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

Certificate No.: **IECEx DEK 18.0056X**

Certificate history:
Issue 2 (2024-03-07)
Issue 1 (2022-12-01)
Issue 0 (2019-05-16)

Status: **Current**

Issue No: 3

Date of Issue: 2025-04-30

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

Equipment: **Temperature assemblies, Type TM111, TM112, TM131, TM151 and TM152**

Optional accessory:

Type of Protection: **Ex d and Ex t**

Marking:

Type TM111 and TM112:
Ex db IIC T6...T1 Gb and
Ex tb IIIC T85 °C...T450 °C Db

Type TM131, TM151 and TM152:
Ex db IIC T6...T1 Ga/Gb and
Ex ta IIIC T_{200} 85 °C…T_{200} 450 °C Da / Ex tb IIIC T85 °C…T450 °C Db

See Annex 1 for details

Approved for issue on behalf of the IECEx Certification Body: **R. Schuller**

Position: **Certification Manager**

Signature:
(for printed version)

Date:
(for printed version) 2025-04-30

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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 www.iecex.com or use of this QR Code.

Certificate issued by:

DEKRA Certification B.V.
Meander 1051
6825 MJ Arnhem
Netherlands

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

Manufacturing locations:

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

Endress+Hauser Sicestherm S.r.l.
Via Martin Luther King 7, 20060
Pessano con Bornago (MI)
Italy

Endress+Hauser Wetzer (India) Pvt. Ltd.
M-171/173, MIDC, Waluj, Aurangabad – 431 136
India

See following pages for more locations

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 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-26:2014 Explosive atmospheres – Part 26: Equipment with Equipment Protection Level (EPL) Ga
Edition:3.0

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 Reports:

NL/DEK/ExTR18.0041/04
NL/DEK/ExTR18.0043/02
NL/DEK/ExTR18.0044/02
NL/DEK/ExTR18.0060/03
NL/DEK/ExTR21.0056/01
NL/DEK/ExTR21.0057/01

Quality Assessment Report:

DE/TUN/QAR06.0009/12

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The temperature assemblies, type TM111, TM112, TM131, TM151 and TM152 consist of a flameproof and/or dust ignition protected enclosure containing terminals, flying leads or a transmitter and a directly connected temperature sensor.

Type TM111 and TM112 is optionally provided with a thermowell and connection fittings between the enclosure and the thermowell.

Type TM131, TM151 and TM152 are provided with a thermowell or to be mounted with a thermowell and optionally provided with connection fittings between the enclosure and the thermowell.

At type TM131, TM151 and TM152 the thermowell provides the separation between the areas requiring EPL Ga and Gb and between the areas requiring EPL Da and Db.

The enclosure is a

- flameproof and dust ignition protected connection head type TA30H,
- dust ignition protected connection head type TA30A or TA30D or
- flameproof and dust ignition protected enclosure of Field Transmitter type iTEMP TMT142 or type iTEMP TMT162

and can be provided with a blind or a windowed cover.

The connection heads may be provided with terminals or a head transmitter.

The Field transmitters consist of an enclosure with a transmitter.

The connection heads, Types TA30A, TA30D and TA30H are separately certified by
IECEx KEM 08.0042U / KEMA 08ATEX0145U and reported in NL/KEM/ExTR08.0041/04.

The Field Temperature Transmitter, type iTEMP TMT142 and type iTEMP TMT162 are separately certified by IECEx KEM 06.0020X / KEMA 02ATEX2338 X and reported in NL/KEM/ExTR09.0074/05.

The Sensors, Types TS111, TS111N, TS211, TS211N, TS212 and TS212N are assessed per IEC 60079-0 : 2017 (Ed. 7.0), IEC 60079-1 : 2014 (Ed. 7.0) and IEC 60079-31 : 2013 (Ed. 2.0). See NL/DEK/ExTR18.0041/04.

Connection fittings or the Neck tubes Types N (Nipple), L (Plain neck tube), C (Coupling / Sleeve), UXP (Union XP) - Cortem Type RB**1NS, UGP (Union GP) are assessed per IEC 60079-0 : 2017 (Ed. 7.0) and IEC 60079-31 : 2013 (Ed. 2.0). See NL/DEK/ExTR18.0043/02. Alternatively tests for sealed joints of connection fittings with thermowell, other connection fittings and enclosure are performed and reported in NL/DEK/ExTR18.0043/02.

The optional RB**1NS Union XP is separately certified by IECEx CES 10.0002U and CESI 99 ATEX 034 U based on report IT/CES/ExTR10.0006/02 using standards IEC 60079-0 : 2011 (Ed. 6.0) and IEC 60079-31 : 2013 (Ed. 2.0).
No applicable Technical Differences with IEC 60079-0 : 2017 (Ed. 7.0) are found - for details see NL/DEK/ExTR18.0043/02.

