

Certificate No:

A-14163

File No:

847.70

Job Id:

262.1-008529-4

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Bridge Navigational Watch Alarm System (BNWAS)

with type designation(s)

BW-800

Issued to

**Daniamant Electronics A/S
Slangerup , Denmark**

is found to comply with

**IMO Res. A.694(17) General requirements for shipborne radio equipment forming part of the global maritime distress and safety system (GMDSS) and for electronic navigational aids
IMO Res. MSC.128(75) Performance Standards for a Bridge Navigational Watch Alarm System (BNWAS)****MSC.191(79) Performance standards for presentation of navigation-related information on shipborne navigational displays****Det Norske Veritas' Rules for Classification of Ships**

Application :

See page 2.This Certificate is valid until **2019-06-30**.Issued at **Høvik** on **2015-02-12**DNV GL local station: **Copenhagen**Approval Engineer: **Frederik Tore Elter**for **DNV GL**

Digitally Signed By: Dyer, Mike

Location: DNV GL Høvik, Norway

Signing Date: 13.02.2015, on behalf of

Jan Tore Grimsrud**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Certificate No: **A-14163**
File No: **847.70**
Job Id: **262.1-008529-4**

Product description

See Appendix.

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

Application/Limitation

- Installation to be performed according to the manufactures Product Manual.
- BW-800 may fulfil the additional DNV requirements for BNWAS uses onboard ships with NAUT notifcations, depending of system configuration and installation.

Type Approval documentation

See Appendix.

Tests carried out

- Performance testing, IEC 62616 (2010)
- Environmental testing, IEC 60945 (2002)
- Serial interface testing, IEC 61162 (2010)
- Presentation of Navigation information, IEC 62288 (2014)

Marking of product

The Manufacturer 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

Periodical assessment

A retention survey is to be performed at least once every second year, and again upon renewal of this certificate. The scope of the retention/renewal survey is to verify that the production quality conditions stipulated for the type approval are complied with and that no alterations are made to the product design or its components and/or materials without appraisal by the Society

(This certificate is complete only in combination with Appendix)

Certificate No: **A-14163**
File No: **847.70**
Job Id: **262.1-008529-4**

APPENDIX REV. NO. 0 (Page 1 of 1)

Product description

BW-800 consisting of the following components:

Hardware modules	Designation	SW ver.	Location
Bridge Watch main unit	800	1.x	Protected
Bridge Watch main unit	801		Protected
Bridge Watch Alarm unit	802		Protected
Bridge Watch Backup Officer selector unit	803		Protected
Dual Motion Sensor	805		Protected
Bridge Watch Reset unit for bridge wing	831		Exposed
Bridge Watch Reset unit with audio alarm for bridge wing	821		Exposed

Type Approval documentation

Doc. ref	Descriptin
DANAK-1910566	Report: Delta, EMC and environmental tests for BW-800
16. Feb. 2010	Report: Uni-Safe, BW-800 Performance Test report
2012 version 1Ae	Manual: Instruction and installation manual for BNWAS BW-800
E10089.00	Report: Nemko, EMC and environmental tests for BW-800
DANAK-19/11798	Report: Delta, EMC and environmental tests for reset unit 821 and 831

Place and date
Høvik, 2015-02-11



Digitally Signed By: Dyer, Mike
Location: DNV GL Høvik, Norway
Signing Date: 13.02.2015, on behalf of

Jan Tore Grimsrud

END OF CERTIFICATE