

EU-TYPE EXAMINATION CERTIFICATE



[1]

[2]

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

[3]

EU-Type Examination Certificate Number: **DEMKO 18 ATEX 1973X Rev. 0**

[4]

Product: **LED Surface-mounted Luminaires, Models L1704C series.**

[5]

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

[6]

Address: **9F, No. 1, Zhongshan Rd, Tucheng District, New Taipei, 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. **4788182771.1.1**

[9]

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

EN 60079-0:2012+A11:2013

EN 60079-1:2014

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 IIC T5 Gb**
 II 2 D **Ex tb IIIC T95°C Db**

Certification Manager

Jan-Erik Storgaard

Notified Body

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: 2018-11-06

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



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[14]

Schedule

EU-TYPE EXAMINATION CERTIFICATE No.

DEMKO 18 ATEX 1973X Rev. 0

[15] Description of Product
 L1704C series of luminaires are composed of Tank, LED Modules, CCTV unit, Tank O-ring, Glass and Glass Cover to form as a LED compartment at luminaire bottom; the Tank top also incorporates a Top Cover O-ring and Top Cover for Cable Gland assembly. The constructions of all Tank, O-rings and Cable Gland assemblies are evaluated for "db" and "tb" protection. All Tank assemblies including Glass Cover and Top Cover are die-cast aluminum alloy, the optic part is a glass material and secured between Tank and Glass Cover; all Cable Gland assemblies are stainless steel with the O-ring and Tube secured inside to form as the protection. The equipment is LED (light emitting diode) luminaire intended for surface ceiling, wall, pendant, straight and bending tube-mounted installation.

Nomenclatures for Luminaires:

The complete luminaire Model number breakdown is as follows:

Models	THT	E	1704	A	B	A	C	9	F0
	1	2	3	4	5	6	7	8	9

1 – Designates basic series.

THT – Basic series for all luminaires.

2 – Designates type of luminaires.

E – "d" flameproof LED lighting with CCTV.

3 – Designates model name.

1704 – Model L1704C series.

4 – Designates sub-series.

A – Luminaires with PoE driven CCTV.

5 – Designates type of Top Cover.

B – Short Top Cover.

6 – Designates type of LED module.

A – DOB type LED Module

7 – Designates CCT (Correlated Color Temperature) of LED.

C – Cool white;
 W – Warm white.

8 – Designates voltage of LED luminaires.

1 – 110Vac;
 2 – 220Vac;
 9 – 277Vac.

9 – Designates wattage of LED luminaires.

F0 – 60W;
 D0 – 40W

Models covered are as follows:

Model	Ambient Temperature range	Gas Temperature Code	Dust Temperature Rating
THTE1704ABA*1D0	-20°C to +40°C	T5	T95°C
THTE1704ABA*1F0	-20°C to +40°C	T5	T95°C
THTE1704ABA*2D0	-20°C to +40°C	T5	T95°C
THTE1704ABA*2F0	-20°C to +40°C	T5	T95°C
THTE1704ABA*9D0	-20°C to +40°C	T5	T95°C
THTE1704ABA*9F0	-20°C to +40°C	T5	T95°C

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Schedule

[14]

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Temperature range

The relation between ambient temperature and the assigned temperature class is as follows:

Ambient temperature range

-20°C to +40°C

Temperature class

T5 for gas;
T95°C for dust

Electrical data

L1704C series ratings are covered as below:

THTE1704ABA*1D0 - 110 Vac, 50/60 Hz, 40 W;
THTE1704ABA*1F0 - 110 Vac, 50/60 Hz, 60 W;
THTE1704ABA*2D0 - 220 Vac, 50/60 Hz, 40 W;
THTE1704ABA*2F0 - 220 Vac, 50/60 Hz, 60 W;
THTE1704ABA*9D0 - 277 Vac, 50/60 Hz, 40 W;
THTE1704ABA*9F0 - 277 Vac, 50/60 Hz, 60 W.

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 9.2 bar 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:

The flameproof joints are not intended to be disassembled or repaired.

[18]

Essential Health and Safety Requirements

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

Additional information

The L1704C has in addition passed the tests for Ingress Protection to IP 67 in accordance with EN60529:1991+A1:2000+A2:2013.



The trademarks
on the marking label.

and/or



will be used as the company identifiers

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.