



Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	Kongsberg Maritime AS
Address	Kirkegårdsveien 45, Kongsberg, 3616, Norway
Place of Production	Kongsberg Maritime Pte Ltd 81 Toh Guan Road East, #04-01 Secom Centre, Singapore, 608606, Singapore
Place of Production	Kongsberg Maritime Korea Ltd 9-7, Sandan 3-ro, Jeonggwan-eup, Gijang-gun, Busan, 46027, South Korea
Place of Production	Kongsberg Maritime AS Skonnertvegen 1, Ranheim, 7053, Norway
Place of Production	Kongsberg Maritime China LTD 136 North Fute Road, Pilot Free Trade Zone, Shanghai, 200131, China
Place of Production	Kongsberg Maritime AS Bekkajordet 8a, Horten, 3189, Norway
Type	Control and Monitoring System
Trade Name	Kongsberg Remote Services

Units 1702-1704, 17th Floor (Level-13), Building
Q2, Aurum Q Parc; Gen 4/1 TTC, Thane-Belapur
Road, Ghansoli, Navi Mumbai, 400710, India

Hrishikesh Rajeev

Electrical & Control Engineer to Lloyd's
Register Marine and Offshore India LLP
A member of the Lloyd's Register group

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Application	Marine Application
Specified Standard	IACS UR E27 Rev.1 Sep 2023 LR's Ships Rules, Pt. 6, Ch.1, Cl. 2.16 - Cyber Resilience, applicable requirements for system & equipment
Other Conditions	Type Approval does not eliminate the need (as required by LR Rules) the requirements for further review or for the product to be further inspected and/or surveyed to be installed in ships classed or intended to be classed with LR. If the specified standards are amended during the validity of this certificate, the product is to be reapproved prior to it being supplied to vessels to which the amended standards apply.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register Marine and Offshore India LLP of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document TSO-26-057660-E-01 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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Appendix

The Kongsberg Remote Services system is a modular system consisting of the following main parts:

Hardware Inventory

No	Asset Name / Model No.	Original Equipment Manufacturer	Firmware/Operating System Version
1	10" Panel PC	ISIC	Ubuntu 20.04
2	C892	Cisco	IOS 15.9.3
3	C891-24X	Cisco	IOS 15.9.3
4	C1121X-8P	Cisco	IOS XE 17.3.5
5	C1000 Switch	Cisco	IOS 15.2.7
6	Fortiswitch 124F	Fortinet	OS 7.6.4

Software Inventory

No	Manufacture	SW Description	SW name	Version	H/W Type/ Model No.
1	BeyondTrust	Remote Support Tool	Bomgar Remote Support	15.3	B300-V
2	Kongsberg Maritime	Remote Support Client	Remote Assist	1.1.0	Any operator station or K-IMS hardware
3	BeyondTrust	Remote Support Client	Bomgar Button	15.3	Any operator station or K-IMS hardware
4	BeyondTrust	Remote Support Client	Bomgar Jump Client	15.3	K-IMS Hardware
5	Kongsberg Maritime	AV Scanner software	MPS Cleaner	4.5 and 5.1	10" Panel PC Any operator station or K-IMS hardware

6	Kongsberg Maritime	USB Driver	MPS Driver	4.5 and 5.1	10" Panel PC Any operator station or K-IMS hardware
7	Kongsberg Maritime	Data Collection Tool	Smart Service	1.3	10" Panel PC Any operator station or K-IMS hardware
8	Ubuntu	wxwidgets libraries used for C++ applications.	libwxgtk3.0	3.0.4+dfsg-15build1	10" Panel PC
9	Ubuntu	Encryption/decryption of files	openssl	1.1.1f-1ubuntu2.24	10" Panel PC
10	Ubuntu	Mirror SDK (definitions update)	Php	7.4.3-4ubuntu2.12	10" Panel PC
11	Ubuntu	Send data over snmp	Snmp	5.8+dfsg-2ubuntu2.3	10" Panel PC
12	Ubuntu	FTP Client for connection to the router (uses tftp protocol)	tftp	0.17-22ubuntu2	10" Panel PC
13	Ubuntu	FTP Client for connection to updates FTP (has advanced features)	lftp	4.8.4-2build3	10" Panel PC
14	Ubuntu	Used for Custom scripts	python3	3.8.2-0ubuntu2	10" Panel PC
15	Ubuntu	Interact with storage devices	udisks2	2.8.4-1ubuntu2	10" Panel PC

16	Microsoft	Webportal software	Dotnet	8.0.4-1	10" Panel PC
17	Microsoft	Webportal software	aspnetcore-runtime-8.0	8.0.4-1	10" Panel PC
19	Ubuntu	Schedule software	incron	0.5.12-2build1	10" Panel PC
20	Ubuntu	Database	postgresql	12.11-0ubuntu0.20.04.1	10" Panel PC
21	Ubuntu	Web server	nginx	1.18.0-0ubuntu1.3	10" Panel PC
22	Ubuntu	Windows Manager	awesome	4.3-4	10" Panel PC
23	Ubuntu	Sync of data	Rsync	3.1.3-8ubuntu0.3	10" Panel PC
24	Ubuntu	Mail client	Mutt	1.13.2-1ubuntu0.5	10" Panel PC
25	Ubuntu	Time Sync	NTP	1:4.2.8p12+dfsg-3ubuntu4.20.04.1	10" Panel PC
26	Ubuntu	Client for synchronizing time	(NTP) systemd-timesyncd	245.4-4ubuntu3.17	10" Panel PC
27	Ubuntu	File explorer	MC	3:4.8.24-2ubuntu1	10" Panel PC
28	Ubuntu	USB auto mounting software	udiskie	2.1.0-1	10" Panel PC
29	Ubuntu	Virtual keyboard	onboard	1.4.1-2ubuntu7	10" Panel PC

30	Ubuntu	SSH tool	putty-tools	0.73-2	10" Panel PC
31	Ubuntu	ZIP tool	Zip	3.0-11build1	
32	Ubuntu	ZIP tool	Unzip	6.0-25ubuntu1	10" Panel PC
33	Ubuntu	converts windows to linux style line endings	dos2unix	7.5.1-1	10" Panel PC
34	Ubuntu	required to unzip MSI files	p7zip	16.02+dfsg-7build1	10" Panel PC
35	Mono	Web portal	Mono	6.8.0.105+dfsg-3.6ubuntu2	10" Panel PC
36	Ubuntu	ntfs driver	ntfs-3g	1:2017.3.23AR.3-3ubuntu1.2	10" Panel PC
37	Ubuntu	manage device storage	ncdu	1.14.1-1	10" Panel PC
38	Kongsberg Maritime	Global Secure Network	Global Secure Network	2.3.0.1	Cisco C892, C891-24X, C1121X-8P, C1000 and FS 124F.