

# EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:  
**MEDB000046X**  
Revision No:  
**1**

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV AS under the authority of the Government of Norway.

## This is to certify:

that the **Lifebuoys self-activating smoke signals**

with type designation(s)  
**IKAROS MOB Smoke Signal MKIV**

issued to

**Hansson PyroTech AB**  
**Lindesberg, Örebro Län, Sweden**

is found to comply with the requirements in the following Regulations/Standards:

Regulation (EU) 2023/1667,

**item No. MED/1.3. SOLAS 74 as amended, Regulation III/4, III/7, III/34 & X/3, LSA Code, 2000 HSC Code 8 and IMO MSC.1/Circ.1628**

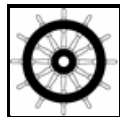
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2028-12-17**.

Issued at **Høvik** on **2023-12-18**

DNV local unit:  
**Finland CMC**

Approval Engineer:  
**Tessa Bieber**



Notified Body  
No.: **0575**

for **DNV AS**

**Mydlak-Röder, Christine**  
**Head of Notified Body**

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005, and amended by Decision No 1/2023 dated August 21st, 2023.

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



**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 300,000 USD.



## Product description

'IKAROS MOB Smoke Signal MKIV'

lifebuoy self-activating smoke signal producing orange smoke for at least 15 minutes.

Tested with drop height: 60 m  
 Design weight: 4.5kg  
 Body colour: Yellow

The smoke signal can be combined with the 'IKAROS MOB Light Signal MKIV', the complete unit will then be called Ikaros 'IKAROS MOB Light & Smoke Signal MKIV'.

## Application/Limitation

Approved for use as lifebuoy self-activating smoke signal.

Acceptable lifetime: Expiration date not to exceed 48 months after month of manufacture.

The design assessment is based on IMO Res. MSC.48(66) as amended by IMO Res. MSC.207(81) and IMO Res. MSC.218(82).

The lifebuoy self-activating smoke signal is not to be stowed at a height above the waterline exceeding 60 m. Else a drop test shall be performed to verify correct working at installation heights of more than 60 metres.

Production and installation testing shall be carried out according to IMO Res. MSC.81(70), Pt. 2, Ch.4 and in compliance with ISO 15736:2006 A.2.4.

Each product is to be supplied with its manual for installation, use and maintenance.

## Type Examination documentation

Drawing No	Rev.	Title	Date
620130	5	Igniter unit assembly	2013-02-27
SBTC 15-0085R		Test record (Temp. cycling, salt & vibration)	2015-03-30
SBTC 15-0074		Test record (60 m drop and 30 cm wave test)	2015-04-13
		MOB smoke - Evaluation and test report (IMO MSC/Circ.980)	2015-03-30 2015-04-02
DS 345205	1	Document structure (technical documentation)	2018-05-29
PP 15-04		Test program	2015-04-14

## Tests carried out

Tests are documented in accordance with recommendation on testing of Life-Saving Appliances, IMO Res. MSC.81(70), Part 1, including IMO Res. MSC.200(80), IMO Res. MSC.226(82) and IMO Res. MSC.323(89) and production and inspection tests in accordance with ISO 15736:2006.

## Marking of product

The product is to be marked in accordance with ISO 15736:2006 item 4.3, LSA Code 1.2.2.9 and 1.2.3, the MED Mark of Conformity and USCG number if applicable (see first page).

The product should be provided with brief instructions or diagrams clearly illustrating the use printed on the casing.