Certificate No: LR2003627TA
Issue Date: 02/04/2020
Expiry Date: 01/04/2025

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	**Honeywell Integrated Technology (China) Co.,Ltd**
Address	430 Libing Road, Zhangjiang Hi-Tech Park, Pudong New Area, Shanghai, 201203, China
Place of Production	Honeywell Integrated Technology (China) Co.,Ltd 430 Libing Road, Zhangjiang Hi-Tech Park, Pudong New Area, Shanghai, 201203, China
Place of Production	WELCO TECHNOLOGY (SUZHOU) LTD 198 Xinglon Street, Suzhou Industrial Park, Suzhou, China
Type	Monitoring and Control System
Description	Monitoring and Control System
Trade Name	ControlEdge 900 Platform
Application	Marine applications for use in environmental categories ENV1 and ENV2 in the "General Power Distribution Zones"as defined in LR Type Approval System Test Specification No. 1 March 2019.
Specified Standard	Manufacture's specification
Ratings	**Power Supply**: AC 120/240V, 50/60HZ, DC 24 V **Racks:**

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Ke Lin Zhang

Senior Specialist to Lloyd's Register
Classification Society (China) Co Ltd
A member of the Lloyd's Register Group

19th Floor, 550 Yan An dong Road, Shanghai,
Huangpu District, China

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Part No.:	Description:
900RR0-0200	Redundant CPM Rack (Assembly)
900R04-0200	4 I/O Slot Rack - Non-Redundant Power (Assembly)
900R08-0200	8 I/O Slot Rack - Non-Redundant Power (Assembly)
900R12-0200	12 I/O Slot Rack - Non-Redundant Power (Assembly)
900R08R-0200	8 I/O Slot Rack - Redundant Power(Assembly)
900R12R-0200	12 I/O Slot Rack - Redundant Power(Assembly)

Control Processor Module

Part No.: 900CP1-0200 ; Description: CPM, ControlEdge900

Expansion Processor Module

Part No.: 900SP1-0200; Description: EPM, ControlEdge900

IO Modules

Analog input

Part No.:	Description:
900A01-0202	Universal AI -RTD, TC, V, 8 ch
900A16-0103	Analog Input hi level, 16 ch

Analog output

Part No.:	Description:
900B01-0301	Analog Output, 0 to 20mA, 4 ch
900B08-0202	Analog Outputs 0 to 20mA (8 channel, 5 modules/rack)

Digital input

Part No.:	Description:
900G01-0202	Digital Input, Contact type, 16 ch
900G03-0202	Digital Input 120/240 VAC, 16 Ch
900G04-0101	Digital Input, 120/240VAC-125VDC, (16 channel Isolated)
900G32-0101	Digital Input 24VDC, 32Ch

Digital output

Part No.:	Description:
900H01-0202	Digital Output - Relay, 8 Ch
900H03-0202	Digital Output - 120/240 VAC, 8Ch
900H32-0102	Digital Output - 24VDC, 32 Ch

Pulse/Freq input

Part No.: 900K01-0201; Description: Pulse/Freq Input,4ch

Universal IO

Part No.: 900U01-0100; Description: Universal IO Module

Communication Interface Modules

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Part No.: 900ES1-0100; Description: Communication Interface Module, RS485/ RS232 4 port

Power Supply

Part No.:	Description:
900P01-0301	Power Supply 120/240VAC, 60W
900P24-0301	Power Supply 24VDC, 60W
900PSM-0200	Power Status Module, Redundant

Other Conditions

1. The system is to be in compliance with the applicable Lloyd's Register Rules and Regulations of Ships when installed on board specific ship and is subject to plan approval on each individual case.
2. Examination of software(Version R161) aspects is restricted to functional operation as demonstrated in the Performance test.

When emergency stop function or safety critical functions is implemented, the software is to satisfy the requirements of LR's Software Conformity Assessment System - Assessment Module GEN1 (1994).Alternative proposals providing an equivalent level of system integrity will be subject to special consideration, e.g. fully independent hard-wired back-up system, redundancy with design diversity, etc.

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 Classification Society (China) Co Ltd of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document No. LR2003627TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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