

TYPE APPROVAL CERTIFICATE**This is to certify:****That the Liferaft lights**with type designation(s)
RB2-RL1 and RB2-RL4

Issued to

Daniamant Ltd
Portsmouth Hampshire, United Kingdomis found to comply with
DNV GL rules for classification – Ships and offshore units**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 GL.**This Certificate is valid until **2021-07-31**.Issued at **Høvik** on **2016-08-01**DNV GL local station: **Copenhagen**Approval Engineer: **Marta Alonso Pontes**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: **262.1-022887-1**
Certificate No: **TAE0000199**
Revision No: **1**

Product description

RB2-RL1: Internal liferaft light.

The light comprises RL1 light unit powered by one RB2 battery pack*.

The unit is fully sealed and watertight, and comprises a plastic dome and incandescent lamp. A cable with moulded plug is provided to connect to the socket of RB2 battery pack.

Dry-activated power source.

Dimensions:

Length: Cable length – various.
Width: 49mm (Battery Pack)
Height: 90mm (Battery Pack)
Weight: 80g (Typical)

RB2-RL4: High intensity flashing light for mounting externally on liferafts.

The light comprises an RL4 light unit and two RB2 battery packs*.

The unit is fully sealed and watertight, and comprises a plastic dome, incandescent lamp and electronic circuit. Two cables with moulded plugs are provided to connect to the sockets of two RB2 battery packs. The dome is sealed by a neoprene 'O' ring.

Dry-activated power source.

Dimensions:

Length: Cable Lengths – Various.
Width: 49mm(Each Battery Pack)
Height: 90mm (Each Battery Pack)
Weight: 110g (Typical)

*RB2 battery pack consists of an orange molded plastic case containing a lithium cell and internal circuitry. The top cover is fitted with an integral polarized socket and the electrical assembly is protected against ingress of water when the plug is fitted.

Application/Limitation

See manufacturer's instructions for correct installation and maintenance.

The arrangement and installation of the lights onboard are not part of this approval.

The battery/light unit has a storage life of 5 years and must be replaced before or on the date shown on the product label.

Type Approval documentation

Documents listed in App. Letter with reference MCANO381/PONT/262.1-022887-J-8 dated 19/07/2016 and MCANO381/PONT/262.1-022887-J-13 dated 29/07/2016

Tests carried out

Tested in accordance with the requirements of TP14475/IMO Resolution MSC.81 (70), as amended.

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

- Intended use (Liferaft light)
- Serial number and manufacturing date
- Manufacturer identification
- Easily understandable symbols for on/off switching

Job Id: **262.1-022887-1**
Certificate No: **TAE0000199**
Revision No: **1**

- Expiry date*
 - TAEXXXXXXXX (DNV GL approval)
 - Marking on the battery: BAT MM/YY (expiry date)
- * 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 Routine tests (RT) checked (if not available tests according to 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