Product datasheet

Specifications

processor, Modicon M340, max 1024 discrete, 256 analog IO, Modbus, CANopen

BMXP3420102

Main

Range of product	Modicon M340 automation platform
Product or component type	Processor module
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
Motion control	Independent axis CANopen
Integrated connection type	Non isolated serial link RJ45 character mode, transmission mode: asynchronous in baseband, RS232C, transmission mode: 2 twisted shielded pairs at 0.3...19.2 kbit/s full duplex Non isolated serial link RJ45 character mode, transmission mode: asynchronous in baseband, RS485, transmission mode: 1 twisted shielded pair at 0.3...19.2 kbit/s half duplex Non isolated serial link RJ45, master/slave Modbus, RTU/ASCII, transmission mode: asynchronous in baseband, RS232C, transmission mode: 1 twisted shielded pair at 0.3...19.2 kbit/s half duplex Non isolated serial link RJ45, master/slave Modbus, RTU/ASCII, transmission mode: asynchronous in baseband, RS485, transmission mode: 1 twisted shielded pair at 0.3...19.2 kbit/s half duplex USB port at 12 Mbit/s CANopen master bus SUB-D 9, transmission mode: 2 twisted shielded pairs at 20 kbit/s...1 Mbit/s
Communication module processor capacity	2 Ethernet communication module 4 AS-Interface module
embedded communication service	Network management (NMT) CANopen Process Data Object (PDO) CANopen Service Data Object (SDO) CANopen Special functions (SYNC, EMCY, TIME) CANopen
Transmission rate	1 Mbit/s 0…20 m 0…0.6 m 125 kbit/s 0…500 m 0…10 m 20 kbit/s 0…2500 m 0…300 m 250 kbit/s 0…250 m 0…10 m 50 kbit/s 0…1000 m 0…120 m 500 kbit/s 0…100 m 0…10 m 800 kbit/s 0…40 m 0…6 m

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Bus type	CANopen M20 DS 301 V4.02 devices linked by daisy-chaining or tap junctions CSMA/CA
	CANopen M20 DS 303-2 devices linked by daisy-chaining or tap junctions CSMA/CA
	CANopen M20 DS 405 devices linked by daisy-chaining or tap junctions CSMA/CA
Number of server device(s)	63 CANopen
Number of devices per segment	0…32 (character mode)
	0…32 (Modbus)
	0…16 for <205 m (CANopen)
	0…32 for <185 m (CANopen)
	0…64 for <160 m (CANopen)
Number of devices	2 point-to-point character mode
	2 point-to-point Modbus
Bus length	0…10 m serial link non isolated character mode segment
	0…10 m serial link non isolated Modbus segment
	0…1000 m serial link isolated character mode segment
	0…1000 m serial link isolated Modbus segment
	0…15 m character mode point-to-point
	0…15 m Modbus point-to-point
Maximum tap links length	<15 m serial link non isolated character mode segment
	<15 m serial link non isolated Modbus segment
	<40 m serial link isolated character mode segment
	<40 m serial link isolated Modbus segment
Number of addresses	0…248 for character mode
	0…248 for 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
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 %KWi constant words located internal data
	512 %Mi located internal bits
Application structure	No auxiliary task
	1 cyclic/periodic master task
	1 periodic fast task
	64 event tasks
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 for fast task
	0.7 ms for master task
Current consumption	90 mA at 24 V DC
Supply	Internal power supply via rack
Marking	CE

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Status LED	1 LED (green) integrated machine/installation bus operational (CAN RUN) 1 LED (green) processor running (RUN) 1 LED (red) I/O module fault (I/O) 1 LED (red) integrated machine/installation bus fault (CAN ERR) 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	0.21 kg

Environment

Ambient air temperature for operation	0…60 °C
Relative humidity	10…95 % without condensation
IP degree of protection	IP20
Protective treatment	TC
Directives	2014/35/EU - low voltage directive 2014/30/EU - electromagnetic compatibility
Product certifications	CE UL CSA RCM EAC Merchant Navy
Standards	EN 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
Environmental characteristic	Hazardous location class I division 2

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.400 cm
Package 1 Width	11.500 cm
Package 1 Length	12.400 cm
Package 1 Weight	249.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	4.058 kg

Contractual warranty

Warranty	18 months

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

Environmental Data explained ›

How we assess product sustainability ›

Environmental footprint

Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	**114**
Environmental Disclosure	**Product Environmental Profile**

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**

Use Again

Repack and remanufacture

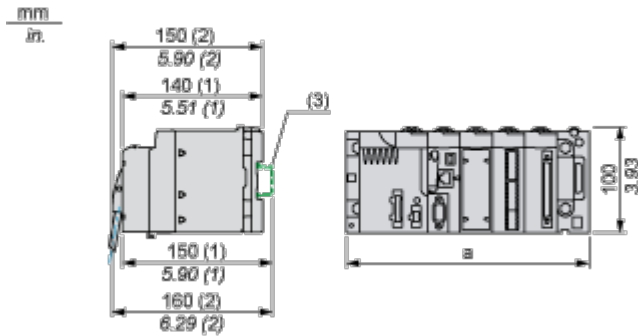|	
Circularity Profile	**End of Life Information**
Take-back	**No**
WEEE	**The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins**

Dimensions Drawings

Modules Mounted on Racks

Dimensions

(1)   With removable terminal block (cage, screw or spring).

(2)   With FCN connector.

(3)   On AM1 ED rail: 35 mm wide, 15 mm deep. Only possible with BMXXBP0400/0400H/0600/0600H/0800/0800H rack.

Rack references	a in mm	a in in.
BMXXBP0400 and BMXXBP0400H	242.4	09.54
BMXXBP0600 and BMXXBP0600H	307.6	12.11
BMXXBP0800 and BMXXBP0800H	372.8	14.68
BMXXBP1200 and BMXXBP1200H	503.2	19.81