

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 Issue 1**
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. EUFI29-21003189-T1.
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
  
**EN IEC 60079-0:2018                      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, 07.10.2021  
**Eurofins Expert Services Oy**

Kari Koskela  
Senior Expert

Jenni Hirvelä  
Senior Expert

This document is digitally signed.

13. **Schedule**

14. **EU-Type Examination Certificate EESF 19 ATEX 027X Issue 1**

15. **Description of Product**

Assembly consists of a Pt100 or thermocouple temperature sensor connected to a transmitter or ceramic terminal block in an Ex db 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	$U_{max} = 35 \text{ V DC}$
PR5350A	$U_{max} = 32 \text{ V DC}$
PR5437A	$U_{max} = 48 \text{ V DC}$
PR5331D, PR5332D, PR5333D, PR5334B, PR5335D, PR5337D, PR5350B	$U_{max} = 30 \text{ V DC}$ , $I_{max} = 120 \text{ mA}$ , $P_{max} = 0.84 \text{ W}$
PR5437D	$U_{max} = 30 \text{ V DC}$ , $I_{max} = 120 \text{ mA}$ , $P_{max} = 0.61 \text{ W}$

Ambient temperature range for the Ex db enclosure:  $-40 \text{ }^{\circ}\text{C} \dots +60 \text{ }^{\circ}\text{C}$  for T6 and T5.

*Terminal block:* Spring loaded terminal block as specified in the Limatherm application manuals.

$P_{max} = 2.3 \text{ W}$  and ambient temperature range  $-40 \text{ }^{\circ}\text{C} \dots +65 \text{ }^{\circ}\text{C}$  for T6 and  $-40 \text{ }^{\circ}\text{C} \dots +80 \text{ }^{\circ}\text{C}$  for T5.

16. **Report Number**

EUFI29-21003189-T1

17. **Specific Conditions of Use**

Allowed ambient temperature range of the Ex db enclosure as given in Construction section of this Certificate shall not be exceed.

Maximum working temperature for the probe depends on the temperature element and insertion tube: up to  $+600 \text{ }^{\circ}\text{C}$  for Pt100 elements and up to  $+1000 \text{ }^{\circ}\text{C}$  for thermocouples.

The dimensions of the flameproof joints are specified in the application manuals of the connection heads by Limatherm.

Degree of protection IP66/IP68 depends on applied Ex db 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.
EESF 19 ATEX 027X Issue 1	06.10.2021	EUFI29-21003189-T1	Updated to the latest edition of EN IEC 60079-0. Extension of ambient temperature for the terminal block model. Addition of 3 mm tip for types 7612EX, 7613EX and 7614EX.