

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 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) 2017/306,**

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

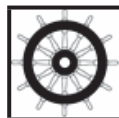
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2019-09-07**.

Issued at **Hamburg** on **2017-07-07**

DNV GL local station:
Hamburg

Approval Engineer:
Didier Girardin



Notified Body
No.: **0098**

for **DNV GL SE**

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Sven Dudzus
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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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: **344.1-006672-3**
Certificate No: **MEDB00002BH**
Revision No: **2**

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)

Limitation

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

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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

In general and for identification to this type examination certificate the products shall be marked with:

- Manufacturer's name or trade mark
- EN 54-3 Type B Sounder
- Model Number
- Electrical connection detail
- Mark of Conformity

End of Certificate