

Translation

# EU-Type Examination Certificate

Equipment intended for use in potentially explosive atmospheres  
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 20 ATEX E 068 X**

Product: **Hand and Tube light type \*L\*\*d \*\* \*\*\*\* \*\***

Manufacturer: **thuba Ltd.**

Address: **Stockbrunnenrain 9, 4123 Allschwil, Switzerland**

This product and any acceptable variations thereto are specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 the Directive.

The examination and test results are recorded in the confidential Report No. BVS PP 17.2140 EU.

The Essential Health and Safety Requirements are assured in consideration of:

**EN IEC 60079-0:2018**  
**EN 60079-1:2014**  
**EN 60079-31:2014**

**General requirements**  
**Flameproof enclosure "d"**  
**Protection by Enclosure "t"**

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

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 this certificate.

The marking of the product shall include the following:

 **II 2G Ex db IIC T6/T5 Gb**  
**II 2D Ex tb IIIC T80°C/T95°C Db**

DEKRA Testing and Certification GmbH  
Bochum, 2020-08-25

Signed: Jörg-Timm Kilisch

Managing Director

13 **Appendix**  
 14 **EU-Type Examination Certificate**  
**BVS 20 ATEX E 068 X**

15 **Product description**

15.1 **Subject and type**

Hand and Tube light type a<sup>1</sup>L<sup>bb</sup>d<sup>cc</sup> dddd<sup>ee</sup>

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 <sup>1</sup>
8	Fluorescent lamp 8 W nominal power <sup>1</sup>
13	Fluorescent lamp 13 W nominal power <sup>1</sup>
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 <sup>2</sup>
LED8	LED module with nominal power 8 W <sup>3</sup>
LED20	LED module with nominal power 20 W <sup>4</sup> (comparable 18 W fluorescent lamp)
LED24	LED module with nominal power 24 W <sup>4</sup> (comparable 30 W fluorescent lamp)
LED30	LED module with nominal power 30 W <sup>4</sup> (comparable 36 W fluorescent lamp)
LED40	LED module with nominal power 40 W <sup>4</sup> (comparable 58 W fluorescent lamp)
LEDxx	LED module with nominal power xx W (maximum 80 W for special custom designs)

<sup>1</sup> These fluorescent lamps are available with one or two lamps. Variants with two lamps are marked with x/2  
<sup>2</sup> Only available in print version  
<sup>3</sup> Available in print and in tube version  
<sup>4</sup> Only available in tube version

dddd Length of the tube regarding the diameter

L <sub>max</sub> for Ø 43 mm	1000 mm
L <sub>max</sub> for Ø 50 mm	1530 mm
L <sub>max</sub> for Ø 60 mm	1830 mm
L <sub>max</sub> for Ø 70 mm	900 mm

ee Not relevant for explosion protection

15.2 **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.

**Reason for this supplement:**

- Updating of the applied standards according to the list on the first page
- Adaptation to the currently valid company name

15.3 **Parameters**

15.3.1 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

15.3.2 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

15.3.3 Thermal ratings

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

16 **Report Number**

BVS PP 17.2140 EU, as of 2020-08-25

17 **Special Conditions for Use**

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 EN 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.

18 **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential report.

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We confirm the correctness of the translation from the German original.  
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH  
Bochum, 2020-08-25  
BVS-Kir A20200677



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Managing Director