

# Product datasheet

Specifications



discrete input module X80 - 16  
inputs - 24V DC current sink (logic  
positive) - severe

BMXDDI1602H

## Main

|                              |                                         |
|------------------------------|-----------------------------------------|
| Range Of Produc              | 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  | >= 2 mA                                                                                                                                          |
| Current State 0 Guaranteed  | <= 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 channel0.5 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

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                                       |                                                                                                                                                                                                            |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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             | 5.5 cm   |
| Package 1 Width              | 11.0 cm  |
| Package 1 Length             | 11.5 cm  |
| Package 1 Weight             | 165.0 g  |
| Unit Type Of Package 2       | S02      |
| Number Of Units In Package 2 | 15       |
| Package 2 Height             | 15 cm    |
| Package 2 Width              | 30 cm    |
| Package 2 Length             | 40 cm    |
| Package 2 Weight             | 2.901 kg |
| Unit Type Of Package 3       | P06      |
| Number Of Units In Package 3 | 240      |
| Package 3 Height             | 75.0 cm  |
| Package 3 Width              | 60.0 cm  |
| Package 3 Length             | 80.0 cm  |
| Package 3 Weight             | 59 kg    |

## Contractual warranty

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

# Sustainability

**Green Premium™ label** is Schneider Electric’s commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product’s sustainability >](#)

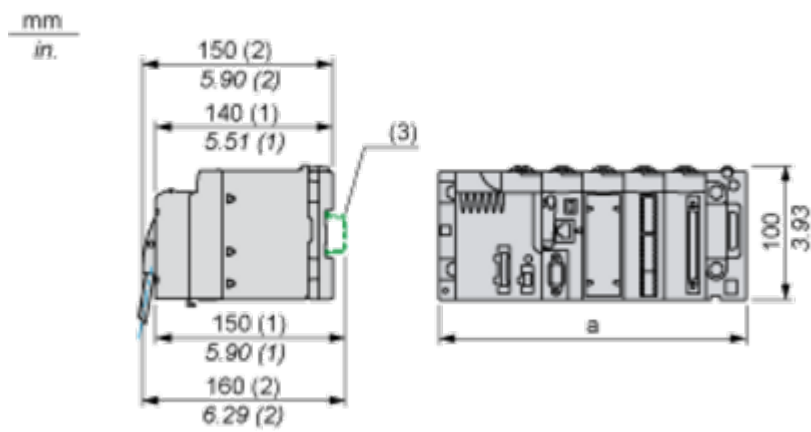
## Well-being performance

|                                                                                                              |                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
|  Mercury Free               |                                                                                                                             |
|  Rohs Exemption Information | <a href="#">Yes</a>                                                                                                         |
| Reach Regulation                                                                                             | <a href="#">REACH Declaration</a>                                                                                           |
| Eu Rohs Directive                                                                                            | Pro-active compliance (Product out of EU RoHS legal scope)                                                                  |
| China Rohs Regulation                                                                                        | <a href="#">China RoHS declaration</a>                                                                                      |
| 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



