



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 UL 22.0010X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2022-10-14

Applicant: **Top Hi-Tech Co., Ltd.**
9F, No.1, Zhongshan Rd.
Tucheng Dist
New Taipei City 236
Taiwan

Equipment: **LED Luminaires, Model L2101 Series – Models THTE2101A, THTE2101B, THTE2101C and THTE2101D Series**

Optional accessory:

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

Marking: Ex db IIB+H2 T6 Gb
Ex tb IIIC T80°C Db
-20°C ≤ Ta ≤ +40°C

Approved for issue on behalf of the IECEx
Certification Body:

Susan K. Lee

Position:

Staff Engineer

Signature:
(for printed version)

Date:
(for printed version)

2022-10-14

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2. This certificate is not transferable and remains the property of the issuing body.
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Certificate issued by:

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





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Tucheng Dist
New Taipei City 236
Taiwan

Manufacturing locations: **Top Hi-Tech Co., Ltd.**
9F, No.1, Zhongshan Rd.
Tucheng Dist
New Taipei City 236
Taiwan

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/ExTR22.0011/00](#)

Quality Assessment Report:

[DE/TUR/QAR13.0016/04](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Model L2101 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 circular tube 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:

- Do not open when an explosive atmosphere is present.
- Do not open when energized.
- The flameproof joints are not intended to be disassembled or repaired.
- Potential electrostatic charging hazard – see instructions.
- The special fastener shall have a property class of A2-70.

Annex:

[Annex to IECEx UL 22.0010X Issue 0.pdf](#)



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TYPE DESIGNATION

Nomenclature for Luminaires:

The complete luminaire catalogue number example is as follows:

| Cat. | THT | E | 2101 | D | D | W | H | C6 |
|------|-----|---|------|---|---|---|---|----|
| No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

1 – Brand name

THT = Top Hi-Tech Co., Ltd.

2 – Category of product

E = Explosion proof LED luminaire

3 – Model name

2101 = Model L2101 Series

4 – Designates length of luminaire

A = 2ft single tube (For 9W or 10W only)

B = 4ft single tube (For 18W or 20W only)

C = 2ft double tubes (For 18W or 20W only)

D = 4ft double tubes (For 36W or 40W only)

5 – Designates type of top cover

C = Top cover with opening

D = Top cover without opening

6 – Designates CCT of LED

W = Warm white (For 9 W, 18 W or 36 W only)

N = Natural white (For 9 W, 18 W or 36 W only)

D = Daylight (For 9 W, 18 W or 36 W only)

C = Cool white (For 9 W, 18 W or 36 W only)

Y = Yellow tube (For 10 W, 20 W or 40 W only)

7 – Designates voltage of LED luminaire

H = 100~277 Vac

8 – Designates wattage of LED luminaire

Z9 = 9 W (For 2ft single tube only)

A8 = 18 W (For 2ft double tubes or 4ft single tube only)

C6 = 36 W (For 4ft double tubes only)

A0 = 10 W (For 2ft single tube only)

B0 = 20 W (For 2ft double tubes or 4ft single tube only)

D0 = 40 W (For 4ft double tubes only)



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Models covered are as follows:

| Models | Ambient Temperature range | Gas Temperature Code | Dust Temperature Rating |
|----------------|---------------------------|----------------------|-------------------------|
| THTE2101AxyHZ9 | -20°C to +40°C | T6 | T80°C |
| THTE2101AxYHA0 | -20°C to +40°C | T6 | T80°C |
| THTE2101BxyHA8 | -20°C to +40°C | T6 | T80°C |
| THTE2101BxYHB0 | -20°C to +40°C | T6 | T80°C |
| THTE2101CxyHA8 | -20°C to +40°C | T6 | T80°C |
| THTE2101CxYHB0 | -20°C to +40°C | T6 | T80°C |
| THTE2101DxyHC6 | -20°C to +40°C | T6 | T80°C |
| THTE2101DxYHD0 | -20°C to +40°C | T6 | T80°C |

x can be C or D; y can W, N, D or C

PARAMETERS RELATING TO THE SAFETY

Electrical Rating:

| Models | Frequency (Hz) | Voltage | Wattage (W) |
|----------------|----------------|-------------|-------------|
| THTE2101AxyHZ9 | 50/60 | 100~277 Vac | 9 W |
| THTE2101AxYHA0 | 50/60 | 100~277 Vac | 10 W |
| THTE2101BxyHA8 | 50/60 | 100~277 Vac | 18 W |
| THTE2101BxYHB0 | 50/60 | 100~277 Vac | 20 W |
| THTE2101CxyHA8 | 50/60 | 100~277 Vac | 18 W |
| THTE2101CxYHB0 | 50/60 | 100~277 Vac | 20 W |
| THTE2101DxyHC6 | 50/60 | 100~277 Vac | 36 W |
| THTE2101DxYHD0 | 50/60 | 100~277 Vac | 40 W |

x can be C or D; y can W, N, D or C

MARKING

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

| | |
|---|--|
| TOP HI-TECH CO.,LTD Hazloc LED Lighting 9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, 236, Taiwan.(R.O.C) Model: THTE2101①②③H④ CE0035 II 2 G Ex db IIB+H ₂ T6 Gb UL 22 ATEX 2698X CE0035 II 2 D Ex tb IIIC T80°C Db IECEX UL 22.0010X Ta: -20°C~+40°C SN: 2201-001 V: 100-277Vac, 50/60Hz W: _____ W IP67 | TOP HI-TECH CO.,LTD Hazloc LED Lighting 9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, 236, Taiwan.(R.O.C) Model: THTE2101DDYHD0 CE0035 II 2 G Ex db IIB+H ₂ T6 Gb UL 22 ATEX 2698X CE0035 II 2 D Ex tb IIIC T80°C Db IECEX UL 22.0010X Ta: -20°C~+40°C SN: 2201-001 V: 100-277Vac, 50/60Hz W: 40W IP67 |
|---|--|



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"WARNING – Do not open when an explosive atmosphere is present."
"WARNING – Do not open when energized."
"WARNING – Potential Electrostatic Charging Hazard – See Instructions"
"WARNING – The flameproof joint are not intended to be disassembled or repaired."
"WARNING – The special fastener shall have a property class of A2-70."

- ①: A - 2ft single tube (For 9W or 10 W only)
B - 4ft single tube (For 18W or 20W only)
C - 2ft double tubes (For 18W or 20W only)
D - 4ft double tubes (For 36W or 40W only)
- ②: C - Top cover with opening
D - Top cover without opening
- ③: W - Warm white (For 9W, 18W, 36W only)
N - Natural white (For 9W, 18W, 36W only)
D - Daylight (For 9W, 18W, 36W only)
C - Cool white (For 9W, 18W, 36W only)
Y - Yellow tube (For 10W, 20W, 40W only)
- ④: Z9 - 9 W (For 2ft single tube only)
A8 - 18 W (For 2ft double tubes/4ft single tube only)
C6 - 36 W (For 4ft double tubes only)
A0 - 10 W (For 2ft single tube only)
B0 - 20 W (For 2ft double tubes/4ft single tube only)
D0 - 40 W (For 4ft double tubes only)

Note:

- 1. Material: Polyester
- 2. 0035 is the Notified Body number of TÜV Rheinland Industrie service GmbH
- 3. SN number description as show the follow:
 - 22 means 2022.
 - 01 means first weeks.
 - 001 means number of product.

ROUTINE EXAMINATIONS AND TESTS

Each piece of equipment defined above has to have successfully passed before delivery:

- 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 25.1 bar (363.75 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.