



# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.:	<b>IECEx KEM 06.0020X</b>	Page 1 of 4	<u>Certificate history:</u>
Status:	<b>Current</b>	Issue No: 5	Issue 4 (2020-01-31)
Date of Issue:	2020-06-22		Issue 3 (2017-06-21)
Applicant:	<b>Endress+Hauser Wetzer GmbH+Co. KG</b> Obere Wank 1 87484 Nesselwang Germany		Issue 2 (2013-02-04)
Equipment:	<b>Temperature transmitter, Type iTemp TMT142 and Type iTemp TMT162</b>		Issue 1 (2009-10-26)
Optional accessory:	-		Issue 0 (2006-07-04)
Type of Protection:	<b>Ex db; Ex tb</b>		
Marking:	Ex db IIC T6...T4 Gb Ex tb IIIC T110 °C Db		

Approved for issue on behalf of the IECEx  
Certification Body:

**R. Schuller**

Position:

**Certification Manager**

Signature:  
(for printed version)

Date:

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**DEKRA Certification B.V.**  
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Netherlands





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Certificate No.: **IECEx KEM 06.0020X**

Page 2 of 4

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

Additional manufacturing locations: **Endress+Hauser Wetzer (India) Pvt. Ltd.** **Endress+Hauser Wetzer (Suzhou) Co. Ltd.**  
M-171/173, MIDC, Waluj, Aurangabad Su-Hong-Zhong-Lu No. 465, 215021  
– 431 136 Suzhou-SIP (P.R. China)  
India China

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 equipment 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** Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

**IEC 60079-1:2014-06** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:7.0

**IEC 60079-31:2013** Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

This Certificate **does not** indicate compliance with 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:

[NL/KEM/ExTR09.0074/04](#)

Quality Assessment Report:

[DE/TUN/QAR06.0009/08](#)



# IECEx Certificate of Conformity

Certificate No.: **IECEx KEM 06.0020X**

Page 3 of 4

Date of issue: 2020-06-22

Issue No: 5

## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

### Description

The Temperature Transmitter, Type iTemp TMT142 and Type iTemp TMT162 consists of an enclosure, made of aluminium or stainless steel, containing electronics circuits, terminals and optionally a display. The transmitters are used to convert the measurement signal of an external temperature sensor into an output signal.

Depeding on the version, the transmitter provides a 4 - 20 mA current output signal with HART communication or is connected to a Profibus PA or Foundation Fieldbus.

The ambient temperature range, depending on transmitter version and temperature class or temperature code, is listed in the following table:

Transmitter version	Temperature class Temperature code	Ambient temperature range
in type of protection flameproof enclosures Ex db IIC	T6	-40 °C to +55 °C
	T5	-40 °C to +70 °C
	T4	-40 °C to +80 °C
in type of protection dust ignition protection by enclosure Ex tb IIIC	T110 °C	-40 °C to +80 °C

The enclosure of the transmitter provides a degree of protection IP66/IP67 in accordance with IEC 60529.

### Electrica data

Unit	TMT162- TMT142-	TMT162-	TMT162- TMT142-	TMT142B-
Communication	HART 5	HART 7	FF/PA	HART 7
Voltage	8...40 Vdc	11.5...40 Vdc	9...35 Vdc	11...36 Vdc
Output signal	4-20 mA	4-20 mA	FF/PA	4-20 mA
Current consumption	23 mA	23 mA	11 mA	23 mA
Power dissipation	Maximum 3 W	1W	Maximum 3 W	1W

### Nomenclature

See Annex 1 to NL/KEM/09.0074/04.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

- The flameproof joints are not intended to be repaired.
- When the optional non-conductive coating is applied the risk from electrostatic discharge shall be minimized.



# IECEx Certificate of Conformity

Certificate No.: **IECEx KEM 06.0020X**

Page 4 of 4

Date of issue: 2020-06-22

Issue No: 5

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

Minor constructional changes.

**Annex:**

[223762800-ExTR09.0074.04-Annex 1.pdf](#)

