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 INE 22.0049X**	Page 1 of 3	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2022-12-01		
Applicant:	**ZALUX S.A** Avenida Manuel Rodriguez Ayuso, 114 Centro Empresarial Miralbueno Planta 1a, Local P-2 ZARAGOZA 50012 **Spain**		
Equipment:	**Lighting range type KRATEx-*** **		
Optional accessory:			
Type of Protection:	**db, tb**		
Marking:	Ex db IIC T6 Gb Ex tb IIIC T85°C Db The complete marking is detailed in Annex.		

Approved for issue on behalf of the IECEx Certification Body:	**Thierry HOUEIX**
Position:	**Ex Certification Officer**
Signature: (for printed version)	
Date: (for printed version)	

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:

INERIS
Institut National de l'Environnement Industriel et des Risques
BP n2 / Parc Technologique ALATA
F-60550 Verneuil-en-Halatte
France

controlling risks for sustainable development

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Certificate No.: **IECEx INE 22.0049X**

Date of issue: 2022-12-01

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Manufacturer: **ZALUX S.A**
Avenida Manuel Rodriguez Ayuso, 114
Centro Empresarial Miralbueno
Planta 1a, Local P-2
ZARAGOZA 50012
Spain

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 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 Report:

FR/INE/ExTR22.0041/00

Quality Assessment Report:

FR/INE/QAR20.0006/02

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

This range of KRATEx lighting is suitable for explosive gas atmospheres of group IIC protected by flameproof enclosure « Ex db » and for dust group IIIC protected by enclosure « Ex tb ».

The range covers one size of enclosure (Size E1). The translucid tube could be made in borosilicate glass or in polycarbonate sealed on the body by means of two cemented joints. The body consists of two caps and a threaded cover made in Aluminium alloy. Two studs made of steel are mounted internally between the sealed caps to ensure the mechanical strength of the assembly. The threaded cover (M126) is installed on the body and can be opened for the access to the installation and maintenance. A hexagonal screw blocks the opening.
An O-ring is fixed on the cover to ensure the IP rating. There are two NPT 3/4 threaded holes on the body for power cable entry.

The luminaires are intended to receive different types of LED array, batteries and other electronic devices such as drivers, converter, monitoring modules : the different configurations are detailed in descriptive documents of the manufacturer.

The luminaire contains the following battery pack depending of the type:

- KRATEx HE 300 0.45-840: battery LFP 3.2v 0.5Ah including one cell LiFePO4 3.2V 0.5Ah (BLF0025 from JYH)
- KRATEx NS HE 0.3 10-840: battery LFP 3.2v 1.8Ah including one cell LiFePO4 3.2V 1.8Ah (BLF0035 from Goldencell)

The luminaires get the degree of protection IP66 in accordance with IEC 60529.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- During the installation, the user will take into consideration that the equipment underwent only a shock corresponding to an energy of a low risk.
- For the risk from electrostatic discharge, the user shall read the instructions.
- Two studs made of steel are mounted internally between the sealed cap and the body to ensure the mechanical strength of the assembly. The studs must be of quality higher or equal to 5.8.

Annex:

IECEx INE 22.0049X-00_Annex.pdf

PARAMETERS RELATING TO THE SAFETY

The electrical parameters of luminaires depending on the different variations are specified in the table below:

Reference	Rated supply voltage	Flux (lm)	Battery pack
KRATEx HE 300 0.45-840 …	220-240V, 50-60Hz	45	LFP 3.2v 0.5Ah
KRATEx NS HE 0.3 10-840 …	220-240V, 50-60Hz	430	LFP 3.2v 1.8Ah

The luminaires can be used in the ambient temperature range from 0°C to +55°C.

MARKING

Marking has to be readable and indelible; it has to include the following indications:

- ZALUX SA
- 50012 ZARAGOZA – SPAIN
- KRATEx type … (*)
- IECEx INE 22.0049X
- (Serial number)
- Ex db IIC T6 Gb
- Ex tb IIIC T85°C Db
- IP66
- T. Amb : 0°C to +55°C
- Cable entry: 3/4 NPT
- WARNINGS:
  - DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT
  - POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS

(*) The dots are replaced by a codification according to the manufacturing variations as listed in Table below :

ROUTINE EXAMINATIONS AND TESTS

In accordance with clause 16.1 of the IEC 60079-1 standard each piece of equipment has to have successfully passed, before delivery, an overpressure test during at least 10 seconds under 13.4 bar.