

# EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:  
**MEDB00002BH**  
Revision No:  
**4**

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 Alarm devices - Sounders**

with type designation(s)  
**Fire alarm devices - sounders**

Issued to  
**Pfannenberg GmbH**  
**Hamburg, Germany**

is found to comply with the requirements in the following Regulations/Standards:  
Regulation **(EU) 2018/773**,  
**item No. MED/3.53. SOLAS 74 as amended, Regulation II-2/7 & X/3, 1994 HSC Code 7, 2000 HSC Code 7, FSS Code 9, IMO MSC.1/Circ.1242 and IMO MSC.1/Circ.1487**

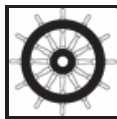
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-09-19**.

Issued at **Hamburg** on **2019-09-20**

DNV GL local station:  
**Hamburg**

Approval Engineer:  
**Didier Girardin**



Notified Body  
No.: **0098**



for **DNV GL SE**  
Digitally Signed By: Mydlak-Röder, Christine  
Location: DNV GL Hamburg, Germany  
on behalf of

**Gerhard Aulbert**  
**Head of Notified Body**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.



Job Id: **344.1-006672-7**  
Certificate No: **MEDB00002BH**  
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## Product description

Type B Sounders intended for outdoor application also more suitable for indoor situations where high temperature and/or humidity are present.

Provided degree of enclosure protection: IP 66

The alarm device family „PATROL“ consist of acoustical components in different performance classes.

PATROL: Item number **233 aa bb c ddd** / Technical Data:

### aa Type

10 PA 1: sounder (100dB)  
11 PA X 1-05: sounder beacon combined device (100dB / 5J)  
50 PA 5: sounder (105dB)  
51 PA X 5-05: sounder beacon combined device (105dB / 5J)  
52 PA X 5-10: sounder beacon combined device (105dB / 10J)  
60 PA 10: sounder (110dB)  
61 PA X 10-10: sounder beacon combined device (110dB / 10J)  
62 PA X 10-15: sounder beacon combined device (110dB / 15J)  
70 PA 20: sounder (120dB)  
71 PA X 20-10: sounder beacon combined device (120dB / 10J)  
72 PA X 20-15: sounder beacon combined device (120dB / 15J)

### bb rated voltage

10 PA 1 + PA 5 + PA X 1 + PA X 5 + PA X 10 + PA X 20: 230 AC  
15 PA X 10 + PA X 20: 115V AC  
63 PA 1 + PA 5: 24V – 48V DC, PA 10 + PA 20: 24V DC – 48V DC  
64 PA 10 + PA 20: 110V – 240V AC  
70 PA X 1 + PA X 5 + PA X 10 + PA X 20: 48V DC  
80 Option –SSM ; PA X 1 + PA X 5 + PA X 10 + PA X 20: 24V DC

### c signal color

0 none  
1 clear  
2 White  
3 Yellow  
4 orange  
5 red  
6 Green  
7 blue

### ddd design GL

001 housing RAL3000 (red), standard  
038 special tones  
056 housing RAL 7035 (grey)  
057 option –SSM, housing RAL 7035 (grey)  
058 option –SSM  
059 option –SSM, housing RAL 9003 (white)  
060 Housing RAL 9003 (white)

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## Limitation

Instruction for maintenance and operation manual to be provided with each delivery

### **EN 54-3 Type B Sounder Meeting requirements for Type A & B:**

#### **Temperature**

(-25°C/+70°C) (ref. IEC 60092-504 (2016) table 1 item 6-7)

#### **Vibration**

For general applications. (ref. IEC 60092-504 (2016) table 1 item 10)

#### **EMC**

General power distribution zone (ref. IEC 60092-504 (2016) table 1 item 19-20)

Bridge and open deck zone (ref. IEC 60092-504 (2016) table 1 item 19-20)

#### **Enclosure**

Engine room (IP44), open decks (IP56) (ref. IEC 60092-201 table 5)

## Tests carried out

- IEC 60092-504 (2016)
  - IEC 60533 (2015)
  - EN 54-3 (2014)
- (Additional tests for lights: EN 54-23)

## Marking of product

The products to be marked with:

- EN 54-3 Type B Sounder
- Model name
- Manufacturer name
- Lot number
- Electrical connection detail
- According to Article 10 of the Council Directive (MED)

END OF CERTIFICATE