

# BMXDDM3202K

discrete mixed IO module, Modicon X80, 16 inputs, 16 outputs, 24V DC positive



## Main

|                           |                               |
|---------------------------|-------------------------------|
| Range of Product          | Modicon X80                   |
| Product or Component Type | Discrete I/O module           |
| Discrete input number     | 16                            |
| Input type                | Current sink (logic positive) |
| Discrete input voltage    | 24 V DC positive              |
| Discrete input current    | 2.5 mA                        |
| Discrete output number    | 16                            |
| Discrete output type      | Solid state                   |
| Discrete output voltage   | 24 V 19...30 V DC             |
| Discrete output current   | 0.1 A                         |

## Complementary

|                                 |   |
|---------------------------------|---|
| Input compatibility             | With 2-wire/3-wire proximity sensors IEC 60947-5-2<br>With 2-wire/3-wire proximity sensors IEC 61131-2 Type 1   |
| Sensor power supply             | 19...30 V   |
| Current state 1 guaranteed      | $\geq 2$ mA   |
| Current state 0 guaranteed      | $\leq 0.5$ mA   |
| Current per channel             | 0.125 A   |
| Maximum current per module      | 3.2 A   |
| Maximum leakage current         | 0.1 mA at state 0   |
| Maximum voltage drop            | $< 1.5$ V at state 1  |
| Input impedance                 | 9600 Ohm  |
| Insulation resistance           | $> 10$ MOhm 500 V DC  |
| Power dissipation in W          | 4 W   |
| DC typical response time        | 4 ms  |
| DC maximum response time        | 7 ms  |
| Response time on output         | 1.2 ms  |
| Paralleling of outputs          | Yes : 3 maximum   |
| Typical current consumption     | 69 mA 24 V DC<br>125 mA 3.3 V DC  |
| Current consumption             | $\leq 104$ mA 24 V DC<br>$\leq 166$ mA 3.3 V DC   |
| MTBF reliability                | 430000 H  |
| Protection type                 | 1 external fuse per group of input channel 0.5 A fast blow<br>Overvoltage protection on output<br>Reverse polarity protection on input<br>Reverse polarity protection on output |
| Output overload protection      | With electronic circuit breaker $0.125$ A $< I_d < 0.185$ A<br>With current limiter   |
| Output overvoltage protection   | With transil diode  |
| Output short-circuit protection | With 2 A external fuse  |
| Reverse polarity protection     | Reverse mounted diode   |
| Voltage detection threshold     | $< 14$ V DC preactuator fault<br>$< 14$ V DC sensor fault<br>$> 18$ V DC preactuator OK<br>$> 18$ V DC sensor OK  |
| Maximum tungsten load           | 1.2 W   |
| Switching frequency             | $0.5/LI^2$ Hz   |
| Maximum overload time           | 15 ms   |

|                      |  |
|----------------------|--|
| Load impedance ohmic | <= 220 Ohm   |
| Status LED           | 1 LED (Green) module operating (RUN)<br>1 LED per channel (Green) channel diagnostic<br>1 LED (Red) module error (ERR)<br>1 LED (Red) module I/O |
| Net Weight           | 0.24 lb(US) (0.11 kg)  |

## Environment

|                                       |  |
|---------------------------------------|--|
| IP Degree of Protection               | IP20   |
| Directives                            | 2014/35/EU - low voltage directive<br>2014/30/EU - electromagnetic compatibility   |
| Dielectric strength                   | 1500 V AC 50/60 Hz 1 minute, output/ground<br>1500 V AC 50/60 Hz 1 minute, output/internal logic<br>1500 V AC 50/60 Hz 1 minute, primary/secondary<br>500 V DC 1 minute, between group of inputs and outputs |
| Vibration resistance                  | 3 gn   |
| Shock resistance                      | 30 gn  |
| Ambient Air Temperature for Storage   | -40...185 °F (-40...85 °C)   |
| Ambient Air Temperature for Operation | 32...140 °F (0...60 °C)  |
| Relative humidity                     | 5...95 % 131 °F (55 °C) without condensation   |
| Operating altitude                    | 0...6561.68 ft (0...2000 m)<br>2000...5000 m with derating factor  |

## Ordering and shipping details

|                   |                    |
|-------------------|--------------------|
| Category          | 18160-MODICON M340 |
| Discount Schedule | PC34               |
| GTIN              | 3595863910636      |
| Returnability     | Yes                |
| Country of origin | FR                 |

## Packing Units

|                              |                        |
|------------------------------|------------------------|
| Unit Type of Package 1       | PCE                    |
| Number of Units in Package 1 | 1                      |
| Package 1 Height             | 2.17 in (5.500 cm)     |
| Package 1 Width              | 4.53 in (11.500 cm)    |
| Package 1 Length             | 4.61 in (11.700 cm)    |
| Package 1 Weight             | 4.73 oz (134.000 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             | 5.19 lb(US) (2.355 kg) |

## Offer Sustainability

|                            |   |
|----------------------------|---|
| California proposition 65  | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| 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>   |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.  |

## Contractual warranty

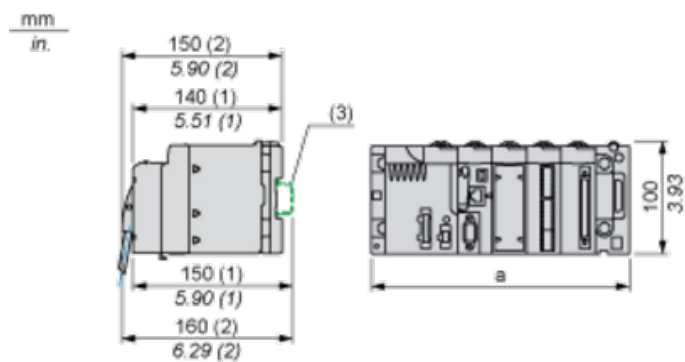
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|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

