



# 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 TUR 14.0019X Issue No: 2 Certificate history:  
Status: **Current** Issue No. 2 (2017-11-16)  
Date of Issue: **2017-11-16** Page 1 of 5 Issue No. 1 (2016-11-30)  
Applicant: **TOP HI-TECH CO.,LTD.** Issue No. 0 (2014-04-24)  
5F,NO.113,Zhongcheng Rd,  
Tucheng Dist,  
New Taipei City 236,  
Taiwan (R.O.C)  
**Taiwan**

Equipment: **Universal Explosion Proof LED Lighting**  
*Optional accessory:* *Type: THT-2\*A\*d\*\*\*1102*

Type of Protection: **Equipment protection by flameproof "d", Equipment dust ignition protection by enclosure "t"**

Marking:  
Ex db IIC T5 Gb  
Ex tb III C T95°C Db

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

Dipl.-Ing. Klauspeter Graffi

*Position:*

Head of Certification Body

*Signature:  
(for printed version)*

*Date:*

2017-11-16

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:

**TUV Rheinland Industrie Service GmbH**  
Am Grauen Stein  
51105 Cologne  
Germany





# IECEX Certificate of Conformity

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Manufacturer: **TOP HI-TECH CO.,LTD.**  
2F, No. 81, Zhongcheng Rd, Tucheng Dist., New Taipei City  
236, Taiwan R.O.C  
**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 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** Explosive atmospheres - Part 0: General requirements  
Edition:6.0  
**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 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:

[DE/TUR/ExTR14.0019/00](#)      [DE/TUR/ExTR14.0019/01](#)      [DE/TUR/ExTR14.0019/02](#)

### Quality Assessment Report:

[DE/TUR/QAR13.0016/00](#)      [DE/TUR/QAR13.0016/01](#)



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## Schedule

### EQUIPMENT:

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

#### Subject and type

Universal Explosion Proof LED Lighting type THT-2\*A\*d5\*\*1102  
(for type designation see annex)

#### Description

The lamp Universal Explosion Proof LED Lighting type THT-2\*A\*d5\*\*1102 is designed according to the standard structure of the IEC 60079-0, IEC 60079-1 and IEC 60079-31. The suitable hazardous areas are zone 1, zone 2, zone 21 and zone 22.  
The enclosure of lamp is made by aluminum alloy (ADC12).  
The method of lamp install included bracket fixed, pendant, stanchion 90°/25° and hanging etc.  
The external earthing of enclosure is considered.

A coating with black colour or silver colour is applied to the enclosure of the equipment.

#### Parameters

##### Electrical parameters

For COB LED module:

Rated voltage	110VAC	THT-2LA*d51*1102
	220VAC	THT-2LA*d52*1102
	24VAC	THT-2LA*d53*1102
Rated power	60W	THT-2LA60Wd5**1102
	80W	THT-2LA80Wd5**1102
	100W	THT-2LA100d5**1102

For SMD LED module:

Rated voltage	110VAC	THT-2KA*d51*1102
	220VAC	THT-2KA*d52*1102
Rated power	65W	THT-2KA65Wd5**1102
	75W	THT-2KA75Wd5**1102
	95W	THT-2KA95Wd5**1102

##### Thermal parameters



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Ambient temperature range -20°C to +40°C  
Temperature class T5 (88.5°C) for gas, and T95°C for dust.

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

1. The NPT3/4" cable gland will be installed by the end user before use, the chose cable gland shall be comply with the requirements of standards IEC 60079-0, IEC 60079-1 and IEC 60079-31.
2. The power cable will be installed by end user, and the end user can use the cable which is specified in the user manual only.
3. The end user must install earthing wire according to user manual before use.



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

Details of change:

Issue No.1:

- gap of flamepath changed
- upgrade to gas group IIC
- add 24V lamp, rate T5 class
- change IP level from IP64 to IP67
- update to newest standard, see standards above

Issue No.2:

- add the new SMD LED module as the light source
- add the Lamp power 95W,75W and 65W(only for SMD LED module)

## Annex:

[DE-IECEX\\_TUR\\_14.0019X\\_01\\_Attachment\\_2016-11-29.pdf](#)



Attachment to to Certificate IECEX TUR 14.0019 X

**Device:** Universal Explosion Proof LED Lighting  
THT-2LA\*d5\*\*1102

**Manufacturer:** TOP HI-TECH CO.,LTD.

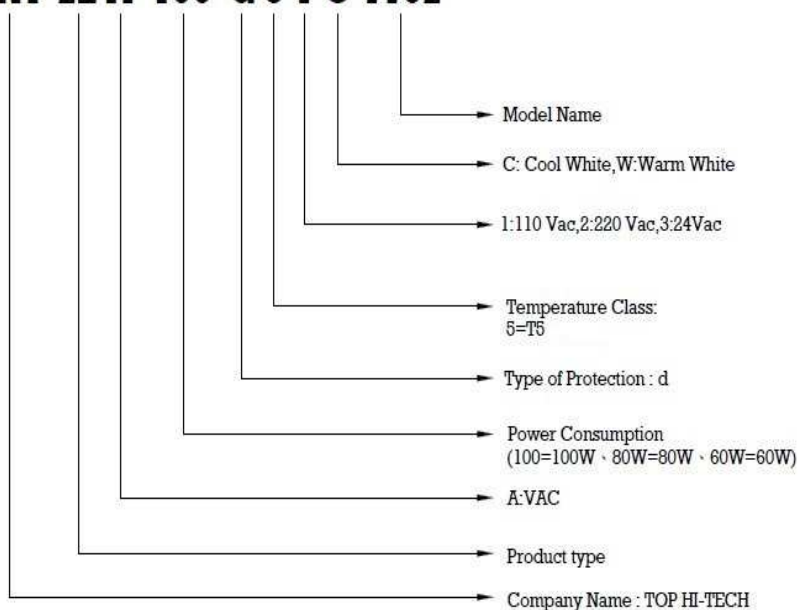
**Address:** 5F,NO.113,Zhongcheng Rd,  
Tucheng Dist,New Taipei City 236,  
Taiwan (R.O.C)

**General product information:**

Subject and type

Universal Explosion Proof LED Lighting type

**THT-2L A 100 d 5 1 C 1102**



Description

The lamp Universal Explosion Proof LED Lighting type THT-2LA\*d5\*\*1102 is designed according to the standard structure of the EN 60079-0, EN 60079-1 and EN 60079-31. The suitable hazardous areas are zone 1, zone 2, zone 21 and zone 22.

The enclosure of lamp is made by aluminum alloy (ADC12).

The method of lamp install included bracket fixed, pendant, stanchion 90°/25° and hanging etc.

The external earthing of enclosure is considered.

A coating with black colour or silver colour is applied to the enclosure of the equipment.



Attachment to Certificate  
IECEX TUR 14.0019 X  
Revision 1

**Technical data**

Parameters:

Electrical parameters

Rated voltage	110VAC	THT-2LA*d51*1102
	220VAC	THT-2LA*d52*1102
	24VAC	THT-2LA*d53*1102
Rated power	60W	THT-2LA60Wd5**1102
	80W	THT-2LA80Wd5**1102
	100W	THT-2LA100d5**1102

Thermal parameters

Ambient temperature range -20°C to +40°C

Temperature class T5 (88.5°C) for gas, and T95°C for dust.