

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 055X Issue 1**
4. Product: **Temperature sensors**
 Certified types: **T-M-303-3/XXX-YYY/FDS-Z-1-Ex** **W-M-303-3/XXX-YYY/FDF-4-A-Ex**
 T-M-303-6/XXX-YYY/FDS-Z-1-Ex **W-M-303-6/XXX-YYY/FDF-4-A-Ex**
 T-M-303-8/SV/XXX-YYY/FDS-Z-1-Ex **W-M-303-8/SV/XXX-YYY/FDF-4-A-Ex**
5. Manufacturer: **Lapp Automaatio Oy**
6. Address: **Martinkyläntie 52, FI-01720 Vantaa, Finland**
 Additional manufacturing locations:
 Lapp Connecto 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. EUFI29-19000064-T2.
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
 EN 60079-0 (2012) **EN 60079-7 (2015)** **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 eb IIC T6...T4 Gb
II 2D Ex tb IIIC T60 °C...T130 °C Db

Espoo, 20.2.2019
Eurofins Expert Services Oy



Tony Myllylä
 Expert




Jenni Hirvelä
 Expert

13. **Schedule**

 14. **EU-Type Examination Certificate EESF 18 ATEX 055X Issue 1**

 15. **Description of Product**

Pt100 sensor, type W-M-303-3/XXX-YYY/FDF-4-A-Ex

Temperature sensor consist one Pt100-measuring element in a stainless steel protection tube. For the connection to external circuits the sensor is equipped with a fixed MgO-insulated cable with 4 conductors. The length (in mm) of a MgO-cable is XXX. Extension cable is made of a material FDF, and a length YYY. Sensor diameter shall be 3, 6 or 8 mm (code -3 in this case).

Thermocouple sensor, type T-M-303-3/XXX-YYY/FDS-Z-1-Ex

Temperature sensor consist one thermocouple Z (type N or K) element in an Inconel protection tube. For the connection to external circuits the sensor is equipped with a fixed MgO-insulated cable with 2 conductors. The length (in mm) of a MgO-cable is XXX. Extension cable is made of a material FDS, and a length YYY. Sensor diameter shall be 3, 6 or 8 mm (code -3 in this case).

The maximum measuring current is $I = 10\text{mA}$

 16. **Report Number**

EUF129-19000064-T2

 17. **Specific Conditions of Use**

Allowed maximum ambient temperature ranges for Group IIC according to T Class ranges T6...T4 are:

T6: $-40\text{ °C} \leq T_{\text{amb}} \leq +80\text{ °C}$
 T5: $-40\text{ °C} \leq T_{\text{amb}} \leq +95\text{ °C}$
 T4: $-40\text{ °C} \leq T_{\text{amb}} \leq +130\text{ °C}$

Allowed maximum ambient temperature ranges for Group IIIC according to T60 °C...T130 °C are:

T60 °C: $-40\text{ °C} \leq T_{\text{amb}} \leq +60\text{ °C}$
 T130 °C: $-40\text{ °C} \leq T_{\text{amb}} \leq +130\text{ °C}$

For intermediate values, the maximum surface temperature $T^{**}\text{ °C}$ shall be equal to maximum T_{amb} value.

The maximum service temperature of connection point to Mi-cable is $+130\text{ °C}$.

The maximum service temperature of end sleeve is 105 °C .

The maximum service temperature of probe end tip is given in the manufacturer's instructions.

Potential equalisation of metallic probe shall be secured after installation.

