

TYPE EXAMINATION CERTIFICATE



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

[3] Type Examination Certificate Number: **DEMKO 18 ATEX 1945X Rev. 0**

[4] Product: **LED Luminaires, Models L1601C Series**

[5] Manufacturer: **Top Hi-Tech Co., Ltd.**

[6] Address: **9F, No. 1, Zhongshan Rd, Tucheng District, New Taipei, 236 Taiwan**

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

[8] 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. **4787515828.1.1**

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

EN 60079-0:2012+A11:2013

EN 60079-15:2010



EN 60079-31:2014

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

[10] 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.

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

[12] The marking of the product shall include the following:

 **II 3 G Ex nR IIC T6 Gc**
 **II 2 D Ex tb IIIC T85°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: 2018-06-09



Certification Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
Tel. +45 44 85 65 65, info.dk@ul.com, www.ul.com

Schedule

TYPE EXAMINATION CERTIFICATE No.

DEMKO 18 ATEX 1945X Rev. 0

[13]

[14]

[15] Description of Product:

The Model L1601C Series of LED luminaires is suitable for use in hazardous location classified as Zone 2 and Zone 21. This luminaire consists of one "nR"/"tb" chamber. The enclosure material is aluminum alloy and plastic. The light-transmitting part is made of plastic. 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. No.	THT 1	H 2	1601 3	F 4	N 5	H 6	C 7	9 8	D0 9	03 10
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1 – Brand name

THT = Top Hi-Tech Co., Ltd.

2 – Category of product

H = HazLoc LED lighting

3 – Model name

1601 = Model L1601C series

4 – Designates lamp length

D = Short size (1 ft)

E = Middle size (2 ft)

F = Long size (4 ft)

5 – Designates type of Top Cover

N = No Top Cover exist

6 – Designates type of LED module

H = SMD type LED bar

7 – Designates CCT of LED

C = Cool white

W = Warm white

8 – Designates voltage

1 = 110 Vac

2 = 220 Vac

9 = 277 Vac

9 – Designates wattage of LED lighting

A0 = 10 W

B0 = 20 W

D0 = 40 W

10 – Designates serial no

03 = 03 or

blank, for marketing purposes and no impact on safety

Models covered are as follows:

Model	Ambient Temperature range	Gas Temperature Code	Dust Temperature Rating
THTH1601DNH*1A003	-25°C to +55°C	T6	T85°C
THTH1601ENH*1B003	-25°C to +55°C	T6	T85°C
THTH1601FNH*1D003	-25°C to +55°C	T6	T85°C
THTH1601DNH*2A003	-25°C to +55°C	T6	T85°C
THTH1601ENH*2B003	-25°C to +55°C	T6	T85°C
THTH1601FNH*2D003	-25°C to +55°C	T6	T85°C
THTH1601DNH*9A003	-25°C to +55°C	T6	T85°C
THTH1601ENH*9B003	-25°C to +55°C	T6	T85°C
THTH1601FNH*9D003	-25°C to +55°C	T6	T85°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.

Schedule

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[13]

[14]

Temperature range:

The ambient temperature range is $-25^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$.

Electrical data

THTH1601DNH*1A003 – 110 Vac, 50/60 Hz, 10 W

THTH1601ENH*1B003 – 110 Vac, 50/60 Hz, 20 W

THTH1601FNH*1D003 – 110 Vac, 50/60 Hz, 40 W

THTH1601DNH*2A003 – 220 Vac, 50/60 Hz, 10 W

THTH1601ENH*2B003 – 220 Vac, 50/60 Hz, 20 W

THTH1601FNH*2D003 – 220 Vac, 50/60 Hz, 40 W

THTH1601DNH*9A003 – 277 Vac, 50/60 Hz, 10 W

THTH1601ENH*9B003 – 277 Vac, 50/60 Hz, 20 W

THTH1601FNH*9D003 – 277 Vac, 50/60 Hz, 40 W

Routine tests:

N/A

[16]

Descriptive Documents

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

[17]

Special Conditions of Use:

- The luminaire shall not be opened.
- Potential electrostatic charging hazard – see instructions.

[18]

Essential Health and Safety Requirements

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

Additional information

The Models L1601C series has in addition passed the tests for Ingress Protection to IP67 in accordance with EN60529:1991+A1:2000+A2:2013.

The trademark



will be used as the company identifier on the marking label.