

# TMT162R

## Pt100 Thermometer, Field transmitter

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



More information and current pricing:

[www.pt.endress.com/TMT162R](http://www.pt.endress.com/TMT162R)

### Benefits:

- Dual compartment housing
- Backlit display with large measured value, bar graph and fault condition indication
- Galvanic isolation 2 kV (sensor input to the output)
- Wide range of threaded thermowell connections available as standard
- Replaceable measuring insert comprising a mineral insulated tube (SS 316L/1.4404)
- Approvals for hazardous areas: Flameproof enclosure (Ex d), Intrinsic safety (Ex ia), Non-sparking (Ex nA); marine approval
- Aluminum or stainless steel housing, degree of protection IP67, NEMA 4x

### Specs at a glance

- **Accuracy** class A acc. to IEC 60751 class AA acc. to IEC 60751
- **Response time** depending on configuration  $t_{50} = 4$  s  $t_{90} = 8$  s
- **Max. process pressure (static)** at 20 °C: 500 bar (7.252 psi)
- **Operating temperature range** PT 100: -200 °C ...600 °C (-328 °F ... 1.112 °F)
- **Max. immersion length on request** Not defined

**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 thermometer fulfills the corresponding safety requirements due to various certificates and tests. The use of a transmitter leads to higher accuracy and reliability in comparison to directly wired sensors.

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## Features and specifications

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### Thermometer

**Measuring principle**

Resistance Temperature Detector

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**Characteristic / Application**

US style metrical  
modular temperature assembly  
for heavy duty applications  
suitable for hazardous areas  
to use with thermowell  
backlit display

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**Thermowell / protection tube**

to be used with thermowell

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**Insert / probe**

mineral insulated (MI), flexible

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**Outer diameter protection tube / Insert**

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

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**Max. immersion length on request**

Not defined

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**Material protection tube/ thermowell**

Not defined

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**Optional coating**

Not defined

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**Thermometer****Process connection**

Thermowell connection

male thread:

G1/2"

NPT1/2"

NPT3/4"

cap nut:

NPT1/2"

M24x1.5

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**Tip shape**

Not defined

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**Surface roughness Ra**

Not defined

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**Operating temperature range**

PT 100:

-200 °C ...600 °C

(-328 °F ... 1.112 °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

t50 = 4 s

t90 = 8 s

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

Thermometer

**Ex - approvals**

ATEX II

Explosion proof

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**Certification**

Gost Metrology

Marine approval

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