



## Appendix 1

# Product Description and/or Approval Condition

Certificate No : MIL39250-AC001

Date of Issue : 11th July, 2019

## A. Product Description

### 1. Product Specification

#### 1) Product Descriptions

M1 series are Programmable Logic Controller(PLC) of a wide of range of applications.

- Power supply : DC 24V
- Software : M-BASE V4.xx

#### 2) Product Comprising

Product	Descriptions
AI2xx/xx*	Analog input module, Max 8 inputs
AIC212, 214, 206*	Condition monitoring module, Max 12 inputs
AI02xx*	Analog I/O module, Max 16 input/outputs
AI02xx/SI*	Analog I/O module, Max 8 input/outputs
A02xx/xx*	Analog output module, Max 4 outputs
BS2xx/xx*	Backplane with different slot(s), Max 16 slots (BS2xx/E, BS2xx/S, BS2xx/ET)
CF200/xxxx*	Compact flash card, Capacity 2~8 GB
CFA200/x*	Cfast card, Capacity 4~16 GB
CM202*	CAN-bus module (Master), 2 CAN interfaces
CS200/x*	CAN-Bus module (slave), 2 serial interfaces
CNT204/x*	Counter module, Max 4 inputs
DI2XX/xxx*	Digital input module, Max 32 inputs
DI02xx/x*	Digital input/output module, Max 80 in/ouputs
DO2xx/xx*	Digital output module, Max 32 outputs
DOR206*	Digital output relay module, 6 relay outputs (24VDC, 230VAC)
EM2xx*	Ethernet master module, 3 Ethernet ports
ERS202*	Ethernet remote station module, 1 serial interface, 2 Ethernet ports, 1 USB port
FM22x*	Fastbus master module, Max 2 F0-ports
FS22x/x*	Fastbus slave module, Max 2 F0-ports
GI0212*	General I/O module, 12 in/outputs
GM260*	Grid measurement module
GMP232/x*	Grid measurement protection module, 3 analog inputs and 3 relay outputs
GSP274*	Grid measurement, synchronisation and protection module
IS12xx/x*	Encoder interface module, 2 analog outputs, 4 digital input (initiator and trigger)
LM201*, S2xx	Dummy module
MC205*	CPU module, CPU 600 MHz ATOM E620
MC210*	CPU module, CPU 1.6 GHz ATOM E680
MH212/x*	CPU module, CPU 1.2 GHz Celeron M ULV 722
MX2xx/x*	CPU module, Max 433MHz clock frequency
NT2xx*	Power supply 24/48VDC
PCC20x/xx*	PC-Card, Max 64MB
PTAI216*	Temperature recording module, 4 analog inputs and 12 Pt100/Pt1000 sensors inputs
TI214/x*	Temperature recording module, 14 channels
PVA202/PVA204	Proportional valve amplifier, Max 4 solenoids
PVA206/PVA208	Proportional valve amplifier, Max 8 solenoids
RS204/x*	Interface module RS232, 422, 485, TTY, 4 interface ports

Note : '\*' Clod Climate modules are included

### 2. Approved Drawings and Documents

#### 1) Layouts

- Document for KR Type Approval

#### 2) Documents

- System overview : KA-SYSTEM / EN, 2018-05
- Software management : 13228-000-1, 2016-01
- User manual : M-BASE V4.36, Version 13, 2019-06

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### 3. Test Reports, etc.

- 1) Environmental & EMC Test Reports
  - Bachmann Electronic's project MARINE 003, Project No 10992 series
  - Bachmann Electronic's project MARINE 004, Project No 12482 series
  - Bachmann Electronic's project MARINE 005, Project No 12718 series
  - Bachmann Electronic's project MARINE 006, Project No 13228 series

## 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 including software. 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) The product is to be installed as manufacturer's instructions.

### 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.

### 4. Others

- 1) Test condition

Test	Condition	Remark
EMC	All locations including the bridge and deck zone	*1
Temperature	-25 ~ +70°C	-
Vibration	Acceleration $\pm 4.0g$	-

\*1 : With EMI filter  
(Inductance : Min 2x1.8mH, e.g. Model : Phoenix contact NEF 1-10-2788977)

< End of Certificate >