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 18 ATEX 052X Issue 2**

4. Product: **Assembly of temperature sensor**

5. Manufacturer: **Lapp Automaatio Oy**

6. Address: **Martinkyläntie 52, FI-01720 Vantaa, Finland**

   Manufacturing location:

   Lapp Automaatio Oy, Varastokatu 10, FI-05800 Hyvinkää, Finland

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. EUF29-20005136-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 60079-31:2014**

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 IIC T6/T5 Gb
    II 2D Ex tb IIIC T80°C/T95 °C Db

Espoo, 29.01.2021
Eurofins Expert Services Oy

Tony Myllylä
Senior Expert

Jenni Hirvelä
Senior Expert

This document is digitally signed.

13. **Schedule**

14. **EU-Type Examination Certificate EESF 18 ATEX 052X Issue 2**

15. **Description of Product**

Assembly consists of the temperature sensor connected to the transmitter or ceramic terminal block in the Ex db / tb - certified connection head.

P_{max} = 3.4 W

Type designations

With thermocouples:
T-B..., T-C..., T-F..., T-D..., T-A... , T-H..., T-M...
2xT-B..., 2xT-C..., 2xT-F..., 2xT-D..., 2xT-A..., 2xT-H..., 2xT-M...

With RTD temperature sensors:
W-B..., W-C..., W-E..., W-F..., W-D..., W-A..., W-H..., W-M...
2xW-B..., 2xW-C..., 2xW-E..., 2xW-F..., 2xW-D..., 2xW-A..., 2xW-H..., 2xW-M...

Construction

Enclosure:	Connection head XD-A** , XD-A** win, XD-S** and XD-S** win series by Limatherm Components Sp.z o.o. (FTZU 03 ATEX 0074U and FTZU 14 ATEX 0004U)
Temperature transmitters:	PR electronics A/S models PR 5331A, PR 5331D, PR 5332A, PR 5332D, PR 5332N, PR 5335A, PR 5335D, PR 5337A, PR 5337D, PR 5350A, PR 5350B, PR 5437A and PR 5437D Other equivalent transmitters conforming to P_{max} = 3.4 W and dimensions (also models with a window): XD-AD, XD-ADwin, XD-SD, XD-SDwin: diameter Ø ≤ 48 mm and height h = 1600 mm² / Ø XD-AH, XD-AHwin, XD-SH and XD-SHwin: diameter Ø ≤ 48 mm and height h = 1700 mm² / Ø XD-ADH and XD-AHH: diameter Ø ≤ 48 mm and height h = 2000 mm² / Ø XD-AB, XD-ABwin, XD-SB and XD-SBwin: diameter Ø ≤ 49.5 mm and height h = 1800 mm² / Ø XD-ABH: diameter Ø ≤ 49.5 mm and height h = 2000 mm² / Ø
Terminal block:	Spring loaded terminal block XE-S... or BDB3L-6 KU35105 by Limatherm Components Sp.z o.o.

16. **Report Number**

EUF29-20005136-T1

Eurofins Expert Services Oy, Kivimiehentie 4, FI-02150 Espoo, Finland
www.eurofins.fi/expertservices

17. **Specific Conditions of Use**

The Ex db-cable glands shall be selected according to the standard EN 60079-14.

Allowed ambient temperature range for the connection head without window:

-40 °C to + 60 °C for T6/T80 °C

-40 °C to + 75 °C for T5/T95 °C

Allowed ambient temperature range for the connection head with window:

-40 °C to + 60 °C for T6/T80 °C

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 12 ATEX 055X	28.11.2012	-	Prime certificate
VTT 12 ATEX 055X Issue 1	11.8.2015	-	Introduction new type of temperature transmitters: 5331D, 5335D, 5337D and 5350B
EESF 18 ATEX 052X	19.2.2019	EUFI29-19000064-T3	Name and address of the manufacturer has changed. The Certificate Number has changed due to the name change of the Notified Body. Models starting 2X have been added. A new test report has been prepared. Maximum power rating and the option for other transmitters has been added.
EESF 18 ATEX 052X Issue 1	31.1.2020	EUFI29-20000535-T1	Types with two RTD sensors added (2xW-...).
EESF 18 ATEX 052X Issue 2	29.01.2021	EUF29-20005136-T1	XD-S** and XD-S** win series enclosures added, the maximum power is reduced to accommodate these new enclosures. The **F models of enclosures were removed as they are not used in temperature sensors.

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 EESF 20.0034X**	Page 1 of 3	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2021-01-29		
Applicant:	**Lapp Automaatio Oy** Martinkyläntie 52 FI-01720 Vantaa **Finland**		
Equipment:	**Temperature sensor; T-...-EXD-..., 2xT-...-EXD-..., W-...-EXD-... and 2xW-...-EXD-...**		
Optional accessory:			
Type of Protection:	**Ex db /tb**		
Marking:	Ex db IIC T6/T5 Gb Ex tb IIIC T80°C/T95 °C Db		

Approved for issue on behalf of the IECEx Certification Body: **Tony Myllylä**

Position: **Senior Expert**

Signature: (for printed version)

Date: 2021-01-29

1. This certificate and schedule may only be reproduced in full.
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:

Eurofins Expert Services Oy
Kivimiehentie 4
FI-02150 Espoo
Finland

eurofins | Expert Services

IECEx Certificate of Conformity

Certificate No.: **IECEx EESF 20.0034X** Page 2 of 3

Date of issue: 2021-01-29 Issue No: 0

Manufacturer: **Lapp Automaatio Oy**
Varastokatu 10
Hyvinkää FI-05800
Finland

Additional manufacturing 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 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

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:

FI/EESF/ExTR20.0034/00

Quality Assessment Report:

FI/EESF/QAR18.0004/01

IECEx Certificate of Conformity

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

Pt100 and thermocouple temperature sensors with a temperature transmitter or a ceramic terminal block as field wiring connection facility within Ex db / tb connection head.

