

Safety Instructions

iTEMP TMT162

HART®, PROFIBUS® PA, FOUNDATION Fieldbus™

ATEX, IECEx: Ex db IIC T6 Gb

Safety instructions for electrical apparatus in
explosion-hazardous areas



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Table of contents

About this document	4
Associated documentation	4
Supplementary documentation	4
Manufacturer´s certificates	5
Manufacturer address	5
Safety instructions:	6
Safety instructions: Installation	6
Safety instructions: Special conditions	7
Temperature tables	7
Electrical connection data	7

About this document



This document has been translated into several languages. Legally determined is solely the English source text.

The document translated into EU languages is available:

- In the download area of the Endress+Hauser website:
www.endress.com -> Downloads -> Manuals and Datasheets -> Type: Ex Safety Instruction (XA) -> Text Search: ...
- In the Device Viewer: www.endress.com -> Product tools -> Access device specific information -> Check device features



If not yet available, the document can be ordered.

Associated documentation

This document is an integral part of the following Operating Instructions:

HART®:

- Operating instructions: BA01801T
- Brief operating instructions: KA00250R
- Technical information: TI00086R, TI01344T

PROFIBUS® PA:

- Operating instructions: BA00275R
- Brief operating instructions: KA00276R
- Technical information: TI00086R

FOUNDATION Fieldbus™:

- Operating instructions: BA00224R
Brief operating instructions: KA00189R
- Technical information: TI00086R

Supplementary documentation

Explosion-protection brochure: CP00021Z/11

The Explosion-protection brochure is available:

- In the download area of the Endress+Hauser website:
www.endress.com -> Downloads -> Brochures and Catalogs -> Text Search: CP00021Z
- On the CD for devices with CD-based documentation

**Manufacturer's
certificates****IECEX certificate**

Certificate number: IECEX KEM 06.0020X

Affixing the certificate number certifies conformity with the following standards (depending on the device version)

- IEC 60079-0 : 2017
- IEC 60079-1 : 2014

ATEX certificate

Certificate number: KEMA 02ATEX2338 X

EU Declaration of Conformity

Declaration number: EC_00164

UKCA certificate

Certificate number: CML 21UKEX11006X

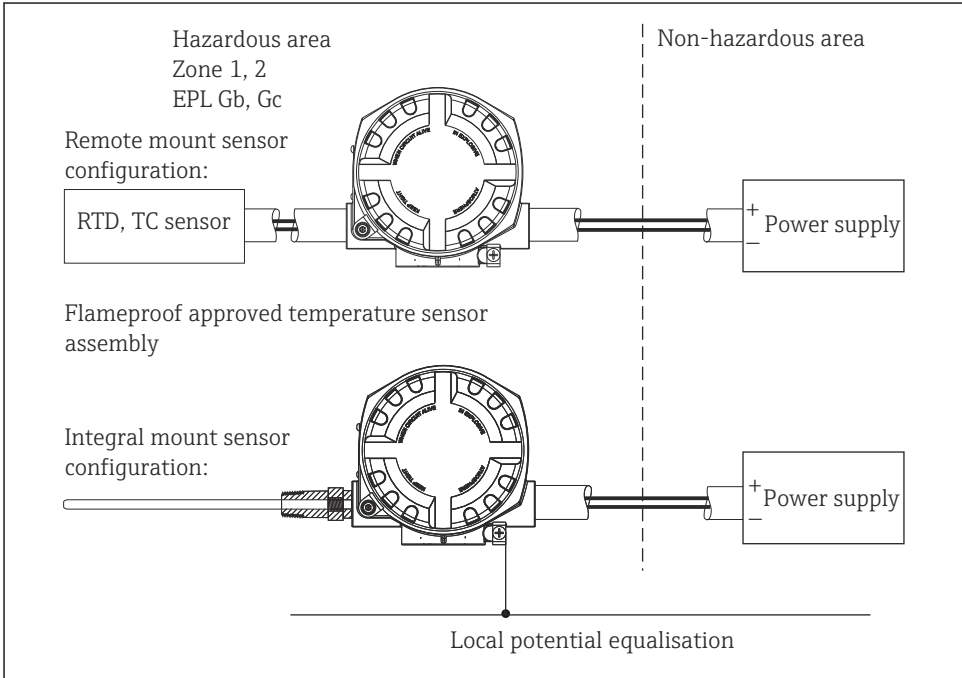
UKCA Declaration of Conformity

Declaration number: UK_00412

**Manufacturer
address**

Endress+Hauser Wetzer GmbH + Co. KG
Obere Wank 1
87484 Nesselwang, Germany

Safety instructions:



A0050217

Safety instructions: Installation

- Comply with the installation and safety instructions in the Operating Instructions.
- Install the device according to the manufacturer's instructions and any other valid standards and regulations (e.g. EN/IEC 60079-14).
- The housing of field transmitter must be connected to the potential matching line.
- Only the approved wire entries as specified in paragraph 10.3 of EN/IEC 60079-14, paragraph 16 of EN/IEC 60079-0, paragraph 13 of EN/IEC 60079-1 must be used.
- For connection through a conduit entry approved for this purpose the associated sealing facility shall be mounted directly to the housing.
- Seal unused entry glands with approved sealing plugs that correspond to the type of protection.
- For operating the transmitter housing at an ambient temperature under $-20\text{ }^{\circ}\text{C}$, appropriate cables and cable entries permitted for this application must be used.
- For ambient temperatures higher than $+70\text{ }^{\circ}\text{C}$, use suitable heat-resisting cables or wires, cable entries and sealing facilities for Ta $+5\text{K}$ above surrounding.

- During operation, the cover must be screwed all the way in and the cover's safety catch must be fastened.
- The remote or integral mounted temperature sensor must comply with the requirements according to IEC 60079-1.
- The flameproof joints are not intended to be repaired.

Safety instructions:
Special conditions

⚠ WARNING

Explosive atmosphere

- ▶ Do not open the electrical connection of the power supply circuit in an explosive atmosphere.
- Use for remote temperature sensors only approved sensors certified for category 2G marked not less than II2G Ex d IIC T6...T4 Gb for use in Zone 1.
- Use for integral temperature sensors only approved sensors certified for category 1G or 2G marked not less than II1/2G Ex d IIC T6...T4 Ga/Gb or II2G Ex d IIC T6...T4 Gb for use in Zone 0 resp. Zone 1.
- The temperature class specified for the certified temperature sensor shall be taken into account.
- The temperature transmitter must be installed so, that even in the event of rare incidents, an ignition source due to impact or friction between the enclosure and iron/steel is excluded.

Temperature tables

Type	Temperature class	Ambient temperature
iTEMP TMT162	T6	$-40\text{ °C} \leq T_a \leq +55\text{ °C}$
	T5	$-40\text{ °C} \leq T_a \leq +70\text{ °C}$
	T4	$-40\text{ °C} \leq T_a \leq +80\text{ °C}$

Electrical connection data

Type	Electrical Data
iTEMP TMT162 (HART® - protocol)	$U \leq 40\text{ V}_{DC}$ $P \leq 3\text{ W}$
iTEMP TMT162 (PROFIBUS® PA) iTEMP TMT162 (FOUNDATION Fieldbus™)	$U \leq 35\text{ V}_{DC}$ $P \leq 3\text{ W}$

Category	Type of protection (ATEX/IECEx)	Type
II 2G	Ex db IIC T6...T4 Gb	iTEMP TMT162



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