Certificate No:
TAE00004FX

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Light Fitting

with type designation(s)
L160

Issued to
Daniamant Ltd
Portsmouth, Hampshire, United Kingdom

is found to comply with
DNV rules for classification – Ships, offshore units, and high speed and light craft

Application :

This certificate is recognized by Transport Canada.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Vibration class	**A**
Degree of protection	**IP68**
Temp. class	**NA**
Voltage (V)	**3**
Suitable for Hazardous areas	**No**

Issued at **Høvik** on **2022-05-09**
This Certificate is valid until **2027-05-08**.
DNV local station: **Denmark CMC**

Approval Engineer: **Marcin Tobiasz**

for **DNV**

Trond Sjåvåg
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description
Self-activated lights for lifebuoys L160 (including other brand variants)

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 Approval documentation
Tests carried out
-IMO Resolution MSC.81(70), part 1, as amended
-IEC 60945:2002 incl. IEC 60945 Corr. 1 (2008)

Transport Canada Approval
Based on the procedures laid down in the Transport Canada Publication entitled "Approval Procedures for Life Saving Equipment and Structural Fire Protection Products (TP 14612E)", DNV confirms that the product listed in this certificate is in accordance with Transport Canada's requirements.

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
- Intended use (Lifebuoys light)
- Serial or Lot number
- Date of expiry*
- TAE00004FX (DNV approval)

* 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 are 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 2 and 3.5 year and at renewal.

END OF CERTIFICATE