



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx LCIE 15.0010X Issue No: 2 Certificate history:
Issue No. 2 (2017-07-28)
Status: **Current** Issue No. 1 (2015-05-22)
Issue No. 0 (2015-03-20)
Date of Issue: **2017-07-28** Page 1 of 4
Applicant: **Appleton Group - ATX**
EIN, 35 rue André Durouchez,
CS 98017
80084 Amiens cedex 2
France
Equipment: **Linear LED Lighting**
Optional accessory: *Type LLEDA * * * * **
Type of Protection: **Ex nA, tb and tc**
Marking:
Ex nA IIC T* Gc
Ex tb III C T* Db
Ex tc III C T* Dc
IECEX LCIE 15.0010 X
For complete marking see annex

Approved for issue on behalf of the IECEx
Certification Body:

Didier BOURGES

Position:

Signature:
(for printed version)

Date:



2017/07/28

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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

Laboratoire Central des Industries Electriques (LCIE)
33 Avenue du General Leclerc
FR-92260 Fontenay-aux-Roses
France





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Manufacturer: **Appleton Group - ATX**
EIN, 35 rue André Durouchez,
CS 98017
80084 Amiens cedex 2
France

Additional Manufacturing location(s):

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 electrical apparatus 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-15 : 2010 Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*This Certificate **does not** indicate compliance with electrical 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/LCIE/ExTR15.0011/00](#)
[FR/LCIE/ExTR17.0026/00](#)

[FR/LCIE/ExTR15.0011/01](#)

[FR/LCIE/ExTR17.0016/00](#)

Quality Assessment Report:

[FR/LCI/QAR07.0008/10](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Viamaster LLEDA series are linear LED lighting designed to operate within voltages 100 to 277V 50/60Hz in a horizontal position and in continuous service.

LLEDA series are composed by a base plate supporting the LED arrays which are enclosed in one or two polycarbonate lens.

The connections terminals, the driver and the battery pack (for the emergency version) are integrated in the housing fixed on the base plate.

See details in attached Annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Ambient temperature

•Standard version

-40°C ≤ Ta ≤ +60°C for models 5K and 7K

-40°C ≤ Ta ≤ +65°C for model 2K

•Emergency version

-20°C ≤ Ta ≤ +60°C for models 5K and 7K

-20°C ≤ Ta ≤ +65°C for model 2K

See details in attached Annex.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 01:

Extension of ambient temperature range:
-40°C ≤ Tamb ≤ +65°C
Documentary correction

Issue 02:

Normative update according to IEC 60079-31:2013 Ed.2
Addition of milky lens
Addition of emergency version
Addition of a second LED array supplier
Deletion of the black paint on the lens
Remove of the EXCELYS driver
Addition of CMC (Common Mode Choke) for EMC compliance.

Annex:

[IECEX LCIE 15.0010X Issue 02 - Annex.pdf](#)



Annex 01 to Certificate IECEX LCIE 15.0010 issue 02



FULL EQUIPMENT DESCRIPTION

The Viamaster LLEDA series are linear LED lighting designed to operate within voltages 100 to 277V 50/60Hz in a horizontal position and in continuous service.

LLEDA series are composed by a base plate supporting the LED arrays which are enclosed in one or two polycarbonate lens. The connections terminals, the driver and the battery pack (for the emergency version) are integrated in the housing fixed on the base plate.

The following components are integrated inside the LLEDA:

Designation	manufacturer Type	IECEX certificate	Service Temperature
Terminal (Field)	Phoenix 3044102	IECEX KEM 06.0027U	-60°C ≤ Ts ≤ +110°C
Terminal (Field)	Phoenix 3044128	IECEX KEM 06.0027U	-60°C ≤ Ts ≤ +110°C
Terminal (Factory) 2K/5K	Weidmuller 790611000	IECEX SIR05.0036U	-60°C ≤ Ts ≤ +130°C
Terminal (Factory) 7K	Weidmuller 790613000	IECEX SIR05.0036U	-60°C ≤ Ts ≤ +130°C
Terminal (Factory) 2K/5K	Phoenix 2703172	IECEX PTB 06.0043U	-60°C ≤ Ts ≤ +110°C
Terminal (Factory) 2K/5K	Phoenix 2703185	IECEX PTB 06.0043U	-60°C ≤ Ts ≤ +110°C
Fuse	STAHL 8560/51-4242	IECEX PTB 06.0056U	-50°C ≤ Ts ≤ +70°C
Battery pack + Emergency LED module	ATX LEDBM1 type BMM	IECEX UL 16.0097U	-20°C ≤ Ts ≤ +75°C
switch	CVe	IECEX LCI 09.0002U	-40°C ≤ Ts ≤ +75°C

