



Type Approval Certificate

[Dynamic Positioning Control System with Cyber Resilience]

Initial Approval 4 December 2025

Manufacturer Kongsberg Maritime AS (HQ)
Kirkegardsveien 45, Carpus P.O.Box 483 N-3601 3616 Kongsberg

Product Description Type: K-Pos DP, K-Pos PM, K-Pos DPM, cJoy

" 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 3 December 2030

Issued at Busan, Korea on 4 December 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(ME25053258857) and certificate No.(CPH03795-CS001).



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 : 4 December 2025

A. Product Description

1. Product Specification

- 1) The Kongsberg K-Pos DP, K-Pos PM, K-Pos DPM and cJoy include the following systems.
 - Dynamic positioning control system
 - Position mooring control system
 - Combination of dynamic positioning and position mooring
 - Independent joystick control system
 - Alternative operating station for DP and/or IJS
 - DP status system

2) Hardware components

Name	Description	TA Cert no.
477549	PC, Lenovo, ThinkStation P340 Tiny	GZU41200-AC002
110-0016256	PC, Lenovo, ThinkStation P360 Tiny	NYK47060-AC001
110-0010765	PC, Kongsberg, cJoy Operator Terminal, Mk4	-
110-0000324	Digital Printer, Kongsberg, 110-0000324	-
477601	Controller, Kongsberg, RCU601	CPH27937-AC003
383962	Controller, Kongsberg, RCU602	CPH27937-AC003
405481	Controller, Phoenix Contact, AXC 1050	-
469125	Managed switch, Cisco, C1000-24T-4G-L	-
110-0001617	Managed switch, Cisco, C1000-24T-4X-L	-
382427	Managed switch, Moxa, IKS-6728A	-
110-0037724	Managed switch, Moxa, IKS-6726A	-
467615	Managed switch, Moxa, EDS-408A	-
467617	Managed switch, Moxa, EDS-518E-4GTXSFP	-
110-0061800	Firewall, Moxa, EDR-8010-2GSFP	KA034239-AC001
486643	Managed switch, Cisco, C1121X-8P	-
417936	Router, Cisco, C891-24X/K9	-
343608	Unmanaged switch, Moxa, EDS-205A	-
463211	Unmanaged switch, Moxa, EDS-208A	-
702485	Unmanaged switch, Moxa, EDS-308	-
351658	Unmanaged switch, Moxa, EDS-316	-
110-0113920	Firewall, MOXA, EDR-G9010-VPN-2MGSFP	KA034239-AC002
110-0020955	Firewall, FortiGate, FGR-60F	-
484758	Operating Station, Kongsberg, cWing Mk3 Built-in	-
484760	Operating Station, Kongsberg, cWing Mk3 Portable	-
405480	Serial converter, Phoenix Contact, AXL F RS UNI	-

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Name	Description	TA Cert no.
110-0021928	USB Extender, Kongsberg, VL66298 Receiver	-
110-0021927	USB Extender, Kongsberg, VL66298 Transmitter	-
452181	Serial converter, Kongsberg, USB to 4 x RS232 DB9M	-
457971	Adapter, Kongsberg, Adapter USB to 1 serial RS232	-
459962	Adapter, Kongsberg, Adapter USB to 1 serial RS422	-
404654	LAN to CAN Module, Kongsberg, L2C Module	CPH27937-AC003
415713	Serial splitter, Kongsberg, NPort 5232-T	-
603526	Panel ALC, Kongsberg, 603526	CPH27937-AC003
603530	Panel BU DP, Kongsberg, 603530	-
330951	Panel Input Mk2 COP 05, Kongsberg, 330951	-
110-0049940	Panel Input Mk2 COP 05, Kongsberg, 110-0049940	CPH27937-AC003
603550	Heading Wheel COP05, Kongsberg, 603550	-
304849	Joystick KC 06-k, Kongsberg, 304849	-
334092	Tracker Ball Standalone Panel, Kongsberg, 334092	-
400320	cJoy OT JB MK3 w/5m cable, Kongsberg, 400320	-
400359	cJoy OT JB MK3 w/15m cable, Kongsberg, 400359	-
603206	cWing Junction Box for WT, Kongsberg, 603206	-
603442	RHUB200-5 Module, Kongsberg, 603442	-
603443	RMP200-8 Module, Kongsberg, 603443	-
324400	RMP201-8 Module, Kongsberg, 324400	-
603444	RSER200-4 Module, Kongsberg, 603444	-
110-0013801	A4 Lexmark CS521dn for bridge, Kongsberg, 110-0013801	-
110-0056498	Printer, Kongsberg, Printer A4 CS431dw for Bridge	-

- 3) Software version
- K-Pos : 8.5.x

2. Approved Drawings and Documents

- 1) Approved documents
- CBS asset inventory : 110-0062855 Rev.F
 - Topology diagrams : 110-0062856 Rev.D
 - Description of security capabilities : 110-0062857 Rev.D
 - Test procedure for security capabilities : 110-0076887 Rev.A
 - Secure development lifecycle : KM-GUI-0118 Rev.A, KM-GUI-6015 Rev.A

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3. Test Reports, etc.

- 1) Test Reports No.
 - 110-0076887 Rev. A
- 2) Etc.
 - Security configuration guidelines : 110-0066159 Rev. A
 - Plans for maintenance and verification : 110-0066159 Rev. A
 - Information supporting incident response and recovery plans : 110-0066721 Rev. D
 - Management of change plan : KM-PROC-0080 Rev. A, KM-TMPL-0218 Rev. A, KM-GUI-6015 Rev. A, KM-PRO-0120 Rev. A, KM-PRO-2025 Rev. I

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. I).
- 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.
- 4) This approval does not cover environmental performance for the system hardware and the functionality of the software.

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 >