

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MEDB00001MX
Revision No:
3

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 **Heading control system (HCS)**

with type designation(s)
K-Bridge Autopilot

issued to

Kongsberg Maritime AS
Kongsberg, Norway

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

Regulation (EU) 2023/1667,

**item No. MED/4.16. SOLAS 74 as amended, Regulations V/18 & V/19, IMO Res. A.342(IX), IMO Res. A.694(17),
IMO Res. MSC.191(79), IMO Res. MSC.64(67) Annex 3, IMO Res. MSC.302(87)**

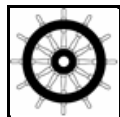
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2027-11-23**.

Issued at **Høvik** on **2024-02-05**

DNV local unit:
East & South Norway CMC

Approval Engineer:
Steinar Kristensen



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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 300,000 USD.



Product description

Kongsberg Maritime K-Bridge Autopilot system comprising the following items:

Hardware: K-Bridge Operator station : **Model/Type:** As defined in separate certificate *)

Software modules: K-Bridge System Platform SW : As defined in separate certificate *)

*) Certificate TAA00000FJ for K-Bridge and K-Bridge Standalone system platforms (see Type Examination documentation below) in its latest revision at the date of placing the system on the market is part of this certificate. For the relevant revision see also <https://approvafinder.dnv.com>

The K-Bridge Autopilot can be delivered in K-Bridge Console KM05 or as built in version for other consoles incl. KM18

Application/Limitation

- The installation shall be installed and tested on board according manufacturers manuals. See Type Examination documentation below for details.
- The HCS is found to be in compliance with the requirements for Multi Function Display (MFD), when connected in a KM network. The MFD may serve as Radar, ECDIS, back-up ECDIS, HCS, TCS and BNWAS.

Tests carried out

- Performance testing: ISO 11674 (2019)
- Environmental testing: IEC 60945 (2002) incl. Corr.1 (2008)
- Serial interface testing: IEC 61162-1 (2016)
- Presentation of navigation information: IEC 62288 (2021)
- Bridge Alert Management: IEC 62923-1 (2018) and IEC 62923-2 (2018)

Type Examination documentation

DNV No	Document Id.	Rev.	Description
69	110-005481	A	Manual: Kongsberg Maritime, K-Bridge ECDIS and Planning Station Operator Manual Release 9.1
67	110-0054817	A	Manual: Kongsberg Maritime, Conning Operator Manual Release 9.1
66	110-0054813	A	Manual: Kongsberg Maritime, K-Bridge Autopilot Operator Manual Release 9.1
61	477915	C	Report: Kongsberg Maritime, K-Bridge and K-NAV CAM BAM Type Approval Test report
60	472253	B	Report: Kongsberg Maritime, K-Bridge Autopilot Type Approval Test Report ISO 11674 (2019)
57	419292	A	Report: Kongsberg Maritime, K-Bridge Autopilot Type Approval Test report
56	TAA00000FJ	Latest rev.	Certificate: DNV, K-Bridge and K-Bridge Standalone system platforms
33	KLM1.0061	B	Report: Kongsberg Fimas, Environmental test of Aim Safe System
29	1042001	A	Report: Kongsberg Maritime, K-Bridge HCS Performance test report

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.