



TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MERB000011T
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)
BR-500

Issued to

Furuno Electric Co., Ltd.
Nishinomiya, Japan

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

Regulation **MSN 1874 Amendment 6,**

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 **2026-03-02**.

Issued at **London** on **2022-12-28**

DNV local unit:
Kobe



for **DNV UK Ltd.**

Approval Engineer:
Frederik Tore Elter

Approved Body No.: **0097**

Christine Mydlak-Röder
MER Service Responsible



**Maritime &
Coastguard
Agency**

UK Approved Body Authorised
by the MCA

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. The product liability rests with the manufacturer or his representative in accordance with the Merchant Shipping (Marine Equipment) Regulations 2016.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV UK Ltd. of any changes to the approved equipment. 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. This certificate remains valid unless suspended, withdrawn, re-called, or cancelled.

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 BR-500, Bridge Navigational Watch Alarm System, consists of the following components:

Unit	Name	Location/comment
Main Alarm Panel	BR-510	Protected
Processor Unit	BR-520	Protected
Timer Reset Panel	BR-530	Protected
Cabin Panel	BR-540	Protected
Watertight Timer Reset Panel	BR-550	Exposed
Motion Detector (reset device)*	BR-560	Protected (*optional)
Flash Beacon	BR-570	Protected
Software versions	2450056-02.xx	Processor
	2450060-02.xx	Alarm panel

Application/Limitation

- The BR-500 shall be powered from the ship's main power supply. Additionally, 24 VDC power supply with capacity of at least 6 hours shall be provided.
- The interconnection with a Central Alert Management system for transfer of unacknowledged alarms is via contact closure.
- The installation of the system shall be undertaken in accordance with manual OME-44610-G10 (or later version).
- The system may comply with DNV rules for Nautical Safety. The actual configuration and interfacing with associated equipment is subject to case-by-case approval.

Type Examination documentation

DNV No	Document ID	Rev	Description
23	OME44610G10	G10 : JAN . 07, 2021	Manual: OPERATOR'S MANUAL - BRIDGE NAVIGATIONAL WATCH ALARM SYSTEM (BNWAS) Model BR-500
22	K24-17-1023		Report: Furuno IEC62923-1/-2 - DNVGL type approval testing report Model: BRIDGE NAVIGATIONAL WATCH ALARM SYSTEM - BR-500
17	K24-17-692-1		DNVGL type approval testing report IEC62288
16	K24-17-670-2		DNVGL type approval testing report: MSC.302(87)
15	FLI 12-12-057		Test Report (IEC61162)
14	K24-17-440-1		DNV Type approval testing report
11	GM211062c		EMC test report
10	GM211063s		Safety test report
9	GM211065x		special purpose test report
8	GM211064E		Environmental Test report
7	TR-305203-111	0	Test report prepared for GME
5	K24-17-293		Test Report (IEC61162)
4	FLI12-10-042		Test Report (IEC60945)
3	K24-17-290-3		DNV type approval testing report

Tests carried out

- IEC 60945 (2002) including Corrigendum 1 (2008)
- IEC 61162-1 (2016)
- IEC 62288 (2014)
- IEC 62616 (2010)
- IEC 62923-1 (2018) and IEC 62923-2 (2018)



Job Id: **AA00202J**
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Marking of product

The name and contact address of the manufacturer and type designation of the product is to be affixed to the equipment in a clearly visible location. In addition the equipment shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.