



Physical-Technical Testing Institute
Ostrava - Radvanice



EU - Type Examination Certificate

Equipment or Protective Systems Intended for Use
in Potentially Explosive Atmospheres
(Directive 2014/34/EU)

(3) EU - Type Examination Certificate number:

FTZÚ 23 ATEX 0053X

(4) Product: **LED luminaire type SEA EX 1/21 series**

(5) Manufacturer: **doublepower!! s.r.o.**

(6) Address: **Bílková 18, 110 00 Praha 1, Czech Republic**

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The Physical-Technical Testing Institute, Notified Body number 1026, in accordance with Articles 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26.02.2014, 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 number:

23/0053 dated 27.03.2025

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-7:2015+A1:2017,
EN 60079-28:2015, EN 60079-31:2014**

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use specified in the schedule to this certificate.

(11) This 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:

see Description of Product (15)

This certificate is valid till: **31.03.2030**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 28.03.2025

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Annex: 1 (2 pages)

This certificate is granted subject to the general conditions of the FTZÚ, s.p.
This certificate may only be reproduced in its entirety and without any change, schedule included.

Physical-Technical Testing Institute, s.p., Pikartská 1337/7, 716 07 Ostrava - Radvanice, Czech Republic
tel.: +420 595 223 111, +420 604 203 525, e-mail: ftzu@ftzu.cz, www.ftzu.cz



Physical-Technical Testing Institute
Ostrava - Radvanice

(13)

Schedule

(14) **EU - Type Examination Certificate No. FTZÚ 23 ATEX 0053X**

(15) Description of Product:

LED luminaire type SEA EX 1/21 consists of parts: luminaire body (transparent part) made of glass tube with internal aluminium profile with cemented side cover on one side and on the other side with cemented cover with connection space fitted with cover. The end sections are made of aluminium alloy and are fixed to each other by threaded rods passing through the aluminium support profile. The light transmitting part is designed in protection Ex db and the connecting part in protection Ex eb. The connection of the power supply driver is made via an Ex threaded line bushing in protection Ex db. Another threaded hole is optionally fitted with a breathing device in protection Ex db. or an Ex blanking element. The connection space is provided with threaded inlets for Ex cable glands or Ex blanking elements and Ex terminal block for wire connection. The cover is fitted with an Ex eb vent valve and sealed and secured with four fixing screws.

The electronic driver and LED modules are installed on the aluminium profile.

The luminaire is manufactured in a length of 1182 mm.

The luminaire is verified according to the newest standard EN IEC 60079-31:2024 too.

Electrical parameters:

Un = 230 V AC 50/60 Hz;

In = 375 mA; Pn = 58 W or

In = 275 mA; Pn = 44 W or

In = 180 mA; Pn = 30 W

Verified degree of IP protection: IP 66; IP 68

Ex marking

⊕ Ex II 2G Ex db eb op is IIC T6...T5 Gb or

⊕ Ex II 2G Ex db eb op is IIB+H₂ T6...T5 Gb or

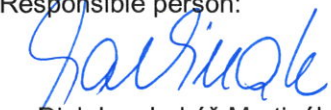
⊕ Ex II 2G Ex db eb op is IIB T6...T5 Gb

⊕ Ex II 2D Ex tb op is IIIC T85°C Db

Type coding of luminaire – see Annex No.1

(16) Report Number: 23/0053

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(13)

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(17) Specific Conditions of Use:

1. Ambient temperature range: $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$; $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$ – see Annex No.1- type coding of luminaire
2. The sight glass of the luminaire must only be cleaned with a damp cloth.
3. Verified values of the maximum gaps and minimum constructional length of flameproof joints of this equipment differing from relevant minimum and maximum values mentioned in standard. To obtain information about joints dimension it is necessary to contact the manufacturer.
4. The luminaire shall be installed to avoid a risk from propagating brush discharges for application in explosive dust atmosphere.
5. The luminaire may be equipped with Ex equipment cable glands or Ex equipment blanking elements with type of Ex-protection Ex eb and Ex tb with minimum IP code IP 6X.

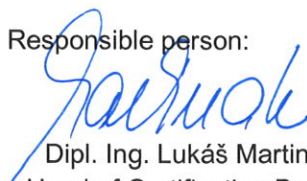
(18) Essential Health and Safety Requirements:

Compliance with the Essential Health and Safety Requirements is covered by standards mentioned in clause (9) of this certificate and standard EN IEC 60079-31:2024.

(19) Drawings and Documents:

Number	Sheets	Date	Description
210 0000000000006	13	25.03.2025	User manual
210 0000000000007	1	25.03.2025	Labels drawing
210 0000000000002	1	25.03.2025	Assembly drawing Ex d
210 0000000000003	1	25.03.2025	Assembly drawing Ex e
210 0000000000004	1	25.03.2025	Drawing – LED module
210 0000000000004	1	25.03.2025	Drawing – terminal block
200 0000000000749	1	21.03.2025	Drawing – supporting profile
200 0000000000570	1	21.03.2025	Drawing – threaded rod
200 0000000000516	1	21.03.2025	Drawing – sealing
200 0000000000515	1	21.03.2025	Drawing – DIN rail
100 000215000230	1	21.03.2025	Drawing – Cover Ex de
100 000215000229	1	21.03.2025	Drawing – Cover Ex de
100 000215000228	1	21.03.2025	Drawing – Cover Ex d
100 000215000227	1	21.03.2025	Drawing – Cover Ex e
100 0000000000665	1	21.03.2025	Drawing – plate of terminal block

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ANNEX No. 1

to EU - Type Examination Certificate No. FTZÚ 23 ATEX 0053X

Type coding of luminaire:

E1-XSA/ x-3/ xxx/ xxx-SE-xxx-xx-S-xx

Specification of version - tab. 1

Type of optics - tab. 2

Characteristics of luminaire - tab. 3

Typical power - tab. 4 (for standard version)
For non-standard supply currents the value is determined
by the manufacturer

Supply current - tab. 4


Orientation of holes for cable glands - tab. 5

Specification of version	Group	Protection against condensation	Group II		Group III	
			Temperature class		Surface temperature	
			Ta (°C) -20/+40	Ta (°C) -20/+50	Ta (°C) -20/+40	Ta (°C) -20/+50
01	IIC ^[1]	No	T6	T6	85 °C	85 °C
02	IIC ^[2]	Yes		T5		
03	IIB+H ₂ ^[3]	Yes				
04	IIB ^[4]	Yes				

Tab. 1

[1]	-	Used	Blanking element	EATON	CYA1200YXN
[2]	-	Used	Breathing device	nVent Hoffman	EXBDM20SS6
[3]	-	Used	Breathing device	EATON	BDU3004D0
		or	Breathing device	EATON	BDU1104D0
		or	Breathing device	EATON	BDU1204D0
[4]	-	Used	Breathing device	EATON	BDU1004D0

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Type optic	Description
FR	Diffuse optics
40	Optics with 40° beam angle
60	Optics with 60° beam angle
90	Optics with 90° beam angle
120	Optics with 120° beam angle

Tab. 2

Characteristics of luminaire	Color rendering index Ra	Correlated colour temperature (K)
830	80	3000
840		4000
850		5000
865		6500
930	90	3000
940		4000
950		5000
965		6500

Tab. 3

Supply current (mA)*	Typical power (W) **
375	55
275	41
180	28
* Customizable from 375 mA to 100 mA (1 mA step)	
** For non-standard supply currents the value is determined by the manufacturer	

Tab. 4

Orientation of holes	Diagram
1	
2	

Tab. 5

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