



EC TYPE EXAMINATION (MODULE B)
CERTIFICATE No. MED402422WS

***This is to certify** that RINA Services S.p.A. (Notified Body No. 0474) did undertake the relevant type approval procedures for the equipment identified below, which was found to be in compliance with the Life-Saving appliances requirements of Marine Equipment Directive (MED) 2014/90/EU, including the requirements and testing standards of Regulation (EU) 2022/1157.*

<i>MED Item N°</i>	MED/1.2c
<i>USCG Category N°</i>	161.112
<i>Description</i>	Position-indicating lights for life-saving appliances: (c) for lifejackets
<i>Type</i>	HL3
<i>Applicant</i>	ACR ELECTRONICS, INC. 5757 RAVENSWOOD ROAD FORT LAUDERDALE 33312 U.S.A
<i>Testing standards</i>	IMO Res. MSC.81(70), as amended, IEC 60945:2002 incl. IEC 60945 Corr. 1:2008, ISO 24408: 2005.
<i>Reference standards</i>	SOLAS 74 Reg. III/7, SOLAS 74 Reg. III/22, SOLAS 74 Reg. III/26, SOLAS 74 Reg. III/32, SOLAS 74 Reg. III/34, IMO Res.MSC.36(63)-(1994 HSC Code) 8, IMO Res.MSC.48(66)-(LSA Code) I, IMO Res.MSC.48(66)-(LSA Code) II, IMO Res.MSC.97(73)-(2000 HSC CODE) 8, IMO MSC.1/Circ.1628.

Issued in **SHANGHAI** *on*
March 24, 2023

This Certificate is valid until
March 23, 2028

This Certificate consists of this sheet plus an attachment



Zhang Hai Wen

Hai Wen Zhang
RINA Services S.p.A.





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Manufacturer

XIAMEN LONAKO INDUSTRY & TRADE CO., LTD

Place of Manufacturer

1019-2 Wanjiachun Road
Torch High-tech Zone(Xiangan) Xiamen (Fujian)
CHINA

Name & place of Authorised Representative

Mr. Johannes Graf Strachwitz
Walhallastraße 38, 80639 München, Germany
GERMANY

Product description

Model of light: HL3 - flashing light automatically activated by water sensor and with on/off manual switch.

The above light is manufactured with following characteristics:

- Dimensions of body: 62 x 28.4 x 31.5 mm,
buckle: 61.2 x 9.5 x 11.7 mm;
- Color of dome: semi-transparent;
- Material: PC;
- Total weight: 30g(including buckle);
- Flash rate: about 50~70 flashes per minute;
- Luminous Intensity: $\geq 0.75\text{cd}$;
- Operation Life: $\geq 8\text{h}$ over 0.75cd ;
- Environmental Temperature: $-30^{\circ}\text{C} \sim +65^{\circ}\text{C}$;
- Working Temperature: $-1^{\circ}\text{C} \sim +30^{\circ}\text{C}$;
- Battery: 1 x 3.0 Volt, $\geq 750\text{mAh}$, model CR2 lithium;
- Bulb: white chip LED;
- Performance: Fire-resistant, Oil-resistant, Mould-proof, Corrosion-proof, Water-proof;
- The light is supplied with a clamp for fastening to the lifejacket.

Tests carried out

Inspection Report (Ref.: No.2010YW035) issued by The National Supervision and Testing Center of Fishery Machinery and Instrument and filed by RINA with No.: SHFP-14649;

Inspection Report (Ref.: No.2010YW034) issued by The National Supervision and Testing Center of Fishery Machinery and Instrument and filed by RINA with No.: SHFP-14651;

EMC Test Report (Ref.: No.2019EC-WJ0141) edited by Xiamen Products Quality Supervision & Inspection Institute according to Chapter 9.3, 10.4 and 10.9 of IEC 60945:2002 incl. IEC 60945 Corr.1 (2008) and filed by RINA with No.: SHFP-14652;

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Continued:

PC Mould Growth Test Report (Ref.: No.20092277) issued by Center of Analysis & Measurement of Shanghai Institute of Industrial Microbiology filed by RINA with No.: SHFP-14655;

Evaluation and Test Report (Additional, Ref.: No.201903A1M) edit by XIAMEN LONAKO INDUSTRY & TRADE CO. LTD according to MSC.81(70) and Chapter 8.3, 8.5, 8.6, 8.9 and 11.2 of IEC 60945:2002 incl. IEC 60945 Corr.1 (2008) and filed by RINA with No.: SHFP-14657;

Evaluation and Test Report edit by RINA Shanghai Office in accordance with IMO Res. MSC.81(70) as amended by Res. MSC.226(82) and filed by RINA with No.: CSST-5816.

Additional Evaluation and Test Report (Ref.: No.2023LJ03A1/HL3) edit by XIAMEN LONAKO INDUSTRY & TRADE CO. LTD according to ISO 24408:2005 dated on Dec.16.2022, and filed by RINA with No.: SHFP-23041;

Routine Test Report edit by XIAMEN LONAKO INDUSTRY & TRADE CO. LTD dated on Aug.20.2022, and filed by RINA with No.: SHFP-23047.

Reference documents

Technical drawings and manuals edit by XIAMEN LONAKO INDUSTRY & TRADE CO. LTD approved and filed by RINA:

- Bill of Material approved by RINA with No.: SHFP-14654;
- Booklet of technical drawings approved by RINA with No.: SHFP-14656;
- Technical Specifications approved by RINA with No.: SHFP-23048;
- Operation and maintenance Instructions filed RINA with No.: SHFP-23111;
- Technical Labeling approved by RINA with No.: SHFP-23114.

Field of application

Flashing light for lifejackets designed in compliance with IMO Res MSC 207(81).

Remarks

This certificate annuls and replaces the certificate No. MED026520WS dated on March 20, 2020 and due to additional tests required by ISO 24408:2005.

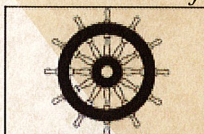




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The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production control phase module (D, E or F) of Annex II of the Directive is fully complied with a written inspection agreement with a Notified Body



XXXX/YYYY

"WHEELMARK FORMAT"

XXXX Notified Body number undertaking surveillance module

YYYY The year in which the mark is affixed

USCG Approval marking

This equipment is covered by the scope of the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment signed February 27th, 2004 and amended by Decision No. 1/2018 dated February 18th, 2019 according to U.S. Coast Guard approval category 161.112.

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F) as allowed by the MED.

General conditions for the approval

- a) The initial conditions verified by RINA at the time of the approval are to be maintained
- b) Any changes to the initial conditions are to be promptly communicated to RINA, which reserves the right to repeat the relevant assessment
- c) This certificate will no be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with RINA
- d) RINA personnel are to be allowed to witness during the performances of activities, upon their request
- e) The activities are to be carried out in compliance with the RINA Rules and/or other applicable Rules
- f) Should the specified regulations or standards be amended during the validity of this certificate, the product is to be reapproved prior to it being placed on board vessels to which the amended regulations or standards apply.



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