

# 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 1960X Rev. 0**
- [4] Product: **LED Luminaires, Models L1703 Series**
- [5] Manufacturer: **Top Hi-Tech Co., Ltd.**
- [6] Address: **9F, No.1, Zhongshan Rd., Tucheng Dist., New Taipei City 236, Taiwan (R.O.C)**
- [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. **4788198550.1.1**
- [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**
- 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 T4 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:** 2018-09-05

**Certification Body**

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark  
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## Schedule

### TYPE EXAMINATION CERTIFICATE No.

**DEMKO 18 ATEX 1960X Rev. 0**

[13]

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[15] **Description of Product:**

The Model L1703 Series of LED luminaires is suitable for use in hazardous location classified as Zone 2. This luminaire consists of two interconnecting “nR” chambers: one is the top cover for wiring connection to cable gland, the other one is the LED array chamber.

Nomenclature for Luminaires:

The complete luminaire catalogue number example is as follows:

Cat. No.	THT	H	1703	Z	C	A	C	9	J0
	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

1703 = Model L1703 series

4 – Designates serial no

Z = Z or blank, for marketing purposes and no impact on safety

5 – Designates type of Top Cover

C = Top Cover with opening

6 – Designates type of LED module

A = DOB type

K = SMD type

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

F0 = 60 W

F5 = 65 W

G5 = 75 W

H0 = 80 W

I0 = 90 W

I5 = 95 W

J0 = 100 W

Models covered are as follows:

Model	Ambient Temperature range	Gas Temperature Code	Dust Temperature Rating
THTH1703ZCA*1F0	-40°C to +55°C	T4	T120°C
THTH1703ZCK*1F5	-40°C to +55°C	T4	T120°C
THTH1703ZCK*1G5	-40°C to +55°C	T4	T120°C
THTH1703ZCA*1H0	-40°C to +55°C	T4	T120°C
THTH1703ZCA*1I0	-40°C to +55°C	T4	T120°C
THTH1703ZCK*1I5	-40°C to +55°C	T4	T120°C
THTH1703ZCA*1J0	-40°C to +55°C	T4	T120°C
THTH1703ZCA*2F0	-40°C to +55°C	T4	T120°C
THTH1703ZCK*2F5	-40°C to +55°C	T4	T120°C
THTH1703ZCK*2G5	-40°C to +55°C	T4	T120°C
THTH1703ZCA*2H0	-40°C to +55°C	T4	T120°C
THTH1703ZCA*2I0	-40°C to +55°C	T4	T120°C
THTH1703ZCK*2I5	-40°C to +55°C	T4	T120°C
THTH1703ZCA*2J0	-40°C to +55°C	T4	T120°C
THTH1703ZCA*9F0	-40°C to +55°C	T4	T120°C
THTH1703ZCK*9F5	-40°C to +55°C	T4	T120°C
THTH1703ZCK*9G5	-40°C to +55°C	T4	T120°C
THTH1703ZCA*9H0	-40°C to +55°C	T4	T120°C
THTH1703ZCA*9I0	-40°C to +55°C	T4	T120°C
THTH1703ZCK*9I5	-40°C to +55°C	T4	T120°C
THTH1703ZCA*9J0	-40°C to +55°C	T4	T120°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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#### Temperature range:

The ambient temperature range is  $-40^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$ .

#### Electrical data

THTH1703ZCA\*1F0 – 110 Vac, 50/60 Hz, 60 W  
THTH1703ZCK\*1F5 – 110 Vac, 50/60 Hz, 65 W  
THTH1703ZCK\*1G5 – 110 Vac, 50/60 Hz, 75 W  
THTH1703ZCA\*1H0 – 110 Vac, 50/60 Hz, 80 W  
THTH1703ZCA\*1I0 – 110 Vac, 50/60 Hz, 90 W  
THTH1703ZCK\*1I5 – 110 Vac, 50/60 Hz, 95 W  
THTH1703ZCA\*1J0 – 110 Vac, 50/60 Hz, 100 W  
THTH1703ZCA\*2F0 – 220 Vac, 50/60 Hz, 60 W  
THTH1703ZCK\*2F5 – 220 Vac, 50/60 Hz, 65 W  
THTH1703ZCK\*2G5 – 220 Vac, 50/60 Hz, 75 W  
THTH1703ZCA\*2H0 – 220 Vac, 50/60 Hz, 80 W  
THTH1703ZCA\*2I0 – 220 Vac, 50/60 Hz, 90 W  
THTH1703ZCK\*2I5 – 220 Vac, 50/60 Hz, 95 W  
THTH1703ZCA\*2J0 – 220 Vac, 50/60 Hz, 100 W  
THTH1703ZCA\*9F0 – 277 Vac, 50/60 Hz, 60 W  
THTH1703ZCK\*9F5 – 277 Vac, 50/60 Hz, 65 W  
THTH1703ZCK\*9G5 – 277 Vac, 50/60 Hz, 75 W  
THTH1703ZCA\*9H0 – 277 Vac, 50/60 Hz, 80 W  
THTH1703ZCA\*9I0 – 277 Vac, 50/60 Hz, 90 W  
THTH1703ZCK\*9I5 – 277 Vac, 50/60 Hz, 95 W  
THTH1703ZCA\*9J0 – 277 Vac, 50/60 Hz, 100 W

#### Routine tests:

Routine restricted breathing testing according to clause 23.2.3.2.1.2 of EN 60079-15 is required.

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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.

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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 L1703 Series has in addition passed the tests for Ingress Protection to IP67 in accordance with EN60529:1991+A1:2000+A2:2013.



The trademark

or



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