

# EU-TYPE EXAMINATION CERTIFICATE



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

EU-Type Examination Certificate Number: **UL 20 ATEX 2291X Rev. 0**

Product: **LED Luminaires, Models L1512D Series**

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

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

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

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/ExTR20.0020/00**

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**

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.

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.

The marking of the product shall include the following:

II 2 G    **Ex db IIB+H2 T4 Gb**  
 II 2 D    **Ex tb IIIC T110°C...T120°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:** 2020-10-22

### Notified Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark  
Tel. +45 44 85 65 65, [info.dk@ul.com](mailto:info.dk@ul.com), [www.ul.com](http://www.ul.com)



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# Schedule

## EU-TYPE EXAMINATION CERTIFICATE No.

### UL 20 ATEX 2291X Rev. 0

- [15] Description of Product:  
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.

Nomenclature for Luminaires:

The complete luminaire catalogue number example is as follows:

Cat.	THT	E	1512	A	N	B	C	C	Y0
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  
B = DCOB type  
K = SMD type
- 7 – Designates CCT of LED  
C = Cool white  
W = Warm white
- 8 – Designates voltage of LED luminaire  
4 = 100 Vac (For DCOB type only)  
1 = 110 Vac (For DCOB and SMD type only)  
6 = 120 Vac (For DCOB and SMD type only)  
5 = 200 Vac (For DCOB type only)  
7 = 208 Vac (For DCOB type only)  
2 = 220 Vac (For DCOB and SMD type only)  
D = 230 Vac (For DCOB type only)  
8 = 240 Vac (For DCOB type only)  
9 = 277 Vac (For DCOB and SMD type only)  
F = 347 Vac (For DCOB and SMD type only)  
C = 480 Vac (For DCOB and SMD type only)
- 9 – Designates wattage of LED luminaire  
N0 = 140 W (For DCOB type only)  
Q0 = 160 W (For DCOB and SMD type only)  
S0 = 180 W (For DCOB and SMD type only)  
U0 = 200 W (For DCOB and SMD type only)  
W0 = 220 W (For DCOB and SMD type only)  
Y0 = 240 W (For DCOB and SMD type only)  
25 = 250 W (For SMD type only)

Models covered are as follows:

Models	Ambient Temperature range	Gas Temperature Code	Dust Temperature Rating
THTE1512ANBxyz	-20°C to +40°C	T4	T110°C
THTE1512ANKxyzz	-20°C to +55°C	T4	T120°C
x can be C or W; y can be 4, 1, 6, 5, 7, 2, D, 8, 9, F and C; z can be N0, Q0, S0, U0, W0 and Y0; yy can be 1, 6, 2, 9, F and C; zz can be Q0, S0, U0, W0, Y0 and 25			

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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# Schedule

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### UL 20 ATEX 2291X Rev. 0

#### Electrical data:

Models	Voltage (Vac)	Wattage (W)
THTE1512ANBxyz	100/110/120/200/208/220/230/240/277/347/480	140/160/180/200/220/240
THTE1512ANKxyyzz	110/120/220/277/347/480	160/180/200/220/240/250
x can be C or W; y can be 4, 1, 6, 5, 7, 2, D, 8, 9, F and C; z can be N0, Q0, S0, U0, W0 and Y0; yy can be 1, 6, 2, 9, F and C; zz can be Q0, S0, U0, W0, Y0 and 25		

#### 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 7.8546 bar (114 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.

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#### 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.

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#### Specific conditions of use:

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

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#### Essential Health and Safety Requirements:

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

#### Additional information:

The Model L1512D Series has in addition passed the tests for Ingress Protection to IP67 in accordance with EN60529:1991+A1:2000+A2:2013.

The trademark **THT-EX** or **THT-EX** will be used as the company identifier on the marking label.

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.