 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**

Dimensional drawings:

T-M-303-3/XXX-YYY/FDS-Z-1-EX	1258335T	rev. 1	dated 18.1.2019
T-M-303-6/XXX-YYY/FDS-Z-1-EX	1258337T	rev. 1	dated 18.1.2019
T-M-303-8/SV/XXX-YYY/FDS-Z-1-EX	1258338T	rev. 1	dated 18.1.2019
W-M-303-3/XXX-YYY/FDF-4-A-EX	1258122T	rev. 1	dated 18.1.2019
W-M-303-6/XXX-YYY/FDF-4-A-EX	1258333T	rev. 1	dated 18.1.2019
W-M-303-8/SV/XXX-YYY/FDF-4-A-EX	1258334T	rev. 1	dated 18.1.2019

-Work instructions for products 1258335 T-M-303-3/XXX-YYY/FDS-Z-1-EX, 1258337 T-M-303-6/XXX-YYY/FDS-Z-1-EX and 1258338 T-M-303-8/SV/XXX-YYY/FDS-Z-1-EX, dated 22.10.2018

-Work instructions for products 1258122 W-M-303-3/XXX-YYY/FDF-4-A-EX, 1258333 W-M-303-6/XXX-YYY/FDF-4-A-EX and 1258334 W-M-303-8/SV/XXX-YYY/FDF-4-A-EX, dated 22.10.2018

20. Certificate History

Certificate	Date	Report No.	Change
VTT 16 ATEX 011X	08.07.2016	VTT-S-02082-16	Prime certificate.
VTT 16 ATEX 011X Issue 1	10.10.2016	VTT-S-04207-16	Type corrections, description clarifications and drawing documents added.
EESF 18 ATEX 055X	05.12.2018	-	Name and address of the manufacturer has changed. The Certificate Number has changed due to the name change of the Notified Body.
EESF 18 ATEX 055X Issue 1	20.2.2019	EUFI29-19000064-T2	Document revisions and test report reference updated.



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx EESF 18.0027X

Issue No: 1

Certificate history:

Status: **Current**

Issue No. 1 (2019-02-01)

Issue No. 0 (2018-12-14)

Date of Issue: **2019-02-01**

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Applicant: **Lapp Automaatio Oy**
Martinkyläntie 52
FI-01720 Vantaa
Finland

Equipment: **Temperature sensors Types: T-M-303-3/XXX-YYY/FDS-Z-1-Ex, T-M-303-6/XXX-YYY/FDS-Z-1-Ex, T-M-303-8/SV/XXX-YYY/FDS-Z-1-Ex, W-M-303-3/XXX-YYY/FDF-4-A-Ex, W-M-303-6/XXX-YYY/FDF-4-A-Ex and W-M-303-8/SV/XXX-YYY/FDF-4-A-Ex**

Optional accessory:

Type of Protection: **Ex eb and Ex tb**

Marking: Ex eb IIC T6...T4 Gb

Ex tb IIIC T60 °C...T130 °C Db

Approved for issue on behalf of the IECEx
Certification Body:

Kari Koskela

Position:

Expert

Signature:
(for printed version)

Date:

2019-02-01

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 the Official IECEx Website.

Certificate issued by:

Eurofins Expert Services Oy
Kivimiehentie 4,
FI-02150 Espoo
Finland



Expert Services



IECEX Certificate of Conformity

Certificate No: IECEX EESF 18.0027X

Issue No: 1

Date of Issue: 2019-02-01

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

Additional Manufacturing location(s):

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 apparatus 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 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical 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/ExTR18.0016/01

Quality Assessment Report:

FI/EESF/QAR18.0004/00



IECEX Certificate of Conformity

Certificate No: IECEX EESF 18.0027X

Issue No: 1

Date of Issue: 2019-02-01

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Pt100 sensor, type W-M-303-3/XXX-YYY/FDF-4-A-Ex

Temperature sensor consist one Pt100-measuring element in a stainless steel protection tube. For the connection to external circuits the sensor is equipped with a fixed MgO-insulated cable with 4 conductors. The length (in mm) of a MgO-cable is XXX. Extension cable is made of a material FDF, and a length YYY. Sensor diameter shall be 3, 6 or 8 mm (code -3 in this case).

