IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx UL 18.0045X

Issue No: 0

Certificate history:
Issue No. 0 (2018-11-06)

Status: **Current**

Date of Issue: **2018-11-06**

Applicant: **Top Hi-Tech Co. Ltd.**
9F, No. 1, Zhongshan Rd.
Tucheng District
New Taipei, 236
Taiwan

Equipment: **LED Surface-mounted Luminaires, L1704C Series**

Optional accessory:

Type of Protection: **Flameproof "db", Dust Protection by Enclosure "tb"**

Marking:

Ex db IIC T5 Gb

Ex tb IIIC T95°C Db

-20°C ≤Ta≤ +40°C

Approved for issue on behalf of the IECEx Certification Body: Andrew Moffat

Position: Project Engineer

Signature:
(for printed version)

Date: 2018-11-06

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

UL LLC
333 Pfingsten Road
Northbrook IL 60062-2096
United States of America

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Manufacturer:	**Top Hi-Tech Co. Ltd.** 9F, No. 1, Zhongshan Rd. Tucheng District New Taipei, 236 **Taiwan**	

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

US/UL/ExTR18.0053/00

Quality Assessment Report:

DE/TUR/QAR13.0016/02

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

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.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

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

Annex:

Annex to IECEx UL 18.0045X Issue 0.pdf

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TYPE DESIGNATION

Nomenclature for Luminaires:

The complete luminaire catalog number example 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 luminaies. 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

PARAMETERS RELATING TO THE SAFETY

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.

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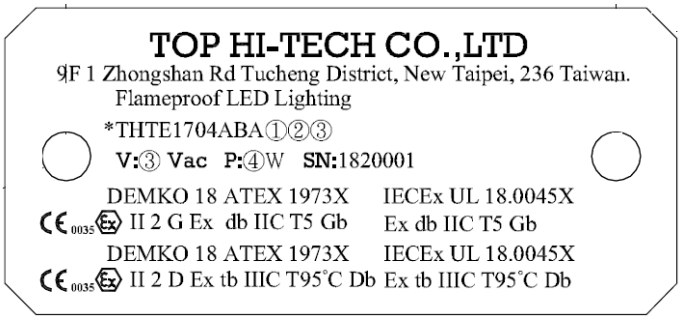
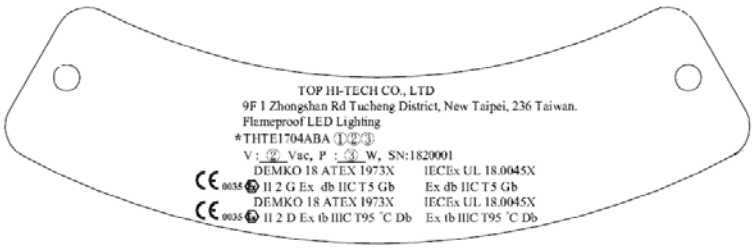
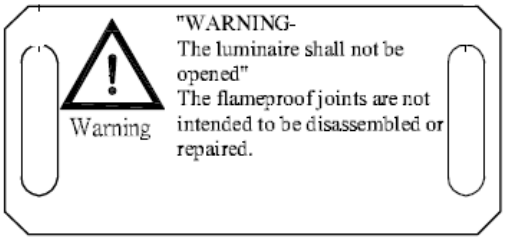
MARKING







ROUTINE EXAMINATIONS AND TESTS

Routine Overpressure tests in accordance with IEC 60079-1, 7th Edition shall be conducted on all units in accordance with Clause15.2.3.2, 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.