

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB0000220
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 Bridge Navigational Watch Alarm System (BNWAS)

with type designation(s)
VL-BNWAS

Issued to

Veinland GmbH
Seddiner See, Brandenburg, Germany

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

Regulation (EU) 2022/1157,
item No. MED/4.57. SOLAS 74 as amended, Regulations V/18 & V/19, IMO Res. A.694(17), IMO Res.
MSC.128(75), IMO Res. MSC.191(79), IMO Res. MSC.302(87), IMO MSC.1/Circ.1474

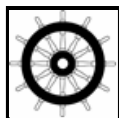
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2028-06-17**.

Issued at **Hamburg** on **2023-06-18**

DNV local unit:
Hamburg – CMC North/East

Approval Engineer:
Jörg Rebel



Notified Body
No.: **0098**

for **DNV GL SE**

Christine Mydlak-Röder
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) 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 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

The Bridge Navigational Watch Alarm System VL-BNWS consists of the following equipment:

- Main Panel, BNWS_Central Unit, Software version 2.5.x ($x \geq 2$)
- Reset button outdoor, BNWS_RTA
- Alarmbox outdoor, BNWS_ALRBA or Alarmpanel indoor BNWS_ALRBA_INDOOR
- Alarm unit 2nd stage, BNWS_ALR2 or BNWS_ALR2_S
- Alarm unit 3rd stage, BNWS_ALR3
- Reset button indoor, BNWS_RTI
- Buzzer indoor, BNWS_RBI

Interfaces:

- In/out: 1 x serial (RS 422) according to IEC 61162-1
- Out: 3 x relay contact (normally open) for 1st, 2nd and 3rd stage watch alarm
- Out: 1 x 24 V for visual indication
- Out: 5 x 24 V for OOW cabins for 2nd stage watch alarm
- In: 1 x contacts for external reset button for unit
- In: 1 x contacts for auto switch-mode active for heading control system
- In: 1 x contacts for motion sensor
- In: 1 x 24 V for main power supply active

Power supply: 24 V DC (-10% / +30%)

Optional equipment:

- Motion Sensor, BNWS_PIR_Sensor
- Output interface for VDR: 3 x relay contact (normally open) for 1st, 2nd and 3rd stage watch alarm
- UPS VL-SMT1000IC or UPS VL-SC420I or UPS VL-SC620I
- Power Supply Type: STEP-PS/1AC/24DC/1.75

Application/Limitation

The VL-BNWS is found to comply with requirements for Bridge Navigational Watch Alarm System for the additional class notations NAUT(OC) and NAUT (AW) as specified in DNVGL-RU-SHIP Pt.6, Ch.3, Sec.3 (July 2022). Valid for software version 2.5.x ($x \geq 2$).

Motion Sensors to be installed for vessels with additional class notations NAUT(OC) and NAUT (AW).

Type Examination documentation

| DNV No | Document ID | Rev. | Description |
|--------|-------------------|------------------|--|
| 15 | 21/S0200 | V1.1, 2021-11-09 | Report: Veinland, Bridge alert management tests according to IEC 62923-1/-2 |
| 14 | 1102 | 2021-10-28 | Certificate: BSH, Compass safe distance according to IEC 60945, 11.2 |
| 13 | - | 2021-09-14 | Statement: Veinland, Declaration of conformity according to IEC 60945, 8.12 and IACS UR E10, No. 12 |
| 12 | D/21/4827/01 | 2021-10-21 | Report: AMETEK CTS, EMC tests for acc. to IEC60945, 9 and 10 and DNV-CG-0339, Sect.3 [14.4, 14.6, 14.8, 14.11] |
| 11 | 21-16889.03 | 1 (2021-11-26) | Report: AUCOTEAM, Environmental tests according to IEC 60945, 8.2 to 8.4 and 8.7 |
| 10 | 21-16889.02 | 2021-10-11 | Report: AUCOTEAM, Environmental tests according to DNV-CG-0339, Sect.3 [6.2, 7-9, 12, 13] |
| 9 | 713 | 2011-09-19 | Certificate: BSH, Compass safe distance according to IEC 60945, 11.2 |
| 7 | - | 2019-10-24 | Report: Veinland, Tests for class notations NAUT(OC) and NAUT(AW) for VL-BNWS software version 1.4.4 |
| 6 | 9065 17 27862 157 | 1.2 (2018-05-30) | Report: DNV GL, Tests according to IEC 62616, IEC 62288 Ed.2 and IEC 61162-1 Ed.5, B.4 |
| 5 | A0432324 | 2018-05-30 | Report: DNV GL, Test witnessing according to report no. 9065 17 27862 157, Rev. 1.2 |
| 4d | - | 2016-11-29 | Report: Veinland, Delta performance test for software update version 1.3.0 |

| DNV No | Document ID | Rev. | Description |
|--------|----------------------|------------|--|
| 4c | G0M-1106-1215-L | 2011-09-14 | Report: Eurofins, Environmental tests according to IEC 60945, 8.2 to 8.4, 8.7 and 8.8 |
| 4b | - | 2011-09-13 | Report: GL, Performance tests according to IEC 62616 and IEC 60945, 6.1 to 6.4, 5.2, 14 and 15 |
| 4a | G0M-1106-1215 – E-16 | 2011-08-23 | Report: Eurofins, EMC tests acc. to IEC 60945, 9 and 10 |
| 2 | man_BNWAS_2.11_eng | 2.11 | Manual: Technical documentation for VL-BNWAS |

Tests carried out

- Environmental and EMC testing: IEC 60945 (2002) incl. Corrigendum 1 (2008)
- Interface testing: IEC 61162-1 (2016) and IEC 61162-2 (1998)
- Presentation testing: IEC 62288 (2021)
- Bridge alert management testing: IEC 62923-1 (2018) and IEC 62923-2 (2018)
- Performance testing: IEC 62616 (2010) incl. Corrigendum 1 (2012)

Marking of product

According to IEC 60945, Sect.4.9:

The product to be marked with following information, where practicable:

- Identification of the manufacturer,
- Equipment type number or model identification under which it was type tested,
- Serial number of the unit,
- Compass safe distance.

Alternatively, the marking may be presented on a display at equipment start-up, and in case of fixed equipment compass safe distance may be given in the equipment manual.

END OF CERTIFICATE