

# 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  $t_{50} = 3$  s  $t_{90} = 7$  s
- **Max. process pressure (static)** depending on thermowell
- **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. 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

#### Optional coating

Not defined

## Thermometer

**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

**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)

Thermometer

**Ex - approvals**

ATEX II

Explosion proof

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