



EU - Type Examination Certificate

- (1)
(2) **Equipment or Protective Systems Intended for Use
in Potentially Explosive Atmospheres
(Directive 2014/34/EU)**

(3) EU - Type Examination Certificate number:

FTZÚ 21 ATEX 0093X

- (4) Product: **Flameproof luminaire ORION LED type 591 39 04(K), 591 39 05(K)**
(5) Manufacturer: **ELEKTROSVIT Svatobořice, a. s.**
(6) Address: **Nádražní 1290/44, 696 04 Svatobořice-Mistřín, 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:

21/0093 dated 20.12.2021

(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+A1:2018;
EN 60079-31:2013; EN 60079-28:2015**

(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:

 **II 2G Ex db eb op is IIC T5-T6 Gb see below (15)**

 **II 2D Ex tb op is IIIC T_{max.surface} – see below (15) Db**

(13) This certificate is valid till: **31.12.2026**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 22.12.2021

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**Physical-Technical Testing Institute
Ostrava - Radvanice**

(13)

Schedule

(14) **EU - Type Examination Certificate No. FTZÚ 21 ATEX 0093X**

(15) Description of Product:

The luminaire consists of a housing, LED module and a flange with protective glass. In the case of type **K** the luminaire also includes a protective basket. The body is made of cast AlSi alloy. A steel hanger is fixed at the top with two screws. On the side of the body, there is a connection compartment in the secured "eb" version closed by a lid with a silicone flat seal, inside the connection compartment:

- connection terminal block 10 pcs WAGO 264 (PTB 98 ATEX 3129U);
- two cable glands HSK-M25-Ex (alternatively HSK-M20-Ex + reduction RSD-Ms-Ex) in explosion-proof design Ex eb IIC Gb and Ex ta IIIC Da (KEMA 99 ATEX 6971X, DMT 03 ATEX E 049);
- two cable glands Euro Top X4 gen., M25x1,5 (alternatively Euro Top X4 gen., M20x1,5 + reduction RSD-Ms-Ex) in explosion-proof design Ex eb IIC Gb and Ex tb IIIC Db (IMQ 13 ATEX 010X, DMT 03 ATEX E 049);
- Ex multicore bushing RSM 21 M25x1,5 (FIDI 19 ATEX 0013U).

An aluminium base plate with LED module is fixed in the luminaire body. A flange is screwed into the body, the M205x2 thread of which forms the "db" joint. The flange is made of AlSi alloy and is sealed with a polyurethane sealant with protective tempered glass.

The surface of the luminaire is treated with polyester powder paint in RAL 1005.

The light source is LED PCB 100/80 W, using Philips Lumileds LUXEON 3030 HE Plus diodes and the light output is 142 lm/W for type 591 39 04(K) and 145,5 lm/W for type 591 39 05(K).

Basic technical data:

Type:	591 39 04(K)		591 39 05(K)	
Explosion-proof marking:	II 2G Ex db eb op is IIC T5 Gb II 2D Ex tb IIIC T90°C Db		II 2G Ex db eb op is IIC T6 Gb II 2D Ex tb IIIC T80°C Db	
Light source:	LED DPS ORION 50/30W			
LED type:	LUXEON 3030 HE Plus			
LED driver:	TRIDONIC LCO 60W 200–1050mA 100V one4all NFC C EXC3			
Luminous flux:	7100 lm		4365 lm	
Power input:	50 W		30 W	
Voltage:	198 – 264 V AC / 176 – 280 V DC			
Degree of protect:	IP66			
Temperature class and surface temperature:	T5	T90°C	T6	T80°C
Ambient temperature :	-40°C to +50°C		-40°C to +50°C	

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(14) **EU - Type Examination Certificate No. FTZÚ 21 ATEX 0093X**

(16) Report Number: 21/0093

(17) Specific Conditions of Use:

1. Verified values of the maximum gaps and minimum constructional length of flameproof joints of this enclosure are different from relevant minimum and maximum values mentioned in standard. To obtain information about joints dimension it is necessary to contact the manufacturer.
2. Ambient temperature: $-40^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$
3. The equipment must be installed to avoid a risk from propagating brush discharges for application in explosive dust atmosphere.

(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.

(19) Drawings and Documents:

Number	Sheets	Date	Description
495.3676	4	--	Technical description
0-591 39 04	1	13.09.2021	Drawings Orion LED
R-591 39 04,05	6	14.09.2021	Material list
001.2582	1	11.06.2020	Drawings
3-99.6350	1	15.09.2021	Drawings
197.2552	1	14.09.2021	Drawings

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