

# iTEMP TMT82 HART® 7 temperature transmitter

Dual channel, SIL compliant temperature transmitter for use in hazardous areas



## Benefits:

- Robust temperature transmitter delivering precise, long-term stable measurements for high plant availability
- SIL certification up to SIL2, SC3 according to IEC 61508:2010
- Versatile mounting and housing options: terminal head form B, DIN rail, field housing with separate terminal compartment, integrated display (**TID10**)
- Transmitter-sensor matching for highest measurement accuracy
- Sensor and hardware failure detection; diagnostic status information according to NAMUR NE 107
- Time-saving installation: Tool-free wiring with push-in terminal technology

## Specs at a glance

- **Accuracy** (Pt100, -50...200 °C) ≤ 0,1 K (Pt100, -58...392 °F) ≤ 0,18 °F

**Field of application:** The iTEMP TMT82 is a highly reliable, accurate and long-term stable temperature transmitter for industrial processes requiring high availability. The versatile 2-channel device converts universal sensor inputs such as thermocouples or RTD into stable, scalable 4 to 20 mA output signals and **HART®** communication. With its built-in smart sensor monitoring capability and diagnostic status information according to NAMUR NE 107, the **SIL** 2, SC3 certified transmitter increases process safety and uptime.

## Features and specifications

## Temperature transmitters

### Measuring principle

Head transmitter

### Input

2 x RTD, TC, Ohm, mV

### Output

1 x analog 4...20 mA / HART

### Auxiliary power supply

11...42 V DC (head transmitter)

12...42 V DC (Din rail device)

11/12...30 V DC (Ex ia)

### Communication

HART-protocol

### Installation

Terminal head form B, DIN-Rail housing or field mount housing

### Accuracy

(Pt100, -50...200 °C)  $\leq 0,1$  K

(Pt100, -58...392 °F)  $\leq 0,18$  °F

### Galvanic isolation

yes

## Temperature transmitters

### Certification

ATEX II1G Ex ia IIC T4/T5/T6  
 ATEX II3G Ex ic IIC T6  
 ATEX II2D Ex tb IIIC Db  
 ATEX II3D Ex tc IIIC Dc  
 ATEX II3G Ex nA IIC T6  
 ATEX II1G Ex ia IIC T6, II3D  
 ATEX II3G Ex nA IIC T6, II3D  
 ATEX II2G Ex d T6, II2D Ex tb IIIC  
 CSA C/US General Purpose  
 CSA IS, NI I / 1+2/A-D  
 CSA XP, NI, DIP I, II, III/1+2/A-G  
 FM IS, NI I / 1+2/A-D  
 FM XP, NI, DIP I, II, III/1+2/A-G  
 EAC Ex ia IIC T6 Ga  
 EAC Ex d IIC T6 Gb  
 EAC Ex ia IIC T6, II3D  
 IECEX Ex ia IIC T4/T5/T6  
 IECEX Ex tb IIIC Db  
 IECEX Ex nA II T4/T5/T6  
 IECEX Ex d T6 Gb, Ex tb IIIC Db  
 INMETRO Ex ia [ia Ga] IIC T6 Gb  
 INMETRO Ex d T6 Gb, Ex tb IIIC Db  
 NEPSI Ex ia IIC T6 Ga  
 NEPSI Ex d IIC T6 Gb  
 NEPSI Ex nA IIC T6 Gc  
 TIIS Ex ia IIC T6  
 TIIS Ex nA II T6  
 UK II1G Ex ia IIC T6 Ga  
 UK II2D Ex tb IIIC Db  
 UK II3D Ex tc IIIC Dc  
 UK II1G Ex ia IIC T6 Ga, II3D Ex ia IIIC Dc  
 UK II3G Ex nA IIC Gc, II3D Ex tc IIIC Dc  
 UK II2G Ex db IIC T6 Gb, II2D Ex tb IIIC Db  
 ATEX IECEX II1G Ex ia IIC T6 Ga  
 FM+CSA IS, NI I/1+2/A-D



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