



# 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](http://www.iecex.com)

Certificate No.: IECEx UL 18.0031X

Issue No: 0

Certificate history:

[Issue No. 0 \(2018-09-19\)](#)

Status: **Current**

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Date of Issue: **2018-09-19**

Applicant: **Top Hi-Tech Co. Ltd.**  
9F 1 Zhongshan Rd.  
Tucheng District  
New Taipei City, 236  
**Taiwan**

Equipment: **LED Luminaire, Model L1512 Series**

*Optional accessory:*

Type of Protection: **Dust Protection by Enclosure "tb", Restricted Breathing "nR"**

Marking:

Ex nR IIC T6 Gc

Ex tb IIIC T85°C Db

-20°C ≤ Ta ≤ +40°C

*Approved for issue on behalf of the IECEx  
Certification Body:*

Erin LaRocco

*Position:*

Staff Engineer

*Signature:  
(for printed version)*

*Date:*

2018-09-19

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](#).

Certificate issued by:

**UL LLC**  
333 Pfingsten Road  
Northbrook IL 60062-2096  
United States of America





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Manufacturer: **Top Hi-Tech Co. Ltd.**  
9F 1 Zhongshan Rd.  
Tucheng District  
New Taipei City, 236  
**Taiwan**

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 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** Explosive atmospheres - Part 0: General requirements  
Edition:6.0

**IEC 60079-15 : 2010** Explosive atmospheres - Part 15: Equipment protection by type of protection "n"  
Edition:4

**IEC 60079-31 : 2013** Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

*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:

[US/UL/ExTR18.0037/00](#)

Quality Assessment Report:

[DE/TUR/QAR13.0016/02](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The Model L1512 Series of LED luminaires is suitable for use in hazardous location classified as Zone 2 and Zone 21. This luminaire consists of one "nR"/"tb" chamber.

Please see Annex for additional information.

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

- The luminaire shall not be opened.
- Potential electrostatic charging hazard – see instructions.
- The luminaire does not have a test port fitted.



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**Additional information:**

**Annex:**

[Annex to IECEX UL 18.0031X Issue 0.pdf](#)



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## TYPE DESIGNATION

Nomenclature for Luminaires:

The complete luminaire catalogue number example is as follows:

Cat. No.	THT	H	1512	A	N	A	C	9	U0
	1	2	3	4	5	6	7	8	9

- 1 – Brand name  
THT = Top Hi-Tech Co., Ltd.
- 2 – Category of product  
H = HazLoc LED lighting
- 3 – Model name  
1512 = Model L1512 series
- 4 – Designates material of PC Cover  
A = Transparent PC
- 5 – Designates type of Top Cover  
N = No Top Cover exist
- 6 – Designates type of LED module  
A = DOB type  
K = SMD type
- 7 – Designates CCT of LED  
C = Cool white  
W = Warm white
- 8 – Designates voltage  
1 = 110 Vac  
2 = 220 Vac  
9 = 277 Vac
- 9 – Designates wattage of LED lighting  
N0 = 140 W  
Q0 = 160 W  
S0 = 180 W  
U0 = 200 W



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Models covered are as follows:

Model	Ambient Temperature range	Gas Temperature Code	Dust Temperature Rating
THTH1512ANA*1N0	-20°C to +40°C	T6	T85°C
THTH1512ANA*1Q0	-20°C to +40°C	T6	T85°C
THTH1512ANA*1S0	-20°C to +40°C	T6	T85°C
THTH1512ANA*1U0	-20°C to +40°C	T6	T85°C
THTH1512ANK*1N0	-20°C to +40°C	T6	T85°C
THTH1512ANK*1Q0	-20°C to +40°C	T6	T85°C
THTH1512ANK*1S0	-20°C to +40°C	T6	T85°C
THTH1512ANK*1U0	-20°C to +40°C	T6	T85°C
THTH1512ANA*2N0	-20°C to +40°C	T6	T85°C
THTH1512ANA*2Q0	-20°C to +40°C	T6	T85°C
THTH1512ANA*2S0	-20°C to +40°C	T6	T85°C
THTH1512ANA*2U0	-20°C to +40°C	T6	T85°C
THTH1512ANK*2N0	-20°C to +40°C	T6	T85°C
THTH1512ANK*2Q0	-20°C to +40°C	T6	T85°C
THTH1512ANK*2S0	-20°C to +40°C	T6	T85°C
THTH1512ANK*2U0	-20°C to +40°C	T6	T85°C
THTH1512ANA*9N0	-20°C to +40°C	T6	T85°C
THTH1512ANA*9Q0	-20°C to +40°C	T6	T85°C
THTH1512ANA*9S0	-20°C to +40°C	T6	T85°C
THTH1512ANA*9U0	-20°C to +40°C	T6	T85°C
THTH1512ANK*9N0	-20°C to +40°C	T6	T85°C
THTH1512ANK*9Q0	-20°C to +40°C	T6	T85°C
THTH1512ANK*9S0	-20°C to +40°C	T6	T85°C
THTH1512ANK*9U0	-20°C to +40°C	T6	T85°C

