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Safety Instructions
iTEMP TMT142, TMT162

HART®, PROFIBUS® PA, FOUNDATION Fieldbus™

Ex d IIC T4~T6 Gb

Endress+Hauser
People for Process Automation

iTEMP TMT142, TMT162

HART®, PROFIBUS® PA, FOUNDATION Fieldbus™

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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:

TMT142 HART®:
- Operating instructions: BA00191R
- Brief operating instructions: KA00222R
- Technical information: TI00107R

TMT162 HART®:
- Operating instructions: BA01801T
- Brief operating instructions: KA00250R
- Technical information: TI00086R, TI01344T

TMT162 PROFIBUS® PA:
- Operating instructions: BA00275R
- Brief operating instructions: KA00276R
- Technical information: TI00086R

TMT162 FOUNDATION Fieldbus™:
- Operating instructions: BA00224R
  Brief operating instructions: KA00189R
- Technical information: TI00086R

Supplementary documentation

Explosion protection brochure: CP00021Z

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

NEPSI certificate

Certificate number: GYJ22.1040X, GYJ22.1037X

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

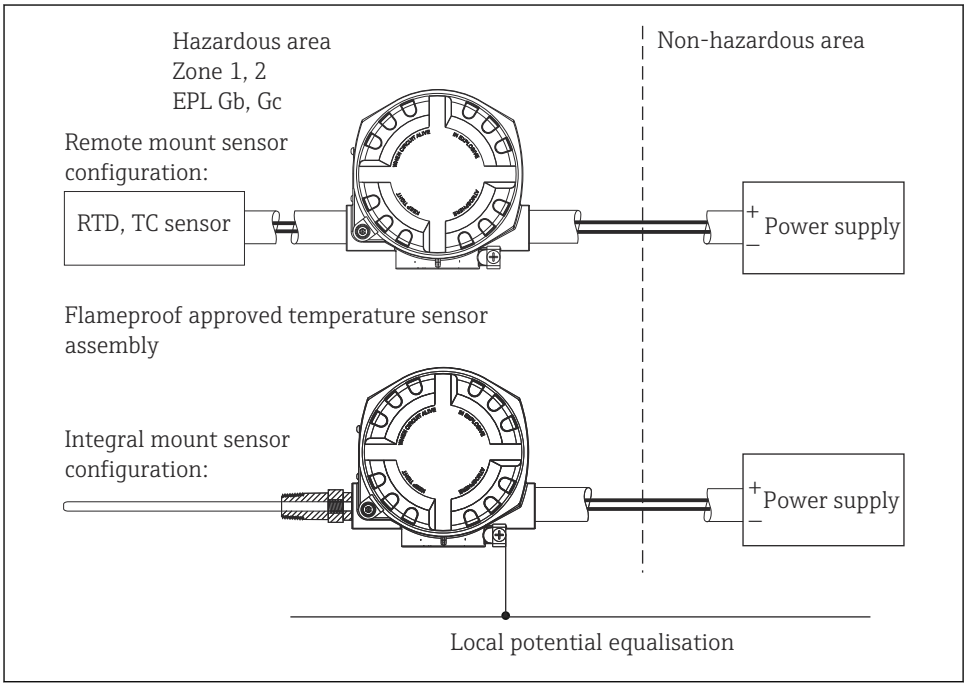
- GB 3836.1-2010
- GB 3836.2-2010

Please refer to NEPSI/CCC certificates for conditions of safe use.

Manufacturer address

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

Safety instructions:



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 °C, appropriate cables and cable entries permitted for this application must be used.
- For ambient temperatures higher than +70°C, use suitable heat-resisting cables or wires, cable entries and sealing facilities for Ta +5K 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 EN/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 TMT142 iTEMP TMT162	T6	−40 °C ≤ Ta ≤ +55 °C
	T5	−40 °C ≤ Ta ≤ +70 °C
	T4	−40 °C ≤ Ta ≤ +80 °C

Electrical connection data

Type	Electrical Data
iTEMP TMT142 (HART® - protocol)	$U \leq 36\ V_{DC}$ $P \leq 3\ W$
iTEMP TMT162 (HART® - protocol)	$U \leq 40\ V_{DC}$ $P \leq 3\ W$
iTEMP TMT162 (PROFIBUS® PA) iTEMP TMT162 (FOUNDATION Fieldbus™)	$U \leq 35\ V_{DC}$ $P \leq 3\ W$

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