

# TYPE APPROVAL CERTIFICATE

**This is to certify:**

**That the Light Fitting**

with type designation(s)  
**M3, ML3 & MR3**

Issued to

**Daniamant ApS**  
**Slangerup, Denmark**

is found to comply with  
**DNV GL rules for classification – Ships and offshore units**

**Application :**

**This certificate is recognized by Transport Canada.**

**Vibration class**    **A (equiv. IEC 60945)**  
**Enclosure class**   **IP67**  
**Class**                **NA**  
**Temp. class**        **T3**  
**Voltage class**      **5 V DC**  
**Ex class**             **NA**

This Certificate is valid until **2021-06-28**.

Issued at **Høvik** on **2016-06-29**

DNV GL local station: **Copenhagen**

Approval Engineer: **Nicolay Horn**

for **DNV GL**

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**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.

## Product description

Lifejacket flashing of type M3, ML3 and MR3.

Technical data	M3	ML3	MR3
Weight:	36 g	31 g	42g
Battery:	Lithium battery 2 x 3V ER 14250	Lithium battery 2 x 3V ER 14250M	Lithium battery 2 x 3V ER 14250M
Lamp:	12 mm LED -White	12 mm LED -White	12 mm LED -White
Housing material	ABS or TPE	ABS or TPE	ABS or TPE
Enclosure Class	IP66	IP66	IP66
Dimensions Lx H x W	55.9 x 26.9 x 37.8	54 x 31.4 x 27.8	53 x 27.5 x 27.8

## Application/Limitation

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

- M3: Manual lifejacket flashing lights  
ML3: Manual lifejacket flashing lights (M3 light with a different clip only)  
MR3: Manual lifejacket flashing lights

## Type Approval documentation

### Datasheet

- Technical Datasheet for M3, W3, W3-1 & W3-2.  
Technical Datasheet for MR3, WR3, WR3-1 & WR3-2.  
Technical Datasheet for ML3, WL3, WL3-1 & WL3-2.

### Test reports

Daniamant ApS Evaluation and Test Report for Lifjacket lights DAN M3, Mr3, W3, and WR4 no. 12-2010 dated 2010-12-23, Evaluation and Test Report for Lifjacket lights DAN M3/W3, MR3/WR3, ML3/WL3, W3-1/W3-2, WR3-1/WR3-2 and WL3-1/WL32 Upgrade Lifejackets Lights no. 01-2015 dated 2015-07-22, "Type Approval Testing conducted at Daniamant Limited for Lifejacket lights – of new battery and LED type. TÜV Report on Temperatur Cycling and vibration Testing of the M3 and W3 ER 14250/ER14250M Variant Lifejacket Light & Battery unit to the requirements of IMO Resolution MCS.81 (70) for Daniamant Limited doc.no. 75927471 Report 01 issue 01. Lloyds Register CERTIFICATE OF TYPE APPROVAL No. SAS S110015, SAS S110016, SAS S110017 and SAS S 110018. . Lloyds Register EC TYPE EXIMINATION (MODULE B) CERTIFICATE No. MED 1150020, 1150021 155022 and ii50023. TÜV Marine Equipment Directive Module B Type Eximination Certificate no. BAPT-MED001113 issue 3 issued 2016-01-05.

## 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.

## 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.

Job Id: **262.1-021783-1**  
Certificate No: **TAE000017R**

## **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).

All required marking shall be specified in English and French.

## **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