

TYPE APPROVAL CERTIFICATE

This is to certify:
that the Light Fitting

with type designation(s)
M4-A and W4-A

issued to
Daniamant A/S
Slangerup, Denmark

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	68
Temp. class	N/A
Voltage (V)	2.2
Suitable for Hazardous areas	No

Issued at **Høvik** on **2025-04-14**

This Certificate is valid until **2030-04-13**.

DNV local unit: **Denmark CMC**

Approval Engineer: **Marcin Tobiasz**



for **DNV**

This document has been digitally signed and will
therefore not have handwritten signature

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 USD 300 000.

Product description

"M4-A and W4-A"

Manually activated (M4-A) or manually and water activated (W4-A) position-indication flashing lights for life jackets.

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.

Type Approval documentation

Certification in accordance with Class Programme DNV-CP-0338, September 2021.

Daniamant Technical file TF-DK-20, M4-A and W4-A Lifejackets Light – Revision 01
Installation and Maintenance Instruction for Dan M4-A and W4-A lifejacket light, Issue 04 (D0647)

Test reports:

Report No	Title	Date
TPN 20/142	Daniamant report "W4 light cell performance test results"	2020-10-21
M33172	DTU light measuring report	2020-10-22
20 DK01	Incremental difference of the already approved version of the M4/W4A light	2020-11-11
4-2015	Evaluation and Test Report for Lifejackets lights M4-A and W4-A	2015-04-19
Appendix to 4-2015	Evaluation and Test Report for Lifejackets lights M4-A and W4-A	
DELTA-L102798-4719	Determination of (x,y) colour coordinates and determination of luminous light distribution emitted from lifesaving device	2016-03-21
122-32421-2	Switch Operation used to activate lights	2023-06-28
15-DK01	Type Approval Testing – Waived Tests for M4-A and W4-A	2015-04-07
14109/02 Issue 01	Test Certificate (IP6X)	2015-11-20
75932441 THC 02 Issue 1	Test Certificate (IPX8)	2015-10-27

Tests carried out

Tested in accordance with the requirements of:

- IMO Res. MSC.81(70), as amended by IMO Res. MSC.200 (80), IMO Res. MSC.226(82) & IMO Res. MSC.323(89),
- EN 60945:2002 incl. IEC 60945 Corr. 1:2008,
- ISO 24408: 2005.

Transport Canada Approval

Based on the procedures laid down in the Transport Canada Publication entitled "Procedures for Approval of Life-Saving Appliances, Fire Safety Systems, Equipment and Products (TP14612)", DNV confirms that the products listed in this certificate are in accordance with Transport Canada's requirements.

Marking of product

The product is to be marked with manufacturers name, type designation, serial or lot number and date of expire. The marking shall comply with the LSA Code (IMO Res. MSC 48(66)), item 1.2.2.9 and 1.2.3 and Lifesaving Appliance Standard TP 14475E Part II Ch. 15.

All instructions and markings accompanying the life-saving appliances, or printed directly on the rescue boats, shall be in both English and French, as per "Procedures for Approval of Life-Saving Appliances and Fire Safety Systems, Equipment and Products" (TP14612E) Ch.2.2.1.3.

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)



Job ID: **262.1-043269-1**
Certificate no.: **TAE000051V**

- 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.

Manufactured by:

Daniamant A/S, Industrivej 24 C, Slangerup, Denmark