The Thermowells, Type TT131, TT151 and TT152 are assessed per IEC 60079-0 : 2017 (Ed. 7.0), IEC 60079-1 : 2014 (Ed. 7.0), IEC 60079-26 : 2014 (Ed. 3.0) and IEC 60079-31 : 2013 (Ed. 2.0). See NL/DEK/ExTR18.0044/02.

A non-metallic seal is provided between the M20x1.5 or M24x1.5 process connection point of the connection heads and the thermowell or connection fittings.

This report concerns the assembly of above listed items.

For details about the type designation, thermal data, electrical data and marking see Annex 1.

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

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- Introduction of temperature assemblies type TM112, TM151 and TM152.
- Extension of Ingress Protection Rating.
- Introduction of sensor type TS212, TS211N, TS212N and introduction of alternative constructions for existing sensors.
- Introduction of union type UGP (Union GP) for temperature assembly type TM152.
- Renaming of the earlier assessed union into Type UXP (Union XP).
- Reduction of materials for connection fittings (Nipple and Coupling/Sleeve).
- Introduction of thermowell type TT151 for temperature assembly type TM151 and TT152 for temperature assembly type TM152.
- Introduction of alternative head transmitter type TMT36 and alternative variant of head transmitter type TMT82 for temperature assemblies type TM111, TM112, TM131, TM151 and TM152.
- Minor constructional changes for TM111.

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Additional manufacturing locations:

Endress+Hauser Wetzer USA INC
2375 Endress Place
Greenwood IN 46143
United States of America

Endress+Hauser Wetzer (Suzhou) Co. Ltd.
Jiang-Tian-Li-lu No.31, 215021 Suzhou-SIP
(P.R. China)
China

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Additional information:
Specific Conditions of Use:

General

- The flameproof joints are not intended to be repaired.
- It shall be verified, taking into account the worst case process and ambient temperatures,
  - that the temperature of the enclosure at the process connection point does not exceed the ambient temperature range of the assembly.
  - that the temperature of the optionally used RB**1NS Union XP does not exceed the service temperature range as listed in Annex 1.
  - that the temperature of the optionally used Sensor Type TS21x with quickneck construction does not exceed the service temperature range as listed in Annex 1.
  - that the temperature of optional seal at connection points does not exceed the service temperature range as listed in Annex 1.
  - that the temperature of the thermowells type TT151 for TM151 and TT152 for TM152 does not exceed the service temperature range as listed in Annex 1 for some available materials.
- When provided with special varnishing (type TM111 suffix code i = YY, type TM112 suffix code i = YY, type TM131 suffix code m = YY, type TM151 suffix code m = YY, type TM152 suffix code m = YY) refer to the instructions “Safety notes varnish XA01369T/09/A2/01.16” for guidance to minimize the risk from electrostatic discharge.
- Temperature assemblies with flying leads (type TM111 suffix code h = 0A, type TM112 suffix code h= 0A, type TM131 suffix code l = 0A, type TM151 suffix code l = 0A, type TM152 suffix code l = 0A) shall be provided with a round transmitter of max. 2.2 W with a main diameter not exceeding 45 mm and a sensor signal of max 10 Vdc and 1 mA.
- The connection fittings, their joints, and their joints with the thermowell and the connection head or field temperature transmitter provide ingress protection of IP6x or, alternatively, (when fitted with at least 5 turns of PTFE tape or Loctite 270 spread on the entire circumference and for at least one thread) in the temperature range of -50 °C to +130 °C according to IEC 60079-0 and IEC 60529.
- Sensors with quicksleeve construction shall always be protected by a metallic thermowell.

Type TM111

- Sensors with a diameter of 3 mm (suffix code b = A) shall be protected by a thermowell.

Type TM112

- Sensors with a diameter of 3 mm (suffix code b = M), 1/8” (suffix code b = A) shall be protected by a thermowell.

Type TM111 and Type TM112

- Sensors with other diameters (suffix code b = Y) shall be protected by a thermowell unless excluded by the product information available on the manufacturer’s website (CER viewer or Asset Central Viewer) and the safety instructions for optional thermocouples and RTDs (document 10000013456).
  These safety instructions show, depending on the sensor details, when protection by a thermowell is required. The viewer on the website shows the sensor details for each serial number of the assembly.

Type TM131, TM151 and TM152

- The sensor shall be protected by the thermowell provided with the equipment or by a thermowell as specified in the instructions.

Type TM152

The Union GP shall be tightened with a torque of 80 Nm minimum.

Annex:

229503700-ExTR18.0060.03-Annex 1.pdf