

The T82 programmable HART® field temperature transmitter is a 2-wire unit with analog output. It includes input for RTDs: resistance inputs in 2-wire, 3-wire, and 4-wire connections; thermocouples and voltage signals. The transmitter can be supplied with or without a digital display, in a general-purpose aluminum screw-cover housing. The T82 can be programmed using a HART® protocol handheld terminal. When supplied with a digital display, the LCD display shows the current measured value. When specified, the T82 transmitter is available with an optional Safety Integrity Level Rating (SIL) for critical applications.

## PROGRAMMABLE DUAL INPUT TEMPERATURE TRANSMITTER

Programmable temperature transmitter for resistance thermometers (RTDs),  
thermocouples, resistance inputs and voltage inputs:  
adjustable via HART® protocol.



## General Application Areas

- Temperature transmitter with 2 input channels and HART® protocol for converting various input signals to an analog, scalable (4 to 20) mA output signal
- Input:
  - Resistance thermometer (RTD)
  - Thermocouples (TC)
  - Resistance input (Ohm)
  - Voltage input (mV)
- HART® protocol for operating the device on site using a handheld communicator

## SIL Application Areas

The device meets the following requirements

- Functional safety in accordance with IEC 61508, ed. 2.0
- Explosion protection
- Electromagnetic compatibility in accordance with the EN 61326 Series and NAMUR Recommendation NE21
- Electrical safety in accordance with EIC/EN 61010-1

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## Features and Benefits

- Universally programmable with HART® protocol for various input signals
- 2-wire, single, analog output (4 to 20) mA
- Undervoltage detection
- Highly accurate in entire operating temperature range
- Approvals: FM and CSA (IS, NI)
- Galvanic isolation
- Output simulation
- Customized measuring range setup or expanded SETUP; see manual

## SIL Features and Benefits

- Can be used for measuring points with one sensor or two sensors up to SIL2
- Creation of two measuring points up to SIL 3
- Functional Safety Assessment by TUV Sud in accordance with EIC 61508, ed.2.0
- Permanent self-monitoring
- Permanent monitoring of internal connections
- Safe parameterization

