

[1]

EU-TYPE EXAMINATION CERTIFICATE



[2]

Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

[3]

EU-Type Examination Certificate Number: **UL 22 ATEX 2698X Rev. 0**

[4]

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

[5]

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

[6]

Address: **9F, No. 1, Zhongshan Rd, Tucheng District, New Taipei City 236, Taiwan (R.O.C)**

[7]

This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8]

UL International Demko A/S, notified body number 0539 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no. **US/UL/ExTR22.0011/00.**

[9]

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018

EN 60079-1: 2014

EN 60079-31:2014

[10]



If the sign "X" is placed after the certificate number, it indicates that the product is subject to special conditions for safe use specified in the schedule to this certificate.

[11]

This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by the certificate.

[12]

The marking of the product shall include the following:

 **II 2 G Ex db IIB+H2 T6 Gb**
 **II 2 D Ex tb IIIC T80°C Db**

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2022-10-14

Notified Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
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[14]

Schedule

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[15] **Description of Product**
 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.

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 9 W or 10 W only)
B = 4ft single tube (For 18 W or 20 W only)
C = 2ft double tubes (For 18 W or 20 W only)
D = 4ft double tubes (For 36 W or 40 W 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)

Models covered are as follows:

Models	Ambient Temperature range	Gas Temperature Code	Dust Temperature Rating
THTe2101AxyHZ9 THTe2101AxyHA0 THTe2101BxyHA8 THTe2101BxyYHB0 THTe2101CxyHA8 THTe2101CxyYHB0 THTe2101DxyHC6 THTe2101DxyYHD0	-20°C to +40°C	T6	T80°C
x can be C or D; y can W, N, D or C			

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is not covered in this certificate.



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[14]

Schedule
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Electrical data

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			

Routine tests

Routine overpressure tests in accordance with EN 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.

[16]

Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this EU-Type Examination Certificate.

[17]

Specific conditions of use:

- 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.

[18]

Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information

The Model L2101 Series has in addition passed the tests for Ingress Protection to IP67 in accordance with EN60529:1991+A1:2000+A2:2013.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.

