

# TMT142R

## RTD thermometer, fieldtransmitter display

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



More information and current pricing:

[www.casc.endress.com/TMT142R](http://www.casc.endress.com/TMT142R)

### Benefits:

- HART® protocol for operating the device on site using handheld terminal (DXR375) or remotely via the PC
- Illuminated display, rotatable
- Single Pt100 with 3 or 4 wires connection
- Undervoltage detection responds immediately, output of falsified measured values is prevented
- Highly accurate in entire operating temperature range
- Approvals: ATEX (EEx i.a., EEx d and dust ignition-proof), CSA (IS, NI, XP and DIP)
- Output simulation

### Specs at a glance

- **Accuracy** class A acc. to IEC 60751 class AA acc. to IEC 60751
- **Response time** depending on configuration  $t_{50} = 3 \text{ s}$   $t_{90} = 7 \text{ s}$
- **Max. process pressure (static)** Depending on thermowell
- **Operating temperature range** PT 100:  $-200 \text{ °C} \dots 600 \text{ °C}$  ( $-328 \text{ °F} \dots 1.112 \text{ °F}$ )
- **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 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.

## Features and specifications

### Thermometer

**Measuring principle**

Resistance Temperature Detector

**Characteristic / Application**

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

**Thermowell / protection tube**

to use with thermowell

**Insert / probe**

mineral insulated (MI), flexible

**Max. immersion length on request**

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

**Material protection tube/ thermowell**

Not defined

**Optional coating**

Not defined

## Thermometer

### Process connection

male thread:

G1/2"

NPT1/2"

NPT3/4"

union nut:

NPT1/2"

M24x1.5

### Operating temperature range

PT 100:

-200 °C ...600 °C

(-328 °F ...1.112 °F)

### Max. process pressure (static)

Depending on thermowell

### Accuracy

class A acc. to IEC 60751

class AA acc. to IEC 60751

### Response time

depending on configuration

t50 = 3 s

t90 = 7 s

### Integration head transmitter

yes (4 ... 20 mA; HART)

### Ex - approvals

ATEX II

Explosion proof

### Certification

Gost Metrology

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