

Safety Instructions DIN rail temperature transmitter with HART® protocol

iTEMP TMT82

1Ex ib [ia Ga] IIC T6...T4 Gb X



Document: XA01449T
Safety instructions for electrical apparatus for explosion-
hazardous areas →  3

DIN rail temperature transmitter with HART® protocol

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Associated documentation

This document is an integral part of the following Operating Instructions:
TMT82:
Operating instructions: BA01028T/09/
Brief Operating Instructions: KA01095T/09/
The Operating Instructions which correspond to the device type apply.

Supplementary Documentation

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

EAC certificate of conformity according to TR CU 012/2011

The temperature transmitters meet the fundamental health and safety requirements for the design and construction of devices and protective systems intended for use in potentially explosive atmospheres in accordance with TR CU 012/2011.

Certification body: НАННО "ЛСБЭ"

Certificate number: EAЭС RU C-DE.AA87.B.00330/20

Affixing the certificate number certifies conformity with the following standards:

GOST 31610.0-2014 (IEC 60079-0:2011)

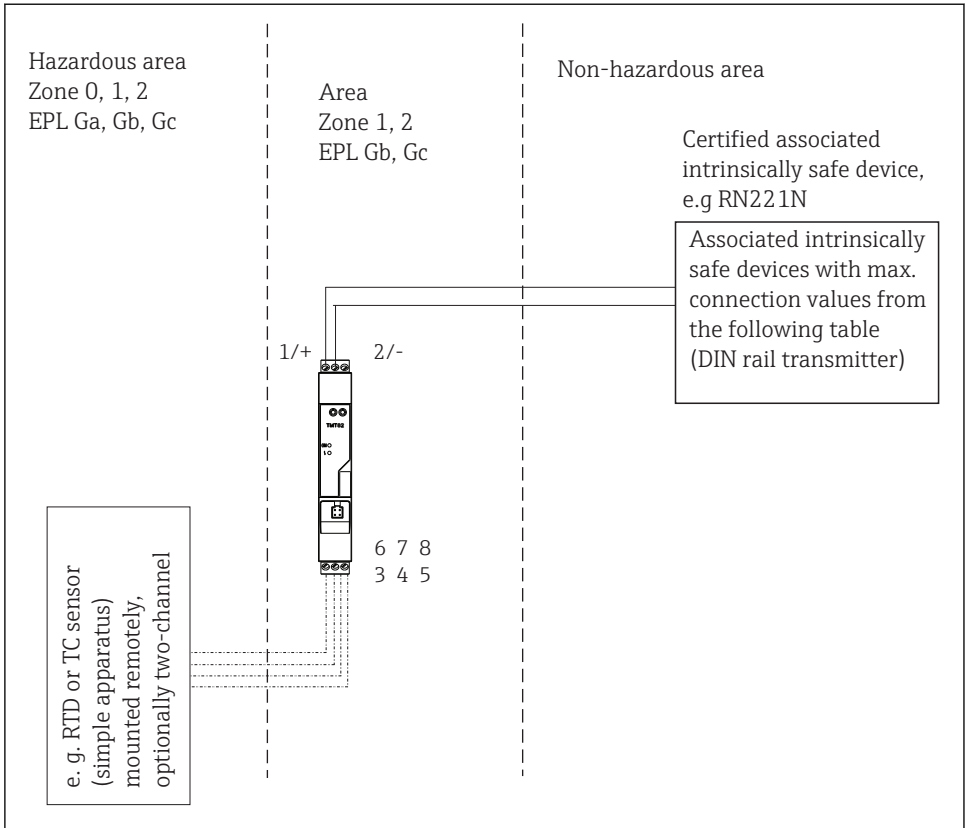
GOST 31610.11-2014 (IEC 60079-11:2011)

GOST 31610.26-2012/IEC 60079-26:2006

Manufacturer address

Endress+Hauser Wetzler GmbH + Co KG
Obere Wank 1
D-87484 Nesselwang
Germany
Phone: +49 (0)8361 308 0

Safety instructions



A0025140-EN

Safety instructions: Installation TMT82-xxA3

- 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. GOST 30852.13-2020 (IEC 60079-14)).
- When installing the device note that the housing ingress protection classification IP 20 according to EN/IEC 60529 is upheld.
- When connecting the measurement unit with a certified circuit of category "ib" into an IIC or IIB hazardous area the ignition class changes to: Ex ib IIC or Ex ib IIB.

- In hazardous areas it is not permitted to use the CDI interface for configuration.
- Device set-up is also allowed in the Ex area using a certified handheld module, e.g. DXR375 or SFX100. The pertinent guidelines must be observed when intrinsically safe circuits are connected together.
- On installation there should be a distance (thread measure) of at least 50 mm between intrinsically-safe and non-intrinsically-safe terminals.

Safety instructions: Zone 1 and 2

- According to the specifications of the manufacturer, this apparatus can be operated in zone 1 (category 2)/EPL Gb or zone 2 (category 3) /EPL Gc.
- The sensor current circuit may be introduced into zone 0 (category 1)/EPL Ga.

Type of protection

Type of protection (EAC)	Type
1Ex ib ia Ga IIC T6...T4 Gb X	TMT82

Temperature tables

Type	Temperature class	Ambient temperature Zone 1, 2
TMT82-xxA3	T6	$-40\text{ °C} \leq T_a \leq 46\text{ °C}$
	T5	$-40\text{ °C} \leq T_a \leq 61\text{ °C}$
	T4	$-40\text{ °C} \leq T_a \leq +85\text{ °C}$

Electrical connection data

Type	Electrical data	
TMT82-xxA3	Power supply terminal + and -)	$U_i = 30\text{ V}_{DC}$ $I_i = 130\text{ mA}$ $P_i = 770\text{ mW}$ $C_i = \text{negligible low}$ $L_i = \text{negligible low}$
	Sensor circuit (terminal 3 to 8)	$U_o = 9\text{ V}_{DC}$ $I_o = 13\text{ mA}$ $P_o = 29.3\text{ mW}$
	Maximum connection values	

Type	Electrical data		
	Ex ia IIC	Lo = 5 mH	Co = 0.93 μ F
	Ex ia IIB	Lo = 20 mH	Co = 3.8 μ F
	Ex ia IIA	Lo = 50 mH	Co = 4.8 μ F



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