

# BMXP341000H

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



## 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<br>128 I/O multi-rack configuration |
| Number of application specific channel | 20   |
| Monitoring                             | Diagnostic counters Modbus<br>Event counters Modbus                  |

## Complementary

|   |  |
|---|--|
| Control channels                        | Programmable loops   |
| 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<br>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<br>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<br>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<br>USB port at 12 Mbit/s |
| Communication module processor capacity | 2 Ethernet communication module<br>2 AS-Interface module   |
| Number of devices per segment           | 0...32 (character mode)<br>0...32 (Modbus)   |
| Number of devices                       | 2 point-to-point character mode<br>2 point-to-point Modbus   |
| Bus length                              | 0...10 M serial link non isolated character mode segment<br>0...10 M serial link non isolated Modbus segment<br>0...1000 M serial link isolated character mode segment<br>0...1000 M serial link isolated Modbus segment<br>0...15 M character mode point-to-point<br>0...15 m Modbus point-to-point   |
| Maximum tap links length                | <15 M serial link non isolated character mode segment<br><15 M serial link non isolated Modbus segment<br><40 M serial link isolated character mode segment<br><40 m serial link isolated Modbus segment   |
| Number of addresses                     | 0...248 for character mode<br>0...248 for Modbus   |
| Requests                                | 1 K data bytes per request character mode<br>252 data bytes per RTU request Modbus<br>504 data bytes per ASCII request Modbus  |
| Control parameter                       | One CRC on each frame (RTU) Modbus<br>One LRC on each frame (ASCII) character mode<br>One LRC on each frame (ASCII) Modbus   |

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|                                |   |
|--------------------------------|---|
| Memory description             | Internal RAM 2048 kB<br>Internal RAM 128 kB data<br>Internal RAM 1792 kB program constants and symbols<br>Supplied memory card (BMXRMS008MP) backup of programs, constants, symbols and data                          |
| Maximum size of object areas   | 128 kB unlocated internal data<br>16250 %Mi located internal bits<br>32464 %MWi internal words located internal data<br>32760 %KW i constant words located internal data  |
| Default size of object areas   | 128 %KW i constant words located internal data<br>256 %Mi located internal bits<br>512 %MW i internal words located internal data   |
| Application structure          | 32 event tasks<br>1 cyclic/periodic master task<br>1 periodic fast task<br>No auxiliary task  |
| Execution time per instruction | 0.18 µs Boolean<br>0.26 µs double-length words<br>0.38 µs single-length words<br>1.74 µs floating points  |
| Number of instructions per ms  | 4.2 Kinst/ms 65 % Boolean + 35 % fixed arithmetic<br>5.4 Kinst/ms 100 % Boolean   |
| System overhead                | 0.2 Ms for fast task<br>1.05 ms for master task   |
| Current consumption            | 72 mA at 24 V DC  |
| Supply                         | Internal power supply via rack  |
| Marking                        | CE  |
| Status LED                     | 1 LED (green) processor running (RUN)<br>1 LED (red) I/O module fault (I/O)<br>1 LED (red) memory card fault (CARD ERR)<br>1 LED (red) processor or system fault (ERR)<br>1 LED (yellow) activity on Modbus (SER COM) |
| Net weight                     | 0.2 kg  |

## Environment

|                                       |  |
|---------------------------------------|--|
| Ambient air temperature for operation | -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<br>2014/30/EU - electromagnetic compatibility<br>2014/34/EU - ATEX directive  |
| Product certifications                | CE[RETURN]UL[RETURN]CSA[RETURN]RCM[RETURN]EAC[RETURN]Merchant Navy[RETURN]ATEX zone 2/22[RETURN]IECEx zone 2/22  |
| Standards                             | EN/IEC 61131-2<br>EN/IEC 61010-2-201<br>UL 61010-2-201<br>CSA C22.2 No 61010-2-201<br>IACS E10<br>EN/IEC 61000-6-5, interface type 1 and type 2<br>EN/IEC 61850-3, location G<br>EN/IEC 60079-0  |
| Environmental characteristic          | Gas resistant class Gx conforming to ISA S71.04<br>Gas resistant class 3C4 conforming to IEC 60721-3-3<br>Dust resistant class 3S4 conforming to IEC 60721-3-3<br>Sand resistant class 3S4 conforming to IEC 60721-3-3<br>Salt resistant level 2 conforming to IEC 68252<br>Mold growth resistant class 3B2 conforming to IEC 60721-3-3<br>Fungal spore resistant class 3B2 conforming to IEC 60721-3-3<br>Hazardous location class I division 2 |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 5.5 cm  |
| Package 1 Width              | 11.0 cm |
| Package 1 Length             | 12.0 cm |

|                              |          |
|------------------------------|----------|
| Package 1 Weight             | 247.0 g  |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 15       |
| Package 2 Height             | 15.0 cm  |
| Package 2 Width              | 30.0 cm  |
| Package 2 Length             | 40.0 cm  |
| Package 2 Weight             | 3.705 kg |

### Offer Sustainability

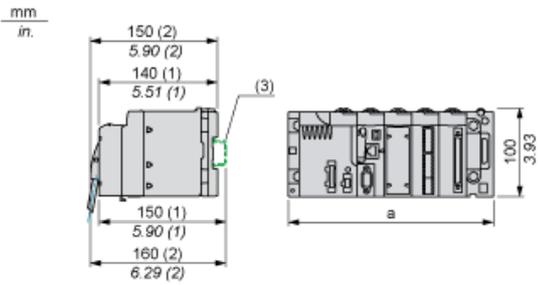
|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| REACH Regulation           | <a href="#">REACH Declaration</a>   |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)  |
| Mercury free               | Yes   |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>  |
| RoHS exemption information | <a href="#">Yes</a>   |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>   |
| Circularity Profile        | <a href="#">End Of Life Information</a>   |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

### Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

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    |