

Type Approval Certificate



[Programmable Logic controller]

Initial Approval 16th September, 2021

Manufacturer CREVIS CO., LTD.

29-4, Gigok-ro, Giheung-gu, Yongin-si, Gyeonggi-do, Rep. of Korea

Product Description Network Remote I/O system

Type : FnIO M-Series

" See Appendix 1 "

Approval Condition

" See Appendix 1 "

THIS IS TO CERTIFY that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows.

Pt. 6, Ch. 2, Art. 301 of the Rules for Classification, Steel Ships.

This Certificate is valid until 15th September, 2026

Issued at Busan, Korea on 16th September, 2021



This certificate is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication of the certificate can be confirmed from "<http://e-cert.krs.co.kr>" by using the tracking No(ME21023227239) and certificate No.(SEL39886-AC002).



KOREAN REGISTER

*General Manager of
Marine & Ocean Equipment Team*

Note : 1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.
2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.
3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.
4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.

Product Description and/or Approval Condition

Date of Issue : 16th September, 2021

A. Product Description

1. Product Specification

Type	Module	Description
Network Adapter	M9371	CODESYS, Programmable IO, Economic type
	M9372	CODESYS, Programmable IO, Standard type
	M9373	CODESYS, Programmable IO, Web visualization type
I/O Module	M9273	MODBUS RS485 Network Adapter
	M1808	Digital Input 8 Points, 120Vac, 18RTB
	M1908	Digital Input 8 Points, 240Vac, 18RTB
	M2738	MOS Relay Output, 8 Points, 240Vdc/ac, 0.5A, 18RTB
	M2744	Relay Output 4 Points, 24Vdc/2A, 240Vac/2A, 18RTB
	M2768	MOS Relay Output, 8 Points, 24Vdc/ac, 2A, 18RTB
	M2774	Form C, Relay Output 4 Points, 24Vdc/2A, 240Vac/2A, 18RTB
	M2788	MOS Relay Output, 8 Points, 120Vdc/ac, 1A, 18RTB
	M3708	Analog Input, 8 Channels, RTD / Resistance Input, 18RTB
	M3808	Analog Input, 8 Channels, Thermocouple / mV Input, 18RTB
	M3918	Analog Input, Differential type, 8 Channels, 0~20, 4~20, +/-20mA, 12bit, 18RTB
	M3928	Analog Input, Differential type, 8 Channels, 0~5, 0~10, +/-10Vdc, 12bit, 18RTB
	M3938	Analog Input, Differential type, 8 Channels, 0~20, 4~20, +/-20mA, 16bit, 18RTB
	M3948	Analog Input, Differential type, 8 Channels, 0~5, 0~10, +/-10Vdc, 16bit, 18RTB
	M5212	RS232 Serial Interface, 2 Channels, Full Duplex Type, 18RTB
	M5222	RS422 Serial Interface, 2 Channels, Full Duplex Type, 18RTB
	M5232	RS485 Serial Interface, 2 Channels, Half Duplex Type, 18RTB

2. Approved Drawings and Documents

- 1) Approved Drawings : CVS-NWS-2107001 Rev. 1.00
- 2) Specification and Etc : CVS-NWS-2106001 Rev. 1.00

3. Test Reports, etc.

- 1) ENV Test Reports
 - OT-218-RRD-015 (2021. 8. 12)
- 2) EMC Test Reports
 - OT-217-RED-115 (2021. 7. 29)

B. Approval Condition

1. Application & Limitation

- 1) This approval is granted on the basis of the test reports and the approved documentation.
- 2) Degree of protection shall be complied with Rule Pt.6 Ch.1 Sec.2 201.2. (5).
- 3) The manufacturer should inform this Society of all kinds of revisions of the equipment. If the changes are recognized to affect functionality of the approved equipment, type test to confirm the reliability of the revised equipment may be performed in the presence of our surveyor.
- 4) This certificate covers hardware listed under Product specification.
- 5) The products shall not be installed on open decks.

2. Individual Product Cert. and Drawing Approval Requirement

- 1) Individual Product Certification is not required.

3. Marking

- 1) The product or packing is to be marked with manufacturer name and type designation on a suitable position.

Product Description and/or Approval Condition

Date of Issue : 16th September, 2021

4. Others

1) Test condition (IACS UR E10 Rev.8 basis)

Test	Condition	Remark
EMC	All locations excluding the bridge and deck zone	-
Temperature	-25 ~ +70°C	-
Vibration	Acceleration $\pm 4.0g$	-

2) Compass safety distance

Type	Standard Compass	Steering Compass
FnI0 M-Series	130 cm	75 cm

< End of Certificate >

