



# 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)

Certificate No.: **IECEX INE 23.0008X** Page 1 of 3 [Certificate history:](#)  
Status: **Current** Issue No: 0  
Date of Issue: 2023-09-19  
Applicant: **AIRFAL INTERNATIONAL**  
Calle Río Ésera 5  
50830 Villanueva de Gállego  
Zaragoza  
**Spain**  
Equipment: **LED projector type MAXUNO and MAXUNO LITE**  
Optional accessory:  
Type of Protection: **db eb tb**  
Marking: Ex db eb IIB T6...T5 Gb (MAXUNO)  
Ex db IIB T6 Gb (MAXUNO LITE)  
Ex tb IIIC T85°C Db

Approved for issue on behalf of the IECEx  
Certification Body:

Position:

Signature:  
(for printed version)

Date:  
(for printed version)



Thierry HOUÉIX

Ex Certification Officer

Signé électroniquement  
Digitally signed by  
Thierry HOUÉIX  
Ex Certification Officer  
Délégué Certification

**2023-09-19**

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Certificate issued by:

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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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Manufacturer: **AIRFAL INTERNATIONAL**  
Calle Río Ésera 5  
50830 Villanueva de Gállego  
Zaragoza  
**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

[IEC 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"  
Edition:5.1

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/ExTR23.0007/00](#)

Quality Assessment Report:

[FR/INE/QAR19.0003/03](#)



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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The LED projector type MAXUNO LITE is constituted by:

- An enclosure made in light alloy containing for LED module and driver. The cover is equipped with a cemented windows made in tempered glass. The projector is protected by flameproof enclosure "db" and protected by enclosure "tb" for dust atmosphere.

The LED projector type MAXUNO is constituted by:

- One or three enclosure(s) type MAXUNO LITE containing only LED module, and optional antenna, motion sensor and module Atenea. The cover is equipped with a cemented windows made in tempered glass. The projector is protected by flameproof enclosure "db" and protected by enclosure "tb" for dust atmosphere.
- An additional enclosure also made in light alloy named STANDARD contains driver and optional emergency battery kit. Specific compartment is separated by a sealing bushing covered by its owns certificate to ensure customer connection. The main enclosure is protected by flameproof enclosure "db", the separate compartment is protected by increased safety "eb" and protected by enclosure "tb" for dust atmosphere.
- Armored cables are installed between LITE enclosures and STANDARD without sealing cable entry.

These LED projectors get the degrees of protection IP66 in accordance with IEC 60529 standard.

## SPECIFIC CONDITIONS OF USE: YES as shown below:

- The screws used for the assembly of the various parts of explosion-proof enclosures must be of quality higher or equal to minimum tensile strength 700 MPa.
- The dimensions of the flameproof joints are different than the values of the tables of the standard IEC 60079-1. The flameproof joints are not intended to be repaired.
- For the equipment with a permanently connected cable, the user shall not remove them and the minimum length of cable should be 50 cm.

The specific conditions of uses must be completed by those stipulated in the instructions manuals of the manufacturer and of each Ex component fitted on the final product.

## Annex:

[IECEX INE 23.0008X-00\\_Annex.pdf](#)



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## PARAMETERS RELATING TO THE SAFETY

Rated voltage: 220-240 VAC

Nominal frequency: 50 ÷ 60 Hz

Ambient Temperature	Temperature Class	T.Cable	Model
-20°C ÷ +60°C	T5 / T85°C	80°C	Classic
-20°C ÷ +55°C	T6 / T85°C	80°C	Classic
-20°C ÷ +30°C	T6 / T85°C	-	Emergency

## MARKING

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

- AIRFAL INTERNATIONAL
- Zaragoza Spain
- MAXUNO...<sup>(1)</sup>
- IECEx INE 23.0008X
- (Serial number)
- Ex db eb IIB T6...T5<sup>(2)</sup> Gb (MAXUNO)
- Ex db IIB T6 Gb (MAXUNO LITE)
- Ex tb IIIC T85°C Db
- IP66
- Tamb. :<sup>(2)</sup>
- Tcable :<sup>(2)</sup>
- WARNING:
  - DO NOT OPEN WHEN ENERGIZED
  - DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT
  - ELECTROSTATIC RISK – CLEAN ONLY WITH A WET CLOTH

(1) The type is completed by numbers and/or letters in accordance with the manufacturing variations.

(2) See table in PARAMETERS RELATING TO THE SAFETY.

## ROUTINE EXAMINATIONS AND TESTS

In accordance with clause 7.1 of the IEC 60079-7 standard, a dielectric strength test on each of the different circuits of the connection units, performed according to the relevant standards, the supply voltage shall be applied for one minute.

In accordance with clause 16.1 of the IEC 60079-1 standard, an overpressure test of a period comprised between 10 and 60 seconds under:

- 10.5 bar for enclosure MAXUNO STANDARD,
- 8.9 bar for enclosure MAXUNO LITE.



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## LIST OF THE COMPONENT and ELEMENT INTENDED TO BE INSTALLED

Manufacturer	Device	Type	IECEX Certificate	Standard version	Ex marking Temperature
Quintex	Bushing	LB**	IECEX EPS 11.0004X Issue 06	IEC 60079-0:2017 IEC 60079-1 :2014 IEC 60079-7:2017 IEC 60079-31-2013	Ex db IIC T4...T6 Gb Ts = -55 °C to +115 °C
Phoenix Contact	Device Terminal Block	G5/**-EX	IECEX PTB 06.0043U Issue 04	IEC 60079-0:2017 IEC 60079-7:2017	Ex eb IIC Gb Ts = -60 °C to +110 °C