

Schneider BME Series Service Manual

BMXP341000H

1. Description

processor, Modicon M340, max 512 discrete, 128 analog IO, Modbus, for severe environments

3. Product Information

processor, Modicon M340, max 512 discrete, 128 analog IO, Modbus, for severe environments

BMXP341000H

Main

Range of Product

Modicon M340 automation platform

Product or Component Type

Processor module

Product Specific Application

For severe environments

Number of racks

2

Number of slots

11

Discrete I/O processor capacity

512 I/O single-rack configuration

Analogue I/O processor capacity

66 I/O single-rack configuration

128 I/O multi-rack configuration

Number of application specific channel

20

Monitoring

Diagnostic counters Modbus

Event counters Modbus

Complementary

Control channels

Programmable loops

Integrated connection type

Non isolated serial link RJ45 character mode asynchronous in baseband, RS232C 2 twisted shielded pairs 0.3...19.2 kbit/s full duplex

Non isolated serial link RJ45 character mode asynchronous in baseband, RS485 1 twisted shielded pair 0.3...19.2 kbit/s half duplex

Non isolated serial link RJ45, master/slave Modbus, RTU/ASCII asynchronous in baseband, RS232C 1 twisted shielded pair 0.3...19.2 kbit/s half duplex

Non isolated serial link RJ45, master/slave Modbus, RTU/ASCII asynchronous in baseband, RS485 1 twisted shielded pair 0.3...19.2 kbit/s half duplex

USB port 12 Mbit/s

Communication module processor capacity

2 Ethernet communication module

2 AS-Interface module

Number of devices per segment

0...32 character mode)

0...32 Modbus)

Number of devices

2 point-to-point character mode

2 point-to-point Modbus

Bus length

0...32.8 ft (0...10 m) serial link non isolated character mode segment

0...32.8 ft (0...10 m) serial link non isolated Modbus segment

0...3280.8 ft (0...1000 m) serial link isolated character mode segment

0...3280.8 ft (0...1000 m) serial link isolated Modbus segment

0...49.2 ft (0...15 m) character mode point-to-point

0...49.2 ft (0...15 m) Modbus point-to-point

Maximum tap links length

<49.2 ft (15 m) serial link non isolated character mode segment

<49.2 ft (15 m) serial link non isolated Modbus segment

<131.2 ft (40 m) serial link isolated character mode segment

<131.2 ft (40 m) serial link isolated Modbus segment

Number of addresses

0...248 character mode

0...248 Modbus

Requests

1 K data bytes per request character mode

252 data bytes per RTU request Modbus

504 data bytes per ASCII request Modbus

Control parameter

One CRC on each frame (RTU) Modbus

One LRC on each frame (ASCII) character mode

One LRC on each frame (ASCII) Modbus

Memory description

Internal RAM 2048 kB

Internal RAM 128 kB data

Internal RAM 1792 kB program constants and symbols

Supplied memory card (BMXRMS008MP) backup of programs, constants, symbols and data

Maximum size of object areas

128 kB unlocated internal data

16250 %Mi located internal bits

32464 %MWi internal words located internal data

32760 %KWi constant words located internal data

Default size of object areas

128 %KWi constant words located internal data

256 %Mi located internal bits

512 %MWi internal words located internal data

Application structure

32 event tasks

1 cyclic/periodic master task

1 periodic fast task

No auxiliary task

Execution time per instruction

0.18 µs Boolean

0.26 µs double-length words

0.38 µs single-length words

1.74 µs floating points

Number of instructions per ms

4.2 Kinst/ms 65 % Boolean + 35 % fixed arithmetic

5.4 Kinst/ms 100 % Boolean

System overhead

0.2 ms fast task

1.05 ms master task

Current consumption

72 mA 24 V DC

Supply

Internal power supply via rack

Marking

CE

Status LED

1 LED (Green) processor running (RUN)

1 LED (Red) I/O module fault (I/O)

1 LED (Red) memory card fault (CARD ERR)

1 LED (Red) processor or system fault (ERR)

1 LED (Yellow) activity on Modbus (SER COM)

Net Weight

0.4 lb(US) (0.2 kg)

Environment

Ambient air temperature for operation

-13...158 °F (-25...70 °C)

Relative Humidity

10...95 % without condensation

IP Degree of Protection

IP20

Protective treatment

Conformal coating

Directives

2014/35/EU - low voltage directive

2014/30/EU - electromagnetic compatibility

2014/34/EU - ATEX directive

Product certifications

CE

UL

CSA

RCM

EAC

Merchant Navy

ATEX zone 2/22

IECEX zone 2/22

Standards

EN/IEC 61131-2

EN/IEC 61010-2-201

UL 61010-2-201

CSA C22.2 No 61010-2-201

IACS E10

EN/IEC 61000-6-5, interface type 1 and type 2

EN/IEC 61850-3, location G

EN/IEC 60079-0

Environmental characteristic

Gas resistant class Gx ISA S71.04

Gas resistant class 3C4 IEC 60721-3-3

Dust resistant class 3S4 IEC 60721-3-3

Sand resistant class 3S4 IEC 60721-3-3

Salt resistant level 2 IEC 68252

Mold growth resistant class 3B2 IEC 60721-3-3

Fungal spore resistant class 3B2 IEC 60721-3-3

Hazardous location class I division 2

Ordering and shipping details

Category

US1PC3418160

Discount Schedule

PC34

GTIN

3595864024479

Returnability

No

Country of origin

FR

Packing Units

Unit Type of Package 1

PCE

Nbr. of units in pkg.

1

Package 1 Height

2.17 in (5.5 cm)

Package 1 Width

4.33 in (11.0 cm)

Package 1 Length

4.72 in (12.0 cm)

Package weight(Lbs)

8.7 oz (247.0 g)

Unit Type of Package 2

S02

Number of Units in Package 2

15

Package 2 Height

5.91 in (15.0 cm)

Package 2 Width

11.81 in (30.0 cm)

Package 2 Length

15.75 in (40.0 cm)

Package 2 Weight

8.168 lb(US) (3.705 kg)