

TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MERB0000220
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 Bridge Navigational Watch Alarm System (BNWAS)

with type designation(s)
VL-BNWAS

Issued to

Veinland GmbH
Seddiner See, Germany

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

Regulation **MSN 1874 Amendment 7**,

item No. UK/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 **London** on **2023-06-18**

DNV local unit:
Hamburg – CMC North/East



for **DNV UK Ltd.**

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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

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

- Main Panel, BNWS_Central Unit, Software version 2.5.x (x ≥ 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 ≥ 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

DNV No	Document ID	Rev.	Description
4d	-	2016-11-29	Report: Veinland, Delta performance test for software update version 1.3.0
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