

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive (EU) 2015/559, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This Certificate is issued by DNV GL AS under the authority of the Government of the Kingdom of Norway.

This is to certify:

That the Bridge Navigational Watch Alarm System (BNWAS)

with type designation(s)
BNWAS 5000 MFD, BAM/BNWAS 5000 MFD

Issued to
Transas Marine Limited
Cork, Ireland

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)

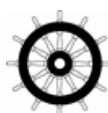
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2021-05-30**.

Issued at **Høvik** on **2016-05-31**

DNV GL local station:
Gothenburg

Approval Engineer:
Roger Lauritsen



Notified Body
No.: **0575**

for **DNV GL AS**

Vidar Dolonen
Head of Notified Body

Product description

The Transas BNWAS 5000 MFD comprises combinations of the following components:

Unit	Location
- Main Processing Unit	Protected
- Operating and control unit	Protected
- Display unit	Protected
- Reset button	Protected
- I/O modules	Protected
- Buzzer	Protected

Hardware modules are described in detail as hardware profile **HW4** in Transas Hardware certificate. See Type examination documentation.

Software version. 3.00.xxx

Operating system: Windows XP, Windows 7

Application/Limitation

- The system shall be installed in accordance with MFD Installation Guide
- The system shall be fed from a battery maintained supply power source having capacity of 6 hours.

Additional MFD functions: (functions tested in a MFD environment and found not inferior to the BNWAS functions):

- Navi-Radar 4000
- Navi-Sailor 4000 ECDIS/Navi-Sailor 4000 ECDIS MFD/Navi-Sailor 4100 ECDIS MFD/AlphaChart-T
- BAM 5000 MFD (Bridge Alert Management)
- Navi-Conning 4000 / Navi-conning 5000
- Firewall & Antivirus Protector
- Remote Service Functionality
- Transas Wave application

Tests carried out

- Performance testing, IEC 62616 (2010)
- Environmental testing, IEC 60945 (2002)
- Serial interface testing, IEC 61162-1 (2010)
- Performance testing, presentation, IEC 62288 (2014)

Job Id: **344.1-004781-1**
Certificate No: **MEDB00000HD**

Type Examination documentation

DNV GL No	Doc. Ref.	Rev.	Description
7			Report: Additional IEC 61162-1 ed. 4 tests (B.4.10-B.4.12)
6			Report: RS6 DCU IEC61162 compliance test report
5		3.00.340	MFD Installation Guide Part I
4		3.00.340	Multi-Functional Display Additional Functions
2	TAA000007U		Transas Hardware certificate
1		26-11-2015	BNWAS test report

Marking of product

The Manufacturer and Type Designation to be labelled on 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.