

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:**That the Position indicating lights for life-saving appliances: (b) for lifebuoys**

with type designation(s)
L160, L160 Hansson and L160 Apollo

Issued to
Daniamant Ltd
Portsmouth, Hampshire, United Kingdom

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2019/1397**,
item No. MED/1.2b. SOLAS 74 as amended, Regulation III/4, III/7, III/22, III/32, III/34 & X/3, LSA Code, 2000 HSC Code 8

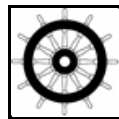
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-10-10**.

Issued at **Hamburg** on **2019-10-11**

DNV GL local station:
Denmark CMC

Approval Engineer:
Nicolay Horn



Notified Body
No.: **0098**

for **DNV GL SE**

Gerhard Aulbert
Head of Notified Body

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 "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.

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-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU. This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled. Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



Job Id: **344.1-009920-1**
Certificate No: **MEDB000060Z**

Product description

Self-activated lights for lifebuoys L160, L160 Hansson and L160 Apollo

Application/Limitation

Lights powered by batteries shall be marked with means of determining their age or the date by which they are to be replaced.

For compliance with SOLAS Regulation III/35 and III/36, fully detailed operations and maintenance manuals shall be supplied with each light.

Maximum installation Height: 76 m.

Type Examination documentation

Technical file doc. No. TF012, revision 06, September 2017

Installation and Maintenance Instruction, Daniament Version, 62-127-001 Issue 05 (C6495)

Installation and Maintenance Instruction, Hanson Version, 62-139 Issue 02 (C6327)

Installation and Maintenance Instruction, Apollo Version, 62-146 Issue 03 (C6395)

Test report No	Title	Date
14-05	"L160, L161, L162 and L163 Life test", witnessed by TUV product service Ltd	2014-04-24
J-5036	Microbiological test report	2013-10-15
09-10	Alternative cell CR123A cell and Able CR17505	2009-10-20
75925967, report 01, Issue 1	"Temperature cycling test, Luminous intensity test, Chromatic test, Vibration test", witnessed by TUV product service Ltd	2014-06
	"Evaluation and test report per MSC 81(70), dated 09-03A"	2009-08-06

Tests carried out

-IMO Resolution MSC.81(70), part 1, as amended

-IEC 60945:2002 incl. IEC 60945 Corr. 1 (2008)

Marking of product

To be marked with information requested by the LSA Code Paragraph 1.2.2.9 and 1.2.3

- Manufacturer name
- Type identification
- Serial or Lot number
- Date of expiry
- USCG Approval Number: USCG 161.110/EC0098/ MEDB000060Z

END OF CERTIFICATE