



# Schneider Electric Modicon M580 Programmable Automation Controllers User Guide

[Home](#) » [Schneider Electric](#) » Schneider Electric Modicon M580 Programmable Automation Controllers User Guide 



## Electric Modicon M580 Programmable Automation Controllers User Guide

### Contents

- [1 Legal Information](#)
- [2 Safety Information](#)
- [3 About the Book](#)
- [4 Compatibility Rules and Regulations](#)
- [5 X80 I/O Modules](#)
- [6 Momentum CPUs](#)
- [7 Documents / Resources](#)
  - [7.1 References](#)
- [8 Related Posts](#)

## Legal Information

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## Safety Information

### Important Information

Read these instructions carefully, and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a 'Danger' or 'Warning' safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



### **DANGER**

**DANGER** indicates a hazardous situation which, if not avoided, will result in death or serious injury.



### **WARNING**

**WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury.



### **CAUTION**

**CAUTION** indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

### **NOTICE**

**NOTICE** is used to address practices not related to physical injury.

### **Please Note**

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction and operation of electrical equipment and its installation, and has received safety training to recognize and avoid the hazards involved.

## About the Book

### Document Scope

This document addresses the firmware compatibility, exceptions, and recommendations for Modicon modules.

### Validity Note

This documentation is valid for Unity Loader V12.0 and later, and for the product version (PV) and software version (SV) of products listed below.

### Definitions

#### Abbreviations:

**PV:** product version

**SV:** software version: firmware version

## Compatibility Rules and Regulations

### Guidelines

1	Modicon modules are upward compatible. You can update a processor with a later firmware version at any time.
2	Schneider Electric recommends that you upgrade the module's firmware to the latest available version.
3	Schneider Electric recommends that you do not downgrade a module's firmware.

## NOTICE

### PRODUCT NO LONGER OPERATIONAL

For the products with indicated PV listed in the tables below, do not download firmware with a version SV earlier than the one mentioned in these tables.

**Failure to follow these instructions can result in equipment damage.**

## X80 I/O Modules

### Compatibility

This table shows the firmware compatibility among Modicon X80 I/Os:

Module	Description	PV (= or later)	SV
BMXNOE0100	Ethernet 10/100 RJ45	12	2.30
BMXNOE0100H	H Ethernet 10/100 RJ45	08	2.30
BMXNOE0110	M340 FactoryCast Module	09	5.71
BMXNOE0110H	H M340 FactoryCast Module	07	5.71
BMXNOM0200	Bus Module 2 RS485/232 Ports	06	1.40
BMXNOM0200H	H Bus Module 2 RS485/232 Ports	06	1.40
BMXNOR0200H	Harsh RTU (1 Ethernet Port, 1 Serial Port)	09	1.60
BMXP341000	CPU340-10 Modbus	13	2.30
BMXP341000H	H CPU340-10 Modbus	07	2.30

Module	Description	PV (= or later)	SV
BMXP342000	CPU340-20 Modbus	09	2.30
BMXP3420102	CPU340-20 Modbus CANopen2	08	2.30
BMXP3420102CL	M340 20102 CPU – Cardless	04	2.30
BMXP342020	CPU340-20 Modbus Ethernet	13	2.30
BMXP342020H	H CPU340-20 Modbus Ethernet	09	2.30
BMXP3420302	CPU340-20 Ethernet CANopen2	08	2.30
BMXP3420302CL	M340 20302 CPU – Cardless	04	2.30
BMXP3420302H	CPU340-20 Ethernet CANopen2	08	2.30
BMXP3420ITRB	CPU340-20 Data Center Mgt.	07	2.30
BMXPRA0100	Peripheral Remote I/O Adapter	07	2.30

## Communication Adapter Modules

### Compatibility

This table shows the firmware compatibility among Modicon 140CRA31200 and BM • CRA312 • adapter modules:

Module	Description	PV (= or later)	SV
140CRA31200	1-channel Quantum RIO drop EtherNet/IP adapter	05 (See note.)	2.30
140CRA31200C	1-channel Quantum RIO drop EtherNet/IP adapter coated	05 (See note.)	2.30
BMECRA31210	eX80 performance EIO adapter	05	2.18
BMECRA31210C	eX80 performance EIO adapter coated	05	2.18
BMXCRA31200	X80 standard EIO adapter	07	2.18
BMXCRA31210	X80 performance EIO adapter	07	2.18
BMXCRA31210C	X80 performance EIO adapter coated	07	2.18

**NOTE:** You cannot downgrade a 140CRA31200 PV05 module with firmware earlier than SV 2.30.

## Communication Head Modules

### Compatibility

This table shows the firmware compatibility among Modicon BMENOC03•1 communication modules:

Module	Description	PV (= or later)	SV
BMENOC0301	M580 three-port Ethernet communication module	12 (See note.)	2.14
		13	2.15
BMENOC0301C	M580 coated three-port Ethernet communication module	12 (See note.)	2.14
		13	2.15
BMENOC0311	M580 three-port FactoryCast Ethernet communication module	13 (See note.)	2.14
		14	2.15
BMENOC0311C	M580 coated three-port FactoryCast Ethernet communication module	13 (See note.)	2.14
		14	2.15

**NOTE:** Do not download a firmware version 2.12 or earlier in the module.

Doing so will disable the Ethernet Backplane port and will result in limited functionality of the Ethernet module. This means that you will not be able to use the Backplane Ethernet link in your application.

