

Type Approval Certificate



[Control & Safety System with Cyber Resilience]

Initial Approval 6 November 2025
Applicant Kongsberg Maritime AS (HQ)
 Kirkegardsveien 45, NO-3616 Kongsberg, Norway
Product Description Type: Mcon

" See Appendix 1 "

Approval Condition " See Appendix 1 "

THIS IS TO CERTIFY that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows.

Ch. 3 of the Guidance for Cyber Resilience of Ships and Systems
 IACS UR E27 Rev.1 Cyber Resilience of On-board Systems and Equipment

This Certificate is valid until 5 November 2030

Issued at Busan, Korea on 6 November 2025



This certificate is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication of the certificate can be confirmed from "<http://e-cert.krs.co.kr>" by using the tracking No(ME25048966616) and certificate No.(CPH03795-CS003).



KOREAN REGISTER

*General Manager of
Marine & Ocean Equipment Team*

Note : 1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.
 2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.
 3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.
 4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.

Product Description and/or Approval Condition

Date of Issue : 6 November 2025

A. Product Description

1. Product Specification

- 1) The Kongsberg Thruster, Propulsion and Steering Remote Control System (Mcon) is an integrated control system for monitoring and control of main propulsion, thrusters and steering gears.
- 2) Hardware components

Name	Description	TA Cert no.
000114574	Lever, Kwant, 000114574	CPH03795-AC011
000122040	Lever, Kwant, 000122040	CPH03795-AC011
000114575	Lever, Kwant, 000114575	CPH03795-AC011
000114576	Lever, Kwant, 000114576	CPH03795-AC011
000122041	Lever, Kwant, 000122041	CPH03795-AC011
000122042	Lever, Kwant, 000122042	CPH03795-AC011
000122043	Lever, Kwant, 000122043	CPH03795-AC011
000122044	Lever, Kwant, 000122044	CPH03795-AC011
RRM000353541	Lever, Kwant, RRM000353541	CPH03795-AC011
RRM000357317	Lever, Kwant, RRM000357317	CPH03795-AC011
RRM000480571	Lever, Kwant, RRM000480571	CPH03795-AC011
RRM000480573	Lever, Kwant, RRM000480573	CPH03795-AC011
000104154	Lever, Kwant, 000104154	CPH03795-AC011
000104155	Lever, Kwant, 000104155	CPH03795-AC011
000104156	Lever, Kwant, 000104156	CPH03795-AC011
000104157	Lever, Kwant, 000104157	CPH03795-AC011
000104162	Lever, Kwant, 000104162	CPH03795-AC011
000112159	Lever, Kwant, 000112159	CPH03795-AC011
000110624	Lever, Kwant, 000110624	CPH03795-AC011
RRM000460995	Lever, Kwant, RRM000460995	CPH03795-AC011
000104146	Lever, Kwant, 000104146	CPH03795-AC011
000104147	Lever, Kwant, 000104147	CPH03795-AC011
000104148	Lever, Kwant, 000104148	CPH03795-AC011
000104149	Lever, Kwant, 000104149	CPH03795-AC011
000125251	Lever, Kwant, 000125251	CPH03795-AC011
000104150	Lever, Kwant, 000104150	CPH03795-AC011
000104151	Lever, Kwant, 000104151	CPH03795-AC011
000104152	Lever, Kwant, 000104152	CPH03795-AC011

