

TYPE EXAMINATION CERTIFICATE – EC MODULE B

Certificate no.:
MEDB000089R

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV AS under the authority of the Government of Norway.

This is to certify:

that the **Electronic chart display and information system (ECDIS)**

with type designation(s)
SeaCross ECDIS

issued to

Sea Cross Marine AB
Lidingö, Sweden

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

Regulation **(EU) 2024/1975**,

item No. **MED/4.30. SOLAS 74 as amended, Regulations V/18, V/19, V27 & X/3, IMO Res. A.694(17), IMO Res. MSC.36(63), IMO Res. MSC.97(73), IMO Res. MSC.191(79), IMO Res. MSC.232(82), IMO Res. MSC.302(87), IMO MSC.1/Circ.1503 Rev.1 or 2.**

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

This Certificate is valid until **2030-06-18**.

Issued at **Høvik** on **2025-06-19**

DNV local unit:
Sweden CMC

Approval Engineer:
Arve Lepsøe



Notified Body
No.: **0575**

for **DNV AS**

Mydlak-Röder, Christine
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005, and amended by Decision No 1/2023 dated August 21st, 2023.



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 Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

The SeaCross ECDIS consists of the following.

Hardware modules:

Unit	Description	Model name	Comment
Panel PC	Computer with integrated display unit and embedded graphical processor	HD 24T22 MEC M64 5FOB10	115 V AC or 230 V AC or 24 V DC
	USB and LAN interfaces	Integrated on computer motherboard	LAN: 5 x RJ 45 USB: 2 x USB 2.0 + 2 x USB 3.0
	NMEA interface unit	PCA100293-1	4xRS485/RS422 ports per NMEA interface unit, maximum two units
and			
Trackball	NSI trackball	E38-76A31D-M017	USB
Option			
Network switch	Ethernet switch	HN GP1080A	8 x 10/100/1000Base-T(X) ports with PoE

All units listed above are to be installed in a protected environment, i.e. indoor.

Software modules

	Version
• Operating System:	Windows 10
• SeaCross ECDIS 6000 software:	ver. 6.0.0.x
• SxCompiler software:	ver. 6.0.0.x
• IHO presentation library:	ver. 4.0.x

Application/Limitation

- The SeaCross ECDIS shall be installed according to SxECDIS Operator and Installation Manual.
- A dual installation of SeaCross ECDIS is found to comply with the requirements for ECDIS with Back-up arrangements.
- SeaCross ECDIS supports interfacing to AIS, including reception of AIS target information.
- SeaCross ECDIS may optionally be connected to NAVTEX for Maritime Safety Information (MSI).
- SeaCross ECDIS cannot be connected to an INS (Integrated Navigation System) for reception of sensor data.
- SeaCross ECDIS supports presentation of radar overlay when received via an Simrad/ Navico SDK V4 radar interface. On SeaCross ECDIS installations on vessels regulated by the SOLAS convention, any radar overlay interface shall be received from a radar compliant with the relevant standards of IMO.

Type Examination documentation

Tests carried out

• Performance testing:	IEC 61174 Ed. 4.0 (2015)
• Environmental testing:	IEC 60945 (2002) incl. Corr.1 (2008)
• Serial interface testing:	IEC 61162-1 (2016) and IEC 61162-450 (2018)
• Presentation of navigation information:	IEC 62288 (2021)
• Bridge Alert Management:	IEC 62923-1 (2018) and IEC 62923-2 (2018)

Marking of product

The type designation and name and contact address of the manufacturer shall be affixed visibly, legibly and indelibly to the product. In addition the product shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.