DNV·GL

Certificate No:
MEDB00006J3

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Lifebuoys self-activating smoke signals

with type designation(s)
IKAROS ManOverBoard MKCI, Light-Smoke-Signal

Issued to
PyroPol GmbH
Hornbek, Schleswig-Holstein, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2019/1397,**
item No. MED/1.3. SOLAS 74 as amended, Regulation III/4, III/7, III/34 & X/3, LSA Code and 2000 HSC Code 8

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

This Certificate is valid until **2025-08-05**.
Issued at **Hamburg** on **2020-08-06**

DNV GL local station:
Hamburg CMC

Approval Engineer:
Roland Priebe

Notified Body
No.: **0098**

for **DNV GL SE**

Gerhard Aulbert
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 European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th, 2004, and amended by Decision No 1/2018 dated February 18th, 2019.

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 GL SE 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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.

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Product description

The **IKAROS ManOverBoard MKCI, Light-Smoke-Signal** is a lifebuoys self-activating smoke signal. The smoke signal is producing orange smoke for at least 15 minutes.

Tested with drop height 30 m.

Design weight: 2.750 g
Body colour: Yellow

The complete unit, self-activating smoke signal combined with the lifebuoy self-igniting light (certificate MEDB00006J4), will then be called "IKAROS ManOverBoard MKCI, Light-Smoke-Signal".

Application/Limitation

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).

Production and installation testing shall be carried out according to IMO Res. MSC.81(70), Part 2, Ch.4.

Each lifebuoy is not to be stowed at a height above the waterline exceeding 30 m.

Expiration date not to exceed 48 months after date of manufacture.

Type Examination documentation

Test report dated 10th January 2019 from LR surveyor Oliver Mathey, Hamburg, Germany.
Declaration No. SO-02118 dated 21st February 2020 from PyroPol GmbH, Hornbek, Germany.

Tests carried out

Tests are documented in accordance with recommendation on testing of Lifesaving Appliances, IMO Res. MSC.81(70) Part 1, as amended by IMO Res. MSC.226(82), and IMO Res. MSC.323(89).

Marking of product

The product is to be marked with name and address of manufacturer, type designation, date of manufacture, date of expiry, operational restrictions, 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 body.

USCG approval number: USCG 161.157/EC0098/MED00006J3