

EC Type-Examination (Module B)

Directive for Marine Equipment

Certificate No.: **DK-0200-MarED-200 version 4**

Issued by FORCE Certification A/S - EC-notified body number 0200

This is to certify that:

FORCE Certification A/S did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the Life Saving Appliance requirements of Marine Equipment Directive (MED) 96/98/EC, as amended, last amended by Directive 2015/559/EU (11th Amendment) subject to any conditions in the schedule attached hereto.

Applicant and Manufacturer: **Alcares ApS**
Frydensbergvej 26
3660 Stenløse
Denmark

Identification of Marine Equipment:

Annex 1.A Item: **ANNEX A.1, item A.1/1.2c**

Product Type:

Position-Indicating Lights for Lifejackets and Survival Suits

Product Designations:

Jack M1
Jack M1-Alk

Specified Standard:

LSA code MSC.48(66) adopted on 4 June 1996 and
MSC.81(70) adopted on 11th December 1998

Amendments to LSA code:

MSC.207(81) adopted on 18 May 2006

MSC.218(82) adopted on 8 December 2006

Amendments to testing methods:

MSC.200(80) adopted on 13 May 2005

MSC.226(82) adopted on 8 December 2006

MSC.323(89) adopted on 20 May 2011

The examined samples are found to fulfil the requirements stated in:

The International Testing Standard IMO Res. MSC.81(70) and the applicable reg. SOLAS 74 as amended, where the relevant requirements are specified in ANNEX A.1, item A.1/1.2c of The Directive.

Documentation for observance of relevant requirements stated in ANNEX B (Module B) of the Directive and the basis for the type examination are described in the appendix to this certificate.

This certificate will remain valid unless cancelled or revoked, provided the conditions in the attached appendix are complied with and the equipment remains satisfactory in service.

The certificate will not be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with the notified body named on this certificate.

Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be reapproved prior to it/they being placed on board vessels to which the amended regulations or standards apply.

This certificate replaces former EC-type examination certificate DK-0200-MarED-200 version 3 dated 2013-09-30 due to adding alternative battery.

FORCE Certification A/S task No.: 116-26028

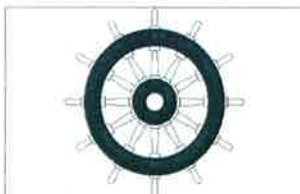
FORCE Certification A/S ID No.: Dk-0200-MarED-01056

Date of issue: 2016-07-04

Date of expiry: 2017-06-11


Niels Jørgen Sibbersen
Certification manager


Søren Bo Jensen
Examiner



The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity may only be issued when the production/product assessment module (D, E or F), ANNEX B of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.

Extracts from this EC Type-Examination Certificate may only be reproduced with a written permission from FORCE Certification A/S

Appendix to EC Type-Examination Certificate

Directive for Marine Equipment

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Applicant and manufacturer: **Alcares ApS**
Frydensbergvej 26
3660 Stenløse
Denmark

Identification of Marine Equipment:

Annex 1.A Item: **ANNEX A.1, item A.1/1.2c**

Product Type: **Position-Indicating Lights for Lifejackets and Survival Suits**

Product Designations: **Jack M1**
Jack M1-Alk

Design:



Jack M1-Alk

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History:

Issue/change:	Document:	Date:
- Original certificate	DK-0200-MarED-200 ver. 1	2012-05-23
- Correction	DK-0200-MarED-200 ver. 2	2012-06-11
- Update of certificate – 7 th amendment, use of alternative battery and separated "List of materials"	DK-0200-MarED-200 ver. 3	2013-09-30
- Alternative batteries.	DK-0200-MarED-200 ver. 4	2016-07-04

Documentation for observance of the relevant requirements:

Test House	File No.	Testing/Inspection of:
<i>FORCE Technology</i>	<i>112-24477</i>	<i>Supplementary testing of Jack A1* - Verification of new activation button</i>
<i>FORCE Technology</i>	<i>112-22803</i>	<i>Supplementary testing of Jack A1* - Alternative light diode – DURIS E 5</i>
<i>FORCE Certification A/S</i>	<i>DK-0200-MarED-129 ver. 4</i>	<i>The client informed that the light Jack M1 was type identical to Jack M except for light diode and activation button. Relevant test etc. reports regarding Jack M is stated below:</i>
<i>FORCE Technology</i>	<i>109-24341.a</i>	<i>Type Testing of Jack M</i>
<i>Delta - Danish Electronics, Lights and Acoustics</i>	<i>DELTA-L102003-3168 rev.1</i>	<i>Light Test</i>
	<i>DELTA-L102003-3169</i>	<i>Light Test</i>
	<i>DELTA-L102003-3170</i>	<i>Chromaticity Test, Drop Test</i>
	<i>DELTA-A506584</i>	<i>Vibration Test</i>
<i>FORCE Technology</i>	<i>110-26415.a</i>	<i>Supplementary testing of the use of alternative battery and new supplier of circuit board</i>
<i>Delta - Danish Electronics, Lights and Acoustics</i>	<i>DELTA-L102253-3418</i>	<i>Supplementary testing of the use of alternative battery and new supplier of circuit board</i>
<i>FORCE Technology</i>	<i>110-34454/111-22274</i>	<i>Use of alternative batteries (See DELTA reports below):</i>
<i>Delta - Danish Electronics, Lights and Acoustics</i>	<i>DELTA-L102372-3525</i>	<i>Supplementary testing of the use of Kendal alkaline battery</i>
<i>Delta - Danish Electronics, Lights and Acoustics</i>	<i>DELTA-L102372-3524</i>	<i>Supplementary testing of the use of lithium battery from Great Powers</i>
<i>Delta - Danish Electronics, Lights and Acoustics</i>	<i>DELTA -L102692-4191 rapport(UK)</i>	<i>Supplementary testing of the use of Reiden battery</i>
<i>Delta - Danish Electronics, Lights and Acoustics</i>	<i>DELTA L102798-4783</i>	<i>Supplementary testing of the use of Varta battery on type identical light</i>
<i>FORCE Technology</i>	<i>116-26028.b</i>	<i>Supplementary testing of the use of Varta battery on type identical light</i>

*) Testing was performed on lifejacket light model Jack A1 which was type-identical to model Jack M1, except that model Jack M1 has no automatic water activation mechanism (different print circuit board).

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Partial conclusion: The position indicating lights designated "Jack M1" and "Jack M1-Alk" were found to fulfil the requirements in The International Testing Standard IMO Res. MSC.81(70) and the applicable reg. SOLAS 74 as amended, where the relevant requirements are specified in ANNEX A.1, item A.1/1.2c of the Directive, as well as the requirements in ANNEX B (Module B) of the Directive.

The following documentation was available: - Drawings
- Specification of print circuit

Description of quality management system: Module D certificate - DK-0200-MarED-QA-132
User Manual and marking: See report 112-24477
List of materials/manufacturers used for manufacturing the device: See "List of Materials for DK-0200-MarED-200" valid on the date of production.

Conclusion

Based on the above mentioned attestation it can be concluded that the position indicating lights designated, "Jack M1" and "Jack M1-Alk", meet the conditions of EC type-examination in accordance with the Marine Equipment Directive (MED) 96/98/EC, as amended, last amended by Directive 2015/559/EU (11th Amendment)

FORCE Certification A/S task No.: 116-26028

Date: 2016-07-04

A handwritten signature in blue ink, appearing to read "Søren Bo Jensen", written over a horizontal line.

Søren Bo Jensen
Examiner