



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 BVS 20.0056X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2020-08-31
Applicant: **thuba Ltd.**
Stockbrunnenrain 9
4123 Allschwil
Switzerland
Equipment: **Hand and Tube Lights type HL**d ** **** ** and TL**d ** **** ****
Optional accessory:
Type of Protection: **Flameproof enclosures "d"; Dust ignition protection by enclosure "t"**
Marking: Ex db IIC T6/T5 Gb
Ex tb IIIC T80°C/T95°C Db

Approved for issue on behalf of the IECEx
Certification Body:

Dr Franz Eickhoff

Position:

Lead Auditor and officially recognised expert

Signature:
(for printed version)

Date:
(for printed version)

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:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

 **DEKRA**
On the safe side.



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Manufacturer: **thuba Ltd.**
Stockbrunnenrain 9
4123 Allschwil
Switzerland

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 60079-1:2014](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

[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:

[DE/BVS/ExTR17.0069/01](#)

Quality Assessment Report:

[DE/BVS/QAR13.0010/08](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Subject and Type

See Annex

Description

The hand and tube light type *L**d ** **** ** is designed in type of protection Flameproof Enclosure 'd' for use in areas with potentially hazardous gas atmospheres and in type of protection Protection by Enclosure 't' for use in areas with potentially hazardous dust atmospheres.

It consists of a transparent tubular housing made from polycarbonate with end caps made of aluminium. One end cap is designed as a blind plug and the other end cap has got a cable gland for the fix installed supply line.

Inside the housing either one or two fluorescent lamp or LED modules as printed or tubular version are mounted. In both cases the required electronic is also built into the housing of the hand and tube light.

Parameters

See Annex

SPECIFIC CONDITIONS OF USE: YES as shown below:

In case of the parts forming the joint shall be replaced or repaired, the information on the dimensions of the flameproof joints must be obtained from the manufacturer, because the gap length of the flameproof joint of this apparatus are in parts longer and the gap width are in parts smaller than required by Table 3 of IEC 60079-1:2014.

For use in areas requiring EPL Db (dust atmospheres): Either the hand and tube light may not be operated in areas with high or repeating charging processes, or the permanently attached supply line shall be protected against those charging processes by installation.

Annex:

[BVS_20_0056X_thuba_annex.pdf](#)



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Subject and Type

Hand and Tube light type ^aL^{bb}d^{cc} dddd^{ee}

- a** Type of light
H Hand light
T Tube light
- bb** Diameter of the tube
43 Ø 43 mm
50 Ø 50 mm
60 Ø 60 mm
70 Ø 70 mm
- cc** Power and type of illuminate
6 Fluorescent lamp 6 W nominal power ¹
8 Fluorescent lamp 8 W nominal power ¹
13 Fluorescent lamp 13 W nominal power ¹
15 Fluorescent lamp 15 W nominal power
18 Fluorescent lamp 18 W nominal power
24 Fluorescent lamp 24 W nominal power
30 Fluorescent lamp 30 W nominal power
36 Fluorescent lamp 36 W nominal power
40 Fluorescent lamp 40 W nominal power
55 Fluorescent lamp 55 W nominal power
58 Fluorescent lamp 58 W nominal power

LED6 LED module with nominal power 6 W ²
LED8 LED module with nominal power 8 W ³
LED20 LED module with nominal power 20 W ⁴ (comparable 18 W fluorescent lamp)
LED24 LED module with nominal power 24 W ⁴ (comparable 30 W fluorescent lamp)
LED30 LED module with nominal power 30 W ⁴ (comparable 36 W fluorescent lamp)
LED40 LED module with nominal power 40 W ⁴ (comparable 58 W fluorescent lamp)
LEDxx LED module with nominal power xx W (maximum 80 W for special custom designs)
- ¹ These fluorescent lamps are available with one or two lamps. Variants with two lamps are marked with x/2
² Only available in print version
³ Available in print and in tube version
⁴ Only available in tube version
- dddd** Length of the tube regarding the diameter
L_{max} for Ø 43 mm 1000 mm
L_{max} for Ø 50 mm 1530 mm
L_{max} for Ø 60 mm 1830 mm
L_{max} for Ø 70 mm 900 mm
- ee** Not relevant for explosion protection



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Parameters

Electrical parameters (fluorescent lamps)

Range of input voltage	AC	24 up to 250	V
Range of input voltage	DC	24 up to 250	V
Range of power		6 up to 58	W
Frequency (for AC types)		50 up to 400	Hz

Electrical parameters (LED modules)

Range of input voltage	AC	85 up to 265	V
Range of input voltage	DC	12 up to 370	V
Range of power		6 up to 80	W
Frequency (for AC types)		50 up to 60	Hz

Thermal ratings

Ambient temperature range	$-20\text{ °C} \leq T_{\text{amb}} \leq 50\text{ °C}$	$-20\text{ °C} \leq T_{\text{amb}} \leq 60\text{ °C}$
Temperature class	T6	T5