## PARAMETERS RELATING TO THE SAFETY

THTH1512ANA\*1N0 – 110 Vac, 50/60 Hz, 140 W  
THTH1512ANA\*1Q0 – 110 Vac, 50/60 Hz, 160 W  
THTH1512ANA\*1S0 – 110 Vac, 50/60 Hz, 180 W  
THTH1512ANA\*1U0 – 110 Vac, 50/60 Hz, 200 W  
THTH1512ANK\*1N0 – 110 Vac, 50/60 Hz, 140 W  
THTH1512ANK\*1Q0 – 110 Vac, 50/60 Hz, 160 W  
THTH1512ANK\*1S0 – 110 Vac, 50/60 Hz, 180 W  
THTH1512ANK\*1U0 – 110 Vac, 50/60 Hz, 200 W  
THTH1512ANA\*2N0 – 220 Vac, 50/60 Hz, 140 W  
THTH1512ANA\*2Q0 – 220 Vac, 50/60 Hz, 160 W  
THTH1512ANA\*2S0 – 220 Vac, 50/60 Hz, 180 W  
THTH1512ANA\*2U0 – 220 Vac, 50/60 Hz, 200 W  
THTH1512ANK\*2N0 – 220 Vac, 50/60 Hz, 140 W  
THTH1512ANK\*2Q0 – 220 Vac, 50/60 Hz, 160 W  
THTH1512ANK\*2S0 – 220 Vac, 50/60 Hz, 180 W  
THTH1512ANK\*2U0 – 220 Vac, 50/60 Hz, 200 W  
THTH1512ANA\*9N0 – 277 Vac, 50/60 Hz, 140 W  
THTH1512ANA\*9Q0 – 277 Vac, 50/60 Hz, 160 W  
THTH1512ANA\*9S0 – 277 Vac, 50/60 Hz, 180 W  
THTH1512ANA\*9U0 – 277 Vac, 50/60 Hz, 200 W  
THTH1512ANK\*9N0 – 277 Vac, 50/60 Hz, 140 W  
THTH1512ANK\*9Q0 – 277 Vac, 50/60 Hz, 160 W  
THTH1512ANK\*9S0 – 277 Vac, 50/60 Hz, 180 W  
THTH1512ANK\*9U0 – 277 Vac, 50/60 Hz, 200 W



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## MARKING

<p><b>TOP HI-TECH CO.,LTD</b>            9F 1 Zhongshan Rd Tucheng District, New Taipei, 236 Taiwan.            Universal Explosion Proof LED Lighting  <b>THTH1512ANAC9U0</b>            V: 277 Vac P: 200W SN:XX<sub>1</sub>XX<sub>2</sub>XXX<sub>3</sub></p> <p>DEMKO 18 ATEX 2030X IECEx UL 18.0031X   II 3 G Ex nR IIC T6 Gc Ex nR IIC T6 Gc</p> <p>DEMKO 18 ATEX 2131X IECEx UL 18.0031X   II 2 D Ex tb IIIC T85°C Db Ex tb IIIC T85°C Db</p>	 <b>WARNING!!</b> WARNING - The luminaire shall not be opened. WARNING - Potential electrostatic charging hazard. WARNING - The luminaire does not have a test port fitted. Ambient temperature : -20°C ≤ Ta ≤ 40°C
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<p><b>TOP HI-TECH CO.,LTD</b>            9F 1 Zhongshan Rd Tucheng District, New Taipei, 236 Taiwan.            Universal Explosion Proof LED Lighting  <b>THTH1512AN①②③④</b>            V:③ Vac P:④W SN:XX<sub>1</sub>XX<sub>2</sub>XXX<sub>3</sub></p> <p>DEMKO 18 ATEX 2030X IECEx UL 18.0031X   II 3 G Ex nR IIC T6 Gc Ex nR IIC T6 Gc</p> <p>DEMKO 18 ATEX 2131X IECEx UL 18.0031X   II 2 D Ex tb IIIC T85°C Db Ex tb IIIC T85°C Db</p>	
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**NOTE:**

1. Material: SUS 304. Thickness: 0.3mm
2. M3 Screw Fix.
3. SN number description as show the follow:
  - XX1 means year.
  - XX2 means twentieth weeks.
  - XXX3 means number of product.

①②③④, See table 1  
 \*\* See table 2

Table 1			
①	②	③	④
** A: DOB Type K: SMD Type	C: Cool white W: Warm white	1: 110V 2: 220V 9: 277V	N0: 140W Q0: 160W S0: 180W U0: 200W

Table 2		
LED Module	Voltage	Wattage
DOB Type	110V / 220V / 277V	140W / 160W / 180W / 200W
SMD Type	110V / 220V / 277V	140W / 160W / 180W / 200W

## ROUTINE EXAMINATIONS AND TESTS

Routine restricted breathing testing according to clause 23.2.3.2.1.2 of IEC 60079-15 is required.