



# 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 UL 20.0095X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-11-11

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

Equipment: **LED Luminaires, Model L1512D Series; Model THTE1512ANK Series**

Optional accessory:

Type of Protection: **Flameproof "db", Dust Ignition Protection by Enclosure "tb"**

Marking: Ex db IIC T5 Gb  
Ex tb IIIC T100°C Db  
-20°C ≤ Ta ≤ +40°C

Approved for issue on behalf of the IECEx  
Certification Body:

**Katy A. Holdredge**

Position:

**Senior Staff Engineer**

Signature:  
(for printed version)

Date:

2020-11-11

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Certificate issued by:

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





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Manufacturer: **Top Hi-Tech Co. Ltd.**  
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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:

[US/UL/ExTR20.0110/00](#)

Quality Assessment Report:

[DE/TUR/QAR13.0016/03](#)



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The Model L1512D Series of LED luminaires is suitable for use in hazardous location classified as Zone 1 and Zone 21. This luminaire consists of one "db"/"tb" chamber. The enclosure material is aluminum alloy. The light-transmitting parts are made of tempered flat glass. The gasket is used to maintain the IP rating. The entry for wiring through integral cable gland maintains the degree of protection.

**Please see Annex for additional information.**

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

- The luminaire shall not be opened.
- The flameproof joints are not intended to be disassembled or repaired.
- Potential electrostatic charging hazard – see instructions.

## **Annex:**

[Annex to IECEx UL 20.0095X Issue 0.pdf](#)



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## TYPE DESIGNATION

Nomenclature for Luminaires:

The complete luminaire catalogue number example is as follows:

Cat.	THT	E	1512	A	N	K	C	C	25
No.	1	2	3	4	5	6	7	8	9

1 – Brand name

THT = Top Hi-Tech Co., Ltd.

2 – Category of product

E = Explosion proof LED luminaire

3 – Model name

1512 = Model L1512D Series

4 – Designates light source

A = LED light source

5 – Designates type of Top Cover

N = No Top Cover exist

6 – Designates type of LED module

K = SMD type

7 – Designates CCT of LED

C = Cool white

W = Warm white

8 – Designates voltage of LED luminaire

1 = 110 Vac

6 = 120 Vac

2 = 220 Vac

D = 230 Vac

9 = 277 Vac

F = 347 Vac

C = 480 Vac

9 – Designates wattage of LED luminaire

L0 = 120 W

N0 = 140 W

P0 = 150 W

S0 = 180 W

U0 = 200 W

W0 = 220 W

Y0 = 240 W

25 = 250 W



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Models covered are as follows:

Models	Ambient Temperature range	Gas Temperature Code	Dust Temperature Rating
THTE1512ANKxyz	-20°C to +40°C	T5	T100°C
x can be C or W; y can be 1, 6, 2, D, 9, F and C; z can be L0, N0, P0, S0, U0, W0, Y0 and 25			

## PARAMETERS RELATING TO THE SAFETY

Electrical Rating:

Models	Voltage (Vac)	Wattage (W)
THTE1512ANKxyz	110/120/220/230/277/347/480	120/140/150/180/200/220/240/250
x can be C or W; y can be 1, 6, 2, D, 9, F and C; z can be L0, N0, P0, S0, U0, W0, Y0 and 25		

## MARKING

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

<p>TOP Hi-TECH CO.,LTD Universal Explosion Proof LED Lighting THTE1512ANK①②③ Ambient temperature: -20°C ≤ Ta ≤ +40°C V: Vac P: W SN:xyy-zzz 9F 1 Zhongshan Rd Tucheng District, New Taipei City, 236 Taiwan (R.O.C) UL 20 ATEX 2423X Rev.0 IECEx UL20.0095X Issue 0 CE 0035 II 2 G Ex db IIC T5 Gb Ex db IIC T5 Gb UL 20 ATEX 2423X Rev.0 IECEx UL20.0095X Issue 0 CE 0035 III 2 D Ex tb IIIC T100°C Db Ex tb IIIC T100°C Db</p>	<p>WARNING-The luminaire shall not be opened. WARNING-The flameproof joints are not intended to be disassembled or repaired. WARNING-Potential Electrostatic Charging Hazard-See Instructions.</p>
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① Designates CCT of LED, C = Cool white, W = Warm white

② Designates voltage of LED module,

1=110V, 2=220V, 6=120V, 9=277V, C=480V, D=230V, F=347V

③ Designates wattage rating of the luminaire,

L0=120W, N0=140W, P0=150W, S0=180W, U0=200W, W0=220W, Y0=240W, 25=250W

SN number description as show the follow

-xx means Two yards after the first AD.

-yy means Week number.

-zzz means Current week code.

## ROUTINE EXAMINATIONS AND TESTS

Routine overpressure tests in accordance with IEC 60079-1:2014 shall be conducted on all units in accordance with clause 15.2.3.2, at a pressure of 7.2345 bar (105 psi) for a duration of not less than 10 seconds. There shall be no sign of damage, deformation or rupture that will invalidate the concept of protection.