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 BKI 05.0002	Issue No: 1	Certificate history:
			Issue No. 1 (2017-03-17)
Status:	**Current**	Page 1 of 4	Issue No. 0 (2005-11-08)
Date of Issue:	**2017-03-17**		

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

Equipment: **Temperature-Head-Transmitter, iTEMP TMT 182**
Optional accessory:

Type of Protection: **General requirements, Intrinsic safety**

Marking: Ex ia IIC T6/T5/T4

Approved for issue on behalf of the IECEx Certification Body: János Müllner

Position: managing director

Signature:
(for printed version)

Date: 2017-03-17

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:

Testing Station for Explosion Proof Equipment
H 1037 BUDAPEST
MIKOVINY S.u. 2-4
Hungary

Robbanásbiztos Berendezések BKI Vizsgáló Állomása Ex

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Manufacturer: **Endress+Hauser Wetzer GmbH+Co. KG**
Nesselwang, Obere Wank 1
Germany
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 electrical 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 : 2000 Edition:3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 1999 Edition:4	Electrical apparatus for explosive gas atmospheres - Part 11: 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

IECEx ATR: HU/BKI/05/P-006-05/1 HU/BKI/05/P-006-05/2 IECEx QAR: DE/TUN/QAR06.0009/06	File Reference: P-006-05

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

See the details in the additional information.

SPECIFIC CONDITIONS OF USE: NO

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

Issue 1:
Addition of valid IECEx QAR: DE/TUN/QAR06.0009/06

Annex:

descrip.pdf

1. Description

The temperature-head-transmitter type iTEMP TMT 182 is used to convert resistive and voltage signals into a current signal 4...20 mA. A digital HART – protocol is superimposed on the current signal.

The temperature head transmitter has to be built in an enclosure with the degree of protection minimum IP20 indoor application and min. IP54 in outdoor application suitable for the conditions of application.

2. General parameters

2.1 Ambient temperatures

The correlation between the zone the equipment is used and maximum permissible ranges of the ambient temperature is to be taken from the following table:

	zone 0	zone 1
T6	40 °C	55 °C
T5	-20 °C...50 °C	-40 °C...70 °C
T4	60 °C	85 °C

For applications requiring apparatus used in zone 0, the process pressure of the media shall range from 0,8 to 1,1 bar. In case of a deviation from these indicated operating conditions at the temperature-head-transmitter it has to be considered that the temperature rise of the temperature-head-transmitter is not higher than 20K (even in case of fault) and that the user is responsible for the safe operation of the installation concerning pressures / temperatures of the media applied.

2.2 Electrical data

Voltage supply

type of protection intrinsic safety EEx ia IIC for connection to certified intrinsically safe circuits only.
Maximum values:
U_i= 30 VDC
I_i= 100 mA
P_i= 750 mW
Ci negligibly low
Li negligibly low

Sensor circuit

type of protection intrinsic safety EEx ia IIC for connection to certified intrinsically safe circuits only.
Maximum values:
U_0= 5 VDC
I_0= 5,4 mA
P_0= 6.6 mW
linear characteristic
C_i negligibly low
L_i negligibly low

connection without existing lumped external inductances and capacitances:
C_0= 100 µF
L_0= 1000 mH

connection with existing lumped external inductances and capacitances:

	Ex ia		
	II C	IIB	IIA
C_0	2 µF	9.9 µF	9.9 µF
L_0	100 mH	100 mH	100 mH

3. Drawings

XA 006R/09	Safety Instructions	iTEMP HART TMT182	
TI 078R/09/en 51002073	Technical information	iTEMP HART TMT182	
MPS iTEMP TMT 182	Technical description		2001.01.23
PTB Ex 01-21022	Test Report		2001.03.29
Drawings:			
14 06 00 109	Nameplate	Rev 0	
14 06 00 000	Einstein HART	Rev 1	2001.01.02
14 06 00 010	HART A/D Input and output	Rev 1	2001.01.11
14 06 00 020	Einstein HART and EMV Platine for transmitter	Rev 1	2000.12.05
14 06 00 030	TMT 182 Signal Trafo specification (51001835)	Rev 1	2000.09.01
14 06 00 031	TMT 182 Power Trafo specification (51001836)	Rev 1	2000.09.01