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 FTZU 25.0013X**	Page 1 of 3	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2025-07-16		
Applicant:	**VYRTYCH a.s.** Židněves 116 Březno 294 06 **Czech Republic**		
Equipment:	**LED luminaire, type KERN-EX2/21**		
Optional accessory:			
Type of Protection:	**Dust protection; restricted breathing enclosures**		
Marking:	Ex nR IIC T6 Gc Ex tb IIIC T85 °C Db		

Approved for issue on behalf of the IECEx Certification Body: **Dipl. Ing. Martin Gregor**

Position: **Vice Head of Certification Body**

Signature: (for printed version)

Date: (for printed version) 2025-07-16

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

IECEx Certificate of Conformity

Certificate No.: **IECEx FTZU 25.0013X** Page 2 of 3

Date of issue: 2025-07-16 Issue No: 0

Manufacturer: **VYRTYCH a.s.**
Židněves 116
Březno 294 06
Czech Republic

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 60079-15:2017 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

IEC 60079-31:2022 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

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:

CZ/FTZU/ExTR25.0013/00

Quality Assessment Report:

CZ/FTZU/QAR22.0001/03

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

The luminaire consists of four main parts: the housing, the optical opal cover, the reflector, and the mounting sheet for electrical components. The housing and cover are made of polycarbonate . The cover is attached to the housing using M5x25 screws, beneath which there are silicone o-rings. Additionally, the cover is secured by four protrusions that fit into the locking mechanism in the housing.
In the groove of the housing, there is a seal made of EPDM material or a silicone foam seal.
The painted steel carrier for the components is inserted into the housing and secured with four screws On this carrier, the individual electrical components and other parts of the luminaire are attached. For emergency luminaires, emergency units are used, along with an LED indicator for the emergency unit status and either a NiCd VBA-N battery.
The component carrier also includes a three-pole (or multi-pole) terminal block for connecting the power cable with conductor cross-sections up to 2.5 mm^2. Power cable entries shall be provided by plastic or metal cable glands (M20x1.5; M25x1.5), which meet the required protection type, with a minimum ingress protection rating of IP66. Other holes in the housing shall be sealed using cable glands with blanking plugs or plugs, which must meet the same parameters as the cable glands.
Emergency mode testing for luminaires with emergency units is performed using by a magnet and a magnetic switch.

The luminaire is equipped with a test port for verifying the properties of the restricted breathing enclosure (nR) after installation, during commissioning, and during maintenance.

The luminaire contains LEDs on the LED module that are considered as non-array divergent LEDs and these LEDs are to be excluded based on Clause 1 of the standard IEC 60079-28:2015.

Electrical parameters:

Un = 220 ÷ 240 V, 0/50/60 Hz
For emergency unit Un = 220 ÷ 240 V, 50/60 Hz

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Ambient temperature range: - see Annex to the certificate IECEx FTZU 25.0013X , Issue No: 0

2. The luminaire is intended for fixed installation and must be labelled "Warning - potential danger of electrostatic charging" - see Technical conditions.

3. The power supply cable shall be effectively fixed to prevent pulling or twisting.

4. Shall be used only Ex equipment cable glands and Ex equipment blanking elements with Ex protection Ex tb with IP 66 and with Service temperature range -30 °C to +60 °C.

5. The Technical conditions for mounting and maintainance must be complied.

6. The battery pack must not be replaced in hazardous areas (unless the area is shown to be free from a hazardous atmosphere).

7. The luminaire shall be installed to avoid a risk from propagating brush discharges for application in explosive dust atmosphere.

Annex:

Annex_to_IECEx_FTZU_25_0013X00_1.pdf

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Annex to Certificate of Conformity

IECEx FTZU 25.0013X, Issue No: 0

Applicant: **VYRTYCH a.s.**

Address: Židněves 116, 294 06 Březno, Czech Republic

Electrical Apparatus: LED luminaire, type KERN-EX2/21

Type coding:

KERN-EX2/21-α-L04-γγγ-δδδ00-εεεε-ζζ-PD

- Polycarbonate opal cover
- Internal marking
- Connection type
- Designation of the luminous flux of the LED source
- CRI/ CCT
- Luminaire length 395 mm
- Type of luminaire closure
- Luminaire certified for zone 2/21
- Name of the luminaire

α – Type of the luminaire enclosure	γγγ – CRI/CCT	εεεε – Type of the connection		ζζ – Internal designation
G – Enclosure nR/ Silicone	827 – CRI80/ 2700K	0 - Without battery	ND – ON/OFF driver	00–99
H – Enclosure nR/ EPDM	830 – CRI80/ 3000K		D2 – DALI2 driver	
	835 – CRI80/ 3500K		CB – Central battery system	
	840 – CRI80/ 4000K	N – NiCd batteries	M3 – Emergency unit 3H + ON/OFF driver	
	850 – CRI80/ 5000K		M3A – Emergency unit 3H Self-test + ON/OFF driver	
	857 – CRI80/ 5700K		D3D2 – Emergency unit 3H DALI + DALI2 driver	
	860 – CRI80/ 6000K		NM3 – Emergency Unit 3H	
	865 – CRI80/ 6500K		M3A – Emergency unit 3H Self-test	
	927 – CRI90/ 2700K		NMD3 – 3H DALI Emergency Unit	
	930 – CRI90/ 3000K			
	935 – CRI90/ 3500K			
	940 – CRI90/ 4000K			
	950 – CRI90/ 5000K			
	957 – CRI90/ 5700K			
	960 – CRI90/ 6000K			
	965 – CRI90/ 6500K			

