

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Peripheral Equipment

with type designation(s)
NX Series Machine Automation Controller

Issued to

Omron Corporation IAB Company
Kusatsu-City Shiga Pref, Japan

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

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

Temperature	B
Humidity	B
Vibration	A
EMC	B
Enclosure	A

Issued at **Busan** on **2018-02-26**

This Certificate is valid until **2023-02-25**.

DNV GL local station: **Kobe**

for **DNV GL**

Approval Engineer: **Dong Ho Park**

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Michael Jost Auf der Stroth
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.



Job Id: **262.1-026052-1**
Certificate No: **TAA00001K8**

Product description

OMRON NX Series Machine Automation Controller, consisting of:

Unit Name	Type Name	Outline Drawing	Manual List
Communication coupler unit	NX-ECC201	2209545-0 C	W519-E1-01
Communication coupler unit	NX-ECC202	2209545-0 C	
EtherCAT Coupler Unit	NX-ECC203	2209545-0 C	CSM_NX-ECC_DS_E_8_2
EtherNet/IP Coupler	NX-EIC202	2209545-0	W536-E1-03
IO-Link Master Unit	NX-ILM400	2209548-4 B	Y212-E1_5_1
Analog input unit	NX-AD2203	2209548-4 B	W522-E1-01
Analog input unit	NX-AD2204	2209548-4 B	
Analog input unit	NX-AD2208	2209548-4 B	
Analog input unit	NX-AD2603	2209548-4 B	
Analog input unit	NX-AD2604	2209548-4 B	
Analog input unit	NX-AD2608	2209548-4 B	
Analog input unit	NX-AD3203	2209548-4 B	
Analog input unit	NX-AD3204	2209548-4 B	
Analog input unit	NX-AD3208	2209548-4 B	
Analog input unit	NX-AD3603	2209548-4 B	
Analog input unit	NX-AD3604	2209548-4 B	
Analog input unit	NX-AD3608	2209548-4 B	
Analog input unit	NX-AD4203	2209548-4 B	
Analog input unit	NX-AD4204	2209548-4 B	
Analog input unit	NX-AD4208	2209548-4 B	
Analog input unit	NX-AD4603	2209548-4 B	
Analog input unit	NX-AD4604	2209548-4 B	
Analog input unit	NX-AD4608	2209548-4 B	
Communication Interface Unit	NX-CIF101	2209548-4 B	CSM_NX-CIF_DS_E_6_1
Communication Interface Unit	NX-CIF105	2209548-4 B	
Communication Interface Unit	NX-CIF210	5360405-0 A1	
Analog output unit	NX-DA2203	2209548-4 B	W522-E1-01
Analog output unit	NX-DA2205	2209548-4 B	
Analog output unit	NX-DA2603	2209548-4 B	
Analog output unit	NX-DA2605	2209548-4 B	
Analog output unit	NX-DA3203	2209548-4 B	
Analog output unit	NX-DA3205	2209548-4 B	
Analog output unit	NX-DA3603	2209548-4 B	
Analog output unit	NX-DA3605	2209548-4 B	
Incremental encoder input unit	NX-EC0112	2209548-4 B	
Incremental encoder input unit	NX-EC0122	2209548-4 B	
Incremental encoder input unit	NX-EC0132	2209548-4 B	
Incremental encoder input unit	NX-EC0142	2209548-4 B	
Incremental encoder input unit	NX-EC0212	2209548-4 B	
Incremental encoder input unit	NX-EC0222	2209548-4 B	
SSI unit	NX-ECS112	2209548-4 B	
SSI unit	NX-ECS212	2209548-4 B	
Heater Burnout Detection Unit	NX-HB3101	2209548-4 B	CSM_NX-TS_HB_DS_JE_1_1
Heater Burnout Detection Unit	NX-HB3201	2209548-4 B	CSM_NX-TS_HB_DS_JE_1_1

