

TYPE APPROVAL CERTIFICATE

This is to certify:

that the **Programmable Controller**

with type designation(s)
MC200, MH200 and MX200 series

issued to

Bachmann electronic GmbH
Feldkirch, Vorarlberg, Austria

is found to comply with

DNV rules for classification – Ships Pt.6 Ch.5 Sec.21 Cyber security
IEC 62443-4-2 Ed. 1.0 (2019-02) Security for industrial automation and control systems – Part 4-2: Technical security requirements for IACS components

Application:

This type approval covers security capabilities in accordance with **DNV security profile 1, IEC 62443-4-2 security level 1 and IACS UR E27 Rev.1 (Sep 2023)**, subject to conditions stated in this certificate.

Temperature
Humidity
Vibration
EMC
Enclosure

Issued at **Høvik** on **2024-11-07**

This Certificate is valid until **2026-11-06**.

DNV local unit: **Augsburg**

Approval Engineer: **Simen Vike Lande**



for **DNV**

Digitally signed by: Jarle Coll Blomhoff
Location: DNV Høvik, Norway

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.



Product description

The following embedded devices / programable logical controllers are covered by this type approval:

<i>Module name</i>	<i>Operating system</i>	<i>M-Base version:</i>
MC205	McOS (VxWorks 7) McOS (VxWorks 5.5)	V4.X.Y
MC206	McOS (VxWorks 7)	V4.X.Y
MC210	McOS (VxWorks 7) McOS (VxWorks 5.5)	V4.X.Y
MC212	McOS (VxWorks 7)	V4.X.Y
MC220	McOS (VxWorks 7)	V4.X.Y
MH212	MhCore (VxWorks 5.5)	V4.X.Y
MH230	MhOS (VxWorks 7)	V4.X.Y
MX207	McCore (VxWorks 5.5)	V4.X.Y
MX213	McCore (VxWorks 5.5)	V4.X.Y
MX220	McCore (VxWorks 5.5)	V4.X.Y

The certificate is valid for M-Base version V4.75 R or higher.

Software modules available in M-Base or specified in the product security handbook may be used provided the usage complies with system level requirements. Recommendations given in the security handbook should be adhered to.

Application/Limitation

The following conditions shall be satisfied when the product is installed and used in a system where the class notation Cyber secure(Essential) applies:

- The device shall not be installed on a zone boundary.
- The device shall not be set up to allow direct remote access from untrusted networks.

Major changes of the type approved components affecting future deliveries shall be informed to DNV. If the changes are considered to affect functionality for which rule requirements apply, a new functional type test may be required, and the certificate may have to be renewed to identify the new version. Minor changes are covered by this type approval.

Approval conditions

For each delivery to DNV class notation Cyber secure(Essential), the following project-specific documents covering the embedded device shall be submitted by the system supplier:

- F141 - Guidelines for hardening and configuration of security capabilities.

For system supplier developed software applications and modules the following set of documents shall be submitted, covering the implemented software:

- F021 - Description of security capabilities
- F252 - Procedure for test of security capabilities.

Type Approval documentation

<i>Document Title</i>	<i>Document Number</i>	<i>Revision number</i>
M-Base V4.75 M200 User Manual	TD222-24-EN	
Security Manual Bachmann Automation System User Manual	TD337-01-EN	
IEC62443-4-2_Compliance_m200_SL1		Rev. 002
Test plan SOLUTION CENTER		Rev. 000
Test plan MBase		Rev. 000
Test environment overview		Rev. 000
Secure Development Lifecycle	RLG100-28	Rev. 041
Secure software development	RLG100-27	Rev. 000

Tests carried out

Applicable tests according to DNV-RU-SHIP Pt.6 Ch.5 Sec.21 edition July 2024, security profile 1.

Applicable tests according to IEC 62443-4-2 Ed. 1.0 (2019-02), security level 1.

Relevant manuals and instructions of Bachmann electronics' management system have been verified for compliance with IACS UR E27 chapter 5.

Marking of product

The products to be marked with:

- manufacturer name
- model name
- serial number
- power supply ratings.

Periodical assessment

The scope of the periodical assessment 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 assessment 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
- Review documented evidence of adherence to Secure Development Lifecycle processes.

A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE