

# TMT142C

## TC Thermometer, fieldtransmitter, display

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



More information and current pricing:

[www.endress.com/TMT142C](http://www.endress.com/TMT142C)

### 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)
- Aluminum or stainless steel housing, degree of protection IP67, NEMA 4x

### Specs at a glance

- **Accuracy** class 1 acc. to IEC 60584 class 2 acc. to IEC 60584
- **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** Type K:  $-40 \text{ °C} \dots 800 \text{ °C}$  ( $-40 \text{ °F} \dots 1.472 \text{ °F}$ ) Type J:  $-40 \text{ °C} \dots 750 \text{ °C}$  ( $-40 \text{ °F} \dots 1.382 \text{ °F}$ )
- **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

Thermocouple

#### 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

#### Outer diameter protection tube / Insert

Not defined

#### Max. immersion length on request

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

#### Material protection tube/ thermowell

Not defined

## Thermometer

**Optional coating**

Not defined

**Process connection**

male thread:

G1/2"

NPT1/2"

NPT3/4"

union nut:

NPT1/2"

M24x1.5

**Tip shape**

straight

**Operating temperature range**

Type K:

-40 °C ...800 °C

(-40 °F ...1.472 °F)

Type J:

-40 °C ... 750 °C

(-40 °F ...1.382 °F)

**Max. process pressure (static)**

depending on thermowell

## Thermometer

### Accuracy

class 1 acc. to IEC 60584

class 2 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

Explosion proof

---

More information [www.endress.com/TMT142C](http://www.endress.com/TMT142C)