

TYPE APPROVAL CERTIFICATE**This is to certify:****That the Light Fitting**with type designation(s)
L160 & L161

Issued to

Daniamant Ltd
Portsmouth Hampshire, United Kingdomis found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.****This certificate is recognized by Transport Canada.****Vibration class A (equiv. IEC 60945)**
Enclosure class IP67
Class NA
Temp. class T3 (L161)
Voltage class 5 V DC
Ex class Zone 0, I & II (L161)This Certificate is valid until **2019-09-30**.Issued at **Høvik** on **2015-10-01**DNV GL local station: **Copenhagen**Approval Engineer: **Nicolay Horn**for **DNV GL**

Marit Laumann
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Job Id: **262.1-019922-1**
Certificate No: **TAE000008G**

Name and place of manufacturer

Daniamant Limited, Unit 3 The Admiral Park, Airport Service Road, Portsmouth, Hampshire.
PO3 5RQ. United Kingdom

Product description

Position-indicating lights for life buoy type L160 and L161.

Technical data	L160	L161
Weight:	255 g	300 g
Battery:	Lithium battery 2 x 3V (CR123A or 2/3A)	Lithium battery 2 x 3V (CR17505)
Lamp:	12 mm LED -White	12 mm LED -White
Ex Class	NA	II 1 G Ex ia IIC T3 Ga
Enclosure Class	IP68	IP68

Dimensions	
Height:	185 mm
Width:	106 mm
Depth:	106 mm

Application/Limitation

Instructions from maker given in the instruction manual to be followed.

Type Approval documentation

Datasheet

Technical Datasheet The new Daniamant L106-L163 Lifebuoy Lights.

Lamp Drawing

"L160 Life Buoy Light (SOLAS)", drawing no. 62-001A.

"L161 Life Buoy Light (SOLAS)", drawing no. 62-002A.

"12 mm LED - WHITE", drawing No. 62-112D.

Test reports

Daniamant Engineering Report nos. 09-03A dated 2009-08-06, 09-10 dated 2009-10-20, 09-12 dated 2009-12-07 & 14-05 dated 2014-04-24. Murphy & Son Microbiological Test Report no. J-5036 dated 2013-10-15. TÜV Test Report doc. No. 75925967 Report 01 Issue 1 dated 2014-06-20.

Ex Certificates

Intertek EX-Type Examination Certificate no. ITS09ATEX26366X dated 2009-09-09. IECEx Certificate of Conformity certificate no. IECEx ITS 09.0022X dated 2009-09-09.

Tests carried out

Tested in accordance with the requirements of IMO Resolution MSC.81 (70) as amended.

Temperature cycling-, luminous intensity-, mould growth-, corrosion and seawater resistance-, solar radiation-, oil-resistance-, rain and water tightness-, fire-, chromaticity-, drop-, flashing rate-, switch arrangement-tests & vibration test.

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Transport Canada Approval

Based on the procedure laid down in the Transport Canada Publication "Canadian Life Saving Appliance Standard /TP14475E. DNV GL confirms that the product(s) tested in this certificate is/are in accordance with Transport Canada's requirements.

Marking of product

The product is to be marked with manufacturers name, type designation, date of manufacture, date of expire and Mark of Conformity. The expiring date shall be marked in accordance with the LSA Code, item 1.2.3 as amended by IMO Res. MSC 48(66).

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Assessment to be performed at least every second year.

END OF CERTIFICATE