

Schneider BME Series Service Manual

BMXP342020H

1. Description

processor, Modicon M340, max 1024 discrete, 256 analog IO, Modbus, Ethernet, for severe environment

3. Product Information

processor, Modicon M340, max 1024 discrete, 256 analog IO, Modbus, Ethernet, for severe environment

BMXP342020H

Main

Range of Product

Modicon M340 automation platform

Product or Component Type

Processor module

Product Specific Application

For severe environments

Concept

Transparent Ready

CANopen

Number of racks

4

Number of slots

11

Discrete I/O processor capacity

1024 I/O multi-rack configuration

704 I/O single-rack configuration

Analogue I/O processor capacity

256 I/O multi-rack configuration

66 I/O single-rack configuration

Number of application specific channel

36

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

Ethernet TCP/IP RJ45 1 twisted pair 10/100 Mbit/s

Communication module processor capacity

2 Ethernet communication module

4 AS-Interface module

embedded communication service

Bandwidth management, Ethernet TCP/IP

Data Editor, Ethernet TCP/IP

Modbus TCP messaging, Ethernet TCP/IP

Rack Viewer, Ethernet TCP/IP

SNMP network administrator, Ethernet TCP/IP

Port Ethernet

10BASE-T/100BASE-TX

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

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

Internal RAM 4096 kB

Internal RAM 256 kB data

Internal RAM 3584 kB program constants and symbols

Supplied memory card (BMXRMS008MP) activation of standard web server, class B10

Maximum size of object areas

256 kB unlocated internal data

32634 %Mi located internal bits

Default size of object areas

1024 %MWi internal words located internal data

256 %KW_i constant words located internal data

512 %Mi located internal bits

Application structure

64 event tasks

1 periodic fast task

No auxiliary task

1 cyclic/periodic master task

Execution time per instruction

0.12 µs Boolean

0.17 µs double-length words

0.25 µs single-length words

1.16 µs floating points

Number of instructions per ms

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

8.1 Kinst/ms 100 % Boolean

System overhead

0.13 ms fast task

0.7 ms master task

Current consumption

95 mA 24 V DC

Supply

Internal power supply via rack

Marking

CE

Status LED

1 LED (Green) activity on Ethernet network (ETH ACT)

1 LED (Green) processor running (RUN)

1 LED (Green) status of Ethernet network (ETH STS)

1 LED (Red) data rate (ETH 100)

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
0.452 lb(US) (0.205 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
3595864009766
Returnability
Yes
Country of origin
FR
Packing Units
Unit Type of Package 1
PCE

Nbr. of units in pkg.

1

Package 1 Height

2.20 in (5.600 cm)

Package 1 Width

4.61 in (11.700 cm)

Package 1 Length

4.72 in (12.000 cm)

Package weight(Lbs)

8.995 oz (255.000 g)

Unit Type of Package 2

S02

Number of Units in Package 2

15

Package 2 Height

5.91 in (15.000 cm)

Package 2 Width

11.81 in (30.000 cm)

Package 2 Length

15.75 in (40.000 cm)

Package 2 Weight

8.891 lb(US) (4.033 kg)