Product Description and/or Approval Condition

Date of Issue : 6 November 2025

Name	Description	TA Cert no.
000104153	Lever, Kwant, 000104153	CPH03795-AC011
RRM000377686	Lever, Kwant, RRM000377686	CPH03795-AC011
RRM000377687	Lever, Kwant, RRM000377687	CPH03795-AC011
RRM000385830	Lever, Kwant, RRM000385830	CPH03795-AC011
RRM000385831	Lever, Kwant, RRM000385831	CPH03795-AC011
RRM000385832	Lever, Kwant, RRM000385832	CPH03795-AC011
RRM000385833	Lever, Kwant, RRM000385833	CPH03795-AC011
RRM000385835	Lever, Kwant, RRM000385835	CPH03795-AC011
RRM000385836	Lever, Kwant, RRM000385836	CPH03795-AC011
000117799	Operator panel, Kwant, 000117799	CPH03795-AC011
000117800	Operator panel, Kwant, 000117800	CPH03795-AC011
000117801	Operator panel, Kwant, 000117801	CPH03795-AC011
000126062	Operator panel, Kwant, 000126062	CPH03795-AC011
000127586	Operator panel, Kwant, 000127586	CPH03795-AC011
RRM000413829	Operator panel, Kwant, RRM000413829	CPH03795-AC011
RRM000438977	Operator panel, Kwant, RRM000438977	CPH03795-AC011
000117803	Operator panel, Kwant, 000117803	CPH03795-AC011
391890 RRM000464627	Operator panel, Kongsberg, 391890/RRM000464627	CPH03795-AC011
466764 000110313	Controller, Hectronic, 466764/000110313	CPH03795-AC011
488531 RRM000471733	Controller, Hectronic, 488531/RRM000471733	CPH03795-AC011
RRM000376790	Managed switch, Westermo, Lynx	CPH03795-AC011
RRM000376886	Managed switch, Westermo, L210-F2G	CPH03795-AC011
RRM000603363 RRM000483816	Operator station, Data Respons, RRM000603363/ RRM000483816	CPH03795-AC011
000124787	Operator station, Data Respons, 000124787	CPH03795-AC011
000123971	Operator station, Data Respons, 000123971	CPH03795-AC011
000108227	I/O module, B&R, 000108227	CPH03795-AC011
000110698	I/O module, B&R, 000110698	CPH03795-AC011
421167 RRM000644018	Serial interfaces, Hatteland, 421167/ RRM000644018	CPH03795-AC011
RRM000272777	CAN repeater, Phoenix, RRM000272777	-

Product Description and/or Approval Condition

Date of Issue : 6 November 2025

Name	Description	TA Cert no.
000116903	Indicator, DEIF, 000116903	MEDB00003AN
000116886 000116887	Indicator, DEIF, BW144	CPH06107-AE001
000121597 000121367 000109171 000115831	Indicator, DEIF, Xdi 144/192	CPH06107-AE001
000116908 000116909 000116910 000116911 000116912 000116913 000116914 000116906 000117951 000116907 000117952 RRM000513229 RRM000434500	Indicator, DEIF, XL series	CPH06107-AE001

* MEDB00003AN : MED certificate number.

3) Software version : 1.9.X

2. Approved Drawings and Documents

- 1) Approved documents
 - CBS asset inventory : 110-0053458 Rev.D
 - Topology diagrams : 110-0053459 Rev.D, 110-0083891 Rev.A
 - Description of security capabilities : 110-0053460 Rev.D
 - Test procedure for security capabilities : 110-0053461 Rev.F
 - Secure development lifecycle : KM-GUI-0118 Rev.A

3. Test Reports, etc.

- 1) Test Reports No.
 - 110-0053461 Rev.F
- 2) Etc.
 - Security configuration guidelines : 110-0098175 Rev.B
 - Plans for maintenance and verification : 110-0098175 Rev.B
 - Information supporting incident response and recovery plans : 110-0068347 Rev.A
 - Management of change plan : KM-PROC-0080 Rev.B, KM-PRO-0120 Rev.B

B. Approval Condition

1. Application & Limitation

- 1) This approval is granted on the basis of the approved documentation and the test reports (IACS UR E27 Rev.1).
- 2) The connection of this product to an untrusted network shall be reviewed and approved for each vessel.
- 3) The manufacturer is to inform this Society of all kinds of revisions of the equipment including software. If the changes are recognized to affect the functionality of the approved equipment, a type test to confirm the reliability of the revised equipment may be performed in the presence of our surveyor.

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2. Individual Product Cert. and Drawing Approval Requirement

- 1) Individual Product Certification is not required according to Ch. 3 of the Guidance for Cyber Resilience of Ships and Systems.
- 2) In the case where this system is installed on board, below documents for individual vessel are to be submitted to this Society according to Ch. 3 of the Guidance for Cyber Resilience of Ships and Systems.
 - Approved documents : CBS asset inventory, Topology diagrams
 - Reference documents : Cyber resilience test reports

3. Marking

- 1) The product or packing is to be marked with the manufacturer's name and type designation on a suitable position.

4. Others

- 1) Test carried out
 - Security capability test according to 401, Ch. 3 of the Guidance for Cyber Resilience of Ships and Systems.

< End of Certificate >

