## () **EU-Type Examination**

(2) Equipment or protective systems intended for use in potentially explosive atmospheres -Directive 2014/34/EU

- (3) EU-Type Examination Certificate Number: DEKRA 18ATEX0103X Issue Number: 3
- (4) Product: Temperature assemblies, Type TM111, TM112, TM131, TM151 and TM152
- (5) Manufacturer: Endress+Hauser Wetzer GmbH+Co. KG
- (6) Address: Obere Wank 1, 87484 Nesselwang, Germany
- (7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) DEKRA Certification B.V., Notified Body number 0344 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential test report number NL/DEK/ExTR18.0060/03.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0 : 2018 + A11 : 2024 EN 60079-26 : 2015 EN 60079-1/: 2014 + A11 : 2024 EN 60079-31 : 2014

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except in respect of those requirements listed at item 18 of the Schedule,

- (10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- (11) This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- (12) The marking of the product shall include the following:



<u>Туре ЛМ111/ and ЛМ112;</u> II 2 G Ex db IIC/T6,.,Л1/Gb/ II 2 D Ex tb IIIC/T85 °C.,,Т450 °C/Db

<u>Type TM131, TM151 and TM152;</u> II 1/2 G Ex db IIC T6...T1 Ga/Gb II 1/2 D Ex ta IIIC T<sub>200</sub>85 °C...T<sub>200</sub> 450 °C Da / Ex tb/IIIC T85 °C...T450 °C Db

See Annex 1 for details

Date of certification: 30 April 2025

DEKRA Certification B.V.

R. Schuller Certification Manager



Throughout this document, a point is used as the decimal separator.

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### (13) **SCHEDULE**

#### (14) to EU-Type Examination Certificate DEKRA 18ATEX0103X Issue No. 3

#### (15) **Description**

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 034U 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 certificate concerns the assembly of above listed items.

For details about the type designation, thermal data, electrical data and marking see Annex 1 to AM 2972:5 Page 2/5



## (13) **SCHEDULE**

#### (14) to EU-Type Examination Certificate DEKRA 18ATEX0103X Issue No. 3

Report No. NL/DEK18.0060/03.

#### Installation instructions

The instructions provided with the product shall be followed in detail to assure safe operation.

#### (16) **Report Number**

NL/DEK/ExTR18.0060/03.

# DEKRA

## (13) **SCHEDULE**

#### (14) to EU-Type Examination Certificate DEKRA 18ATEX0103X Issue No. 3

#### (17) Specific conditions of use

#### <u>General</u>

- 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 I = 0A, type TM151 suffix code I = 0A, type TM152 suffix code I = 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.

#### <u> Type TM111</u>

- 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 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.

#### <u>Type TM152</u>

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



## (13) **SCHEDULE**

#### (14) to EU-Type Examination Certificate DEKRA 18ATEX0103X Issue No. 3

(18) Essential Health and Safety Requirements

Covered by the standards listed at item (9).

(19) **Test documentation** 

As listed in Report No. NL/DEK/ExTR18.0060/03.