CERTIFICAT ◆ CERTIFICADO ◆ СЕРТИФИКАТ ◆ 認證證書 ◆ CERTIFICATE ◆ ZERTIFIKAT

DANAK
PROD Reg.No. 7035
Member of EA MLA

TÜV SÜD
Danmark

Marine Equipment Directive
EC Type Examination Module B Certificate

This is to certify that TÜV SÜD DANMARK ApS did undertake the relevant type approval procedures for the equipment identified below, which was found to be in compliance with the Marine Equipment Directive (2014/90/EU) requirements, under the following Implementing Regulation for the listed types of equipment

Implementing Regulation	**(EU)2022/1157**
Certificate Holder and Manufacturer	**Northrop Grumman Sperry Marine B.V.** **Haringbuisweg 33** **3133 KP Vlaardingen** **The Netherlands**
Product(s)	**VisionMaster Net ECDIS with Track Control**
Product Sector	**Navigation Equipment**
Product Type	**MED/4.33 Track Control System (working at ship's speed from minimum manoeuvring speed up to 30 knots)**

and on the basis of the Technical Data and information detailed in the Annex to this certificate.

Valid from: 04 August 2023 (Signature) M Hardy Expiry Date: 22 March 2025

This certificate has been issued in accordance with the TÜV SÜD Testing and Certification Regulations and constitutes page 1 of the combined Certificate and Annex.
The Conditions for the validity of this certificate are listed in the Annex.
For further details, related to this certification please contact BABT@tuvsud.com

2443

Danmark

1 Equipment Description

Track Control System

1.1.1 Processors and Displays

Model	Description
67026AA or 67026AB	26" Panel PC
67024AB or 67019AB	24" or 19" Panel PC
67003AH or 67003KH	Control panel with trackball + keyboard (Integrated or Kit)
67003AF or 67003KF	Control Panel with trackball only (Integrated or Kit)
67003KT	Trackball Desktop Assembly
32SDT003, 32SDT004, 32SDT005 or 32SDT006 Notes 1&2	Security Device
074929-0000-xxx Note 3	NAVIPILOT 4500N, Control and Display Unit (CDU)
074928-0000-xxx Note 3	NAVIPILOT 4500N, Autopilot Processing Unit (APU)

1.1.2 Interface Units

Model	Description
67004600	Serial Port Expander
4802181 and 65932739	Network Serial Interface and Network switch kit (EDS-G509)

1.1.3 Optional Components

Model	Description
65900AA or 65900AB	PCIO Interface Unit
65900685	Mains Distribution Unit
1982776	Analogue Interface Unit
65932605	Digital Interface Unit
68001AA Note 9	Secure Maritime Gateway
4303153	Course Mode Joystick
074851-0000-xxx	Steering Control Interface Unit

1.2 Software Note 4

Identity	Version
VisionMaster Net	3.0.1
Baseline Operating System	Windows 10 IoT Enterprise LTSC, Version: 1809
NAVIPILOT 4500N Application	2.xxx

2 Assessed Requirements

2.1 Implementing Regulation (EU)2022/1157

2.2 Compliance Requirements for MED/4.33 Notes 5, 6, 7 & 8

IMO Resolutions	International Testing Standards	
Resolution MSC.74(69)	IEC 62065:2014	Maritime navigation and radiocommunication equipment and systems — Track Control Systems
Resolution MSC.191(79)	IEC 62288:2014	Maritime navigation and radiocommunication equipment and systems — Presentation of navigation-related information on shipborne navigational displays — General requirements
Resolution A.694(17)	IEC 60945:2002 incl. IEC 60945 Corr. 1:2008	Maritime navigation and radiocommunication equipment and systems — General requirements
	IEC 61162-1:2016	Maritime navigation and radiocommunication equipment and systems — Digital interfaces Part 1: Single talker and multiple listeners
	IEC 61162-2:1998	Maritime navigation and radiocommunication equipment and systems — Digital interfaces Part 2: Single talker and multiple listeners, high-speed transmission
	IEC 61162-450:2018	Maritime navigation and radiocommunication equipment and systems — Digital interfaces Part 450: Multiple talkers and multiple listeners — Ethernet interconnection
Resolution MSC.302(87)	IEC 62923-1:2018	Maritime navigation and radiocommunication equipment and systems – Bridge alert management Part 1: Operational and performance requirements, methods of testing and required test results
	IEC 62923-2:2018	Maritime navigation and radiocommunication equipment and systems – Bridge alert management Part 2: Alert and cluster identifiers and other additional features

3 Technical Documentation

3.1 Declaration of Conformity

DOC081-MED (VisionMaster Net Series)

3.2 User Guide

Vision`Master Net ECDIS User Guide, Part No. 67000012 Rev.4
VisionMaster Net Ships Manual Vol 1, Part No.67000011V1 Rev.4
VisionMaster Net Ships Manual Vol 2, Part No. 67000011V2 Rev.4
Navipilot 4500N Operation Manual, Part No. 056403 Rev.B
Navipilot 4500N Installation and Service Manual, Part No. 056404 Rev.B

