DNV·GL

Certificate No:
TAA000003J

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Programmable Controller

with type designation(s)
SYSMAC C200H/HW/HG/HX Series

Issued to
OMRON CORPORATION IAB COMPANY
Kusatsu-City Shiga Pref, Japan

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Temperature	**A**
Humidity	**A**
Vibration	**A**
EMC	**A**
Enclosure	**Required protection according to the Rules to be provided upon installation onboard**

This Certificate is valid until **2018-12-31**.

Issued at **Busan** on **2015-08-27**

for **DNV GL**

DNV GL local station: **Kobe**

Approval Engineer: **Byoung So Lee**

Baeg Soon Choi
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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Product description

SYSMAC C200H/HW/HE/HG/HX series comprising the following units:

DESCRIPTION	MODEL
CPU Unit:	C200HX-CPU85, C200HX-CPU65, C200HX-CPU64, C200HX-CPU54,
	C200HX-CPU44, C200HX-CPU34
	C200HG-CPU63, C200HG-CPU53, C200HG-CPU43, C200HG-CPU33
	C200HE-CPU42, C200HE-CPU32, C200HE-CPU11
Communications board	C200HW-COM01, C200HW-COM02, C200HW-COM03, C200HW-COM04
	C200HW-COM05, C200HW-COM06
Power Unit	C200HW-PA204, C200HW-PA204S, C200HW-PD024
EEPROM memory	C200HW-ME04K, C200HW-ME08K, C200HW-ME16K, C200HW-ME32K,
SYSMAC Link	C200HW-SLK24, C200HW-SLK14, C200HW-SLK23, C200HW-SLK13
Controller Link	C200HW-CLK21
PC card/Ethernet set	C200HW-PCU01, C200HW-PCS01
Bus connecting	C200HW-CE001, C200HW-CE002, C200HW-CE011, C200HW-CE012
Compobus	C200HW-SRM21,C200HW-DRM21
I/O Bracket	C200HW-ATT52, C200HW-ATT32, C200HW-ATT82, C200HW-ATTA2
Back plane	C200H-BC031, C200H-BC051, C200H-BC081, C200H-BC101
Memory Unit	C200H-ME431, C200H-ME831, C200H-MP831, C200H-MR431,
	C200H-MR432, C200H-MR831, C200H-MR832
I/O Power Supply Unit	C200H-PS221, C200H-PS211
Input Unit	C200H-IA121, C200H-IA122, C200H-IA221, C200H-IA222,
Output Unit	C200H-OC221, C200H-OC222, C200H-OC223, C200H-OC224,
	C200H-OD411, C200H-OD211, C200H-OD213, C200H-OD214,
	C200H-ID501, C200H-ID215, C200H-OD501, C200H-OD215,
	C200H-MD501, C200H-MD215, C200H-MD115, C200H-ID216,
	C200H-ID217, C200H-OD218, C200H-OD219
A/D Conversion Input	C200H-AD001, C200H-AD002
D/A Conversion Output	C200H-DA001, C200H-DA002
Remote I/O Master Unit	C200H-RM001-P, C200H-RM201
Remote I/O Slave Unit	C200H-RT001-P, C200H-RT002-P, C200H-RT201, C200H-RT202
PC Link Unit	C200H-LK401
Host Link Unit	C200H-LK101-P, C200H-LK201, C200H-LK202
ASCII Unit	C200H-ASC02
Power Supply Adapter	C200H-APS01, C200H-APS03
	C200H-CN***
Bus Connecting Unit	C200H-CE001, C200H-CE002
Space Unit	C200H-SP001
I/O Bracket	C200H-ATT83, C200H-ATT53, C200H-ATT33

Notes:
1) Type name may be followed by an E for export version.
2) Type name may be followed by a V and number(s) for version identification.
3) Products followed with "-V1" only according to note 2).

Locations of production factories
Japan:
2-1, 2-chome, Nishikusatsu, Kusatsu, Shiga 525-0035 Japan

Netherland:
OMRON Manufacturing of Netherlands B.V., Zilverenberg 2, 5234GM's Hertogenbosch, Netherland

China:

Job Id: **262.1-006596-3**
Certificate No: **TAA000003J**

OMRON(Shanghai) Co., Ltd. No.789 Jinji Road, Jinqiao Export Processing District, Pudong New Area, Shanghai, China

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Product certificate
Each delivery of the application system is to be certified according to Pt.4 Ch.9 Sec.1. The certification test is to be performed at the manufacturer of the application system according to an approved test program before the system is shipped to the yard. After the certification the clause for application software control will be put into force.

Clause for application software control
All changes in software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to DNV for evaluation and approval. Major changes in the software are to be approved before being installed in the computer.

Type Approval documentation

[redacted]

Tests carried out

Applicable tests according to Standard for Certification No. 2.4.

Periodical assessment

The scope of the retention/renewal survey is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the survey are:
- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Retention survey is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE