

# Product data sheet

Specifications



## Discrete input module, Modicon X80, 16 inputs, 24V DC positive, for severe environments

BMXDDI1602H

### 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 With 2-wire/3-wire proximity sensors conforming to IEC 61131-2 type 3
Sensor power supply	19...30 V 60 °C 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 reverse polarity protection
Voltage detection threshold	$< 14$ V DC sensor fault $> 18$ V DC sensor OK
Status LED	1 LED (green) module operating (RUN) 1 LED per channel (green) channel diagnostic 1 LED (red) module error (ERR) 1 LED (red) module I/O
Net weight	0.115 kg

## Environment

IP degree of protection	IP20
Directives	2014/35/EU - low voltage directive 2014/30/EU - electromagnetic compatibility
Environmental characteristic	Gas resistant class Gx Gas resistant class 3C4 Dust resistant class 3S4 Sand resistant class 3S4 Salt resistant level 2 Mold growth resistant class 3B2 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 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	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	2.901 kg

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
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>

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<b>WEEE</b>	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
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<b>California proposition 65</b>	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>
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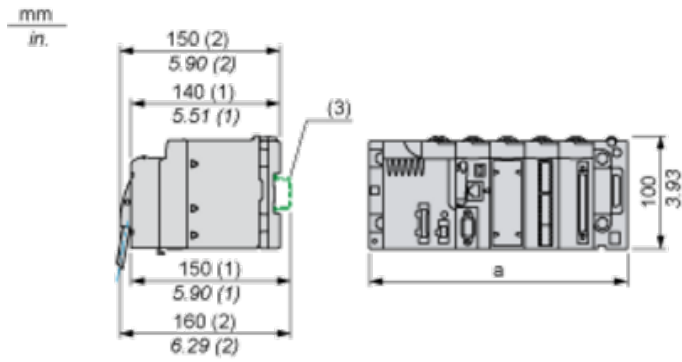
## **Contractual warranty**

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<b>Warranty</b>	18 months
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Modules Mounted on Racks

Dimensions



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

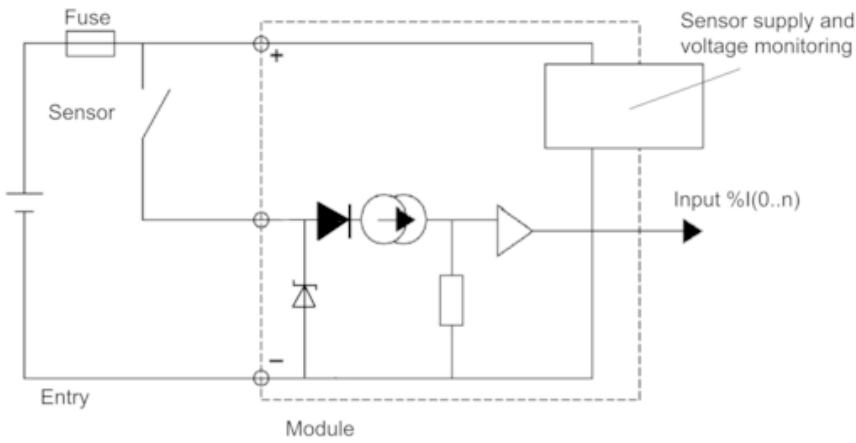
(2) With FCN connector.

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

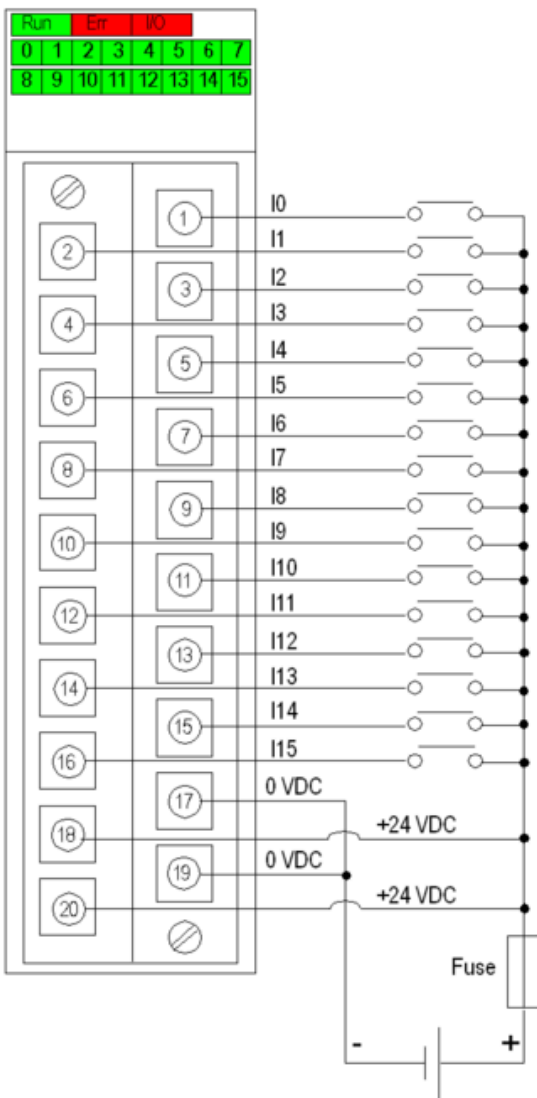
Rack references	a in mm	a in in.
BMXXBP0400 and BMXXBP0400H	242.4	09.54
BMXXBP0600 and BMXXBP0600H	307.6	12.11
BMXXBP0800 and BMXXBP0800H	372.8	14.68
BMXXBP1200 and BMXXBP1200H	503.2	19.81

**Connecting the Module**

**Input Circuit Diagram**



**Module Connection**



power supply 24 VDC  
fuse fast blow fuse of 0.5 A

**Recommended replacement(s)**