



Certificate number: 06891/D0 EC

File number: PYR 2466/07

Annex A1 Item number: A.1/1.3

USCG Module B number:  
160.157 / EC0062

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

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Notified Body 0062 - MARINE EQUIPMENT DIRECTIVE 96/98/EC

## EC TYPE EXAMINATION CERTIFICATE

as per Module B of European Union Council Directive 96/98/EC on marine equipment  
as amended by Commission Directive 2012/32/EU

*This certificate is issued to*

**Nammo LIAB AB**  
Lindesberg - SWEDEN

*for the type of product*

### LIFEBUOYS SELF-ACTIVATING SMOKE SIGNALS

Ikaros MOB MK IV smoke signal, Art.N°345105

#### Requirements:

SOLAS 74 Convention as amended

Reg. III/4, X/3, III/7 and III/34

IMO Res. MSC.48(66) amended by MSC.207(81), MSC.218(82), MSC.272(85), MSC.293(87) & MSC.320(89)

IMO Res. MSC.36(63) 8 - IMO Res. MSC.97(73) 8

IMO Res. MSC.81(70) amended by MSC.200(80), MSC.226(82), MSC.274(85), MSC.295(87), MSC.321(89) & MSC.323(89)

IMO MSC/Circ. 980

*This certificate is issued under the French Maritime Authority to attest that BUREAU VERITAS did undertake the relevant type-examination procedures for the product identified above which was found to comply with the relevant requirements of the Council Directive 96/98/EC of 20 December 1996 as amended.*

*This certificate is a renewal of certificate N° 06891/C1 EC, which expires on 14/04/2014*


**This certificate will expire on: 30 May 2019**

**For BUREAU VERITAS Notified Body 0062,**

At BV GOTHENBURG, on 30 May 2014,

Magne MOLLER



**This certificate does not allow to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark ) to the products corresponding to this type. To this end, the production-control phase module (D, E or F) of Annex B of the Directive is to be complied with and controlled by a written inspection agreement with a notified body.**

This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. BUREAU VERITAS is designated by the French Maritime Authority as a "notified body" under the terms of the French Regulations Division 140 Chapter 140-2. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION

<b>Trademark</b>	Nammo LIAB AB
<b>Type</b>	Ikaros MOB Mk IV smoke signal
<b>Reference</b>	345105

The lifebuoy self-activating smoke signal is combined with the "Ikaros MOB MK IV Light Signal": the complete unit is the "Ikaros Mob Mk IV Light & Smoke Signal – article No. 345105". The Ikaros MOB MK IV Light Signal" is approved as per EC Type Examination certificate No 06892/xx EC

<b>Dimensions</b>	<b>Weight</b>	<b>Body colour</b>	<b>Smoke duration time</b>	<b>Maximum stowage height</b>
200x 485 mm	4.8 Kg	Yellow	minimum 15 minutes	60 m

### 2. DOCUMENTS AND DRAWINGS

- Manufacturer's specification and drawings:

Code	Title	Revision	Date
TR14-011	Technical report "List of drawings and changes to Ikaros MOB Mk: IV Light & Smoke & Ikaros MOB Mk: IV Smoke" Art: N°345105	01	2014-05-26

- Manuals for installation, use and maintenance.

*No departure from the drawings shall be made without the prior consent of the Society.*

### 3. TEST REPORTS

Date	Test report	
03/03/1997	TB 703-3	Initial Type Test according to the Manufacturer's Technical specification's test protocol
27/03/1997	6005/6891/AO/O-H	Initial Type Test
19/06/2001	Type Approval Tests of MOB Mk III	Additional type tested performed by the manufacturer after modifications as described in "Technical Specification Article No 345105 dated 10/10/2001"
13/03/2001	21/01	Additional Vibration test performed by "Forsvarets Materielverk ProvFFK"
14/09/2007	TR-017	Additional type test
30/10/2007	TR-020	Additional Drop test
17/12/2007	07-0983R	"Vibration test" and for the "Corrosion and Seawater resistance test" by Bofors Test Center AB
20/12/2007	TR-025	Additional smoke obscuration tests
21/12/2007	Annual Tests 2007	Additional type test
16/10/2008	Annual Tests 2008	Additional type test
28/02/2013	--	Additional type test (LED) (T° Cycling test, Light Tests, Chromaticity test, Rain Test & Watertightness test, Dome Drop Test, Drop Test, Fiting Test, Vibration Test, Solar Radiation Test, Test for Oil Resistance and Fire Test)
27/05/2013	--	Additional type test (LED) (T° Cycling test and Light Tests)
02/10/2013	--	Additional Type Test (LED) (Including drop test)
02/04/2014	--	Additional type test (Visual Inspection, Case resistance test, Dome Drop Test, test for oil resistance)

### 4. APPLICATION / LIMITATION

- As per requirements of Regulations stated on front page of this certificate.
- Is not to be stowed at a height above the waterline exceeding 60 meters.
- Each lifebuoy self-activating smoke signal will be supplied with its instructions for use, inspections and on-board maintenance complying with the regulations stated on the front page of this certificate.
- Expiration date not to exceed 48 months after month of manufacture.

## **5. PRODUCTION SURVEY REQUIREMENTS**

This certificate alone does not allow the applicant to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark) to the products corresponding to this type. To this end, the production-control phase module D "Production Quality Assurance" or E "Product Quality Assurance" or F "Product Verification" of Annex B of the Directive is to be complied with and controlled by a written inspection agreement with a Notified Body.

The manufacturer shall institute a quality control procedure to ensure that the lifebuoy self-activating smoke signals are produced to the same standard as the approved prototype and shall keep records of any production tests carried out in accordance with instructions given in IMO Resolution MSC.81 (70) Part 2.

Each lifebuoy self-activating smoke signal intended to be fitted onboard a ship registered to a National register adhering to the Directive shall be delivered with a Declaration of Conformity.

For information concerning the production phase modules, **Nammo LIAB AB** has declared that the product may be manufactured at the following manufacturing places :

**Nammo LIAB AB**  
**Box 54**  
**711 22 Lindesberg**  
**SWEDEN**

## **6. MARKING OF PRODUCT**

Brief instructions or diagrams clearly illustrating the use of the lifebuoy self-activating smoke signal shall be printed on the casing.

The signal body shall bear the following marks:

- Trade name
- Date of manufacture and date of expiry
- Maximum stowage height
- SOLAS approved
- Lot number
- Markings as per MED 96/98/EC :
- ☒ YYYY/XX where YYYY is the number of the Notified Body undertaking surveillance module (when BV, 0062) and where XX are the last two digits of year mark affixed.

In pursuance of the EU/US MRA+, and in accordance with the Council Decision 2004/425/EC of 21 April 2004, the manufactured item(s) can be affixed with the USCG conformity marking, subject to the authorization of the Conformity Assessment Body undertaking surveillance module.

## **7. OTHERS**

This approval is given on the understanding that the Society reserves the right to require check tests to be carried out at any time and that manufacturer will accept full responsibility for informing Shipowners of proper methods of use, storing and maintenance of the self-activating smoke signal and of the conditions of this approval.

This certificate supersedes EC Type Examination Certificate No 06891/C1 EC issued on 27/08/2009 by the Society.

\*\*\* END OF CERTIFICATE \*\*\*