

# TC62

## Explosion-proof thermocouple thermometer

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



More information and current pricing:

[www.cz.endress.com/TC62](http://www.cz.endress.com/TC62)

### Benefits:

- Types of protection for use in hazardous locations: Intrinsic safety (Ex ia), flameproof (Ex d), non-sparking (Ex nA)
- High degree of flexibility thanks to modular design with standard terminal heads as per DIN EN 50446 and customer-specific immersion lengths
- High degree of insert compatibility and design as per DIN 43772
- Extension neck, nipple union version, to protect the head transmitter from overheating

### Specs at a glance

- **Accuracy** class 1 acc. to IEC 60584
- **Response time** depending on configuration  $t_{50} = 3 \text{ s}$   $t_{90} = 7 \text{ s}$
- **Max. process pressure (static)** at 20 °C: 500 bar (7.252 psi)
- **Operating temperature range** Type K: -40 °C ...1.100 °C (-40 °F ...2.012 °F) Type J: -40 °C ...750 °C (-40 °F ...1.382 °F)
- **Max. immersion length on request** up to 30.000,00 mm (1.181,10")

**Field of application:** The robust thermometer is designed for use in demanding and safety relevant applications e.g. in the Chemical, Oil & Gas and Energy industry. The sensor is designed for use in a separate thermowell. 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 modular design with a variety of options can be adapted to the measurement task.

## Features and specifications

### Thermometer

**Measuring principle**

Thermocouple

**Characteristic / Application**

US style  
modular temperature assembly  
for heavy duty applications  
suitable for hazardous areas  
threaded process connection  
with neck  
to use with thermowell

**Thermowell / protection tube**

to use with thermowell

**Insert / probe**

replaceable (without process interruption)

**Outer diameter protection tube / Insert**

Insert Diameter  
6,0 mm (0,24")

**Max. immersion length on request**

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

**Material protection tube/ thermowell**

Not defined

**Optional coating**

Not defined

**Process connection**

male thread:  
NPT1/2"

## Thermometer

**Tip shape**

straight

**Surface roughness Ra**

0,8 µm (31,5 µin.)

**Operating temperature range**

Type K:

-40 °C ...1.100 °C

(-40 °F ...2.012 °F)

Type J:

-40 °C ...750 °C

(-40 °F ...1.382 °F)

**Max. process pressure (static)**

at 20 °C: 500 bar (7.252 psi)

**Accuracy**

class 1 acc. to IEC 60584

**Response time**

depending on configuration

t50 = 3 s

t90 = 7 s

**Integration head transmitter**yes (4 ... 20 mA; HART; PROFIBUS PA; FOUNDATION  
FIELDBUS)**Ex - approvals**

ATEX II

IECEX

NEPSI

EAC Ex

Explosion proof

Thermometer

**Certification**

Gost Metrology

SIL (transmitter only)

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