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

Ex COMPONENT CERTIFICATE

Certificate No.: **IECEx FTZU 14.0003U**

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Certificate history:
Issue 3 (2017-02-27)
Issue 2 (2016-05-30)
Issue 1 (2016-01-27)
Issue 0 (2014-02-21)

Status: **Current**

Issue No: 4

Date of Issue: 2021-02-01

Applicant: **Limatherm Components Sp. z o.o.**
ul. Železna 5
41-506 Chorzów
Poland

Ex Component: Connection head type XD – A** series, Field transmitter housing XD – A**F… series

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: **Flameproof enclosure, dust protection by enclosure**

Marking: Ex db IIC Gb
Ex tb IIIC Db

Approved for issue on behalf of the IECEx Certification Body: **Dipl. Ing. Lukáš Martinák**

Position: **Head of the Certification Body**

Signature: (for printed version)

Date:

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:

Fyzikalne technicky zkusebni ustav
(Physical -Technical Testing Institute)
Pikartska 7, 71607 Ostrava - Radvanice
Czech Republic

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Date of issue: 2021-02-01 Issue No: 4

Manufacturer: **Limatherm Components Sp. z o.o.**
ul. Żelazna 5
41-506 Chorzów
Poland

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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

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 Reports:

CZ/FTZU/ExTR14.0003/03 CZ/FTZU/ExTR14.0003/04

Quality Assessment Report:

CZ/FTZU/QAR14.0004/06

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Ex Component(s) covered by this certificate is described below:

The product is empty instrument enclosure and it is certified as an Ex component.
The product is designed to accommodate various electronic instruments for working in hazardous areas with flammable gases, vapours and dusts.

The housing and cover are made from aluminium pressure die-casting (Mg < 6%). The cover is sealed by sealing O-ring. The cover can be equipped by glass window and it is marked with 'win' behind the type marking.

There are three flameproof joints in the product type XD-A** series connection head (there are only first two flameproof joints applied for type XD-A**F... field transmitter housing):

1) The cover is fixed to the housing by threaded joint M80x1.5 6H.

2) The threaded holes for cable glands on the housing D2, D3: M20×1.5, 1/2NPTmod, 3/4NPTmod.

3) The cylindrical joint d1:
Ø6.0 (+0.04, -0.05), Ø6.1 H8, Ø8.1 H8, Ø8.0 (+0.1, +0.02), Ø9.6 H8, Ø10.1 H7, Ø10.0 (+0.1, +0.02), Ø12.1 H7, Ø12.8 H7, Ø15.1 H7 or Ø13 is made for non flameproof joint sensor wires or
M16x1.5 6g is made for creating flameproof joints with screw bushing.

The threaded hole D1: M20×1.5, M24×1.5, M27×2, 1/2NPTmod, 3/4NPT mod, Rc1/2, Rc3/4, BSPT1/2, BSPT 3/4, G 1/2, G3/4, G 3/8, BSPP1/2, BSPP 3/4, BSPP3/8 is designed for process opening.

The taper NPT threads according to ANSI/ASME B1.20.1-1983 is executed with modification to meet simultaneously standards IEC 60079-1, EN 60079-1, CSA C22.2 No.5 and FM 3615.

The cover is sealed by sealing O-ring.
The cover is alternatively designed with inspection window made of soda lime glass.
The enclosure is coated by paint layer – thickness cannot exceed 0.2 mm.

See Application manual No. N-L2236 dated 28.01.2021

SCHEDULE OF LIMITATIONS:

1. Maximum number of the holes, their sizes and position are specified in Application manual N-L2236 dated 28.01.2021.

2. It is not allowed to install circuit breaker or contactors with oil filling and rotating apparatus producing turbulence inside of the enclosure.

3. For information on the dimensions of the flameproof joints the manufacturer shall be contacted.

4. The empty enclosure is applicable for electrical apparatus, designed for ambient temperature not exceeding following range:
a) The connection head -50°C to +150°C – without window, -50°C to +85°C – with window,
b) The field transmitter housing: -50°C to +60°C with and without window.

5. The apparatus installed inside of the enclosure can have any layout, ensuring more than 40 % of free cross-section.

6. An appropriate certified cable glands for direct entry have to be used.

7. The process threaded joint D1 shall be verified according to IEC 60079-31, cl. 5.1.2 for final installation as equipment.

8. The component must be installed to avoid a risk from propagating brush discharges for application in explosive dust atmosphere.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

1. Adding an optional alloy (EN AC-46000) and grounding type for all versions.

2. Modification of the “Schedule of Limitations”.

3. Upgrade to the latest editions of standards.

Annex:

Annex_to_IECEx_FTZU_14_0003U_04.pdf

Max. power dissipation for temperature class:

Max. power dissipation (W)				
T_{amb}	**Temperature class T6 85°C**	P (W) For all variety of enclosures position horizontally/vertically	**Temperature class T5 100°C**	P (W) For all variety of enclosures position horizontally/vertically
40°C	Δ T ≤40 K	13,5 / 10,0	Δ T ≤55 K	18,5 / 15,5
55°C	Δ T ≤25 K	7,5 / 6,0	Δ T ≤40 K	13,5 / 10,0
70°C	Δ T ≤10 K	2,8 / 1,9	Δ T ≤25 K	7,5 / 6,0
85°C	N.A.	--	Δ T ≤10 K	2,8 / 1,9

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