Thermocouple sensor, type T-M-303-3/XXX-YYY/FDS-Z-1-Ex

Temperature sensor consist one thermocouple Z (type N or K) element in a Inconel protection tube. For the connection to external circuits the sensor is equipped with a fixed MgO-insulated cable with 2 conductors. The length (in mm) of a MgO-cable is XXX. Extension cable is made of a material FDS, and a length YYY. Sensor diameter shall be 3, 6 or 8 mm (code -3 in this case).

The maximum measuring current is $I = 10\text{mA}$.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Allowed maximum ambient temperature ranges for Group IIC according to T Class ranges T6...T4 are:

T6: $-40\text{ °C} \leq T_{amb} \leq +80\text{ °C}$

T5: $-40\text{ °C} \leq T_{amb} \leq +95\text{ °C}$

T4: $-40\text{ °C} \leq T_{amb} \leq +130\text{ °C}$

Allowed maximum ambient temperature ranges for Group III C according to T60 °C...T130 °C are:

T60 °C: $-40\text{ °C} \leq T_{amb} \leq +60\text{ °C}$

T130 °C: $-40\text{ °C} \leq T_{amb} \leq +130\text{ °C}$

For intermediate values, the maximum surface temperature $T^{**}\text{ °C}$ shall be equal to maximum T_{amb} value.

The maximum service temperature of connection point to Mi-cable is $+130\text{ °C}$

The maximum service temperature of end sleeve is 105 °C

The maximum service temperature of probe end tip is given in the manufacturer's instructions

Potential equalisation of metallic probe shall be secured after installation



IECEX Certificate of Conformity

Certificate No: IECEx EESF 18.0027X

Issue No: 1

Date of Issue: 2019-02-01

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

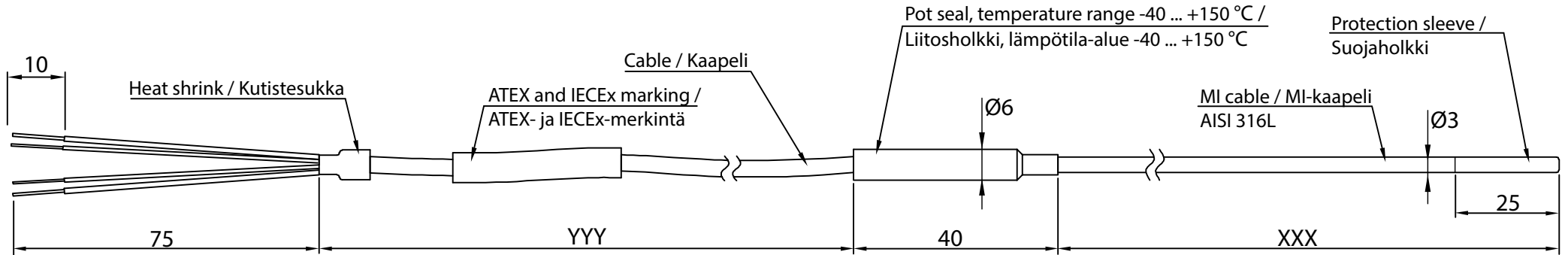
Document revisions corrected.

Changes in the drawing are allowed only by the permission of the authorities who have granted the certificate

Muutokset sallittu vain sertifiikaatin myöntäjän luvalla

The drawing is a valid document only with signatures (Chkd. and Appd.)

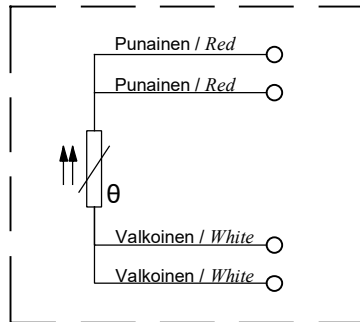
Piirustus on pätevä dokumentti vain allekirjoitettuna (Tark. ja Hyv.)



