer

Integration head transmitter

no

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