Products   Solutions   Services

Safety Instructions
iTEMP TMT142B

HART®

JPN: Ex db IIC T6 Gb
         Ex tb IIIC Txxx°C Db

Endress+Hauser [EH]

People for Process Automation

iTEMP TMT142B

HART®

Table of contents

About this document	ℹ️ The document number of these Safety Instructions (XA) must match the information on the nameplate.

Associated documentation

To commission the device, please observe the Operating Instructions pertaining to the device:
www.endress.com/<product code>, e.g. iTEMP TMT142B

Supplementary documentation

Explosion protection brochure: CP00021Z

The explosion protection brochure is available on the Internet:
www.endress.com/Downloads

Certificates and declarations

Japan certificate

Certificate number: CML 24JPN1250X

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

- JNIOSH-TR-46-1:2020 (IEC 60079-0 Ed. 7 2017)
- JNIOSH-TR-46-2:2018 (IEC 60079-1 Ed. 7 2014)
- JNIOSH-TR-46-9:2018 (IEC 60079-31 Ed. 2 2013)

IECEx certificate
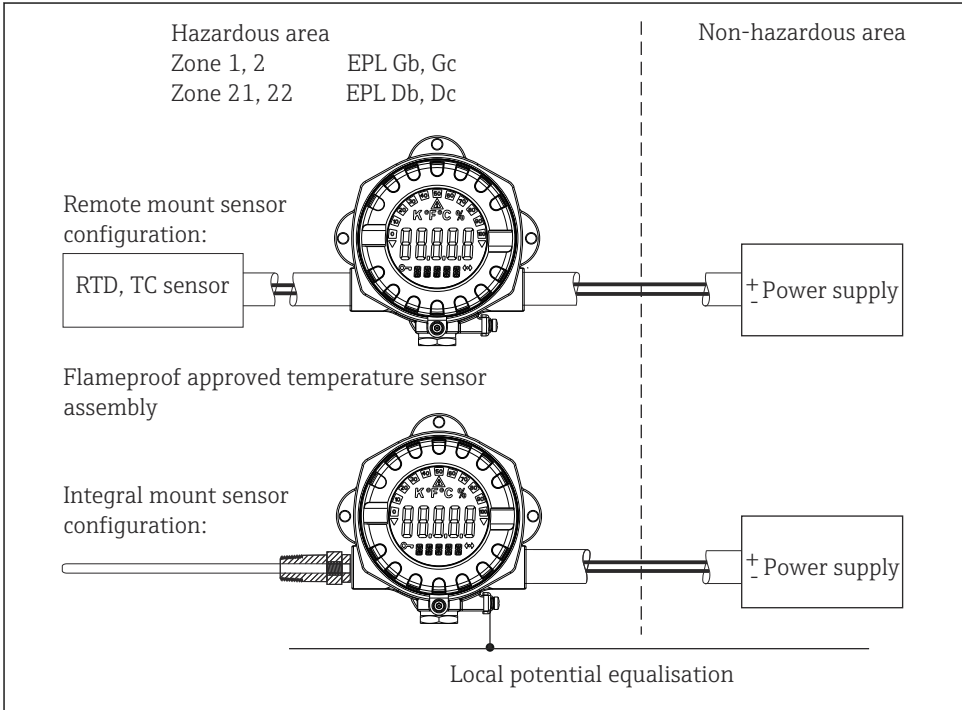
Certificate number: IECEx KEM 06.0020X

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

- IEC 60079-0 : 2017
- IEC 60079-31 : 2013
- IEC 60079-1 : 2014

Manufacturer address

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

Safety instructions

Hazardous area
Zone 1, 2   EPL Gb, Gc
Zone 21, 22   EPL Db, Dc

Non-hazardous area

Remote mount sensor configuration:

RTD, TC sensor

Power supply

Flameproof approved temperature sensor assembly

Integral mount sensor configuration:

Power supply

Local potential equalisation

A0050945

Safety instructions: Installation of protection flameproof

⚠ **WARNING**

Potentially explosive atmospheres

▶ Do not open the electrical connection of the supply circuit when energized if there is a potentially explosive atmosphere.

- 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/IEC60079-14, 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 the cable entries with certified cable glands and or blanking elements which have at least type of protection Ex db.

- 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 +5 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 EN/IEC 60079-1.
- The temperature class specified for the certified temperature sensor shall be taken into account.

Safety instructions: Installation of dust ignition protection

⚠️ **WARNING**

Explosive atmosphere

▶ In an explosive atmosphere, do not open the device when voltage is supplied (ensure that the IP66/67 housing protection is maintained during operation).

- 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).
- Seal the cable entries tight with certified cable glands which have at least type of protection Ex tb suitable for Group IIIC (degree of protection IP6X).
- The housing of the field transmitter must be connected to the potential matching line.
- The provided cable entries to option code glands are suitable ATEX/IECEx certified cable glands with a temperature range of −20 to +95 °C.
- For ambient temperatures higher than +70 °C, use suitable heat-resisting cables or wires, cable entries and sealing facilities for Ta +5 K above surrounding.
- The remote or integral mounted temperature sensor must comply with the requirements according to EN/IEC 60079-31.
- The maximum surface temperature specified for the certified temperature sensor shall be taken into account.

Safety instructions: Specific conditions of use

- The flameproof joints are not intended to be repaired.
- The device must be installed and maintained 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 TMT142B	T6	−40 ℃ ≤ Ta ≤ +55 ℃
	T5	−40 ℃ ≤ Ta ≤ +70 ℃
	T4	−40 ℃ ≤ Ta ≤ +80 ℃

Type	Maximum surface temperature	Ambient temperature
iTEMP TMT142B	+110 ℃	−40 ℃ ≤ Ta ≤ +80 ℃

Electrical connection data

Type	Electrical data
iTEMP TMT142B	$U \leq 36\ V_{DC}$ $P \leq 3\ W$

Type of protection	Type
Ex db IIC T6…T4 Gb	iTEMP TMT142B
Ex tb IIIC T110℃ Db	

www.addresses.endress.com

Endress+Hauser 🔲

People for Process Automation