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tel.: +420 595 223 111, +420 604 203 525, ftzu@ftzu.cz, www.ftzu.cz

Applicant: **VYRTYCH a.s.**

Address: Židněves 116, 294 06 Březno, Czech Republic

Electrical Apparatus: LED luminaire, type KERN-EX2/21

Ambient temperature range:

Standard version	LED module	Ambient temperature	Driver
KERN-EX2/21-α-L04-γγγ-1200-0ND-ζζ-PD	LED module 360x160_66LED	-30 °C to +60 °C	TCI PRO FLAT 22 BI
KERN-EX2/21-α-L04-γγγ-1800-0ND-ζζ-PD		-30 °C to +55 °C	
KERN-EX2/21-α-L04-γγγ-2400-0ND-ζζ-PD		-30 °C to +55 °C	TCI PRO FLAT 30 BI
KERN-EX2/21-α-L04-γγγ-2900-0ND-ζζ-PD		-30 °C to +50 °C	
KERN-EX2/21-α-L04-γγγ-3400-0ND-ζζ-PD		-30 °C to +50 °C	
KERN-EX2/21-α-L04-γγγ-4000-0ND-ζζ-PD		-30 °C to +45 °C	

Dimmable version	LED module	Ambient temperature	Driver
KERN-EX2/21-α-L04-γγγ-1200-0D2-ζζ-PD	LED module 360x160_66LED	-30 °C to +60 °C	TCI PRO FLAT 38 DALI NFC BI
KERN-EX2/21-α-L04-γγγ-1800-0D2-ζζ-PD		-30 °C to +55 °C	
KERN-EX2/21-α-L04-γγγ-2400-0D2-ζζ-PD		-30 °C to +55 °C	
KERN-EX2/21-α-L04-γγγ-2900-0D2-ζζ-PD		-30 °C to +50 °C	
KERN-EX2/21-α-L04-γγγ-3400-0D2-ζζ-PD		-30 °C to +50 °C	
KERN-EX2/21-α-L04-γγγ-4000-0D2-ζζ-PD		-30 °C to +45 °C	

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Applicant: **VYRTYCH a.s.**

Address: Židněves 116, 294 06 Březno, Czech Republic

Electrical Apparatus: LED luminaire, type KERN-EX2/21

Maintained emergency luminaires	LED module	Ambient temperature	Driver + emergency unit + battery
KERN-EX2/21-α-L04-γγγ-1200/1800-εM3/εM3A-ζζ-PD	LED module 360x160_66LED	0 °C to +40 °C	TCI PRO FLAT 22 BI + TRIDONIC EM CONVERTER LED BASIC/ST 20x NiCd 50V + VBA-N-NiCd, 3,6/4,8V; 4Ah
KERN-EX2/21-α-L04-γγγ-1200/1800-εD3D2-ζζ-PD		0 °C to +40 °C	TCI PRO FLAT 38 DALI NFC BI + TRIDONIC EM CONVERTER LED PRO 20x NiCd 50V + VBA-N-NiCd, 3,6/4,8V; 4Ah
KERN-EX2/21-α-L04-γγγ-2400-εM3/εM3A-ζζ-PD		0 °C to +40 °C	TCI PRO FLAT 30 BI + TRIDONIC EM CONVERTER LED BASIC/ST 20x NiCd 50V + VBA-N-NiCd, 3,6/4,8V; 4Ah
KERN-EX2/21-α-L04-γγγ-2400-εD3D2-ζζ-PD		0 °C to +40 °C	TCI PRO FLAT 38 DALI NFC BI + TRIDONIC EM CONVERTER LED PRO 20x NiCd 50V + VBA-N-NiCd, 3,6/4,8V; 4Ah
KERN-EX2/21-α-L04-γγγ-2900/3400/4000-εM3/εM3A-ζζ-PD		0 °C to +30 °C	TCI PRO FLAT 30 BI + TRIDONIC EM CONVERTER LED BASIC/ST 20x NiCd 50V + VBA-N-NiCd, 3,6/4,8V; 4Ah
KERN-EX2/21-α-L04-γγγ-2900/3400/4000-εD3D2-ζζ-PD		0 °C to +30 °C	TCI PRO FLAT 38 DALI NFC BI + TRIDONIC EM CONVERTER LED PRO 20x NiCd 50V + VBA-N-NiCd, 3,6/4,8V; 4Ah

Non-maintained emergency luminaires	LED module	Ambient temperature	Emergency unit + battery
KERN-Ex2/21-α-L04-γγγ-400-εNM3/εM3A-ζζ-PD	LED module 278x15_6LED or LED module 278x15_10LED	0 °C to +45 °C	TRIDONIC EM CONVERTER LED BASIC/ST 20x NiCd 50V + VBA-N-NiCd, 3,6/4,8V; 4Ah
KERN-Ex2/21-α-L04-γγγ-400-εNMD3-ζζ-PD			TRIDONIC EM CONVERTER LED PRO 20x NiCd 50V + VBA-N-NiCd, 3,6/4,8V; 4Ah

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