

# TC65

## Explosion-proof thermocouple thermometer

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



Thông tin thêm và mức tính giá hiện tại:

[www.apsc.endress.com/TC65](http://www.apsc.endress.com/TC65)

### Lợi ích:

- Types of protection for use in hazardous locations: Intrinsic safety (Ex ia), flameproof (Ex d), non-sparking (Ex nA)
- High degree of insert compatibility and design as per DIN 43772
- High degree of flexibility thanks to modular design with standard terminal heads as per DIN EN 50446 and customer-specific immersion lengths
- For plug-in/screw-in with sliding compression fitting

### Tổng quan về thông số kỹ thuật

- **Accuracy** class 1 acc. to IEC 60584
- **Response time** depending on configuration  $t_{50} = 3$  s  $t_{90} = 7$  s
- **Max. process pressure (static)** at 20 °C: 80 bar (1,160 psi)
- **Operating temperature range** Type K: -40 °C ...1.100 °C (-40 °F ...2.012 °F) Type J: -200 °C ...750 °C (-328 °F ...1.382 °F)
- **Max. immersion length on request** up to 30.000,00 mm (1.181,10")

**Phạm vi ứng dụng:** The robust thermometer is designed for use in demanding and safety relevant applications e.g. in the Chemical, Oil & Gas and Energy industry. An optional head transmitter with all common communication protocols makes the device ready to use with enhanced measurement accuracy and reliability compared to directly wired sensors. The sensor may be used direct contact without thermowell or where the application requires it, spring load inside of a separate thermowell. Flexible configuration possible.

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## Tín năng và thông số kỹ thuật

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### Thermometer

**Measuring principle**

Thermocouple

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**Characteristic / Application**

metric style

modular temperature assembly

for heavy duty applications

suitable for hazardous areas

threaded process connection

without neck

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**Thermowell / protection tube**

without (not intended to use with thermowell)

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**Insert / probe**

mineral insulated (MI), flexible

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**Outer diameter protection tube / Insert**

3,0 mm (0,12")

6,0 mm (0,24")

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**Max. immersion length on request**

up to 30.000,00 mm (1.181,10")

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**Material protection tube/ thermowell**

1.4404 (316L)

Alloy 600 (2.4816)

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## Thermometer

**Process connection**

male thread:

NPT1/2"

NPT3/4"

compression fitting:

NPT1/2"

NPT3/4"

**Tip shape**

straight

tapered

**Operating temperature range**

Type K:

-40 °C ...1.100 °C

(-40 °F ...2.012 °F)

Type J:

-200 °C ...750 °C

(-328 °F ...1.382 °F)

**Max. process pressure (static)**

at 20 °C: 80 bar (1,160 psi)

**Accuracy**

class 1 acc. to IEC 60584

## Thermometer

### Response time

depending on configuration

t50 = 3 s

t90 = 7 s

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### Integration head transmitter

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

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### Ex - approvals

ATEX II

IECEX

NEPSI

EAC Ex

Explosion proof

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### Certification

Gost Metrology

SIL (transmitter only)

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