

DET NORSKE VERITAS

EC TYPE-EXAMINATION CERTIFICATE

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2011/75/EU, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This Certificate is issued by Det Norske Veritas under the authority of the Government of the Kingdom of Norway.

CERTIFICATE NO. **MED-B-8053**

This is to certify that the
Bridge Navigational Watch Alarm System (BNWAS)

with type designation(s)
BR-500

Manufacturer
Furuno Electric Co., Ltd.
Nishinomiya Hyogo Pref, Japan

is found to comply with the requirements in the following Regulations/Standards:
Annex A.1, item No. A.1/4.57 and Annex B, Module B in the Directive. SOLAS 74 as amended, Regulation V/18, IMO Res. A.694(17), MSC.128(75) & 191(79)

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

Høvik, 2012-11-15
for **Det Norske Veritas AS**

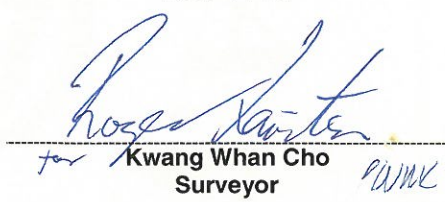


This Certificate is valid until
2017-11-15


Marianne Strand Valderhaug
Head of Department

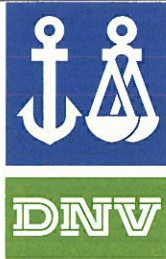
Notified Body No.: **0575**

DNV local office:
Kobe


for **Kwang Whan Cho**
Surveyor



The Certificate is subject to terms and conditions overleaf. Any significant changes in design or construction of the product, or amendments to the Directive or Standards referenced above may render this Certificate invalid. The product liability rests with the manufacturer or his representative in accordance with Council Directive 96/98/EC, as amended. The Mark of Conformity may only be affixed to the product and a Declaration of Conformity may only be issued when the production/product assessment module referred to in the council directive, is fully complied with.



Certificate No.: MED-B-8053
Item No.: A.1/4.57
Job Id.: 344.1-003600-1

Product description

See Appendix.

For latest revision of the Appendix, see <http://exchange.dnv.com/tari>

Application/Limitation

- The installation of the system shall be verified on board according to operator manual
- The system shall be powered from a battery maintained power supply which has capacity for 6 hours at least.
- The system may comply with DNV rule Pt.6 Ch.8 – Nautical Safety (July 2011) depended on installation and interfacing to associated equipment.

Type Examination documentation

See Appendix

Tests carried out

- IEC60945(2002) including IEC60945 Corrigendum 1 (2008)
- IEC61162-1(2010)
- IEC62288(2008)
- IEC62616(2010)
- DNV rule Pt.6 Ch.8 (2011 July)

Marking of product

The Manufacture and Type Designation to be applied to the equipment in a clearly visible location and in addition the equipment shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.

Mark of Conformity

The manufacturer is allowed to affix the Mark of Conformity according to Article 11 in the Council Directive 96/98/EC on Marine Equipment and shall issue a Declaration of Conformity, only when the module D or E or F of Annex B in the same directive is fully complied with.

Module D: The quality system for production and testing shall be approved by the Notified Body.

Module E: The quality system for inspection and testing shall be approved by the Notified Body.

Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a Certificate of Conformity.





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Appendix Rev. No. 1 (Page 1 of 1)

Product description

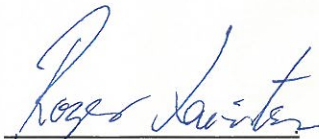
BR-500, Bridge Navigation Watch Alarms System, consists of following components.

Part Number	Product Description	Software	Location
BR-510	Main Alarm Panel	Boot:240054-01.xx Application:2450056-01.xx	Protected
BR-520	Processor Unit	Boot:240058-01.xx Application:2450060-01.xx	Protected
BR-530	Timer Reset Panel	-	Protected
BR-540	Cabin Panel	-	Protected
BR-550	Watertight Timer Reset Panel	-	Exposed
BR-560	Motion Detector	-	Protected
BR-570	Flash Beacon	-	Protected

Type Examination documentation

- DNV type approval testing report, Doc No.: K24-17-290-3
- Test Report, Doc No.: FLI12-10-042
- Test Report, Doc No.: K24-17-293
- Operator's Manual, Doc No.: OME-44610-A3
- Test Report Prepared for Green Mountain Electromagnetics, Doc. No.: TR-305203-111, Rev.0
- Environmental Test Report, Doc. No.: GM211064E
- Special Purpose Test Report, Doc No.: GM211065x
- Safety Test Report, Doc. No.: GM211063s
- EMC Test Report, Doc. No.: GM211062c
- DNV type approval testing report, Doc No.: K24-17-440-1
- Test Report, Doc No.: FLI12-12-057

Place and date
Høvik, 2012-11-15


for Kwang Whan Cho
Surveyor

