



## Main

|                              |   |
|------------------------------|---|
| Range of product             | Modicon X80                             |
| Product or component type    | Discrete input module                   |
| Product specific application | For severe environments                 |
| Discrete input number        | 16                                      |
| Discrete input type          | Isolated                                |
| Input type                   | Current sink (logic positive)           |
| Discrete input voltage       | 24 V DC, discrete input logic: positive |
| Discrete input current       | 3.5 mA                                  |

## Complementary

|                             |  |
|-----------------------------|--|
| Input compatibility         | With 2-wire/3-wire proximity sensors conforming to IEC 60947-5-2<br>With 2-wire/3-wire proximity sensors conforming to IEC 61131-2 type 3        |
| Sensor power supply         | 19...30 V 60 °C<br>21.1...26.4 V 70 °C   |
| Current state 1 guaranteed  | $\geq 2$ mA  |
| Current state 0 guaranteed  | $\leq 1.5$ mA  |
| Input impedance             | 6800 Ohm   |
| Insulation resistance       | $> 10$ MOhm 500 V DC   |
| Power dissipation in W      | 2.5 W  |
| DC typical response time    | 4 ms   |
| DC maximum response time    | 7 ms   |
| Paralleling of inputs       | Yes  |
| Typical current consumption | 76 mA at 3.3 V DC  |
| MTBF reliability            | 775000 H   |
| Protection type             | 1 external fuse per group of channel 0.5 A fast blow<br>Reverse polarity protection  |
| Voltage detection threshold | $< 14$ V DC sensor fault<br>$> 18$ V DC sensor OK  |
| 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                  | 0.115 kg   |

## Environment

|                              |  |
|------------------------------|--|
| IP degree of protection      | IP20   |
| Directives                   | 2014/35/EU - low voltage directive<br>2014/30/EU - electromagnetic compatibility   |
| Environmental characteristic | Gas resistant class Gx<br>Gas resistant class 3C4<br>Dust resistant class 3S4<br>Sand resistant class 3S4<br>Salt resistant level 2<br>Mold growth resistant class 3B2<br>Fungal spore resistant class 3B2 |
| Dielectric strength          | 1500 V AC at 50/60 Hz 1 minute, primary/secondary  |
| Vibration resistance         | 3 gn   |

|                                       |  |
|---------------------------------------|--|
| Shock resistance                      | 30 gn  |
| Ambient air temperature for storage   | -40...85 °C                                      |
| Ambient air temperature for operation | -25...70 °C                                      |
| Relative humidity                     | 5...95 % at 55 °C without condensation           |
| Protective treatment                  | Conformal coating                                |
| Operating altitude                    | 0...2000 m<br>2000...5000 m with derating factor |

## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 5.500 cm  |
| Package 1 Width              | 11.000 cm |
| Package 1 Length             | 11.500 cm |
| Package 1 Weight             | 165.000 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             | 2.960 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   |
| 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> |

## 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.

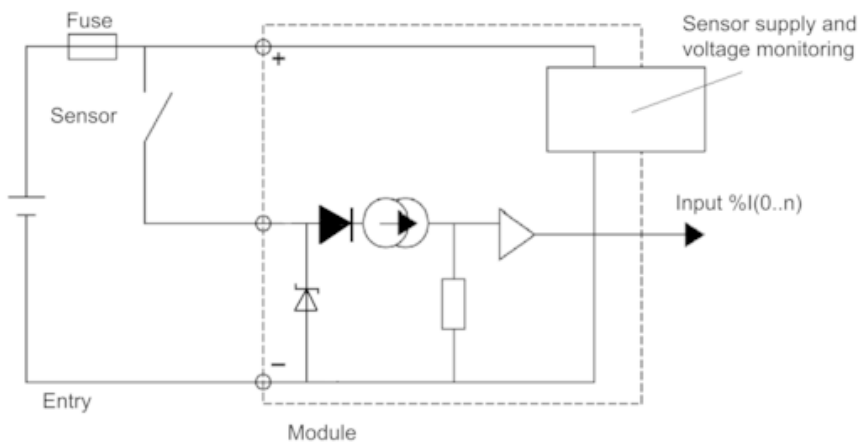
| Rack references            | a in mm | a in in. |
|----------------------------|---------|----------|
| BMXXBP0400 and BMXXBP0400H | 242.4   | 09.54    |
| BMXXBP0600 and BMXXBP0600H | 307.6   | 12.11    |
| BMXXBP0800 and BMXXBP0800H | 372.8   | 14.68    |
| BMXXBP1200 and BMXXBP1200H | 503.2   |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

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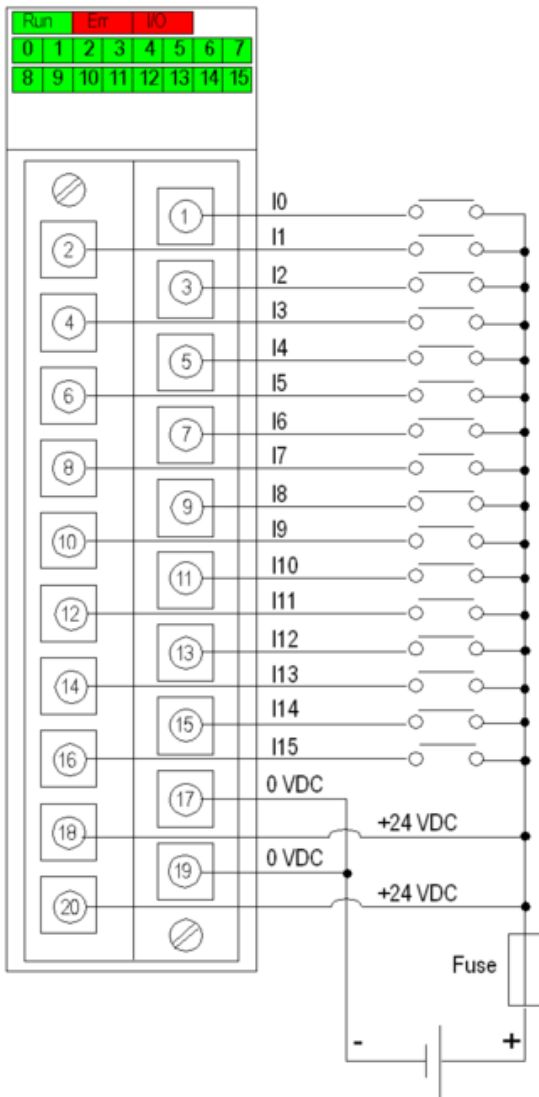
Connecting the Module

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Input Circuit Diagram



## Module Connection



power supply 24 VDC  
fuse fast blow fuse of 0.5 A