

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Programmable Electronic System**with type designation(s)
CC-Link IE Field Network

Issued to

Mitsubishi Electric Corporation, Nagoya Works
NAGOYA AICHI, Japanis found to comply with
DNV GL rules for classification – Ships and offshore units**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**

Temperature	B
Humidity	A
Vibration	A
EMC	B
Enclosure	Required protection according to DNV GL rules shall be provided upon installation onboard

This Certificate is valid until **2021-02-22**.Issued at **Busan** on **2016-02-23**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.

Product description

Product		Type designation
SD memory card		NZ1MEM-2GBSD
		NZ1MEM-4GBSD
		NZ1MEM-8GBSD
		NZ1MEM-16GBSD
Remote input module	Basic	NZ2GF2B1N-16D
	Extension	NZ2EX2B1-16D
Remote output module	Basic	NZ2GF2B1N-16T
		NZ2GF2B1N-16TE
	Extension	NZ2EX2B1-16T
		NZ2EX2B1-16TE
A/D conversion module	Basic	NZ2GF2BN-60AD4
	Extension	NZ2EX2B-60AD4
D/A conversion module	Basic	NZ2GF2BN-60DA4
	Extension	NZ2EX2B-60DA4

Application/Limitation

This system shall be used always together with AC/DC converter type PS5R-SF24(Manufacturer: IDEC Corp.).

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 GL 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.

Job Id: **262.1-019294-1**
Certificate No: **TAA00000BD**

Type Approval documentation

Tests carried out

Applicable tests according to Class Guidance DNVGL-CG-0339, November 2015.

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