- Operating temperature range -60 ... +450 °C, temporarily +550 °C
- Maximum measuring current 10 mA
- Electrical connections to approved unit according to application or to terminal box according to requirements at connecting site
- When 2 or 3 wire connection is used, all wires must be connected or terminated according to regulations
- Tinned copper (Cu) wires 0,22 mm²

- Käyttölämpötila-alue -60 ... +450 °C, hetkellisesti +550 °C
- Maksimi mittausvirta 10 mA
- Sähköinen kytkentä sovelluksen mukaisesti, hyväksytyyn laitteeseen tai kytkentäkoteloon, kytkentä paikan vaatimusten mukaisesti
- Käytettäessä 2- tai 3-johdinkytkentää, kaikki johtimet pitää olla kytkettynä tai päätettynä määräysten mukaisesti
- Tinatut kupari (Cu) kytkentäjohtimet 0,22 mm²

1xPt100, Luokka A, 4-johdin,
standardin IEC 60751 mukaan. /
1x Pt100, Class A, 4-wire,
according to standard IEC 60751.



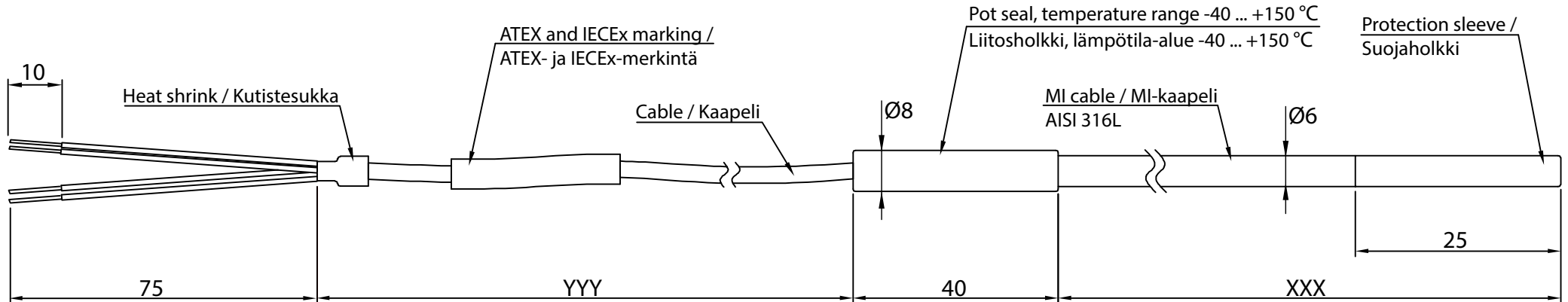
	Name / Nimi	Signature / Allekirjoitus	Date / Päiväys	Info		Size / Koko
Drawn / Piirtäjä	T.Mahrberg		01.11.2021	EESF 18 ATEX 055X IECEX EESF 18.0027X		
Checked / Tarkastaja	M.Saarela		01.11.2021	II 2 G Ex eb IIC T6...T4 Gb II 2 D Ex tb IIIC T60°C ... T 130°C Db		
Approved / Hyväksyjä	V.Tepponen		01.11.2021			
LAPP AUTOMAATIO Lapp Automaatio Oy Martinkyläntie 52 FI-01720 Vantaa, Finland tel: +358 (0) 20 764 64 e-mail: info.fi.lav@lapp.com		Process material / Prosessi materiaali AISI 316L / EN1.4404	Product / Tuotenimi W-M-303-3/XXX-YYY/FDF-4-A-EX			A4
		Coating material / Pinnoite materiaali	Drawing number / Piirustusnumero 1258122	Rev. 2		Scale / Suhde

Changes in the drawing are allowed only by the permission of the authorities who have granted the certificate

Muutokset sallittu vain sertifiikaatin myöntäjän luvalla

The drawing is a valid document only with signatures (Chkd. and Appd.)

