

# EU-TYPE EXAMINATION CERTIFICATE



## Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

- [3] EU-Type Examination Certificate Number: **DEMKO 15 ATEX 1546X Rev. 4**
- [4] Product: **Intrinsically Safe Headlamp, Models DS-15, DS-15 Z1, DS-15L, DS-15L Z1**
- [5] Manufacturer: **Day Sun Technology Ltd.**
- [6] Address: **No. 28, Yongke 3 rd RD, Yongkang District, Tainan City 704 Taiwan**
- [7] This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- [8] UL International Demko A/S, notified body number 0539 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to 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 confidential report no. **US/UL/ExTR15.0102/04.**

- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN IEC 60079-0:2018**

**EN 60079-11:2012**

**EN 50303:2000**

- [10] If the sign "X" is placed after the certificate number, it indicates that the product 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 the certificate.
- [12] The marking of the product shall include the following:

Models DS-15 and DS-15L:

I M 1    Ex ia I Ma    II 1 G    Ex ia IIC T4 Ga

Models DS-15 Z1 and DS-15L Z1:

I M 2    Ex ib I Mb    II 2 G    Ex ib IIC T4 Gb

**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:** 2015-12-07

**Re-issued:** 2022-07-28

**Notified Body**

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## Schedule

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- [15] Description of Product  
The DS-15, DS-15L, DS-15 Z1 and DS-15L Z1 are high power LED headlamps for use in hazardous locations and is powered by three size AAA, 1.5 V alkaline cells connected in series. These models are available in three different color enclosures: yellow/black, orange/black, black/black. The following batteries were considered acceptable for use in the headlamps:
- Model E92, manufactured by Energizer;
  - Model MN2400, manufactured by Duracell;
  - Model LR03, manufactured by Panasonic; and
  - Model LR03, manufactured by Rayovac.

Performance testing

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 5) to the scope of EN 60079-28:2015.

Temperature range

The ambient temperature range is -20°C to +40°C.

Routine tests

None

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Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [ 8 ] on page 1 of this EU-Type Examination Certificate.

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Specific conditions of use:

- Read manual before use.
- Do not open the enclosure in a hazardous area.
- Replace batteries only in non-hazardous areas.
- Use only battery type Energizer E92, Duracell MN2400, Panasonic LR03, or Rayovac LR03.
- Do not mix new batteries with used batteries or mix batteries from different manufacturers or from different types.
- The screw shall be secured tightly after opening and closing the enclosure.

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Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information

Models DS-15, DS-15L, DS-15 Z1 and DS-15L Z1 have in addition passed the tests for Ingress Protection to IP 67 in accordance with EN60529:1991+A1:2000+A2:2013.

The Registered Trademarks,  , **DAYSUN** ,  **DAYSUN** or  **DAYSUN TECHNOLOGY LTD.** , for Day Sun Technology Ltd. will be used as the company identifier on the marking label.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.