[1] # 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 2037X Rev. 1**

[4] Product: **LED Luminaires, Models L1733N Series**

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

[6] Address: **9F, No. 1, Zhongshan Rd., Tucheng District, 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. **US/UL/ExTR18.0055/01**.

[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…T5…T6 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: 2018-11-28
Re-issued: 2020-12-16

Certification Body UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
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[15] Description of Product:

The Models L1733N Series of LED luminaires are suitable for use in hazardous location classified as Zone 2. This luminaire consists of one “nR” LED array chamber.

Nomenclature for Luminaires:

The complete luminaire catalogue number example is as follows:

Cat.	THT	H	1733	A	N	A	C	9	S0
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
1733 = Model L1733N series

4 – Designates power type of light source
A = AC LED module (Mfr. Everlight)
B = DC LED module (Mfr. Alder)
C = DC LED module (30° beam angle lens)
D = DC LED module (60° beam angle lens)
E = DC LED module (90° beam angle lens)
F = DC LED module (150° beam angle lens)
G = DC LED module (15° x 155° beam angle lens)
H = DC LED module (60° x 145° beam angle lens)
J = DC LED module (70° x 140° beam angle lens)
K = DC LED module (85° x 155° beam angle lens)
L = DC LED module (150° x 50° beam angle lens)
M = DC LED module (65° x 145° beam angle lens)
N = DC LED module (65° x 150° beam angle lens)

5 – Designates type of Top Cover
N = No top cover

6 – Designates type of LED module
A = DOB type (For AC LED module only)
K = SMD type (For AC/DC LED module)

7 – Designates CCT of LED
C = Cool white
W = Warm white

8 – Designates voltage
1 = 110 Vac (For AC LED module type only)
2 = 220 Vac (For AC LED module type only)
9 = 277 Vac (For AC LED module type only)
H = 100-277 Vac (For DC LED module type only)

9 – Designates wattage of LED luminaire
G0 = 70 W (For DC and SMD LED module type only)
J5 = 105 W (For DC and SMD LED module type only)
K0 = 110 W (For DC and SMD LED module type only)
L0 = 120 W (For AC and DOB/SMD LED module type)
M0 = 130 W (For DC and SMD LED module type only)
N0 = 140 W (For AC and DOB/SMD LED module type)
P0 = 150 W (For AC/DC and SMD LED module type)
Q0 = 160 W (For AC and DOB LED module type only)
S0 = 180 W (For AC and DOB LED module type only)

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Models covered are as follows:

Model	Ambient Temperature range	Temperature Code
THTH1733ANA*1L0	-20°C to +50°C	T4
THTH1733ANA*1N0	-20°C to +50°C	T4
THTH1733ANA*1Q0	-20°C to +50°C	T4
THTH1733ANA*1S0	-20°C to +50°C	T4
THTH1733ANA*2L0	-20°C to +50°C	T4
THTH1733ANA*2N0	-20°C to +50°C	T4
THTH1733ANA*2Q0	-20°C to +50°C	T4
THTH1733ANA*2S0	-20°C to +50°C	T4
THTH1733ANA*9L0	-20°C to +50°C	T4
THTH1733ANA*9N0	-20°C to +50°C	T4
THTH1733ANA*9Q0	-20°C to +50°C	T4
THTH1733ANA*9S0	-20°C to +50°C	T4
THTH1733ANK*1L0	-20°C to +50°C	T5
THTH1733ANK*1N0	-20°C to +50°C	T5
THTH1733ANK*1P0	-20°C to +50°C	T5
THTH1733ANK*2L0	-20°C to +50°C	T5
THTH1733ANK*2N0	-20°C to +50°C	T5
THTH1733ANK*2P0	-20°C to +50°C	T5
THTH1733ANK*9L0	-20°C to +50°C	T5
THTH1733ANK*9N0	-20°C to +50°C	T5
THTH1733ANK*9P0	-20°C to +50°C	T5
THTH1733BNK*HK0	-20°C to +40°C	T6
THTH1733BNK*HM0	-20°C to +40°C	T6
THTH1733BNK*HP0	-20°C to +40°C	T6
THTH1733CNK*HG0	-20°C to +40°C	T6
THTH1733CNK*HJ5	-20°C to +40°C	T6
THTH1733DNK*HG0	-20°C to +40°C	T6
THTH1733DNK*HJ5	-20°C to +40°C	T6
THTH1733ENK*HG0	-20°C to +40°C	T6
THTH1733ENK*HJ5	-20°C to +40°C	T6
THTH1733FNK*HG0	-20°C to +40°C	T6
THTH1733FNK*HJ5	-20°C to +40°C	T6
THTH1733GNK*HG0	-20°C to +40°C	T6
THTH1733GNK*HJ5	-20°C to +40°C	T6
THTH1733HNK*HG0	-20°C to +40°C	T6
THTH1733HNK*HJ5	-20°C to +40°C	T6
THTH1733JNK*HG0	-20°C to +40°C	T6
THTH1733JNK*HJ5	-20°C to +40°C	T6
THTH1733KNK*HG0	-20°C to +40°C	T6
THTH1733KNK*HJ5	-20°C to +40°C	T6
THTH1733LNK*HG0	-20°C to +40°C	T6
THTH1733LNK*HJ5	-20°C to +40°C	T6
THTH1733MNK*HG0	-20°C to +40°C	T6
THTH1733MNK*HJ5	-20°C to +40°C	T6
THTH1733NNK*HG0	-20°C to +40°C	T6
THTH1733NNK*HJ5	-20°C to +40°C	T6

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 covered in this certificate based on Exception 2) to the scope of EN 60079-28:2015.

