



Lloyd's
Register

Transport
Canada
Safety and Security




CERTIFICATE OF TYPE APPROVAL ISSUED ON BEHALF OF TRANSPORT CANADA

This is to certify that

The product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations with regards to the International Convention for the Safety of Life at Sea, (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd's Register, and for use on ships and offshore installations when authorised by Transport Canada to issue the relevant certificates, licences, permits etc.

Manufacturer	Daniamant A/S
Address	Industrivej 24C 3550 Slangerup Denmark
Type	POSITION INDICATING LIGHTS
Description	Position indicating flashing lights for lifejackets – Type “M3, W3, W3-1, W3-2”
Specified Standard	IMO Resolution MSC.81(70), Part 1, as amended TP 14475E

**The attached Design Appraisal Document forms part of this certificate.
This certificate remains valid unless cancelled or revoked, provided the conditions in the attached Design Appraisal Document are complied with and the equipment remains satisfactory in service.**

Date of issue	29 January 2018	Expiry date	9 May 2022
Certificate No.	LRTC 0000143/M2	Signed	
Sheet No	1 of 4	Name	L. Thomas Surveyor to Lloyd's Register EMEA A Member of the Lloyd's Register Group

Note:

This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Lloyd's Register of any modification or changes to the equipment in order to obtain a valid Certificate.

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



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DESIGN APPRAISAL DOCUMENT

Date	Quote this reference on all future communications
29 January 2018	SOUTSO/SFS/TA/LT/WP31529766

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LRTC 0000143/M2

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions, and this Design Appraisal Document forms part of the Certificate.

EXAMINED DOCUMENTATION

Technical File - TF-DK-16, Revision 04

Installation and Maintenance Instruction for Dan M3 lifejacket light, M3-Instruction Issue 04 (D0230)

Installation and Maintenance Instruction for Dan W3 lifejacket light, W3-Instruction Issue 05 (D0230)

Installation and Maintenance Instruction for Dan W3-1 lifejacket light, W3-1 Instruction Issue 04 (D0230)

Installation and Maintenance Instruction for Dan W3-2 lifejacket light, W3-2 Instruction Issue 03 (D0230)

TEST REPORTS

<u>Report No.:</u>	<u>Report Title or Test Description:</u>	<u>Date:</u>
12-2010	Evaluation and Test Report for Lifejacket Lights DANM3,MR3, W3 and WR3	23.12.2010
12-DK04	DAN W3-1, W3-2,WR3-2 and WR3-1 Automatic Lifejacket Light Evaluation and Test Report	01.05.2012
15256,15256-2	Mould growth test	22.12.2010
DANAK-19/11871	Type approval testing of M3	17.02.2012
01-2015	Evaluation and Test Report for Lifejacket Lights DANM3,MR3, W3 and WR3	22.07.2015
DELTA-L102765-4624	Determination of (x,y) Chromatic Colour Coordinates and determination of luminous light distribution from lifesaving device	18.09.2015
DANAK-1911204	Type approval testing of M2,M3 rint2, Rext and L6	22.12.2010
DANAK-19/1309511204	Type testing of M2 and M3	15.05.2013
75927471	Temperature cycling and vibration testing of M3 and W3 ER14250/ER14250M variant lifejacket light and battery	08.12.2014
DANAK-19/15427	Vibration test of Daniamant lights	02.07.2015
DELTA-L102765-4592	Determination of (x,y) Chromatic Colour Coordinates and determination of luminous light distribution from lifesaving device	03.07.2015

CONDITIONS OF CERTIFICATION

1. Each light shall be clearly marked with:
 - a) The manufacturer's name or trademark, the model designation and lot number
 - b) Transport Canada approval number assigned to the light
 - c) Instructions on how to activate the light
2. Lights powered by batteries shall be marked permanently and legibly with the month and year of manufacture and its expiration
3. Lights powered by batteries shall be marked with a means of determining their age or the date by which they are to be replaced
4. Each light is to be marked with the information required by the LSA Code Paragraph 1.2.2.9 and 1.2.3



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5. Instruction for use in both English and French shall be provided with each light as prescribed by SOLAS Regulation III/35 one or more additional copies shall be provided for inclusion in the Vessel's Training Manual. Attachment and operating instructions shall be supplied in a format suitable for insertion into the vessel's training manual
6. The lifejacket type where the subject design of light is fitted should be tested in accordance with IMO Resolution MSC.81(70), I/10.3.3 to confirm the adequacy of their means of attachment
7. For compliance with SOLAS Regulation III/35 and III/36 fully detailed operations and maintenance manuals shall be supplied with each light
8. Lights which have reached their date of replacement shall be disposed of safely with due regard to their lithium batteries
9. The arrangements and installation of the lights on the lifejacket on board are not part of this design appraisal or certificate and are to be to the satisfaction of the Surveyors attending on board
10. If the specified standards are amended during the validity of this certificate, this product type is to be re-approved prior to it being supplied to vessels to which the amended standards apply
11. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure compliance with SOLAS Regulation III/5
12. Production tests are to be conducted in accordance with the applicable requirements of IMO Resolution MSC.81 (70), Part 2 and each item, batch, or lot be delivered with an LR Certificate of SOLAS Production Testing issued by the attending LR Surveyors following their witness of the tests. This does not preclude any further testing to additional requirements of the Marine Administration of the country where the ship is registered (i.e. the flag state) or those acting on behalf of that Administration
13. All instructions or markings that accompany life-saving appliances or are printed directly on the appliances must be in both English and French, as per Canadian procedures for approval of life-saving appliances and fire safety systems, equipment and products document no. TP 14612E (05/2011) paragraph 2.2.1.3. However, independent signage can be accepted in lieu of the instructions or marking required in paragraph 2.2.1.3 if it is in both English and French, highly visible (size, colour, posting location), water and weather proof and posted at each muster station and where the appliance is stored
14. Should a change of Place of Production from that stated below be required i.e. where the stages of manufacture/assembly/testing of this product take place, the new Place of Production is to be advised to us prior to the change taking place. This Certificate will require to be updated for Approval to be maintained



Lloyd's
Register

Lloyd's Register EMEA

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DESIGN APPRAISAL DOCUMENT

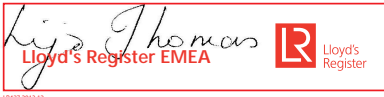
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PLACES OF PRODUCTION

Daniamant Limited
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Hants
PO3 5RQ
United Kingdom (UK)

Daniamant A/S
Industrivej 24C
3550 Slangerup
Denmark



Lijo Thomas
Senior Specialist
Statutory Fire & Safety
Southampton Technical Support Office, Marine & Offshore
Lloyd's Register EMEA

Supplementary Type Approval Terms and Conditions

This certificate and Design Appraisal Document relates to type approval, it certifies that the prototype(s) of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein, it does not mean or imply approval for any other use, nor approval of any products designed or manufactured otherwise than in strict conformity with the said prototype(s).