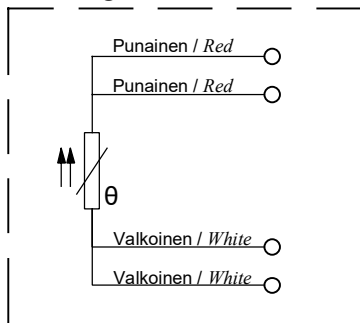
Piirustus on pätevä dokumentti vain allekirjoitettuna (Tark. ja Hyv.)



- Operating temperature range -60 ... +450 °C, temporarily +550 °C
- Maximum measuring current 10 mA
- Electrical connections to approved unit according to application or to terminal box according to requirements at connecting site
- When 2 or 3 wire connection is used, all wires must be connected or terminated according to regulations
- Tinned copper (Cu) wires 0,22 mm²

- Käyttölämpötila-alue -60 ... +450 °C, hetkellisesti +550 °C
- Maksimi mittausvirta 10 mA
- Sähköinen kytkentä sovelluksen mukaisesti, hyväksytyyn laitteeseen tai kytkentäkoteloon, kytkentä paikan vaatimusten mukaisesti
- Käytettäessä 2- tai 3-johdinkytkentää, kaikki johtimet pitää olla kytkettynä tai päätettynä määräysten mukaisesti
- Tinatut kupari (Cu) kytkentäjohtimet 0,22 mm²

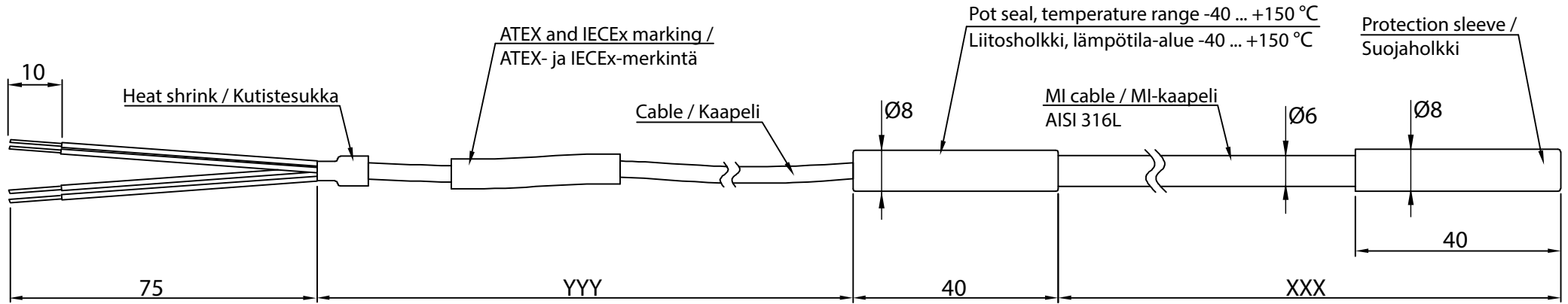
1xPt100, Luokka A, 4-johdin,
standardin IEC 60751 mukaan. /
1x Pt100, Class A, 4-wire,
according to standard IEC 60751.



	Name / Nimi	Signature / Allekirjoitus	Date / Päiväys	Info	
Drawn / Piirtäjä	T.Mahrberg		01.11.2021	EESF 18 ATEX 055X IECEX EESF 18.0027X	
Checked / Tarkastaja	M.Saarela		01.11.2021	II 2 G Ex eb IIC T6...T4 Gb II 2 D Ex tb IIIC T60°C ... T 130°C Db	
Approved / Hyväksyjä	V.Tepponen		01.11.2021		
LAPP AUTOMAATIO Lapp Automaatio Oy Martinkyläntie 52 FI-01720 Vantaa, Finland tel: +358 (0) 20 764 64 e-mail: info.fi.lav@lapp.com			Process material / Prosessi materiaali AISI 316L / EN1.4404	Product / Tuotenimi W-M-303-6/XXX-YYY/FDF-4-A-EX	Size / Koko A4
			Coating material / Pinnoite materiaali	Drawing number / Piirustusnumero 1258333	Rev. 2
					Scale / Suhde