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AC input unit	NX-IA3117	2209548-4 B	DN-100663
DC input unit	NX-ID3317	2209548-4 B	W521-E1-01 and CSM_NX- ID_IA_OD_OC_MD_DS_E_1_3
DC input unit	NX-ID3343	2209548-4 B	
DC input unit	NX-ID3344	2209548-4 B	
DC input unit	NX-ID3417	2209548-4 B	
DC input unit	NX-ID3443	2209548-4 B	
DC input unit	NX-ID3444	2209548-4 B	
DC input unit	NX-ID4342	2209548-4 B	
DC input unit	NX-ID4442	2209548-4 B	
Digital Input Unit	NX-ID5142-1	2209551-4 C	
Digital Input Unit	NX-ID5142-5	4073923-2 A	
DC input unit	NX-ID5342	2209548-4 B	
DC input unit	NX-ID5442	2209548-4 B	
Digital Input Unit	NX-ID6142-5	4073924-0 A	
Digital Input Unit	NX-ID6142-6	4073953-4 A	
Digital Mixed I/O Unit	NX-MD6121-5	4073925-9 A	
Digital Mixed I/O Unit	NX-MD6121-6	4074007-9 A	
Digital Mixed I/O Unit	NX-MD6256-5	4073925-9 A	
Relay output unit	NX-OC2633	2209548-4 B	
Relay output unit	NX-OC2733	2209548-4 B	
DC output unit	NX-OD2154	2209548-4 B	
DC output unit	NX-OD2258	2209548-4 B	
DC output unit	NX-OD3121	2209548-4 B	
DC output unit	NX-OD3153	2209548-4 B	
DC output unit	NX-OD3256	2209548-4 B	
DC output unit	NX-OD3257	2209548-4 B	
Digital Output Unit	NX-OD3268	2209548-4 B	
DC output unit	NX-OD4121	2209548-4 B	
DC output unit	NX-OD4256	2209548-4 B	
DC output unit	NX-OD5121	2209548-4 B	
Digital Output Unit	NX-OD5121-1	2209551-4 C	
Digital Output Unit	NX-OD5121-5	4073923-2 A	
DC output unit	NX-OD5256	2209548-4 B	
Digital Output Unit	NX-OD5256-1	2209551-4 C	
Digital Output Unit	NX-OD5256-5	4073923-2 A	
Digital Output Unit	NX-OD6121-5	4073924-0 A	
Digital Output Unit	NX-OD6121-6	4073953-4 A	
Digital Output Unit	NX-OD6256-5	4073924-0 A	
I/O power supply terminal increase unit	NX-PC0010	2209548-4 B	W523-E1-01
I/O power supply terminal increase unit	NX-PC0020	2209548-4 B	
I/O power supply terminal increase unit	NX-PC0030	2209548-4 B	
Bus power supply addition supply unit	NX-PD1000	2209548-4 B	
I/O power supply addition supply unit	NX-PF0630	2209548-4 B	
I/O power supply addition supply	NX-PF0730	2209548-4 B	

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unit			
Pulse output unit	NX-PG0112	2209548-4 B	W524-E1-01
Pulse output unit	NX-PG0122	2209548-4 B	
Loadcell Input Unit	NX-RS1201	2209548-4 B	CSM_NX-RS_DS_E_2_1
Terminal GR increase unit	NX-TBX01	2209548-4 B	W523-E1-01
Temperature sensor unit	NX-TS2101	2209553-0 A	W522-E1-01
Temperature sensor unit	NX-TS2102	2209553-0 A	
Temperature sensor unit	NX-TS2104	2209553-0 A	
Temperature sensor unit	NX-TS2201	2209548-4 B	
Temperature sensor unit	NX-TS2202	2209548-4 B	
Temperature sensor unit	NX-TS2204	2209548-4 B	
Temperature sensor unit	NX-TS3101	2209550-6 B	
Temperature sensor unit	NX-TS3102	2209550-6 B	
Temperature sensor unit	NX-TS3104	2209550-6 B	
Temperature sensor unit	NX-TS3201	2209564-6 A	
Temperature sensor unit	NX-TS3202	2209564-6 A	
Temperature sensor unit	NX-TS3204	2209564-6 A	
End cover	NX-END01	2266784-4 A	W519-E1-01

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, 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 GL Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Type Approval documentation

Tests carried out

Applicable tests according to DNV GL Class Guideline, DNVGL-CG-0339, November 2016
Conducted low frequency immunity test according to IACS UR E10 Rev.6.

Marking of product

Manufacturer – Product type name – Serial number

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.

Periodical assessment is to be performed after 2 years and 3.5 years. A renewal assessment will be performed at renewal of this certificate.



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END OF CERTIFICATE