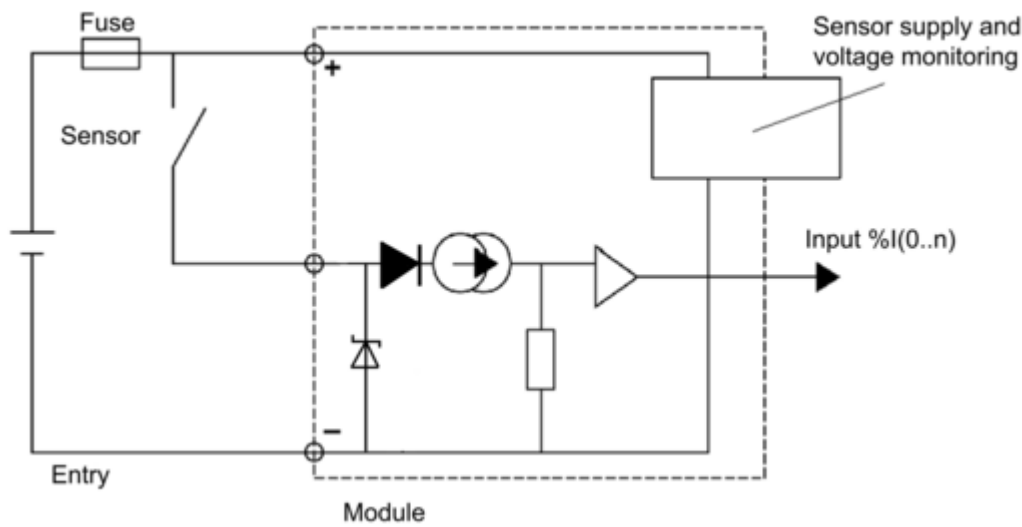
- (1) With removable terminal block (cage, screw or spring).  
(2) With FCN connector.  
(3) On AM1 ED rail: 35 mm wide, 15 mm deep. Only possible with BMXXBP0400/0400H/0600/0600H/0800/0800H rack.

| 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    |

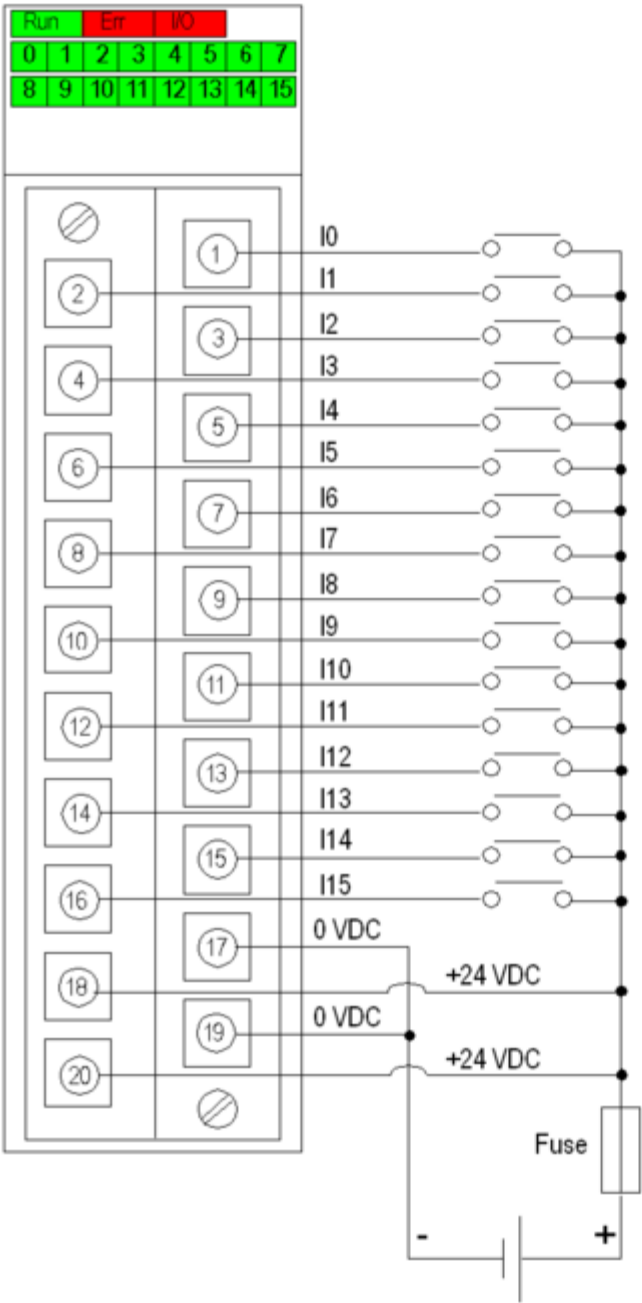
Connections and Schema

Connecting the Module

Input Circuit Diagram



Module Connection



power supply 24 VDC  
fuse fast blow fuse of 0.5 A