

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Light Fitting**

with type designation(s)

W3, W3-1, W3-1, W3-2, WL3, WL3-1, WL3-2, WR3, WR3-1 & WR3-2

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	IP66
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**

**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 lights of type W3, W3-1, W3-2, WL3, WL3-1, WL3-2, WR3, WR3-1 and WR3-2.

Technical data	W3	W3-1	W3-2
Weight:	31g	33,5g	33,5g
Battery:	Lithium battery ER 14250M	Lithium battery ER 14250M	Lithium battery 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 (L x H x W)	55.8 x 26.8 x 37.8	55.8 x 26.8 x 37.8	55.8 x 26.8 x 37.8

Technical data	WL3	WL3-1	WL3-2
Weight:	42g	44,5g	44,5g
Battery:	Lithium battery ER 14250M	Lithium battery ER 14250M	Lithium battery 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 (L x H x W)	54 x 31.4 x 27.8	54 x 31.4 x 27.8	54 x 31.4 x 27.8

Technical data	WR3	WR3-1	WR3-2
Weight:	35g	37,5g	37,5g
Battery:	Lithium battery ER 14250M	Lithium battery ER 14250M	Lithium battery 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 (L x H x W)	53 x 27.5 x 27.8	53 x 27.5 x 27.8	53 x 27.5 x 27.8

Application/Limitation

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

W3: Water activated lifejacket flashing lights

W3-1: Water activated lifejacket flashing lights activated by lead sensor only

W3-2: Water activated lifejacket flashing lights activated by lead sensor and by sensor pin (dual activation)

WL3: Water activated lifejacket flashing lights (W3 lights with a different clip only)

WL3-1: Water activated lifejacket flashing lights (W3 light with a different clip and activated by lead Sensor and by sensor pin – dual activation)

WL3-2: Water activated lifejacket flashing lights (W3 light with a different clip and activated by lead sensor)

WR3: Recessed water activated lifejacket flashing lights

WR3-1: Recessed water activated lifejacket flashing lights (WR3 light activated by lead sensor only)

WR3-2: Recessed water activated lifejacket flashing lights (WR3 light activated by lead sensor and by sensor pin dual activation)

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.](#)

Job Id: **262.1-021783-1**
Certificate No: **TAE000017S**

Brochure M3W3_25092015

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.

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