



[1] EU-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protective System intended for use in potentially explosive atmospheres - Directive 2014/34/EU Annex III – MODULE B: EU-TYPE EXAMINATION

- [3] EU-type Examination Certificate number: **IMQ 21 ATEX 061X**
- [4] PRODUCT: **Portable Multi-function Explosion-proof LED Lamp**
TYPE/SERIES: **BW6610B**
- [5] MANUFACTURER: **ZHEJIANG TORMIN ELECTRICAL CO.,LTD.**
- [6] ADDRESS: **No.2,Gangteng Rd,Yongxing Subdistrict,Longwan District
325024 WENZHOU CITY, ZHEJIANG PROVINCE - CHINA**
- [7] This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documents therein referred to.
- [8] IMQ, notified body N° 0051, 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 equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in Report No.: **AT24-0102414-01/D**
- [9] Compliance with Essential Health and Safety Requirements, except in respect of those listed at item 18 of the annex, has been assured by compliance with:
**EN IEC 60079-0:2018; EN 60079-1:2014; EN 60079-7:2015; EN IEC 60079-7:2015/A1:2018;
EN 60079-18:2015; EN 60079-18:2015/A1:2017; EN 60079-31:2014**
Additional standard: IEC 60079-31:2022 ed. 3.0
- [10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate
- [11] 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.
- [12] The marking of the equipment or protective system shall include the following:

 **II 2G Ex db eb mb IIC T6 Gb**
II 2D Ex tb IIIC T80°C Db

THIS CERTIFICATE CANCELS AND REPLACES THE PREVIOUS ONE. IT INCLUDES 1 ANNEX.

FIRST ISSUE	2021-12-20
CURRENT ISSUE	2024-07-24
PREVIOUS ISSUE	2023-02-08
EXPIRING DATE	2033-02-06

B.U. PRODUCT
CERTIFICATION SECTOR - MANAGER

This Certificate may only be reproduced in its entirety and without any change. It is subject to the general rules for assessing conformity to community directives for which IMQ operates as notified body n°. 0051 and to the special requirements for Directive 2014/34/EU (ATEX) "Equipment and protective systems for potentially explosive atmospheres" annex III - MODULE B – EU Type-examination.



PRD N° 005 B

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

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[15] Description of product

BW6610B is made of polycarbonate, light source enclosure is made of aluminum and the light transmitting part is glass. LED source is not convergent. The power supply cavity is Ex eb and Ex tb, the light source cavity is Ex db and Ex tb, the switch cavity is Ex db and Ex tb. The battery compartment is in the power supply cavity which is protected by Ex mb circuit.

[15.1] Models/Series Identification:

BW6610B

[15.2] Ratings:

LED power: 13W

[15.3] Safety Ratings: -

[15.4] Ambient temperature and temperature classes:

T_{ambient} -20 °C to +55 °C
Temperature class: **T6** for Group IIC and **T80°C** for Group IIIC

[15.5] Degree of protection (IP code):

IP66

[15.6] Warnings:

WARNING - DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT.
WARNING - DO NOT CHARGE IN A HAZARDOUS AREA
WARNING - POTENTIAL ELECTROSTATIC CHARGING HAZARD - SEE INSTRUCTIONS.

[16] **Report:** AT24-0102414-01/D

[16.1] Routine (factory) tests:

The manufacturer shall carry out the routine test prescribed at clauses 27 of the EN 60079-0. Static overpressure test is conducted according to Clause 16.1 of EN 60079-1: the Manufacturer shall carried out the routine pressure test at test pressure: light source compartment 1.5MPa, Switch compartment 2.0MPa. Dielectric voltage test is conducted according to Clause 7.1 of EN 60079-7 and Clause 9.2 of EN 60079-18: the Manufacturer shall carried out dielectric voltage test at 500V for 1 minute. Each piece of equipment, in relation to parts protected by Ex m encapsulation concept, shall be subjected to a visual inspection to avoid evident damages, exposure of the encapsulated parts, flaking, inadmissible shrinkage, swelling, decomposition, failure of adhesion or softening.

[16.2] Conformity with the documentation:

The manufacturer shall carry out the verifications or tests necessary to ensure that the product complies with the documentation.

Marking the equipment in accordance with Clause 29 of EN 60079-0, the manufacturer attests on his own responsibility that:

- the equipment has been constructed in accordance with the applicable requirements of the relevant standards in safety matters;
- the routine verifications and routine tests in 28.1 of EN 60079-0 have been successfully completed with positive results.

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[16.3] Installation conditions:

Above referred equipment is foreseen to be installed in locations where there are environmental conditions, as clearly specified at clause 1, par. 2 of EN 60079-0.

Installation and use in atmospheric and environmental conditions that are out of above-mentioned intervals request special considerations and additional measures by the side of installer or user.

These should be specified to the manufacturer by the user;

It is not a required by applicable standard listed in [9] that the certification body confirm suitability for the adverse conditions.

Installation of equipment has to proceed according to EN 60079-14.

[17] Special Condition of use (X):

Charge Service ambient temperature : 0°C to +40°C

Discharge Service ambient temperature : -20°C to +55°C

WARNING - DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT.

WARNING - DO NOT CHARGE IN A HAZARDOUS AREA

WARNING - POTENTIAL ELECTROSTATIC CHARGING HAZARD - SEE INSTRUCTIONS.

[18] Essential Health and safety Requirements:

This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed in [9].

This Certificate **does not** cover hazards coming from environmental conditions different from those clearly and precisely indicated and covered in clause 1 of EN 60079-0.

ESHR 1.2.7 According Annex VIII of the Directive

ESHR 1.4 Not verified.

ESHR 1.5 Not verified.

ESHR 3 Not applied.

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at [9], the following are considered relevant to this product, and conformity is demonstrated in the report:

none

[19] **Descriptive documents:** AT24-0102414-01/D rev. 0 dated 2024-07-15.

[20] Certification Validity Conditions:

The use of this Certificate is subject to the Certification Scheme and to the Regulation applicable to holders of IMQ Certificates.

The validity of this certificate is subject to the condition that the manufacturer complies with the results of the document review and of the pertinent requirement if any included, recorded in the relevant copy of documentation as per 19.

One copy of the mentioned documentation is kept in IMQ file.

[13]

Annex

[14]

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[21]

Variations

Issue 1

Editorial corrections:

- included routine test according to Ex m concept (EN 60079-18)
- change in scheduled documentation

Issue 2

- Address change
- IEC 60079-31:2022 ed. 3.0 including as additional standard