Certificate No: LR2564474SC
Issue Date: 12/10/2024
Expiry Date: 11/10/2027

Software Conformity Certificate

This certificate is issued to

Manufacturer	**Yokogawa Electric Corporation**
Address	2-9-32, Naka-cho, Musashino-shi, Tokyo, 180-8750, Japan
Place of Production	Yokogawa Electric Corporation
Address	2-9-32, Naka-cho, Musashino-shi, Tokyo, 180-8750, Japan
Place of Production	Yokogawa Engineering Asia Pte Ltd
Address	5 Bedok South Road, Singapore, 469270, Singapore
Place of Production	Yokogawa Industrial Safety Systems Sdn. Bhd. 199501014426(343627-V)
Address	NO.9, Jalan Industri PBP 3, Taman Perindustrian Pusat Bandar Puchong, Puchong, Selangor, 47100, Malaysia
Place of Production	Yokogawa Electric International Pte Ltd
Address	5 Bedok South Road, Singapore, 469270, Singapore
Place of Production	Yokogawa Electric (Malaysia) Sdn. Bhd.
Address	No.9 Jalan Industri PBP 3, Taman Industri Pusat Bandar Puchong, 47100 Puchong, Selangor Darul Ehsan, 47100, Malaysia

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Toshihiro Shigeno

Account Manager (Innovation/Type Approval) & Senior Surveyor to Lloyd's Register Group Limited

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

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Software Conformity Certificate

Place of Production	Yokogawa Software Engineering (Wuxi) Co., Ltd.
Address	No. 11, Xi Kun Road, Wuxi-Singapore Industrial Park, Wuxi City, Jiangsu Province, 214028, China
Place of Production	Yokogawa Electric Korea Co., Ltd.
Address	(Yokogawa B/D, Yangpyeong-dong 4-Ga), 21, Seonyu-ro 45-gil, Yeongdeungpo-gu, Seoul, 07209, South Korea
Software:	CENTUM CS3000,CENTUM VP ProSafe-RS, STARDOM, FAST/TOOLS and CI Server are configured to control, monitoring and safety functions in marine applications and vessels for the following systems: · Main boiler, Main turbine, Main engine · Auxiliary boiler, Auxiliary turbine, Auxiliary engine · Essential Auxiliaries of Machinery and Cargo Services · Electric propulsion system · Gas Compressor · Fuel Gas Supply System (FGSS) · Reliquefication System · Regasification System · Emergency Shutdown system · Safety Instrumented Functions · Fire and Gas applications · Power Management System (PMS) · Ballast control system · Fuel Efficiency control · SOx Scrubber Control system

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Software Conformity Certificate

The version numbers of basic software for CENTUM VP, ProSafe-RS, STARDOM, FAST/TOOLS and CI Server which were audited in this software conformity certificate extension are as follows:

- CENTUM VP : R6.11.00
- ProSafe-RS : R4.09.00
- STARDOM : R4.31.01
- FAST/TOOLS : R10.03
- CI Server : R1.03.00

Description:

Distributed Control System : CENTUM CS3000 and CENTUM VP
Safety Instrumented System : ProSafe-RS with SIL3
Programmable Logic Controller : STARDOM
SCADA System : FAST/TOOLS, CI Server

Operating Environment:

Software operating as an installed application within the CPU unites running the following Operations System (O/S)for the following Hardware (H/W):

Name	H/W	O/S
Field control station	: FCU	ORKID
HIS operation and monitoring function	: General Purpose PC	Windows10
HIS builder function	: General Purpose PC	Windows10
APCS	: General Purpose PC	Windows10
PC software	: General Purpose PC	Windows10
Safety control functions	: SCU	ORKID
Special software for FCS	: FCU	ORKID
Special software for HIS	: General Purpose PC	Windows10
STARDOM Controller	: FCN-500	VxWork
	FCN-RTU	VxWork
FAST/TOOLS	: General Purpose PC	Windows10,Linux
CI Server	: General Purpose PC	Windows10,Linux

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Software Conformity Certificate

Assessment Module: Relevant requirements of Assessment Module GEN1 1994 for LR Software Conformity Assessment System.

Qualifications: This certificate is valid for subsequent versions of the software, provided the modifications are performed using the change control process covered by this certification, and appropriate configuration management is maintained.

Major changes are to be notified to LR and documents submitted to demonstrate compliance with assessment criteria (i.e. changes that result in additional functionality or a wider scope of certification).

This certificate is valid only for the software mentioned herein and excludes software that has been developed outside the assessed development process.

Previous Version: LR22470004SS

The Design Appraisal Document No. LR2564474SC and its supplementary Software Conformity Assessment Terms and Conditions form part of this Certificate.

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