IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx EPS 17.0039X

Issue No: 1

Certificate history:
Issue No. 1 (2018-06-14)
Issue No. 0 (2017-09-29)

Status: **Current**

Date of Issue: **2018-06-14**

Applicant: **Endress+Hauser Wetzer GmbH & Co. KG**
Obere Wank 1
87484 Nesselwang
Germany

Equipment: **Temperture transmitter iTEMP type TMT82-**A1/2/*** and TMT82-**A3/4/5*****

Optional accessory:

Type of Protection: **intrinsic safety "i"**

Marking:

Ex ia IIC T6…T4 Ga (Head)

Ex ia IIC T6…T4 Ga (Head)

Ex ib [ia Ga] IIC T6…T4 Gb (DIN Rail)

Approved for issue on behalf of the IECEx Certification Body: Holger Schaffer

Position: Manager Certification

Signature:
(for printed version)

Date: 2018-06-14

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

Bureau Veritas Consumer Products Services Germany GmbH
Businesspark A96
86842 Türkheim
Germany

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Manufacturer:	**Endress+Hauser Wetzer GmbH & Co. KG** Obere Wank 1 87484 Nesselwang **Germany**	

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

DE/EPS/ExTR17.0037/01

Quality Assessment Report:

DE/TUN/QAR06.0009/07

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The temperature transmitter iTEMP type TMT82*, is a two wire transmitter with analogue output. It has measuring input circuits for resistance thermometers (RTD) in 2-, 3- or 4-wire connection, thermocouples and voltage transmitters.

The equipment is intended for the application inside the explosion hazardous area.

The DIN Rail version is intended to be installed in control cabinets.

Electrical data:

Head transmitter:

Power supply				
(terminals + and -)	Ui	≤	30V DC	
	Ii	≤	130 mA	
	Pi	=	800 mW	
	Ci	=	negligibly small	
	Li	=	negligibly small	
Sensor circuit				
(terminal 3 to 7)	Uo	≤	7.6VDC	
	Io	≤	13 mA	
	Po	≤	24.7 mW	
Max. connection values				
Ex ia IIC	Lo = 10 mH			Co = 1 µF
Ex ia IIB	Lo = 50 mH			Co = 4.5 µF
Ex ia IIA	Lo = 50 mH			Co = 6.7 µF
Display interface (CDi)				
	Uo	≤	7.6VDC	
	Io	≤	130 mA	

	Ci	=	negligibly small
	Li	=	negligibly small

Max. connection values		
Ex ia IIC	Lo = 3.1 mH	Co = 0.64 µF
Ex ia IIB	Lo = 16 mH	Co = 3.8 µF
Ex ia IIA	Lo = 27 mH	Co = 12 µF

DIN Rail transmitter:

Power supply			
(terminals + and -)	Ui	≤	30V DC
	Ii	≤	130 mA
	Pi	=	770 mW
	Ci	=	negligibly small
	Li	=	negligibly small
Sensor circuit			
(terminal 3 to 8)	Uo	≤	9V DC
	Io	≤	13 mA
	Po	≤	29.3 mW

Max. connection values		
Ex ia IIC	Lo = 5 mH	Co = 0.93 µF
Ex ia IIB	Lo = 20 mH	Co = 3.8 µF
Ex ia IIA	Lo = 50 mH	Co = 4.8 µF

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Ambient temperature

Type (order option)	Temperature class	Ambient temperature Zone 1/EPL Gb	Ambient temperature Zone 0/ EPL Ga
TMT82-xxA1xxxxxxxxx	T6	-52°C ≤ Ta ≤ +58°C	-52°C ≤ Ta ≤ +46°C
TMT82-xxA2xxxxxxxxx	T5	-52°C ≤ Ta ≤ +75°C	-52°C ≤ Ta ≤ +60°C
Head transmitter	T4	-52°C ≤ Ta ≤ +85°C	-52°C ≤ Ta ≤ +60°C
without display			
TMT82-xxA1xxxxxxxxx	T6	-40°C ≤ Ta ≤ +55°C	
TMT82-xxA2xxxxxxxxx	T5	-40°C ≤ Ta ≤ +70°C	
Head transmitter	T4	-40°C ≤ Ta ≤ +85°C	
with display (TID10)			
TMT82-xxA3/4/5xxxxxxxxx	T6	-40°C ≤ Ta ≤ +46°C	
(DIN rail transmitter)	T5	-40°C ≤ Ta ≤ +61°C	
	T4	-40°C ≤ Ta ≤ +85°C	

SPECIFIC CONDITIONS OF USE: YES as shown below:

In hazardous areas it is not permitted to use the CDI interface of TMT82 for configuration.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

- Inclusion (optional) of display module, type TID10

- Addition of electrical data for CDI Interface (to TID10)

- Addition of an alternative potting material

- Modification of ambient temperature range