Changes in the drawing are allowed only by the permission of the authorities who have granted the certificate
 Muutokset sallittu vain sertifiikaatin myöntäjän luvalla

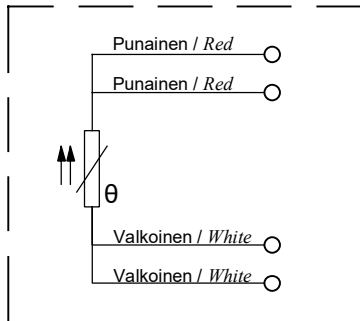
The drawing is a valid document only with signatures (Chkd. and Appd.)
 Piirustus on pätevä dokumentti vain allekirjoitettuna (Tark. ja Hyv.)



- Operating temperature range -60 ... +450 °C, temporarily +550 °C
- Maximum measuring current 10 mA
- Electrical connections to approved unit according to application or to terminal box according to requirements at connecting site
- When 2 or 3 wire connection is used, all wires must be connected or terminated according to regulations
- Tinned copper (Cu) wires 0,22 mm²

- Käyttölämpötila-alue -60 ... +450 °C, hetkellisesti +550 °C
- Maksimi mittausvirta 10 mA
- Sähköinen kytkentä sovelluksen mukaisesti, hyväksytyyn laitteeseen tai kytkentäkoteloon, kytkentä paikan vaatimusten mukaisesti
- Käytettäessä 2- tai 3-johdinkytkentää, kaikki johtimet pitää olla kytkettynä tai päätettynä määräysten mukaisesti
- Tinatut kupari (Cu) kytkentäjohtimet 0,22 mm²

1xPt100, Luokka A, 4-johdin,
 standardin IEC 60751 mukaan. /
 1x Pt100, Class A, 4-wire,
 according to standard IEC 60751.



	Name / Nimi	Signature / Allekirjoitus	Date / Päiväys	Info		
Drawn / Piirtäjä	T.Mahrberg		01.11.2021	EESF 18 ATEX 055X IECEX EESF 18.0027X		
Checked / Tarkastaja	M.Saarela		01.11.2021	II 2 G Ex eb IIC T6...T4 Gb II 2 D Ex tb IIIC T60°C ... T 130°C Db		
Approved / Hyväksyjä	V.Tepponen		01.11.2021			
LAPP AUTOMAATIO Lapp Automaatio Oy Martinkyläntie 52 FI-01720 Vantaa, Finland tel: +358 (0) 20 764 64 e-mail: info.fi.lav@lapp.com		Process material / Prosessi materiaali AISI 316L / EN1.4404	Product / Tuotenimi W-M-303-8/SV/XXX-YYY/FDF-4-A-EX	Size / Koko A4		
		Coating material / Pinnoite materiaali	Drawing number / Piirustusnumero 1258334	Rev. 2	Scale / Suhde	

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-M-303-3/XXX-YYY/FDS-Z-1-EX,

T-M-303-6/XXX-YYY/FDS-Z-1-EX,

T-M-303-8/SV/XXX-YYY-FDS-Z-1-EX

With RTD Temperature sensors:

W-M-303-3/XXX-YYY/FDF-4-A-EX,

W-M-303-6/XXX-YYY/FDF-4-A-EX

W-M-303-8/SV/XXX-YYY/FDF-4-A-EX



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

The declaration is based on the EU-type Examination Certificate
EESF 18 ATEX 055X

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 eb IIC T6...T4 Gb
 II 2 D	Ex tb IIIC T60 °C...T130 °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 60079-7 (2015/A1:2018)

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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Kotipaikka/Domicile
Vantaa
Y-tunnus: 1107293-1
VAT: FI11072931

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A Lapp Group Company**
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Lapp Insulator is not affiliated
with the Lapp Group