TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MERB00002BH
Revision No:
0

This Certificate is issued by DNV UK Limited based on authorisation of the Maritime & Coast Guard Agency (MCA) as an UK Approved Body to undertake conformity assessments on marine equipment in accordance with the requirements of the Merchant Shipping (Marine Equipment) Regulations 2016 as amended.

This is to certify:

That the Fire 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 **MSN 1874 Amendment 7,**

No. UK/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 **2028-05-02**.

Issued at **London** on **2023-10-10**

for **DNV UK Ltd.**

DNV local unit:
Certification & Inspection Services

Approved Body No.: **0097**

Approval Engineer:
Didier Girardin

Christine Mydlak-Röder
MER Service Responsible

Maritime & Coastguard Agency
UK Approved Body Authorised by the MCA

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the approved body named on this certificate.
During the period of validity of this certificate the applicable regulations (international conventions and the relevant resolutions and circulars of the IMO) and testing standards may change, therefore the product conformity may need to be re-assessed by the Approved 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-control phase module (D, E or F) of Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended is fully complied with and controlled by a written inspection agreement with an approved body. In case limitations of use apply, these should be indicated in the Annex.

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

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

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*)

Approval Documentation

See ANNEX

Tests carried out

- IEC 60092-504 (2016)
- IEC 60533 (2015)
- EN 54-3:2014 incl. A1:2019,
  (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

END OF CERTIFICATE

ANNEX
Approval Documentation

Hidden for published version

Test reports VdS no.:

BMA 12071	15.08.12
BMA 12073	16.08.12
BMA 12074	08.11.12
BMA 12086	19.09.12
110068-AU03+UCE01	24.02.12
110068-AU03+UCE02	24.02.12
Test reports TÜV Nord no.:	
11/11030-3-2	28.04.11
11/11030-7-3	17.11.11
12/12039-1-2	24.02.12
12/12039-1-3	23.02.12
12/12039-1-4	23.02.12
11/11030-4-1	28.06.11
11/11030-7-2	17.11.11
11/11030-6-1	14.10.11
11/11030-6-1 ship	14.10.11
11/11030-4-2	28.06.11
11/11030-6-2	14.10.11
11/11030-6-2 Ship	14.10.11
13-13141-2-1	02.08.13
13/13141-2-2	02.08.13
12/12013-2-1	20.01.12
12/12013-2-2	20.01.12
12/12039-2-3	20.01.12
Test report Paconsult no.:	
11-4046	08.02.12
Test report VDE no.:	
1210200-9010-0001/174391	24.10.12
Test report EMV-Service no.:	
01-1007-14	22.06.11
Test reports Pfannenberg no.	
GL_Power Fail_Variation_PA 5 DC	14.08.13
GL_Power Fail_Variation_PA20 AC	13.08.13
GL_Power Fail_Variation_PA20 DC	13.08.13
GL_Power Fail_Variation_PA X 5-10 DC strobe portion	14.08.13
GL_Power Fail_Variation_PA X 20-15 AC strobe portion	14.08.13

Manual

Manual_PAx0_PA X x0-xx_085501946s
Manual_PA5_PA X 5-xx-085501945t
Manual_PA1_PA X 1-05_085501944u

[27.04.2027] Renewal rev.04 to Rev. 05: Regulation (EU) 2018/773 to (EU) 2022/1157 amending EN 54-3:2014 to EN 54-3:2014 incl. A1:2019: The modification has no impact on the test results and parameters achieved by initial testing according to previous test standard edition EN 54-3:2014 (investigated by customer document in JOB 344.1-006672-13: Doc. 30303-096 rev.1.0 MEDB00002BH Project: Renewal PATROL**)**