

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.be.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 transmitteryes (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)

More information www.be.endress.com/TC62