



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 21.0025X** Page 1 of 4 [Certificate history:](#)
Issue 0 (2021-06-22)

Status: **Current** Issue No: 1

Date of Issue: 2021-11-03

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

Equipment: **Flameproof Luminaire type PYROS or PYROS LED TUBE or PYROS LED or IPYROS**

Optional accessory: COLLATOR and ATENEA Gateway

Type of Protection: **Ex db / Ex tb**

Marking: Ex db IIB+H2 T6 Gb
Ex tb IIIC T85°C Db

Approved for issue on behalf of the IECEx
Certification Body:

Thierry HOUEIX

Position:

Ex Certification Officer

Signature:
(for printed version)

Date:

2021-11-03

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

Additional
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 60079-1:2014-06 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/ExTR21.0023/01](#)

Quality Assessment Report:

[FR/INE/QAR19.0003/01](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

PYROS range is composed of fluorescent, "LED tube", "LED" luminaires (including LED Emergency autonomous block version)

A variant system to "PYROS LED" is "IPYROS". It is an intelligent system for luminaires equipped with LED modules. The LED driver is DALI (Digital Addressable Lighting Interface) and a wireless control node is connected to it and, in option, to a microwave movement sensor. The wireless node send and receive data. Optional accessories called data "COLLATOR" or "ATENEA Gateway" can be installed in a 440 mm enclosure. It will communicate with "IPYROS" luminaires and send data to the cloud with dongle (3G/4G).

Fluorescent, "LED tube" and "LED"/"IPYROS" (including "COLLATOR") luminaires version are protected by flameproof enclosure « Ex db » and dust protection « Ex tb ».

The housing consists of a polycarbonate tube with aluminium caps. The upper cap and the inferior cap are attached to the polycarbonate tube by means of sealing compound. A closing cap (For the access to the installation and maintenance) is attached to the upper cap by the mean of 3 fasteners M8 Allen DIN 912 stainless steel property class A2-70. The closing cap and the upper cap form a cylindrical flameproof joint. The closing cap has two M25 entries to be used with separate certified cable-gland and blanking element, conform to IEC 60079-0, IEC 60079-1 and IEC 60079-31. For increased enclosure strength, the upper cap and the inferior cap are connected by two rods made in 8.8 property class steel.

In option, enclosures can be provided with double closing cap for through-wiring. Both closing cap have two M25 entries to be used with separate certified cable-gland and blanking element, conform to IEC 60079-0, IEC 60079-1 and IEC 60079-31.

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

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 A2-70.
- The equipment is intended to be used in an ambient temperature range of:
 - -20°C to +50°C when mounting T8 lamps of 36 W or 58 W with the optional emergency kit and for all « LED » luminaires (including emergency autonomous bloc version).
 - -20°C to +55°C for all other fluorescent and « LED tube» configurations.
- The flameproof joints are not intended to be repaired.
- 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.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

For the issue 01:

- Introduction of new system ATENEA Wireless Module in version "IPYROS".
- Introduction of new accessory named ATENEA Gateway Manager for 440mm Pyros enclosure.

Annex:

[IECEX INE 21.0025X-01_Annex.pdf](#)



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PARAMETERS RELATING TO THE SAFETY

Rated voltage: 240 VAC

Nominal frequency: 50/60 Hz

Maximum power:

- One or two T8 lamps of 18, 36 or 58 W, or
- One or two optional « LED tube » of 8 W, 20 W or 25 W, or

For PYROS "LED" or "IPYROS"

- One to four LED modules 14 W and up to two LED modules of 7 W (14 W, 28 W, 35 W, 55 W and 70 W), or
- One or two LED modules 7 W for emergency autonomous block version (7 W and 14 W).

Product	Type of lamp or LED module	Number	Power of lamps or LED modules	Emergency version	Length enclosure
<u>LUMINAIRES :</u>					
Fluorescent	T8	1 or 2	18, 36 or 58 W	<u>Optional kit:</u> contains a battery of 3 cells Ni-Cd 1.2V 4Ah (D-D4000BT from HUANYU)	600 mm
« LED Tube »	LED Tube	1 or 2	8, 20 or 25 W	N/A	1200 mm
"LED"/"IPYROS" 14W/28W/55W	LED modules	1 to 4	14 W	<u>Optional kit:</u> contains a battery of 5 cells Ni-MH 1.2V 4Ah from TRIDONIC	1500 mm
"LED"/"IPYROS" 35W/70W	LED modules	2 to 4 + 1 or 2	14 W 7 W		
"LED" emergency autonomous block 7W/14W	LED modules	1 or 2	7 W	Only for <u>autonomous emergency purpose:</u> contains a battery of 5 cells Ni-MH 1.2V 4Ah from TRIDONIC	440 mm
<u>ACCESSORIES :</u>					
"Collator" for « IPYROS »	No lamp or led modules	N/A	N/A	N/A	440 mm
"ATENEA Gateway" for « IPYROS »	No lamp or led modules	N/A	N/A	N/A	440 mm



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MARKING

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

- AIRFAL INTERNATIONAL, S.L.
- E-50830 VILLANUEVA DE GALLEGO
- PYROS ... (*)
- IECEx INE 21.0025X
- (Serial Number)
- Ex db IIB+H2 T6 Gb
- Ex tb IIIC T85°C Db
- -20°C < Tamb < +50°C or +55°C
- IP66
- WARNINGS:
 - POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS
 - DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT

(*) The type is completed by luminaire type.

ROUTINE EXAMINATIONS AND TESTS

In accordance with clause 16.1 of the IEC 60079-1 standard, each piece of equipment defined above has to have successfully passed, before delivery, an overpressure test of a period comprised between 10 and 60 seconds under:

- 12.45 bar for all the size of enclosure excepted 440 mm length enclosure,
- 10.5 bar for 440 mm enclosure.