

[1] **TYPE EXAMINATION CERTIFICATE**

(Translation)



[2] for electrical equipment of Equipment Group II, Equipment Category 3

[3] Type Examination Certificate Number: **IBExU16ATEXB003 X**

[4] Equipment: **Navigation light**  
Series S64

[5] Manufacturer: **K2W Lights UG & Co. KG**

[6] Address: **Göschwitzer Straße 22**  
**07745 Jena**  
**Germany**

[7] The design of the equipment mentioned in [4] and any acceptable variations thereto are specified in the schedule to this Type Examination Certificate.

[8] IBExU Institut für Sicherheitstechnik GmbH certifies that the equipment mentioned in [4] has been found to comply with the essential health and safety requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive 94/4/EC.

The test results are recorded in the test report IB-15-4-016 of 30 March 2016.

[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 and EN 60079-31:2014.

[10] If the sign „X“ is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in [17] in the schedule to this Type Examination Certificate.

[11] This Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this directive apply to the manufacture and supply of this equipment.

[12] The marking of the equipment mentioned under [4] shall include the following:

II 3G Ex nA IIC T4 Gc

II 3D Ex tc IIIC T130 °C Dc

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Authorised for certifications  
- Explosion protection -

By order

(Dipl.-Ing. [FH] Henker)

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- Stamp -

Freiberg, 30 March 2016

Certificates without signature and seal are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

**Annex**



[13]

**Annex**

[14]

**to the Type Examination Certificate IBExU16ATEXB003 X**

[15]

**Description of the equipment**

The Navigation light of series S64 serves as position light on ships and can be used in hazardous areas of zone 2 and 22. It consists mainly of a light-transmitting glass cylinder, the base with the LEDs and the bottom and cover, made of aluminium. Depending on the luminous range the number of LEDs varies up to maximum 12. The connection of the LEDs is carried out redundantly, so that maximum half of the LEDs is illuminated at once. The electronic components located in the bottom are completely casted. The connection is carried out by a permanently connected cable. Several types with different luminous colours and electrical power are provided.

**Technical data:**

- Rated voltage: 12 V DC or 24 V DC ( $\pm 10\%$ )
- Nominal power: max. 9.8 W
- Irradiance:  $< 5 \text{ mW/mm}^2$
- Ambient temperature range:  $-25^\circ\text{C}$  bis  $+55^\circ\text{C}$

[16]

**Test report**

The proof of the explosion protection is explained in detail in the test report IB-15-4-016. The test documents are part of the test report and are listed there.

**Summary of the test results:**

The Navigation light series S64 fulfils the requirements of explosion protection for electrical equipment of the Equipment Group II and Category 3G in type of protection "nA" non-sparking device and Category 3D with protection by enclosure "tc".

[17]

**Special conditions for safe use**

- The Navigation light may be used in an extended ambient temperature range of  $-25^\circ\text{C}$  up to  $+55^\circ\text{C}$ .
- The Navigation light has to be installed protected from mechanical loads.
- The Navigation light is intended for the use in upright position.
- The connection of the Navigation light has to be connected outside of the hazardous area or in a terminal box which complies with the requirements of a type of protection as specified in EN 60079-0, Clause 1.

[18]

**Essential Health and Safety Requirements**

Confirmed by compliance with standards (see [9]).

By order

Freiberg, 30 March 2016



(Dipl.-Ing. [FH] Henker)