



**EC TYPE EXAMINATION (MODULE B)**  
**CERTIFICATE No. MED026520WS**

***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) 2019/1397.*

<i>MED Item N°</i>	<b>MED/1.2c</b>
<i>USCG Category N°</i>	<b>161.112</b>
<i>Description</i>	<b>Position-indicating lights for life-saving appliances: (c) for lifejackets</b>
<i>Type</i>	<b>HL3</b>
<i>Applicant</i>	<b>ACR ELECTRONICS, INC.</b> 5757 RAVENSWOOD ROAD FORT LAUDERDALE 33312 U.S.A
<i>Testing standards</i>	<b>IMO Res. MSC.81 (70), as amended, IEC 60945:2002 incl. IEC 60945 Corr. 1 (2008).</b>
<i>Reference standards</i>	<b>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.</b>

*Issued in SHANGHAI on*  
March 20, 2020

*This Certificate is valid until*  
March 19, 2025

*This Certificate consists of this sheet plus an attachment*



**Qiang Sun**

*RINA Services S.p.A.*







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*Manufacturer*

**XIAMEN LONAKO INDUSTRY & TRADE CO., LTD**

*Place of Manufacturer*

N 307 WEIYE BUILDING  
CHINA PIONEERING PARK FOR CHINESE OVERSEAS SCHOLARS  
XIAMEN  
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 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  $0.75\text{cd}$ ;
- 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,  $\geq 750$  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.



*Sm. Ong*







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**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;

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.

**Reference documents**

Technical drawings and manuals approved and filed by RINA listed on Approval letter No.: SHFP/2020/00110/XZO01 and SHFP/2020/00114/XZO01.

**Field of application**

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



*Smiling*







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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**

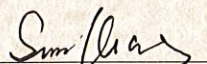
This product has been assigned a U.S. Coast Guard module B number (*USCG number: 161.112/EC0474*) to note type approval to Module B only as it pertains to obtaining U.S. Coast Guard approval as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" as amended by Decision N. 1/2018 signed on 18th February 2019.

The manufacturer is allowed to affix the U.S. Coast Guard approval number to the above equipment subject to the authorization of the Notified Body undertaking the surveillance module.

***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.



  
Qiang Sun