3.3 Test Reports

IEC 60945:2002 (inc Corr.1)	75913301 Report 10 Issue 1, 2020-03-17	JTUV008, 2020-01-27
	JTUV009, 2020-01-22	75947558 Report 01 Issue 01, 2020-01-09
	P19-0070, 2019-04-24	P19-0152-1, 2019-09-03
	5P03620 Rev1, 2015-10-16	P18-055-1, 2018-12-04
	P21-0035-2, 2021-06-24	5P05962 rev 1, 2015-12-16
	P20-0136, 2020-10-07	E13184.00, 2013-08-20
	20053, 2013-11-19	-

IEC 62065:2014	75943301 Report 09, 2020-03-11	MEDB00006Y5 Rev 1, 2023-06-15
	TR-V3.0.1-VMNet-126 Issue: 2, 2023-08-03	TR-V3.0.1-VMNet-122 Issue: 1, 2023-06-26
IEC 62288:2014	75913301 Report 04 Issue 1, 2020-02-27	TR-V1.1.0-VMNet-081, 2021-08-11
	TR-V1.1.0-VMNet-079-TC, 2021-08-17	TR-V3.0.0-VMNet-103, 2023-01-23
	TR-V3.0.0-VMNet-107, 2022-12-20	75956857 Report 01 Issue 1, 2022-12-16
	TR-V3.0.0-VMNet-105, 2022-11-30	409514r00, 2020-11-12
	346060r02, 2020-11-25	TR-V3.0.1-VMNet-124 Issue: 1, 2023-07-20
IEC 61162 Series	75943301 Report 06 Issue 1, 2020-03-04	75943301 Report 07 Issue 2, 2020-03-05
	75943301 Report 08 Issue 1, 2020-03-09	TR-V1.1.0-VMNet-076, 2021-08-09
	TR-V1.1.0-VMNet-077, 2021-08-09	TR-V1.1.0-VMNet-078, 2021-08-11
	75952849 Report 02 Issue 01, 2021-12-06	-
IEC 62923-1:2018	TR-V3.0.0-VMNet-107, 2022-12-20	75952849 Report 01 Issue 01, 2021-12-16
IEC 62923-2:2018	75952849 Report 01 Issue 02, 2022-05-16	-

3.4 Build Status

3.4.1 Hardware

VisionMaster Net Technical File VMNetTFRPRT Issue 3C

3.5 Notes

Note 1 The 32SDT005 Multi-node security device allows operation of an integrated multi display ships bridge. A security string defines the product type on all the nodes for a particular vessel's bridge operating plan. The product type must be set to ECDIS, ECDIS with Radar overlay or Total Watch as appropriate.

Note 2 A Total Watch product enables operation as a Multi-Function workstation and allows the operator to switch between Chart Radar, ECDIS and conning display. This certificate only applies when the mode is set to ECDIS for a Total Watch System.

Note 3 Refer to Type Approval certificate MEDB00006Y5 for full product information for the NAVIPILOT 4500N.

Note 4 This approval remains valid for equipment including subsequent minor software amendments which have been formally accepted in accordance with the TÜV SÜD Testing and Certification Regulations

Note 5 (EU)2022/1157 gives a last placing on board date of 01/01/2024 for equipment approved against the test standards listed above. See Conditions of Validity.

Note 6 Image Transfer to a Voyage Data Recorder via IEC 61162-450 Interface.

Note 7 The product(s) listed meet(s) the requirements of IEC 62923-1 for EUT function types P, R and S.

Note 8 The VisionMaster Net ECDIS with Track Control meets the requirements for a Category C track control system.

Note 9 The 68001AA Secure Maritime Gateway is compliant with IEC 60945 (2002) requirements. This Type Approval does not cover any application or function on the external network that uses data exchanged via the Secure Maritime Gateway.

4 U.S. Coast Guard Number

This product has been assigned U.S. Coast Guard Module B number

165.112/EC2443

To note type approval to Module B only as it pertains to obtaining US Coastguard approval as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", Decision No. 1/2023 signed May 26th, 2023.

5 Conditions of Validity

This certificate ceases to be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with TÜV SÜD DANMARK ApS or a person appointed by TÜV SÜD DANMARK ApS to perform that role.

During the period of validity of this certificate the applicable regulations (international conventions and relevant resolutions and circulars of the IMO) and testing standards of the Commission Implementing Regulation may change, therefore the product conformity may need to be re-assessed by TÜV SÜD DANMARK ApS.

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-control phase module (D, E, or F) of the directive is fully complied with and controlled by a written inspection agreement with a notified body.

Signature: M Hardy

(M J Hardy)

On behalf of TÜV SÜD DANMARK ApS

Date: 04/08/2023