MARKING

APPLETON - ATX
 Address : ...
 Type : LLEDA * * * * *
 Serial number : ...
 Year of construction : ...
 Ex nA IIC T* Gc
 Ex tb III C T* Db
 Ex tc III C T* Dc
 IECEX LCIE 15.0010 X

WARNING – DO NOT OPEN WHEN ENERGIZED
 WARNING – AFTER DE-ENERGIZING, DELAY 20 MINUTES BEFORE OPENING
 WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS
 T*: see special conditions

RANGE DETAILS

LLEDA series are proposed in six models (3 models for standard version + 3 models for emergency version) :

Standards version:

- 2K** : 2200lm (23W), single led array (10 LEDs), length : 610mm
- 5K** : 4400lm (46W), 2 led arrays (20 LEDs), length : 610mm
- 7K** : 7800lm (82W), 4 led arrays (36 LEDs), length : 1220mm

Emergency version:

- 2K** : 2200lm (23W), single led array (10 LEDs + led indicator), length : 843mm
- 5K** : 4400lm (46W), 2 led arrays (20 LEDs + led indicator), length : 843mm
- 7K** : 7800lm (82W), 4 led arrays (36 LEDs + led indicator), length : 1220mm

The details of LLEDA designation are given below
 Numbering logic: LLEDA * * * * * * * *

Range details								
LLEDA	*	*	*	*	**	**	*	Description
								Options C= Safety cables D= Diffused lens E= 3 h Emergency H= 90 minutes Emergency
								Hazardous rating Z1 = Zone 1 Z2 = Zone 2, 21 & 22
								Voltage XX = 120 to 277 V 50/60Hz
								Lumens 2 = 2200lm 5 = 4400lm 7 = 7800lm
								Wiring S = Standard (2 entries on the same side) T = Through wiring L = Dual Loop In/Out (3 entries, 1 at one end and 2 at the other end)
								Size of Cable Entries 2 = M20 3 = M30
								Housing A = Aluminium S = Stainless steel

RATINGS

Un = 100-277V AC
 In = 0.7A

FULL CONDITIONS OF CERTIFICATION

Ambient temperature

- Standard version
 $-40^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$ for models 5K and 7K
 $-40^{\circ}\text{C} \leq T_a \leq +65^{\circ}\text{C}$ for model 2K
- Emergency version
 $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$ for models 5K and 7K
 $-20^{\circ}\text{C} \leq T_a \leq +65^{\circ}\text{C}$ for model 2K

T* : Class temperature and maximum surface temperature

Standard version:

Model	Gas				Dust			
	Ta: +40°C	Ta: +55°C	Ta: +60°C	Ta: +65°C	Ta: +40°C	Ta: +55°C	Ta: +60°C	Ta: +65°C
LLEDA...2K...	T6 (75°C)	T5 (90°C)	T5 (95°C)	T5 (100°C)	T56°C	T71°C	T76°C	T81°C
LLEDA...5K...	T4 (129°C)	T3 (144°C)	T3 (148°C)	/	T64°C	T79°C	T84°C	/
LLEDA...7K...	T4 (130°C)	T3 (145°C)	T3 (149°C)	/	T64°C	T79°C	T84°C	/



Annex 01 to Certificate IECEX LCIE 15.0010 issue 02



Emergency version:

Model	Gas				Dust			
	Ta: +40°C	Ta: +55°C	Ta: +60°C	Ta: +65°C	Ta: +40°C	Ta: +55°C	Ta: +60°C	Ta: +65°C
LLEDA...2K...	T5 (96°C)	T4 (111°C)	T4 (116°C)	T4 (121°C)	T59°C	T74°C	T79°C	T84°C
LLEDA...5K...	T4 (109°C)	T4 (124°C)	T4 (129°C)	/	T59°C	T74°C	T79°C	/
LLEDA...7K...	T4 (121°C)	T3 (136°C)	T3 (141°C)	/	T59°C	T74°C	T79°C	/

ROUTINE TESTS

According to clause 23.2.1 of standard IEC 60079-15, each apparatus shall be submitted to a dielectric strength test under 1600 volts (in accordance with clause 6.5.1)