TYPE APPROVAL CERTIFICATE

Polish Register of Shipping certifies that the undernoted product type

PROPULSION CONTROL SYSTEM
(including THRUSTERS AND STEERING CONTROL)

AutoChief 600 and K-Steering 600

issued to

Kongsberg Maritime AS
Bekkajordet 8A
NO-3189 Horten
Norway

is approved as complying with the requirements of the

PRS Rules and is suitable for use on board of ships classified by PRS or in appliances with PRS certificates.

Certificate No. **TE/1140/883027/25**

Expiry date **2027-08-05**

Issued at

Gdańsk, 2025-02-25

C/020/57

Signature

Polski Rejestr Statków S.A.
al. Gen. Józefa Hallera 126
80-416 Gdańsk, Poland

Tel. +(48) 58 346 17 00
Fax +(48) 58 346 03 92

mailbox@prs.pl
www.prs.pl

Continued overleaf

Product description:
Various components and modules used to build propulsion control systems.

Systems components:
- as specified in Appendix -

Technical data:
Power supply voltage: 18 .. 32 VDC.
Ambient temperature: -15°C .. +55°C / +70°C *
Maximum relative humidity: 96% non-condensing.
Enclosure protection degree: IP20/IP22/IP55/IP56/IP66 *
* see technical specification for each module/component

Basis of approval

1. The technical documentation approved by PRS on 2022-08-11, 2024-04-18 and 2025-02-21.
2. The inspection of the production process and quality control system carried out on 2022-06-07.
3. The Quality Management System Certificate No. C561587 issued by DNV.
4. Reports from environmental and EMC tests carried out acc. to PRS Publication 11/P Ed. 07.2023.
5. Tests carried out in presence of PRS Surveyor on 2024-04-19.
6. PRS Survey Report No. TM/PU/02/24 issued on 2024-04-22.
7. The previous PRS Type Approval Certificate No. TE/1050/883027/22.

Additional conditions and remarks:

1. This type approval is for hardware and basic software. This approval is granted on the basis of the approved documentation and test reports (IACS UR E27 Rev. 1).
2. Each system is to undergo tests (FAT) in presence of PRS Surveyor.
3. The following technical documentation of each system is to be submitted to PRS for approval before FAT: general diagram of the system (block diagram) showing power supply, connections, redundancy and segregation; test programme (FAT procedure); list of monitored points.
4. The following documentation is to be submitted to PRS after FAT for each system delivery: inventory/equipment list demonstrating consistency with asset inventory, test report demonstrating configuration of security capabilities as per KM document 110-0056704.
5. System is not to be connected to untrusted networks.
6. The condition for maintain validity of this Certificate is to maintain validity of ISO9001 Certificates of all manufacturing places (see item below).
7. Places of production:

- Kongsberg Maritime AS, Kirkegårdsveien 45, 3616 Kongsberg, Norway;
- Kongsberg Maritime AS, Bekkajordet 8a, 3189 Horten, Norway;
- Kongsberg Maritime Korea Ltd, - 9-7, Sandon 3-Ro, Jeonggwan-eup, Gijang-Gun, Busan, 46027, Republic of Korea;
- Kongsberg Maritime China Shanghai Ltd., 136 North Fute Road, Pilot Free Trade Zone, Shanghai, China 200131.

Notes

1 The approval is valid only when the product is used in accordance with the manufacturer's conditions.
2 Changes of product design and materials which influence product quality are to be agreed with PRS.
3 Type Approval Certificate will be cancelled in the case of dissatisfactory service results, modifications made in the product structure or materials without PRS' consent, not advising PRS of the manufacturer's name change.

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Systems components:

Components		Part No.	AC600	K-Steering 600
Components for navigation bridge	Lever Telegraph -LTU II	364330	○	○
	Lever Telegraph -LTU II ME	389505	○	○
	ABE II - 3-buttons	355146	○	○
	KBE15	401892	○	○
Touch Control Panel	CP12 W/KBE15 + ABE 11	402586, 401892	○	○
Pushbutton Telegraph	PBT Flat Version Black	8100318	○	○
Bridge Wing Control Unit	BWU21 Left version	486233	○	○
	BWU21 Right version	486200	○	○
Controller unit	Segment Controller unit - SCU	329785	○	○
Distributed Processing Units (DPU)	Remote Analog input Module - RAi-16xe	329714	○	○
	Remote Digital output Module - RDo-16xe	329699	○	○
	Remote Analog TC input Module - RAi-10tc	8100161	○	○
	Remote Digital input Module - RDi-32xe	333523	○	○
	Remote Analog output Module - RAo-8xe	333824	○	○
	Remote Digital I/O Module - RIO-C2xe	333346	○	○
Digital Governor Unit	DGU	8100272	○	○
RPM Units	RPME	8100289, 8100278	○	○
Main Engine Interface Unit	MEI	8100276	○	○
Engine Safety Unit	ESU	8100275	○	○
	ESU12	366666	○	○
Electric Shaft System	ESS	8100282	○	○
Multi Purpose Panel	MPP Flush-Mount Black	8100290	○	○
Multi Purpose Display	MPD Flush	8100292	○	○
	CPP Backup Panel - PB4	400992	○	
LAN to 2 CAN gateway	L2C	404654, 406381	○	○
Push button panel	PB6	110-0060620	○	○
Common Thruster Lever	Lever K-Thrust Dual	416532	○	○
	Lever K-Thrust single	416533	○	○
	Lever K-Thrust Display	416534	○	○
	Lever K-Thrust Dual w/Display	405844	○	○
	Lever K-Thrust single w/Display	405842	○	○
	Mini Wheel K-Thrust w/Display	412364		○
	Mini Wheel K-Thrust	417835		○
	KM Mini Wheel	110-0028810		○
Electrical Fuel Actuator	ELACT 3812	468750	○	
	DSU 38	468770	○	

○ Used by product with this marking