The operation is reversible by downloading a firmware version 2.14 or later.

## Momentum CPUs

### Compatibility

This table shows the firmware compatibility among Modicon Momentum M1 and M1E processor modules:

CPU	Description	PV (= or later)	SV
171CBU78090	USB, I/OBUS, RS232/485 RS485	07	2.00
171CBU98090	USB, I/OBUS, RS232/485 10/100 Ethernet	07	2.00
171CBU98091	USB, I/OBUS, RS232/485 10/100 Ethernet GD	07	2.00

## MC80 Controllers

### Compatibility

This table shows the firmware compatibility among Modicon MC80 controllers:

Module	Description	PV (= or later)	SV
BMKC8020300	Controller, 8 DI, 8 DO, and 4 AI	04	1.50
BMKC8020301	Controller, 8 DI, 12 DO, and 4 AI	04	1.50
BMKC8020310	Controller, 8 DI, 8 DO, and 2 HSC	05	1.50
BMKC8030310	Controller, 8 DI, 8 DO, 2 HSC, and 4 AI	05	1.50
BMKC8030311	Controller, 8 DI, 12 DO, 2 HSC, and 4 AI	04	1.50

## M580 CPUs

### Compatibility

This table shows the firmware compatibility among Modicon M580 processor modules.

**NOTE:** When FW version 4.01 or higher is in the CPU, downgrade to FW versions inferior to 4.01 is not possible.

CPU	Description	PV (= or later)	SV
BMEP581020	M580 Processor Level 1 for DIOs	09	2.50
		14	2.90
BMEP581020H	M580 Hardened Processor Level 1 for DIOs	09	2.50
		14	2.90
BMEP582020	M580 Processor Level 2 for DIOs	09	2.50
		14	2.90
BMEP582020H	M580 Hardened Processor Level 2 for DIOs	09	2.50
		14	2.90
BMEP582040	M580 Processor Level 2 for DIOs and RIOs	09	2.50
		14	2.90

<b>CPU</b>	<b>Description</b>	<b>PV (= or later)</b>	<b>SV</b>
BMEP582040H	M580 Hardened Processor Level 2 DIOs and R Os	09	2.50
		14	2.90
BMEH582040	M580 HSBY Processor Level 2 for DIOs and R Os	11	2.90
BMEH582040C	M580 Coated HSBY Processor Level 2 for DIOs and RIOs	10	2.90
BMEH582040K	Kit M580 HSBY Processor Level 2 for DIOs and RIOs	10	2.90
BMEP583020	M580 Processor Level 3 for DIOs	09	2.50
		14	2.90
BMEP583040	M580 Processor Level 3 for DIOs and RIOs	09	2.50
		15	2.90
BMEP584020	M580 Processor Level 4 for DIOs	09	2.50
		15	2.90
BMEP584040	M580 Processor Level 4 for DIOs and RIOs	09	2.50
		14	2.90
BMEH584040	M580 HSBY Processor Level 4 for DIOs and R Os	11	2.90
BMEH584040C	M580 Coated HSBY Processor Level 4 for DIOs and RIOs	10	2.90
BMEH584040K	Kit M580 HSBY Processor Level 4 for DIOs and RIOs	10	2.90
BMEP585040	M580 Processor Level 5 for RIOs	03	2.50
		09	2.90
BMEP585040C	M580 Coated Processor Level 5 for RIOs	03	2.50
		08	2.90
BMEP586040	M580 Processor Level 6 for RIOs	03	2.50
		08	2.90
BMEP586040C	M580 Coated Processor Level 6 for RIOs	03	2.50
		08	2.90
BMEH586040	M580 HSBY Processor Level 6 for DIOs and R Os	11	2.90
BMEH586040C	M580 Coated HSBY Processor Level 6 for DIOs and RIOs	10	2.90

**NOTE:** Do not downgrade a M580 Safety CPU BM58040S from the SV2.60 or later to SV2.40.  
This table shows the firmware compatibility among Modicon M580 Safety processor modules:

CPU	Description	PV (= or later)	SV
BM58040S	M580 Processor SIL3 Level 2 for DIOs	01	2.60
BMEH58040S	M580 HSBY Processor SIL3 Level 2 for DIOs	01	2.80
BM58040S	M580 Processor SIL3 Level 4 for DIOs and RIOs	01	2.40
		02	2.60
BMEH58040S	M580 HSBY Processor SIL3 Level 4 for DIOs and RIOs	01	2.80
BMEH586040S	M580 HSBY Processor SIL3 Level 6 for DIOs and RIOs	01	2.80



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## Documents / Resources

	<p><a href="#">Schneider Electric Modicon M580 Programmable Automation Controllers</a> [pdf] User Guide Modicon M580, Programmable Automation Controllers, Automation Controllers, Programmable Controllers, Controllers</p>
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## References

- [Schneider Electric Global | Global Specialist in Energy Management and Automation](#)