iTEMP TMT82 HART® 7

Dual-channel temperature transmitter family

Highly reliable in safety-critical applications

With its dual-channel input and comprehensive feature set, the high-performance **iTEMP TMT82** digital temperature transmitter is the perfect choice for critical and demanding applications and safety loops, delivering highest measurement accuracy and reliability.

The **SIL 2/3 certified** devices provide valuable diagnostic information, ensuring plant safety, availability and boosting process efficiency.

Benefits at a glance

Value	Benefits	Features
Functional safety Plant availability	Safety by design: Optimal for use in safety loops	■ SIL 2/3 certification according to IEC 61508:2010 ■ Dual sensor input with hot backup function ■ Checksum for validation of the device configuration
	Predictive maintenance with advanced diagnostic functions	■ Condensed status notification according to NAMUR NE 107 ■ Advanced diagnostic functions including: corrosion monitoring, undervoltage and sensor drift detection
	Reliable and efficient process control	■ Long-term stable electronic ■ Highly accurate sensor input and analog output
Functional simplicity	Quick and easy system integration	■ Device drivers for all common control systems ■ Endress+Hauser integration lab ensures seamless integration into all major control and asset management systems
	Save time and effort on commissioning and maintenance	■ Push-in terminals for toolless wiring ■ Laser-engraved connection diagram
	Clear process information in the field	■ Plug-on display (TID10) with excellent readability ■ Alarm/warning: flashing indication

- Universal temperature transmitter with optional HART® communication, conversion of various input signals into a scalable analog 4 to 20 mA output signal
- Installation in terminal head form B, DIN rail mounting or robust field housing
- International certifications and approvals: Ex approvals, IEC 61508:201, CE, DNV GL, NAMUR

For more information please visit
www.endress.com/tmt82

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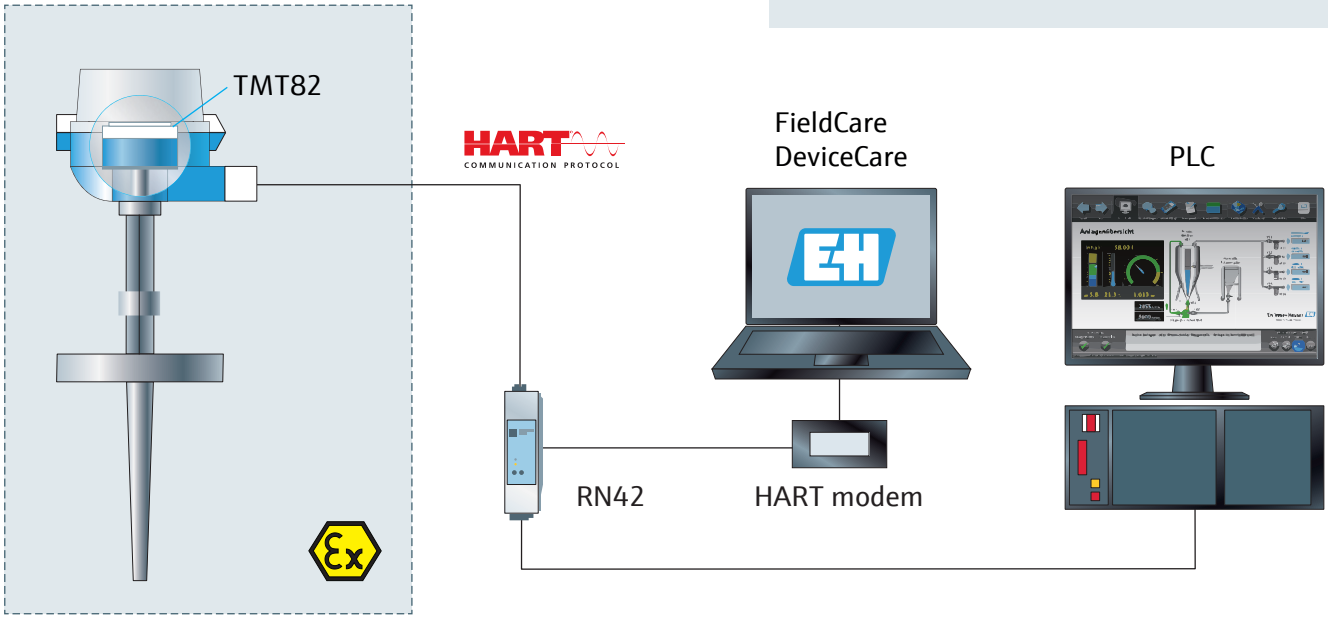
Features and specifications

Sensor input:	Dual: RTD, thermocouple (TC), Ohm and mV
Operation and commissioning:	DTM via CDI DD/DTM via HART®
Output:	4 to 20 mA, HART® protocol (version 7)
Power supply:	2-wire device, loop powered, 11 V to 36 V_{DC}
Approvals:	SIL 2/3 acc. IEC 61508:2010, ATEX, CSA, FM, EAC, IECEx, NEPSI, DNV GL
Ambient temp. range:	-52 °C to +85 °C (-61.1 °F to 185 °F)

Model comparison

	TMT72	TMT82	TMT162
Inputs	1	2	2
SIL	-	SIL 2/3	SIL 2/3
HART® 7 certified	✓	✓	✓
Overvoltage protection	-	-	✓
NE 107	✓	✓	✓
Bluetooth®	✓	-	-
Housing variants	head, DIN rail, field (light)	head, DIN rail, field (light)	field (heavy)

System integration



Related offering

Product	Feature
HAW Surge arrester	▪ Surge protection for power supply or signal/communication cables ▪ DIN rail mounting (HAW562) or field mounting (HAW569) ▪ For Ex areas, available with SIL 2 instrinsically safe approvals
Active barrier RN42	▪ Active barrier with integrated wide range power supply ▪ Bi-directional HART® transmission for monitoring and diagnostics ▪ Compact, side-by-side DIN rail housing ▪ International Ex approvals
Modular temperature assemblies	▪ Fully modular and robust thermometer iTHERM ModuLine TM131 ▪ Modular US style thermometer for general applications TH1x ▪ Explosion proof US style thermometer T1x and T5x

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