

# 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	<ul style="list-style-type: none"> <li>■ SIL 2/3 certification according to IEC 61508:2010</li> <li>■ Dual sensor input with hot backup function</li> <li>■ Checksum for validation of the device configuration</li> </ul>
	Predictive maintenance with advanced diagnostic functions	<ul style="list-style-type: none"> <li>■ Condensed status notification according to NAMUR NE 107</li> <li>■ Advanced diagnostic functions including: corrosion monitoring, undervoltage and sensor drift detection</li> </ul>
	Reliable and efficient process control	<ul style="list-style-type: none"> <li>■ Long-term stable electronic</li> <li>■ Highly accurate sensor input and analog output</li> </ul>
Functional simplicity	Quick and easy system integration	<ul style="list-style-type: none"> <li>■ Device drivers for all common control systems</li> <li>■ Endress+Hauser integration lab ensures seamless integration into all major control and asset management systems</li> </ul>
	Save time and effort on commissioning and maintenance	<ul style="list-style-type: none"> <li>■ Push-in terminals for tool-free wiring</li> <li>■ Laser-engraved connection diagram</li> </ul>
	Clear process information in the field	<ul style="list-style-type: none"> <li>■ Plug-in display (TID10) with excellent readability</li> <li>■ Alarm/warning: flashing indication</li> </ul>

- 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](http://www.endress.com/tmt82)

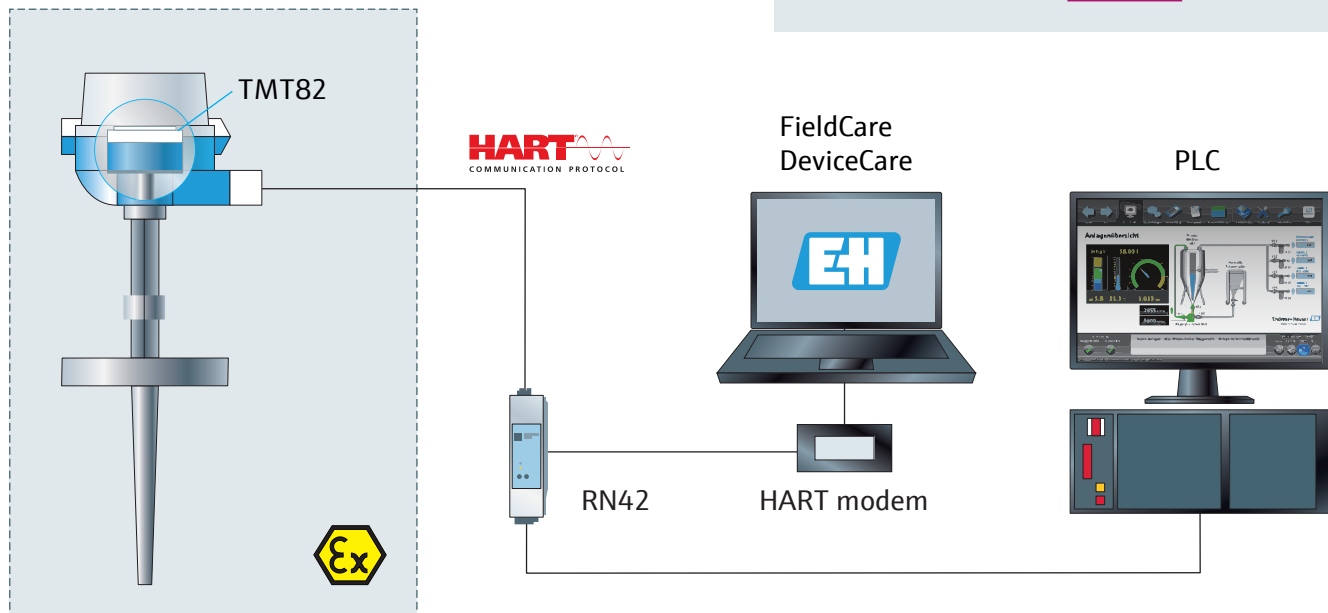
## Features and specifications

<b>Sensor input:</b>	Dual: RTD, thermocouple (TC), Ohm and mV
<b>Operation and commissioning:</b>	DTM via CDI DD/DTM via HART®
<b>Output:</b>	4 to 20 mA, HART® protocol (version 7)
<b>Power supply:</b>	2-wire device, loop powered, 11 V to 36 V <sub>DC</sub>
<b>Approvals:</b>	SIL 2/3 acc. IEC 61508:2010, ATEX, CSA, FM, EAC, IECEx, NEPSI, DNV, ABS, LR, BV
<b>Ambient temp. range:</b>	-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	✓	✓	✓
Overtoltage 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	<ul style="list-style-type: none"> <li>Surge protection for power supply or signal/communication cables</li> <li>DIN rail mounting (HAW562) or field mounting (HAW569)</li> <li>For Ex areas, available with SIL 2 intrinsically safe approvals</li> </ul>
Active barrier RN42	<ul style="list-style-type: none"> <li>Active barrier with integrated wide range power supply</li> <li>Bi-directional HART® transmission for monitoring and diagnostics</li> <li>Compact, side-by-side DIN rail housing</li> <li>International Ex approvals</li> </ul>
Modular temperature assemblies	<ul style="list-style-type: none"> <li>Fully modular and robust thermometer iTHERM ModuLine TM131</li> <li>Modular US style thermometer for general applications TH1x</li> <li>Explosion proof US style thermometer T1x and T5x</li> </ul>

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