

# Product data sheet

Specifications



## discrete input module X80 - 32 inputs - 24 V DC positive - severe

BMXDDI3202KH

### Main

Range of product	Modicon X80
Product or component type	Discrete input module
Product specific application	For severe environments
Discrete input number	32
Discrete input type	Isolated
Input type	Current sink (logic positive)
Discrete input voltage	24 V DC, discrete input logic: positive
Discrete input current	2.5 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 1
Sensor power supply	19...30 V
Current state 1 guaranteed	$\geq 2$ mA
Current state 0 guaranteed	$\leq 0.5$ mA
Input impedance	9600 Ohm
Insulation resistance	$> 10$ MOhm 500 V DC
Power dissipation in W	3.9 W
DC typical response time	4 ms
DC maximum response time	7 ms
Paralleling of inputs	No
Typical current consumption	121 mA at 3.3 V DC
MTBF reliability	696320 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	0.112 kg

## Environment

<b>IP degree of protection</b>	IP20
<b>Directives</b>	2014/35/EU - low voltage directive 2014/30/EU - electromagnetic compatibility
<b>Environmental characteristic</b>	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
<b>Dielectric strength</b>	1500 V AC at 50/60 Hz 1 minute, primary/secondary 500 V DC 1 minute, between group of channels
<b>Vibration resistance</b>	3 gn
<b>Shock resistance</b>	30 gn
<b>Ambient air temperature for storage</b>	-40...85 °C
<b>Ambient air temperature for operation</b>	-25...70 °C
<b>Relative humidity</b>	5...95 % at -25...70 °C without condensation
<b>Protective treatment</b>	Conformal coating
<b>Operating altitude</b>	0...2000 m 2000...5000 m with derating factor

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Weight</b>	161.0 g
<b>Package 1 Height</b>	5.6 cm
<b>Package 1 width</b>	11.3 cm
<b>Package 1 Length</b>	11.8 cm
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	15
<b>Package 2 Weight</b>	3.6 kg
<b>Package 2 Height</b>	15 cm
<b>Package 2 width</b>	30 cm
<b>Package 2 Length</b>	40 cm
<b>Package 3 Height</b>	70 cm

## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>REACH free of SVHC</b>	Yes
<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
<b>Mercury free</b>	Yes
<b>RoHS exemption information</b>	<a href="#">Yes</a>
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a>
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>

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**Circularity Profile**[End of Life Information](#)

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**WEEE**

The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

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**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 [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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**Contractual warranty**

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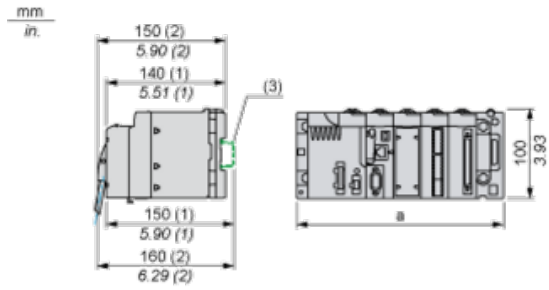
**Warranty**

18 months

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**Modules Mounted on Racks**

**Dimensions**



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

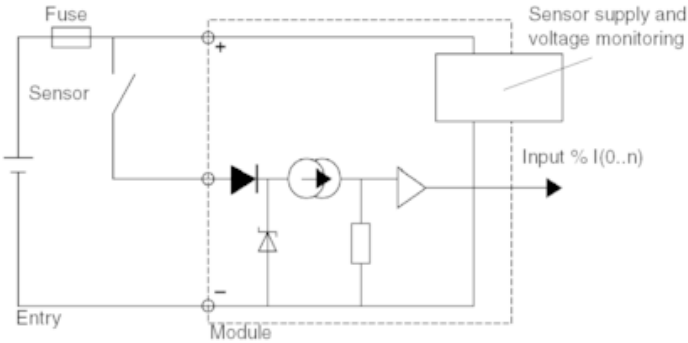
(2) With FCN connector.

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

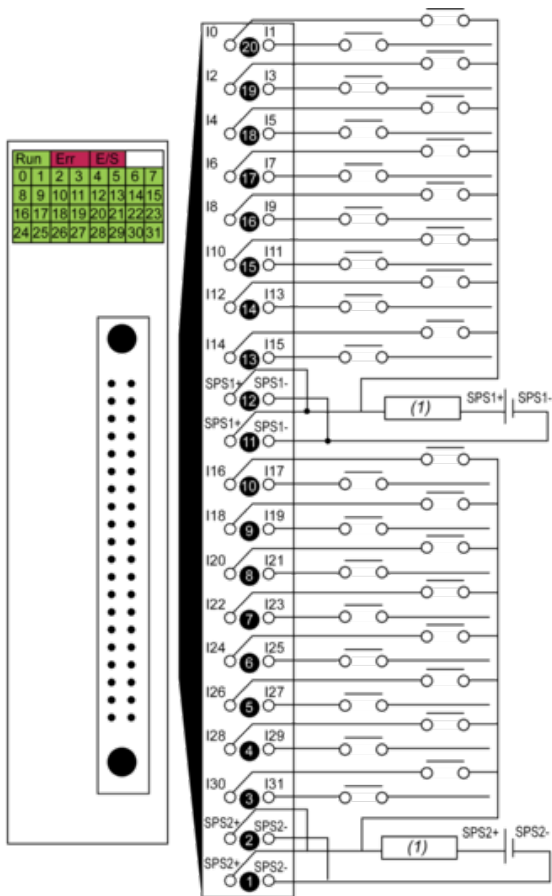
Rack references	a in mm	a in in.
BMXXBP0400 and BMXXBP0400H	242.4	09.54
BMXXBP0600 and BMXXBP0600H	307.6	12.11
BMXXBP0800 and BMXXBP0800H	372.8	14.68
BMXXBP1200 and BMXXBP1200H	503.2	19.81

**Connecting the Module**

**Input Circuit Diagram**



**Module Connection**



(1) fuse: fast blow fuse of 0.5 A for each 16-channel group

power supply 24 VDC

SPS sensor power supply