

# TYPE EXAMINATION CERTIFICATE



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

Type Examination Certificate Number **UL 20 ATEX 2309X Rev. 0**

Product: **LED Luminaires, Models L1403L Series**

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

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

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

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

The examination and test results are recorded in confidential report no. **4789256542.2.1**

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

**EN IEC 60079-0:2018**

**EN IEC 60079-15: 2019**

except in respect of those requirements listed at item 18 of the Schedule.

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

This Type examination certificate relates only to the design of the specified product, and not to specific items of product subsequently manufactured.

The marking of the product shall include the following:

**II 3 G Ex nR IIC T4...T6 Gc**

**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: 2020-07-27**

**Certification Body**

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## Schedule

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#### Description of Product:

The Model L1403L Series of LED luminaires is suitable for use in hazardous location classified as Zone 2. This luminaire consists of one "nR" LED array chamber.

Nomenclature for Luminaires:

The complete luminaire catalogue number example is as follows:

Cat.	THT	H	1403	S	C	H	C	9	P0
No.	1	2	3	4	5	6	7	8	9

1 – Brand name

THT = Top Hi-Tech Co., Ltd.

2 – Category of product

H = HazLoc LED lighting

3 – Model name

1403 = Model L1403L Series

4 – Designates quantity of Tank

S = Signal Tank (For 80W, 100W, 105W, 120W and 150W only)

D = Dual Tank (For 160W, 200W, 210W, 240W and 300W only)

5 – Designates type of Top Cover

C = Top Cover with opening

6 – Designates type of LED module

H = Rectangle SMD type (For 100W, 150W and 300W only)

K = Circle SMD type (For 80W, 100W, 105W, 120W, 160W, 200W, 210W and 240W only)

7 – Designates CCT of LED

C = Cool white

W = Warm white

8 – Designates voltage of luminaire

1 = 110 Vac

2 = 220 Vac

D = 230 Vac

9 = 277 Vac

9 – Designates wattage of luminaire

H0 = 80 W (For single Tank only)

J0 = 100 W (For single Tank only)

J5 = 105 W (For single Tank only)

L0 = 120 W (For single Tank only)

P0 = 150 W (For single Tank only)

Q0 = 160 W (For dual Tank only)

U0 = 200 W (For dual Tank only)

V0 = 210 W (For dual Tank only)

Y0 = 240 W (For dual Tank only)

30 = 300 W (For dual Tank only)

Models covered are as follows:

Models	Ambient Temperature range	Temperature Code
THTH1403SCvxyz	-20°C to +40°C	T6
	-20°C to +55°C	T5
THTH1403DCvxyzz	-20°C to +40°C	T5
	-20°C to +55°C	T4

v can be H or K; x can be C or W; y can be 1, 2, D or 9; z can be H0, J0, J5, L0 or P0; zz can be Q0, U0, V0, Y0 or 30

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 covered in this certificate based on Exception 2) to the scope of EN 60079-28:2015.

#### Electrical data:

Models	Voltage (Vac)	Wattage (W)
THTH1403SCvxyz	110/220/230/277	80/100/105/120/150
THTH1403DCvxyzz	110/220/230/277	160/200/210/240/300

v can be H or K; x can be C or W; y can be 1, 2, D or 9; z can be H0, J0, J5, L0 or P0; zz can be Q0, U0, V0, Y0 or 30

#### Routine tests:

Routine dielectric strength testing according to clause 12.1 of EN 60079-15 is required.

Routine restricted breathing testing according to clause 12.2.2.1.2 of EN 60079-15 is required.



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**Schedule**  
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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 Type Examination Certificate.

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Special Conditions of Use:

- The luminaire shall not be opened.
- Potential electrostatic charging hazard – see instructions.
- The luminaire does not have a test port fitted.
- The gasket not to be replaced in the field.

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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 Models L1403L 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.