

# iTEMP TMT142B HART® 7

New generation smart temperature transmitter with Bluetooth®

Rugged, easy to use, high performance temperature transmitter for the field

With its robust, compact single-chamber housing, the new **TMT142B** is the perfect choice for applications in harsh environments. The update to the popular TMT142 brings new features and improvements, further increasing measurement accuracy and reliability for optimal performance in critical control applications.

Smart diagnostic information ensures process safety and efficiency by detecting deviations prior to reaching failure status. The self-guided user interface and integrated Bluetooth® interface simplifies device configuration and maintenance routines in difficult-to-reach places.



## Benefits at a glance

Value	Benefits	Features
Functional simplicity	Clear process information in the field	<ul style="list-style-type: none"><li>■ Unique backlit display with excellent visibility</li><li>■ Warning/alarm indication (red, flashing)</li></ul>
	Save time and effort on commissioning, configuration and maintenance	<ul style="list-style-type: none"><li>■ Integrated Bluetooth® interface (AISEC Security Level rating: <i>High</i>)</li><li>■ Optimized user interface</li><li>■ User-guided setup wizards, self-explaining menu structure</li></ul>
	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>
Process safety Plant availability	Continued accurate measurement even after common upset events	<ul style="list-style-type: none"><li>■ Integrated surge/overvoltage protection</li><li>■ Robust housings; Protection class: up to IP67</li><li>■ Fully potted electronics</li></ul>
	Reliable process control	<ul style="list-style-type: none"><li>■ Long-term stability of the electronics</li><li>■ Highly accurate sensor input and analog output</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 detection</li></ul>

- Universal temperature transmitter with optional HART® communication, conversion of various input signals into a scalable analog 4 to 20 mA output signal
- Field housing specially designed for use in harsh environments (e.g. Oil & Gas, Chemical, Primaries & Metal)
- International certifications and approvals: Ex approvals, radio approvals, CE, CSA<sub>US</sub>, GP, NAMUR

For more information please visit  
[www.endress.com/tmt142B](http://www.endress.com/tmt142B)

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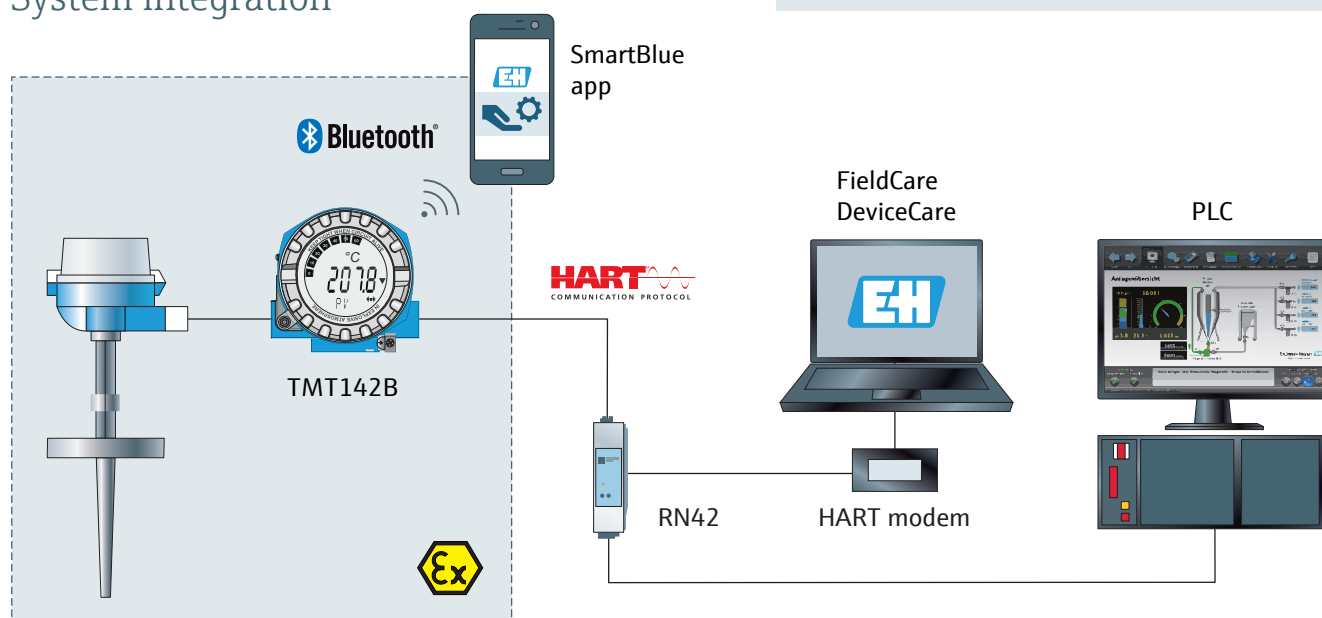
## Features and specifications

<b>Sensor input:</b>	Single: RTD, thermocouple (TC), Ohm or mV
<b>Operation and commissioning:</b>	SmartBlue app (Android/iOS) via Bluetooth® 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>	ATEX, cCSA <sub>US</sub> , EAC, IECEx, INMETRO, NEPSI
<b>Ambient temp. range:</b>	-40 °C to +85 °C (-40 °F to 185 °F)

## Model comparison

	TMT142	TMT142B	TMT162
Inputs	1	1	2
SIL	-	-	SIL 2/3
HART® 7 certified	- (HART® 5)	✓	✓
Overvoltage protection	-	✓	✓
NE 107	-	✓	✓
Bluetooth®	-	✓	-
Accuracy	■ ■ □	■ ■ ■ ■	■ ■ ■ ■

## System integration



## Related offering

Product	Feature
SmartBlue app	<ul style="list-style-type: none"> <li>Mobile remote access to your device via Bluetooth®</li> <li>Diagnostics and real-time process information</li> <li>Encoded and highly secure data transmission</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>