

# EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:  
**MEDB000011T**  
Revision No:  
**1**

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

## 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 Hyogo Pref, Japan**

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

Regulation **(EU) 2017/306,**

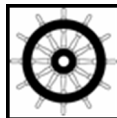
**item No. MED/4.57. SOLAS 74 as amended, Regulations V/18 & V/19, IMO Res. A.694(17),  
IMO Res. MSC.128(75), IMO Res. MSC.191(79), IMO Res. MSC.302(87), IMO MSC.1/Circ.1474  
IMO Resolution MSC.302(87) Performance standards for Bridge Alert Management**

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

This Certificate is valid until **2021-04-25.**

Issued at **Høvik** on **2018-03-28**

DNV GL local station:  
**Kobe**



for **DNV GL AS**

Approval Engineer:  
**Roger Lauritsen**

Notified Body  
No.: **0575**

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**Roald Vårheim**  
**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 AS 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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: **344.1-003600-5**  
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## Product description

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

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

## 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-F6 (or later version).
- The system may comply with DNVGL rules for Nautical Safety. The actual configuration and interfacing with associated equipment is subject to case-by-case approval.

## Type Examination documentation

DNV GL No	Document ref.	Description
18	OME-44610-G4	Operators manual
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-305203-11I	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


- IEC60945(2002) including Corrigendum 1 (2008)
- IEC61162-1(2010) and IEC61162-1(2016)
- IEC62288(2014)
- IEC62616(2010)



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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.



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## Type Examination documentation

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