1. # EU-TYPE EXAMINATION CERTIFICATE

2. **Equipment or Protective System Intended for use in Potentially explosive atmospheres**
Directive 2014/34/EU

3. EU-Type Examination Certificate Number: **EESF 19 ATEX 027X**

4. Product: **Temperature sensor assembly**

   Certified types: With Pt100 sensor:
   7612Ex…., 7613Ex…., 7614Ex…., 7712Ex…., 7713Ex…., 7714Ex…., 7812Ex…., 7813Ex…., 7814Ex…., 7852Ex…., 7853Ex…., and 7854Ex….

   With thermocouple sensor:
   083EX…

5. Manufacturer: **Pentronic AB**

6. Address: **Bergsliden 1, 593 96 Västervik, Sweden**

7. This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8. Eurofins Expert Services Oy, Notified Body number 0537, 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 report No. EUFI29-19001819-T1.

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

   EN 60079-0:2012/A11:2013 **EN 60079-1:2014** **EN IEC 60079-7:2015/A1:2018**

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:

    II 2G Ex db eb IIC T6/T5 Gb

Espoo, 27.01.2020
Eurofins Expert Services Oy

Kari Koskela
Expert

Jenni Hirvelä
Expert

This document is digitally signed.

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13. **Schedule**

14. **EU-Type Examination Certificate EESF 19 ATEX 027X**

15. **Description of Product**

Assembly consists of a Pt100 or thermocouple temperature sensor connected to a transmitter or ceramic terminal block in an Exd-certified enclosure. The probe has type of protection Ex eb.

Construction

Enclosure:

Connection head XD-AD by Limatherm, S.A. (FTZU 03 ATEX 0074U) or
Connection head XD-SD by Limatherm, S.A. (FTZU 14 ATEX 0004U)

Temperature transmitters: Manufactured by PR electronics A/S

Types	Electrical values
PR5331A, PR5332A, PR5333A, PR5334A, PR5335A, PR5337A	U_{max} = 35 V DC
PR5350A	U_{max} = 32 V DC
PR5437A	U_{max} = 48 V DC
PR5331D, PR5332D, PR5333D, PR5334B, PR5335D, PR5337D, PR5350B	U_{max} = 30 V DC, I_{max} = 120 mA, P_{max} = 0.84 W
PR5437D	U_{max} = 30 V DC, I_{max} = 120 mA, P_{max} = 0.61 W

Terminal block: Spring loaded terminal block as specified in the application manual NL2236 (dated 05.12.2016) by Limatherm.

16. **Report Number**

EUFI29-19001819-T1

17. **Specific Conditions of Use**

Allowed ambient temperature range of the Exd-enclosure is -40 °C…+60 °C for T6 and T5.

Maximum working temperature for the probe depends on the temperature element and insertion tube: up to +600 °C for Pt100 elements and up to +1000 °C for thermocouples.

The dimensions of the flameproof joints are specified in the application manual of the connection head (both dated 05.12.2016) by Limatherm.

Degree of protection IP66/IP68 depends on applied Exd-cable glands.

18. **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed at item 9.

19. **Drawings and Documents**

Drawings and documents are listed in the confidential report.

20. **Certificate History**

Certificate	Date	Report No.	Change
VTT 17 ATEX 035X	30.11.2017	VTT-S-03704-17	Prime certificate
EESF 19 ATEX 027X	27.01.2020	EUFI29-19001819-T1	Additions: several transmitter models, thermocouples as an alternative to Pt100, and new stainless steel enclosure option.