

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment (MED) as amended by directive (EU) 2015/559. This Certificate is issued by DNV GL SE based on the notification of the German Federal Ministry of Transport, Building and Urban Development.

This is to certify:

That the Radar equipment approved with a chart option (CAT 1HC, CAT 2HC and CAT 3HC)

with type designation(s)

BridgeMate Nautoscan NX

Issued to

Marine Technologies LLC
EGERSUND, Norway

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

Annex A.1, item No. A.1/4.38 and Annex B, Module B in the Directive; SOLAS 74 as amended, IMO Res A.278(VIII), A.694(17) & A.820(19), IMO Res MSC.191(79) & MSC.192(79), ITU-R M.1177-4 (04/11)

Annex A.1, item No. A.1/4.34 and Annex B, Module B in the Directive; SOLAS 74 as amended, Regulation V/18 & V/19, IMO Res A.278(VIII) & A.694(17), IMO Res MSC. 191(79) & 192(79), ITU-R M.1177-4 (04/11)

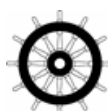
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2021-07-21**.

Issued at **Hamburg** on **2016-07-22**

DNV GL local station:

Stavanger



for **DNV GL SE**

Approval Engineer:

Harald Bluhm

Notified Body
No.: **0098**

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Sven Dudzus
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 Council Directive 96/98/EC, as amended.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE 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.

Product description

The BridgeMate Nautoscan NSx Radar may be used as CAT1 or CAT1C Radar.

Technical Data:

Product Type:	BridgeMate Nautoscan NSx
Comprising of:	
Computer:	As per HW4 profile of TAA000000B
Operating system:	Windows 8.1 Industrial Pro
Software:	Application Manager 4.1.X.X (MFD Switcher)
MTOS 1.5.X	(CCRS)
RA01-002_E02.XX	(Radar software)
Monitor:	As per HW4 profile of TAA000000B
I/O Interface units: (Serial to Ethernet)	As per HW4 profile of TAA000000B
Network Switches:	As per HW4 profile of TAA000000B
Human Interfaces:	As per HW4 profile of TAA000000B Radar Operator Panel, Type: 948-002 NGxxx/SAxxx (optional)
Pedestals:	
NS X UP	Type 770-001.NG001
NS S UP	Type 770-003.NG001
NS X PED	Type 770-001.NG010
NS X DOWN MTR	Type 770-002.NG010
NS S PED	Type 770-003.NG010
NS S DOWN MTR	Type 770-004.NG010
Arrays:	
Type LPR-A25	8ft. low profile X-Band antenna
Type LPR-A19	6ft. low profile X-Band antenna
Type LPR-A3	12ft. low profile S-Band antenna

Application/Limitation

The BridgeMate Nautoscan NSx Radar may be installed in a BridgeMate environment. A BridgeMate Ecdis is required for chart installation for CAT1C.

The VDR output as per 61162-450 is set up by the Ecdis and is required for VDR output according to the mentioned standard.

Position data should be in GGA format for CCRP corrected position in a BridgeMate application.

In a CAT1 delivery, the 23.1" monitor listed is the smallest to be used as main radar display, smaller monitors are only for slave displays.

Type Examination documentation

Tests carried out

Performance testing according to:
IEC 60945 (2002) incl. Corr. 1 (2008), IEC 62388 (2013), IEC 62288 (2014), IEC 61162-1(Edition 4),
IEC 61162-2(Edition 1), IEC 61162-450(Edition 1)



Job Id:
Certificate No: **MEDB000014S**

Marking of product

The Manufacturer and Type Designation to be applied 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.