



# 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](http://www.iecex.com)

### Ex COMPONENT CERTIFICATE

Certificate No.: **IECEX FTZU 17.0008U** Page 1 of 5 [Certificate history:](#)  
Issue 0 (2017-02-27)

Status: **Current** Issue No: 1

Date of Issue: 2022-03-01

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

Ex Component: Empty instrument enclosure - Connection head type XD – S\*\* series and Field transmitter housing XD – S\*\*F...

*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 "d", dust protection "t"**

Marking: Ex db I Mb  
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 Certification Body

Signature:  
(for printed version)

*L. Martinák*

Date:  
(for printed version)

2022-03-01



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Certificate issued by:

**Fyzikálně technický zkusební ústav  
(Physical -Technical Testing Institute)  
Pikartská 7, 71607 Ostrava - Radvanice  
Czech Republic**





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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 component 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 component listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[CZ/FTZU/ExTR17.0008/00](#)

[CZ/FTZU/ExTR17.0008/01](#)

Quality Assessment Report:

[CZ/FTZU/QAR14.0004/07](#)







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

The Ex component is an empty instrument enclosure.

The Ex component 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 stainless steel investment casting. 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-S\*\* series connection head (there are only first two flameproof joints applied for type XD-S\*\*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: M20x1.5, 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: M20x1.5, M24x1.5, M27x2, 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.

See Application manual dated 01.03.2022

## SCHEDULE OF LIMITATIONS:

1. Max.number, size and position of apertures are given in Application manual dated 01.03.2022.
2. For information on the dimensions of the flameproof joints the manufacturer shall be contacted.
3. Apparatus installed inside of Ex component can has any lay-out which ensures that in any crosssection area will be least 40% (Group IIC) and 20% (Group I) of area free.
4. Appropriate certified cable glands for direct entry have to be used.
5. The process threaded joint D1 shall be verified according to IEC 60079-31, cl. 5.1.2 for final installation as an equipment.
6. Degree of IP protection meets protection IP66 and IP68 (IP68 for deep 1 m) - it depends on the elements used (details in point number 10 of the Application Manual).
7. Range of service temperature:  
-50°C ≤ Ts ≤ +150°C for "O" ring made from VQM rubber (silicone);  
-20°C ≤ Ts ≤ +200°C for "O" ring made from fluoroelastomer FKM;  
-50°C ≤ Ts ≤ +85°C for XD-S\*\*win with VQM rubber;  
-20°C ≤ Ts ≤ +85°C for XD-S\*\*win with FKM rubber.
8. The Ex component is applicable for electrical apparatus, designed for ambient temperature not exceeding following ranges:
  - 1) Connection head type XD-S\*\* series:
    - a) -50°C ≤ Ta ≤ +200°C for XD-SD...series;
    - b) -50°C ≤ Ta ≤ +85°C for XD-SD...win series;
  - 2) -50°C ≤ Ta ≤ +60°C for Field transmitter housing XD – S\*\*F... series with and without glass window.
9. The reference pressure (RP) for Ta = -50°C was measured 9.98 bars. Max.overpressure static test is 41 bars (4 times RP) with glass window and 100 bars without glass window.
10. The Ex component must be installed to avoid a risk from propagating brush discharges for application in explosive dust atmosphere.





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





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

1. Added assessment to the latest edition of standard IEC 60079-0:2017, 7th Edition.
2. The Schedule of Limitations has been updated.