Temperature range:
The ambient temperature range is -20°C ≤Ta ≤ +40°C (for DC LED module type only).
The ambient temperature range is -20°C ≤Ta ≤ +50°C (for AC LED module type only).

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Electrical data
THTH1733ANA*1L0 – 110 Vac, 50/60 Hz, 120 W
THTH1733ANA*1N0 – 110 Vac, 50/60 Hz, 140 W
THTH1733ANA*1Q0 – 110 Vac, 50/60 Hz, 160 W
THTH1733ANA*1S0 – 110 Vac, 50/60 Hz, 180 W
THTH1733ANA*2L0 – 220 Vac, 50/60 Hz, 120 W
THTH1733ANA*2N0 – 220 Vac, 50/60 Hz, 140 W
THTH1733ANA*2Q0 – 220 Vac, 50/60 Hz, 160 W
THTH1733ANA*2S0 – 220 Vac, 50/60 Hz, 180 W
THTH1733ANA*9L0 – 277 Vac, 50/60 Hz, 120 W
THTH1733ANA*9N0 – 277 Vac, 50/60 Hz, 140 W
THTH1733ANA*9Q0 – 277 Vac, 50/60 Hz, 160 W
THTH1733ANA*9S0 – 277 Vac, 50/60 Hz, 180 W
THTH1733ANK*1L0 – 110 Vac, 50/60 Hz, 120 W
THTH1733ANK*1N0 – 110 Vac, 50/60 Hz, 140 W
THTH1733ANK*1P0 – 110 Vac, 50/60 Hz, 150 W
THTH1733ANK*2L0 – 220 Vac, 50/60 Hz, 120 W
THTH1733ANK*2N0 – 220 Vac, 50/60 Hz, 140 W
THTH1733ANK*2P0 – 220 Vac, 50/60 Hz, 150 W
THTH1733ANK*9L0 – 277 Vac, 50/60 Hz, 120 W
THTH1733ANK*9N0 – 277 Vac, 50/60 Hz, 140 W
THTH1733ANK*9P0 – 277 Vac, 50/60 Hz, 150 W
THTH1733BNK*HK0 – 100-277 Vac, 50/60 Hz, 110 W
THTH1733BNK*HM0 – 100-277 Vac, 50/60 Hz, 130 W
THTH1733BNK*HP0 – 100-277 Vac, 50/60 Hz, 150 W
THTH1733CNK*HG0 – 100-277 Vac, 50/60 Hz, 70 W
THTH1733CNK*HJ5 – 100-277 Vac, 50/60 Hz, 105 W
THTH1733DNK*HG0 – 100-277 Vac, 50/60 Hz, 70 W
THTH1733DNK*HJ5 – 100-277 Vac, 50/60 Hz, 105 W
THTH1733ENK*HG0 – 100-277 Vac, 50/60 Hz, 70 W
THTH1733ENK*HJ5 – 100-277 Vac, 50/60 Hz, 105 W
THTH1733FNK*HG0 – 100-277 Vac, 50/60 Hz, 70 W
THTH1733FNK*HJ5 – 100-277 Vac, 50/60 Hz, 105 W
THTH1733GNK*HG0 – 100-277 Vac, 50/60 Hz, 70 W
THTH1733GNK*HJ5 – 100-277 Vac, 50/60 Hz, 105 W
THTH1733HNK*HG0 – 100-277 Vac, 50/60 Hz, 70 W
THTH1733HNK*HJ5 – 100-277 Vac, 50/60 Hz, 105 W
THTH1733JNK*HG0 – 100-277 Vac, 50/60 Hz, 70 W
THTH1733JNK*HJ5 – 100-277 Vac, 50/60 Hz, 105 W
THTH1733KNK*HG0 – 100-277 Vac, 50/60 Hz, 70 W
THTH1733KNK*HJ5 – 100-277 Vac, 50/60 Hz, 105 W
THTH1733LNK*HG0 – 100-277 Vac, 50/60 Hz, 70 W
THTH1733LNK*HJ5 – 100-277 Vac, 50/60 Hz, 105 W
THTH1733MNK*HG0 – 100-277 Vac, 50/60 Hz, 70 W
THTH1733MNK*HJ5 – 100-277 Vac, 50/60 Hz, 105 W
THTH1733NNK*HG0 – 100-277 Vac, 50/60 Hz, 70 W
THTH1733NNK*HJ5 – 100-277 Vac, 50/60 Hz, 105 W

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

[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.
- The luminaire does not have a test port fitted.

[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 L1733N Series has in addition passed the tests for Ingress Protection to IP67 in accordance with EN60529:1991+A1:2000+A2:2013.

The trademark THT-EX will be used as the company identifier on the marking label.