## Annex 1 to Report No. NL/KEM/ExTR09.0074/04

### Nomenclature

Series No. Suffix Code

TMT162- abc\*\*\*g\*i\*k\*\*m\*\*

TMT162- a b c \* \* \* g \* i \* k \* \* m \* \*

Designation 010 020 030 040 050 060 070 080 090 590 610 670 850 895

Designation	Explanation	Value	Explanation
010	Approval	E	ATEX II2G Ex db
		H	ATEX Ex db, Ex ia (DEKRA 17ATEX0048 X) **
		N	ATEX/ IECEx Ex tb
		R	IECEx Ex db
		S	IECEx Ex db, Ex ia (IECEx KEM 06.0038X) **
020	Housing	1	Aluminium, without display
		2	Aluminium with display, illumination
		3	316L, without display
		4	316L with display, illumination
		9	Combination of 1 to 4 + Non-conductive varnish
030	Cable entry openings (cable entry devices are not in the scope)	1	2x thread NPT1/2
		2	2x thread M20x1.5
		4	2x thread G1/2 (except Ex d type)
		5	1x thread M24x1.5 + 1x M20x1.5
040	Mounting bracket	n.s. *	Not relevant for Explosion Safety
050	Configuration connection	n.s. *	Not relevant for Explosion Safety
060	Configuration sensor type	n.s. *	Not relevant for Explosion Safety
070	Communication; Configuration:	A	HART; Factory setup Pt100 3- wire, 0-100°C, NAMUR NE43
		B	HART; Measuring range, NAMUR NE43
		C	HART; TC configuration range, NAMUR NE43
		D	HART; RTD configuration range, NAMUR NE43
		E	PROFIBUS PA
		F	PROFIBUS PA; Factory setup
		K	FOUNDATION Fieldbus; Factory setup
		L	FOUNDATION Fieldbus
080	Additional option	n.s. *	Not relevant for Explosion Safety
090	Sensor	A	1x input, HART
		B	2x input, PV = sensor 1, Ch.2: off
		C	2x input, PV = difference
		D	2x input, PV = average
		E	2x input, sensor back up
590	Additional approval	n.s. *	Not relevant for Explosion Safety
610	Accessory mounted	NA	Integrated overvoltage protection
670	Customer specific modifications	n.s. *	Not relevant for Explosion Safety

## Annex 1 to Report No. NL/KEM/ExTR09.0074/04

Designation	Explanation	Value	Explanation
850	Firmware version	74	01.03.zz HART 5, DevRev02, without SIL
		75	04.01.zz, HART 7, DevRev04
		76	02.00.zz, FF, DevRev03
		77	01.03.zz HART 5, DevRev02, SIL
		78	01.01.zz PROFIBUS PA, Profile 3.02
895	Marking	n.s. *	Not relevant for Explosion Safety

Series No. Suffix Code  
**TMT142- abc\*\*\*\*\*j\*\***

**TMT142- a b c \* \* \* \* \* j \* \***  
 Designation 010 020 030 040 050 060 070 080 090 100 990 995

Designation	Explanation	Value	Explanation
010	Approval	E	ATEX II2G Ex db
		N	ATEX/ IECEx Ex tb
		R	IECEx Ex db
		S	IECEx Ex db, Ex ia (IECEx KEM 06.0038X)**
020	Housing	1	Aluminium, without display
		2	Aluminium with display
		3	316L, without display
		4	316L with display
		9	Combination of 1 to 4 + Non-conductive varnish
030	Cable entry openings (cable entry devices are not in the scope)	1	3x thread NPT1/2
		2	3x thread M20x1.5
		4	3x thread G 1/2 (excluded for Ex d)
		5	1x thread M24x1.5 + 2x M20x1.5
040	Mounting bracket	n.s. *	Not relevant for Explosion Safety
050	Configuration connection	n.s. *	Not relevant for Explosion Safety
060	Configuration sensor type	n.s. *	Not relevant for Explosion Safety
070	Configuration:	n.s. *	Not relevant for Explosion Safety
080	Additional Option:	n.s. *	Not relevant for Explosion Safety
090	Sensor input	n.s. *	Not relevant for Explosion Safety
100	Versions	1	Standard
990	Customer Specific Modifications	n.s. *	Not relevant for Explosion Safety
995	Marking	n.s. *	Not relevant for Explosion Safety

\* n.s. mean value is not related to Explosion Safety.

\*\* Type of protection Ex i is in the scope of DEKRA 17ATEX0048X and IECEx KEM 06.0038X.

**Annex 1 to Report No. NL/KEM/ExTR09.0074/04**

Series No. Suffix Code

**TMT142B- abc\*\*\*\*\*j\*\*\*m\*\***

**TMT142B- a b c \* \* \* \* \* j \* \* m \* \***  
 Designation 010 020 030 040 480 510 520 570 610 620 630 850 895

Designation	Explanation	Value	Explanation
010	Approval	B6	ATEX II2G Ex db IIC T6 Gb, II2D Ex tb IIIC Db
		I6	IECEX Ex db T6 Gb, Ex tb IIIC Db
		8F	ATEX IECEX II2D Ex tb IIIC Db
		86	ATEX IECEX II2G Ex db IIC T6 Gb, II2D Ex tb IIIC Db
020	Communication; Output Signal; Operation	A	HART; 4-20mA; HART configuration
		P	HART; 4-20mA; HART/Bluetooth (App) configuration
030	Housing	1	Aluminium, without display
		2	Aluminium with display
		3	316L, without display
		4	316L with display
		9	Combination of 1 to 4 + Non-conductive varnish
040	Cable entry openings	1	3x thread NPT1/2
		2	3x thread M20x1.5
		4	3x thread G 1/2 (excluded for Ex d)
		5	1x thread M24x1.5 + 2x M20x1.5
480	Device Model	n.s. *	Not relevant for Explosion Safety
510	Universal Input	n.s. *	Not relevant for Explosion Safety
	Sensor Type	n.s. *	Not relevant for Explosion Safety
520	Calibration	n.s. *	Not relevant for Explosion Safety
570	Service	n.s. *	Not relevant for Explosion Safety
610	Accessory Mounted	NA	Integrated overvoltage protection
620	Accessory Enclosed	n.s. *	Not relevant for Explosion Safety
630	Cable Gland; Temp. Range; Protect. Type		Not in the scope of certification
850	Firmware Version	78	1.00.zz, HART 7
895	Marking	n.s. *	Not relevant for Explosion Safety

\* n.s. mean value is not related to Explosion Safety.