P_{max} = 3.4 W

SPECIFIC CONDITIONS OF USE: YES as shown below:
The Ex db-cable glands shall be selected according to the standard IEC 60079-14.

Allowed ambient temperature range for the connection head without window:

-40 °C to + 60 °C for T6/T80 °C

-40 °C to + 75 °C for T5/T95 °C

Allowed ambient temperature range for the connection head with window:

-40 °C to + 60 °C for T6/T80 °C

Annex:

Annex to IECEx EESF 20.0034X.pdf

Annex to Certificate IECEx EESF 20.0034X

Type designation

e.g. 2xW – F – 15 – EXD - ....

W = Pt100 resistance thermometer
2xW = 2 x Pt100 resistance thermometer
T = thermocouple
2xT = 2 x thermocouple

B = threaded sensor type
C = threaded sensor type
E = Sensor for food processing industry (W and 2xW only)
F = sensor with flange
D = welded thermowell
A = immersible sensor type
H = sensor with cooling neck
M = mineral insulated sensor

0-2 codes related to diameter, material or structure

EXD = Ex db/tb connection head

Other codes

Construction

Enclosure:	XD-A** and XD-A**win Limatherm components Sp. z o.o. IECEx FTZU 14.0003U	IEC 60079-0:2011 Ed. 6.0 IEC 60079-1:2014-06 Ed. 7.0 IEC 60079-31:2013 Ed. 2
	XD-S** and XD-S**win Limatherm components Sp. z o.o. IECEx FTZU 17.0008U	IEC 60079-0:2011 Ed. 6.0 IEC 60079-1:2014-06 Ed. 7.0 IEC 60079-31:2013 Ed. 2
Temperature transmitters:	PR electronics A/S models PR 5331A, PR 5331D, PR 5332A, PR 5332D, PR 5332N, PR 5335A, PR 5335D, PR 5337A, PR 5337D, PR 5350A, PR 5350B, PR 5437A and PR 5437D Other equivalent transmitters conforming to P_{max} = 3.4 W and dimensions (also models with a window): XD-AD, XD-ADwin, XD-SD, XD-SDwin: diameter Ø ≤ 48 mm and height h = 1600 mm² / Ø XD-AH, XD-AHwin, XD-SH and XD-SHwin: diameter Ø ≤ 48 mm and height h = 1700 mm² / Ø XD-ADH and XD-AHH: diameter Ø ≤ 48 mm and height h = 2000 mm² / Ø XD-AB, XD-ABwin, XD-SB and XD-SBwin: diameter Ø ≤ 49.5 mm and height h = 1800 mm² / Ø XD-ABH: diameter Ø ≤ 49.5 mm and height h = 2000 mm² / Ø	
Terminal block:	Spring loaded terminal block XE-S... or BDB3L-6 KU35105 by Limatherm Components Sp.z o.o.	

EU Declaration of Conformity

We, the manufacturer Lapp Automaatio Oy
Martinkyläntie 52
FI-01720 Vantaa, Finland

declare that the following product

Temperature sensor

Types:
With thermocouples:
T-B…, T-C…, T-F…, T-D…, T-A…, T-H…, T-M…
2xT-B…, 2xT-C…, 2xT-F…, 2xT-D…, 2xT-A…, 2xT-H…, 2xT-M…

With RTD Temperature sensors:
W-B…, W-C…, W-E…, W-F…, W-D…, W-A…, W-H…, W-M…
2xW-B…, 2xW-C…, 2xW-E…, 2xW-F…, 2xW-D…, 2xW-A…, 2xW-H…, 2xW-M…

is in conformity with the Directive 2014/34/EU.

The declaration is based on the EU-type Examination Certificate
EESF 18 ATEX 052X

and the Production Quality Assessment Notification EESF 18 ATEX Q 006

issued by Eurofins Expert Services Oy (Notified Body number 0537),
address: Kivimiehentie 4, P.O. Box 47, FI-02151 Espoo, Finland.

The marking of the equipment or protective system include the following:

II 2 G	Ex db IIC T6/T5 Gb
II 2 D	Ex tb IIIC T80/T95°C Db

The compliance with the Essential Health and Safety Requirements of the Directive is met by the compliance with the following standards:

EN 60079-0 (2018)
EN 60079-1 (2014)
EN 60079-31(2014)

“The revised (now harmonized) standards have been compared to the standards used for certification purposes and that no changes in the “state of the art” apply to the equipment.”

Vantaa 29.10.2021

Vesa Tepponen
Business Line Manager of Lapp Automaatio Oy

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