



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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

Certificate No.: **IECEx UL 20.0005X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-07-27

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

Equipment: **LED Luminaires, Models THTH1403SC and THTH1403DC Series**

Optional accessory:

Type of Protection: **Dust Ignition Protection by Enclosure "tb", Restricted Breathing "nR"**

Marking: Ex nR IIC T4...T6 Gc
Ex tb IIIC T110°C...T85°C Db
-20°C ≤ Ta ≤ +40°C or -20°C ≤ Ta ≤ +55°C

Approved for issue on behalf of the IECEx
Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

Signature:
(for printed version)

Date:

2020-07-27

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 www.iecex.com or use of this QR Code.



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 City, 236
Chinese Taipei

Additional
manufacturing
locations:

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 equipment 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-15:2017 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with 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/ExTR20.0005/00](#)

Quality Assessment Report:

[DE/TUR/QAR13.0016/03](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Model L1403L 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" LED array chamber.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

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

Annex:

[Annex to IECEx UL 20.0005X Issue 0.pdf](#)



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TYPE DESIGNATION

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)



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Models covered are as follows:

Models	Ambient Temperature range	Gas Temperature Code	Dust Temperature Rating
THTH1403SCvxyz	-20°C to +40°C	T6	T85°C
	-20°C to +55°C	T5	T100°C
THTH1403DCvxyzz	-20°C to +40°C	T5	T100°C
	-20°C to +55°C	T4	T110°C

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

PARAMETERS RELATING TO THE SAFETY

Electrical Rating:

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

MARKING

Marking has to be readable and indelible; it has to include the following indications:

<p>TOP HI-TECH CO.,LTD -20°C ≤ Ta ≤ +40°C</p> <p>THTH1403SC②③④⑤</p> <p>UL 20 ATEX 2309X IECEx UL 20.0005X</p> <p>II 3 G Ex nR IIC T6 Gc Ex nR IIC T6 Gc</p> <p>UL 20 ATEX 2337X IECEx UL 20.0005X</p> <p>II 2 D Ex tb IIIC T85°C Db Ex tb IIIC T85°C Db</p> <p>V: _____ Vac P: _____ W S/N: 1920-001</p> <p>9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, Taiwan. (R.O.C)</p>	<p>TOP HI-TECH CO.,LTD -20°C ≤ Ta ≤ +55°C</p> <p>THTH1403SC②③④⑤</p> <p>UL 20 ATEX 2309X IECEx UL 20.0005X</p> <p>II 3 G Ex nR IIC T5 Gc Ex nR IIC T5 Gc</p> <p>UL 20 ATEX 2337X IECEx UL 20.0005X</p> <p>II 2 D Ex tb IIIC T100°C Db Ex tb IIIC T100°C Db</p> <p>V: _____ Vac P: _____ W S/N: 1920-001</p> <p>9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, Taiwan. (R.O.C)</p>
<p>TOP HI-TECH CO.,LTD -20°C ≤ Ta ≤ +40°C</p> <p>THTH1403DC②③④⑤</p> <p>UL 20 ATEX 2309X IECEx UL 20.0005X</p> <p>II 3 G Ex nR IIC T5 Gc Ex nR IIC T5 Gc</p> <p>UL 20 ATEX 2337X IECEx UL 20.0005X</p> <p>II 2 D Ex tb IIIC T100°C Db Ex tb IIIC T100°C Db</p> <p>V: _____ Vac P: _____ W S/N: 1920-001</p> <p>9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, Taiwan. (R.O.C)</p>	<p>TOP HI-TECH CO.,LTD -20°C ≤ Ta ≤ +55°C</p> <p>THTH1403DC②③④⑤</p> <p>UL 20 ATEX 2309X IECEx UL 20.0005X</p> <p>II 3 G Ex nR IIC T4 Gc Ex nR IIC T4 Gc</p> <p>UL 20 ATEX 2337X IECEx UL 20.0005X</p> <p>II 2 D Ex tb IIIC T110°C Db Ex tb IIIC T110°C Db</p> <p>V: _____ Vac P: _____ W S/N: 1920-001</p> <p>9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, Taiwan. (R.O.C)</p>

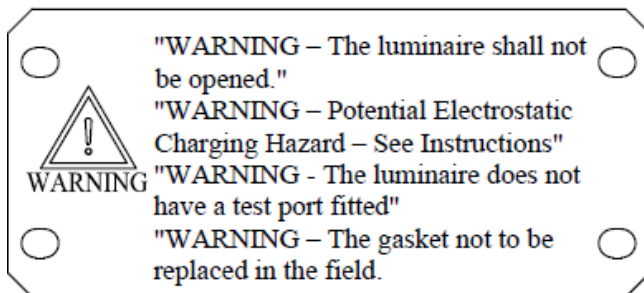


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Model Code:

THTH1403①C②③④⑤

①:S=Single Tank, D=Dual Tank

②:H=Rectangle SMD type LED, K=Circle SMD type LED

③:C=Cool White, W=Warm White

④:1=110Vac, 2=220Vac, 9=277Vac, D=230V

⑤:H0=80W, J0=100W, J5=105W, L0=120W, P0=150W
Q0=160W, U0=200W, V0=210W, Y0=240W, 30=300W

Light Source List

Dimension	Voltage	Power consumption	Single	Dual
Ø 113mm	110V/	40w/50w/60w	40w*2/50w*2/60w*2	40w*4/50w*4/60w*4
Ø 150mm	220V/	105w	105w*1	105w*2
	230V/			
200X70mm	277V	75w/100w	75w*2/100w*1	75w*4

SN number description as show the follow:
19 means 2019.
20 means twentieth weeks.
001 means number of product.

ROUTINE EXAMINATIONS AND TESTS

Each pieces of equipment defined above has to have successfully passed; before delivery:

- Routine dielectric strength testing according to clause 12.1 of IEC 60079-15 is required.
- Routine restricted breathing testing according to clause 12.2.2.1.2 of IEC 60079-15 is required.