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Modules Mounted on Racks

Dimensions



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

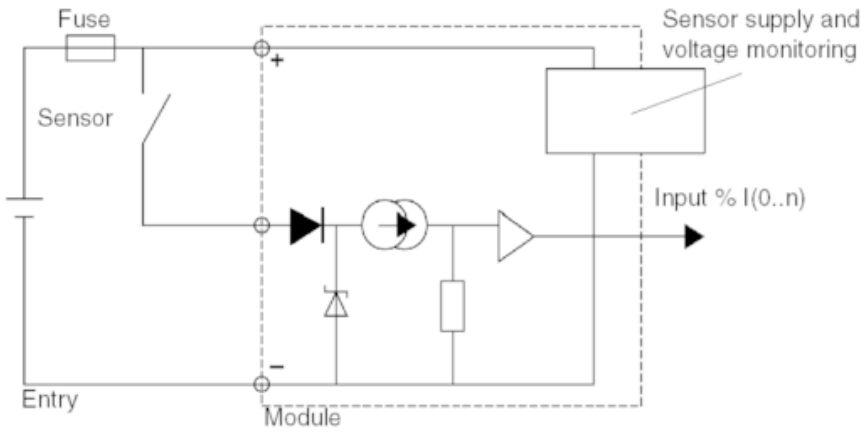
(2) With FCN connector.

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

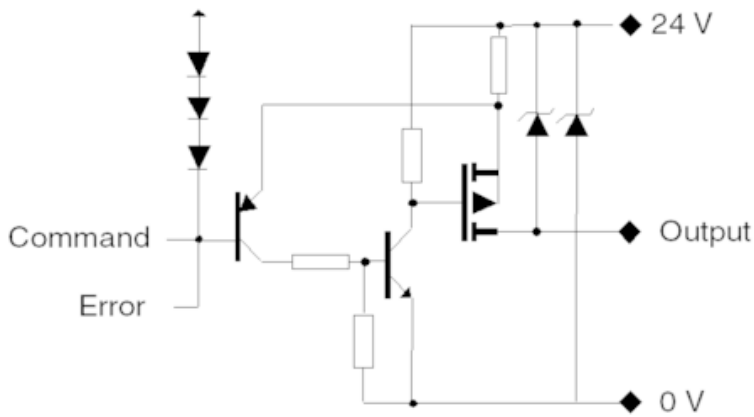
| Rack references            | a in mm | a in in. |
|----------------------------|---------|----------|
| BMXXBP0400 and BMXXBP0400H | 242.4   | 09.54    |
| BMXXBP0600 and BMXXBP0600H | 307.6   | 12.11    |
| BMXXBP0800 and BMXXBP0800H | 372.8   | 14.68    |
| BMXXBP1200 and BMXXBP1200H | 503.2   |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

Connecting the Module

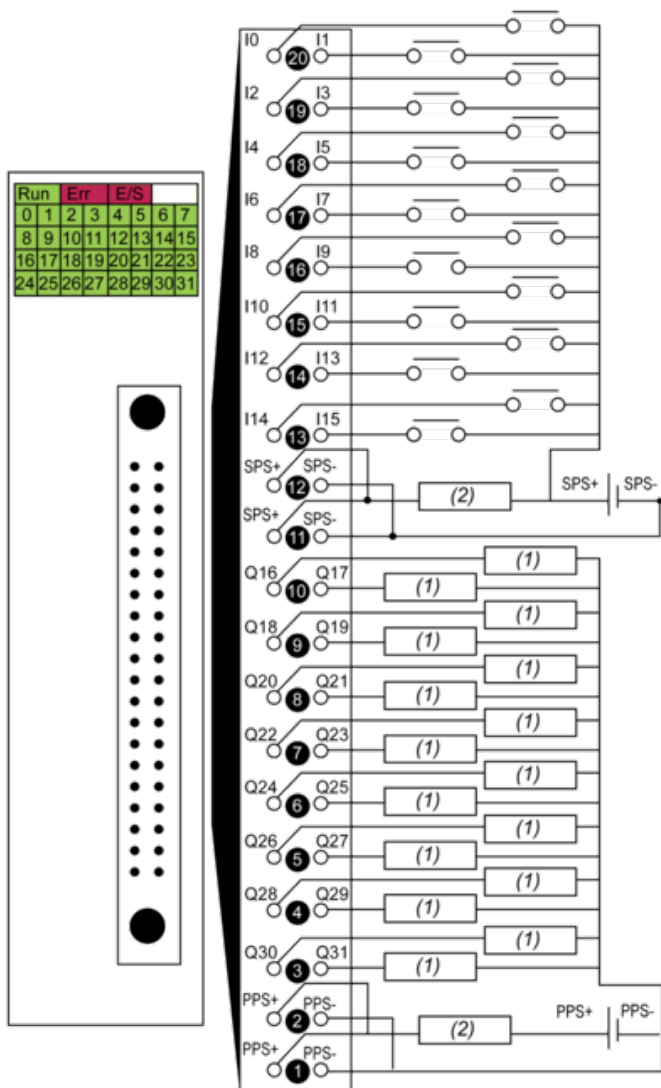
Input Circuit Diagram



Output Circuit Diagram



## Module Connection



(1) pre-actuator

(2) fuse

power supply 24 VDC

input fuse fast blow fuse of 0.5 A

output fuse fast blow fuse of 2 A

SPS sensor power supply

PPS pre-actuator power supply