

# TR62

## Explosion-proof Pt100 Thermometer

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



More information and current pricing:

[www.de.endress.com/TR62](http://www.de.endress.com/TR62)

### Benefits:

- Types of protection for use in hazardous locations: Intrinsic safety (Ex i.a.), 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 A acc. to IEC 60751 class AA acc. to IEC 60751
- **Response time** depending on configuration  $t_{50} = 4 \text{ s}$   $t_{90} = 8 \text{ s}$
- **Max. process pressure (static)** at 20 °C: 500 bar (7.252 psi)
- **Operating temperature range** PT100 TF StrongSens: -50 °C ...500 °C (-58 °F ...932 °F) PT100 WW: -200 °C ...600 °C (-328 °F ...1.112 °F) PT100 TF: -50 °C ...400 °C (-58 °F ...752 °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, 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. Flexible configuration possible.

## Features and specifications

### Thermometer

**Measuring principle**

Resistance Temperature Detector

**Characteristic / Application**

US style metrical  
modular temperature assembly  
for heavy duty applications  
suitable for hazardous areas  
with neck  
to be used with thermowell

**Thermowell / protection tube**

to be used with thermowell

**Insert / probe**

mineral insulated (MI), flexible

**Outer diameter protection tube / Insert**

Insert Diameter

3,0 mm (0,12")

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

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## Thermometer

### Process connection

Thermometer connection  
male thread:  
NPT1/2"

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### Tip shape

Not defined

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### Operating temperature range

PT100 TF StrongSens:  
-50 °C ...500 °C  
(-58 °F ...932 °F)  
PT100 WW:  
-200 °C ...600 °C  
(-328 °F ...1.112 °F)  
PT100 TF:  
-50 °C ...400 °C  
(-58 °F ...752 °F)

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### Max. process pressure (static)

at 20 °C: 500 bar (7.252 psi)

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### Accuracy

class A acc. to IEC 60751  
class AA acc. to IEC 60751

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### Response time

depending on configuration  
t<sub>50</sub> = 4 s  
t<sub>90</sub> = 8 s

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### Integration head transmitter

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

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## Thermometer

### Ex - approvals

ATEX II1/2D Ex ia IIIC,II1G Ex ia IIC T6

ATEX II 2G Ex d IIC

ATEX II 3 G Ex nA IIC T6, II3D

IECEX Ex ia IIC T6 Ga/Gb

IECEX Ex d IIC T6/T5/T4

EAC Ex ia IIC T6 Ga

EAC Ex d IIC T6 Gb

NEPSI Ex ia IIC T6, Ex iaD 20 T85-T450

NEPSI Ex d IIC T6

NEPSI Ex nA IIC T6

Explosion proof

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### Certification

Gost Metrology

SIL (transmitter only)

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