Certificate No: LR2596487TA
Issue Date: 02/04/2025
Expiry Date: 01/04/2030

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 Li Bing Road, Zhang Jiang Hi-Tech Park, Pudong New Area, Shanghai, 201203, China
Place of Production	WELCO TECHNOLOGY (SUZHOU) LTD 198 Xinglong Street, Suzhou Industrial Park, Suzhou City, Jiangsu, China
Place of Production	SFO Technologies Pvt. Ltd. Electronics Division, Plot No. 36/37, Cochin Special Economic Zone, Kakkanad, Kochi, 682037, India
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 July 2024.

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Ning Guan

Electrical & Control Technical Manager - Southeast Asia & Great China to Lloyd's Register Classification Society (China) Co.,

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Specified Standard Manufacture's specification

Ratings

Power Supply: AC 120/240V, 50/60HZ, DC 24 V

Racks:

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)
900R04-0300	4 I/O Slot Rack – Non-Redundant Power (Assembly), EXT TEMP
900R08-0300	8 I/O Slot Rack – Non-Redundant Power (Assembly), EXT TEMP
900R08R-0300	8 I/O Slot Rack - Redundant Power (Assembly), EXT TEMP
900R12-0300	12 I/O Slot Rack – Non-Redundant Power Assembly), EXT TEMP
900R12R-0300	12 I/O Slot Rack - Redundant Power (Assembly), EXT TEMP
900RR0-0300	Redundant Controller rack (Assembly), Ext Temp

Control Processor Module

Part No.:	Description:
900CP1-0200	CPM, ControlEdge 900
900CP2-0100	CPM, ControlEdge 900
900UOC-0100	CPM, ControlEdge 900
900CN9-0100	CPM, ControlEdge 900

Expansion Processor Module

Part No.:	Description:
900SP1-0200	EPM, ControlEdge 900
900SP1-0300	Expansion Processor Module (EPM) EXT TEMP

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

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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, 120/240 VAC-125VDC, (16 channel Isolated)
900G32-0101	Digital Input 24VDC, 32ch
900G32-0301	Digital Input, 24 VDC, 32 Channel, EXT TEMP

Digital output

Part No.:	Description:
900H01-0202	Digital Output - Relay, 8 ch
900H03-0202	Digital Output - 120/240 VAC, 8 ch
900H32-0102	Digital Output - 24VDC, 32 ch
900H32-0302	Digital Output, 24 VDC 32 Channel, EXT TEMP

Pulse/Freq input

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

Universal IO

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

Communication Interface Modules

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

Power Supply

Part No.:	Description:
900P01-0301 (SFOPART NO: 99-396-0010)	Power Supply 120/240VAC, 60W
900P24-0301 (SFOPART NO: 99-396-0012)	Power Supply 24VDC, 60W
900PSM-0200	Power Status Module, Redundant
900P01–0701 (SFOPART NO:	Power Supply AC-DC-NON SIL - 41W Ext TEMP

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99-396-0023)	
900P24-0501 (SFO PART NO: 99-396-0009)	Power Supply 24VDC, 58W
900P01-0501 (SFO PART NO: 99-396-0007)	Power Supply 120/240VAC, 60W- Non-SIL
900P01-0801 (SFO PART NO: 99-396-0024)	PowerSupply AC-DC- -41W Ext TEMP
900P01-0601 (SFO PART NO: 99-396-0016)	PowerSupply 120/240VAC, 60W- SIL
900P24-0601 (SFO PART NO: 99-396-0018)	Power Supply 24Vdc,60W – SIL

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.
3. 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 ModuleGEN1 (1994). Alternative proposals providing an equivalent level of system integrity will be subject to special consideration, e.g. fully in dependent hard-wired back-up system, redundancy with design diversity, etc.

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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.

Previous Version: **LR2003627TA**

The Design Appraisal Document LR2596487TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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