

Product datasheet

Specifications



Discrete input module, Modicon X80, 32 inputs, 48V DC positive, for severe environments

BMXDDI3203H

Main

Range of product	Modicon X80
Product or component type	Discrete input module
Device application	Industrial application in severe environment
Discrete input number	32
Discrete input voltage	48 V DC for isolated
Discrete input logic	Current sink

Complementary

Discrete input number	32 isolated conforming to IEC 61131-2 type 3 at 48 V DC
Input wiring mode	2 or 3 wires
Discrete input current	2.3 mA at 48 V DC
Voltage state 1 guaranteed	> 30 V
Voltage state 0 guaranteed	<= 10 V
Current state 1 guaranteed	>= 2 mA
Current state 0 guaranteed	<= 1.5 mA
Input impedance	20960 Ohm
Insulation resistance	> 10 MOhm 500 V DC
DC typical response time	4 ms
DC maximum response time	7 ms
Paralleling of outputs	Yes
Typical current consumption	100 mA DC 110 mA at 24 V DC
Current consumption	130 mA at 3.3 V DC 125 mA at 24 V DC
Power dissipation in W	6 W
Isolation between channels and bus	1500 V for 1 minute
Hot swapping fallback	Yes
MTBF reliability	2500000 H
Voltage detection threshold	< 24 V DC sensor fault > 36 V DC sensor OK
Local signalling	1 LED (green) for module operating (RUN) 1 LED per channel (green) for channel diagnostic 1 LED (red) for module error (ERR) 1 LED (red) for module I/O

Excluding VAT, FCA Jabal Ali & are subject to change – check with your local distributor.

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

Height	134.6 mm
Width	32 mm
Depth	86 mm
Product weight	0.138 kg

Environment

IP degree of protection	IP20
Protective treatment	Conformal coating
Marking	CE UKCA CULus RCM EAC
Product certifications	ATEX zone 2 IECEX zone 2 CCC Ex zone 2 (pending) CULus HazLoc
Standards	IEC 61131-2
Directives	2014/35/EU - low voltage directive 2014/30/EU - electromagnetic compatibility
Dielectric strength	1500 V AC at 50/60 Hz 1 minute, primary/secondary 1500 V AC at 50/60 Hz 1 minute, between group of channels
Ambient air temperature for operation	-25...70 °C
Ambient air temperature for storage	-40...85 °C
Relative humidity	5...95 % at -25...70 °C without condensation
Operating altitude	0...2000 m 2000...5000 m with derating
Pollution degree	2
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
Vibration resistance	3 gn
Shock resistance	30 gn

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.4 cm
Package 1 Width	18.0 cm
Package 1 Length	26.0 cm
Package 1 Weight	320.0 g
Unit Type of Package 2	S03
Number of Units in Package 2	10
Package 2 Height	30 cm
Package 2 Width	30 cm

Package 2 Length	40 cm
Package 2 Weight	3.854 kg

Contractual warranty

Warranty (in months)	18
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



Environmental footprint

Total lifecycle Carbon footprint	33 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	18 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.3 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	14 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.4 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile

Use Better



Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	43b0fbab-d94b-43e8-be0a-0b39cadd288b
EU RoHS Directive	Compliant By Exemption
REACH Regulation	Reference contains Substances of Very High Concern above the threshold

Use Longer



Lifetime extension

Repair	No
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Use Again



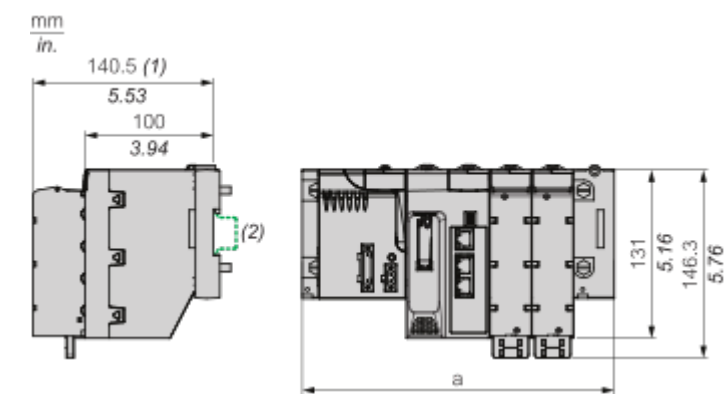
Repack and remanufacture

Recyclability potential, in %	0
End of life manual availability	End of Life Information
Take-back	No

Dimensions Drawings

Modules Mounted on Racks

Dimensions



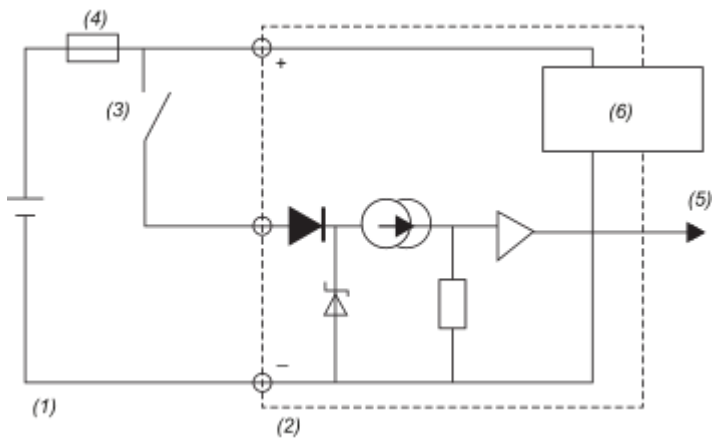
- (1) With removable terminal block (cage, screw or spring).
(2) On AM1 ED rail: 35 mm wide, 15 mm deep.

Rack references	a in mm	a in in.
BMXXBP0400 and BMXXBP0400H	242.4	9.54
BMXXBP0600 and BMXXBP0600H	307.6	12.11
BMXXBP0800 and BMXXBP0800H	372.8	14.68
BMXXBP1200and BMXXBP1200H	503.2	19.81
BMEXBP0400 and BMEXBP0400H	242.4	9.54
BMEXBP0800 and BMEXBP0800H	372.8	14.68
BMEXBP1200 and BMEXBP1200H	503.2	19.81
BMEXBP0602 and BMEXBP0602H	375.8	14.8
BMEXBP1002 and BMEXBP1002H	506.2	19.93

Connections and Schema

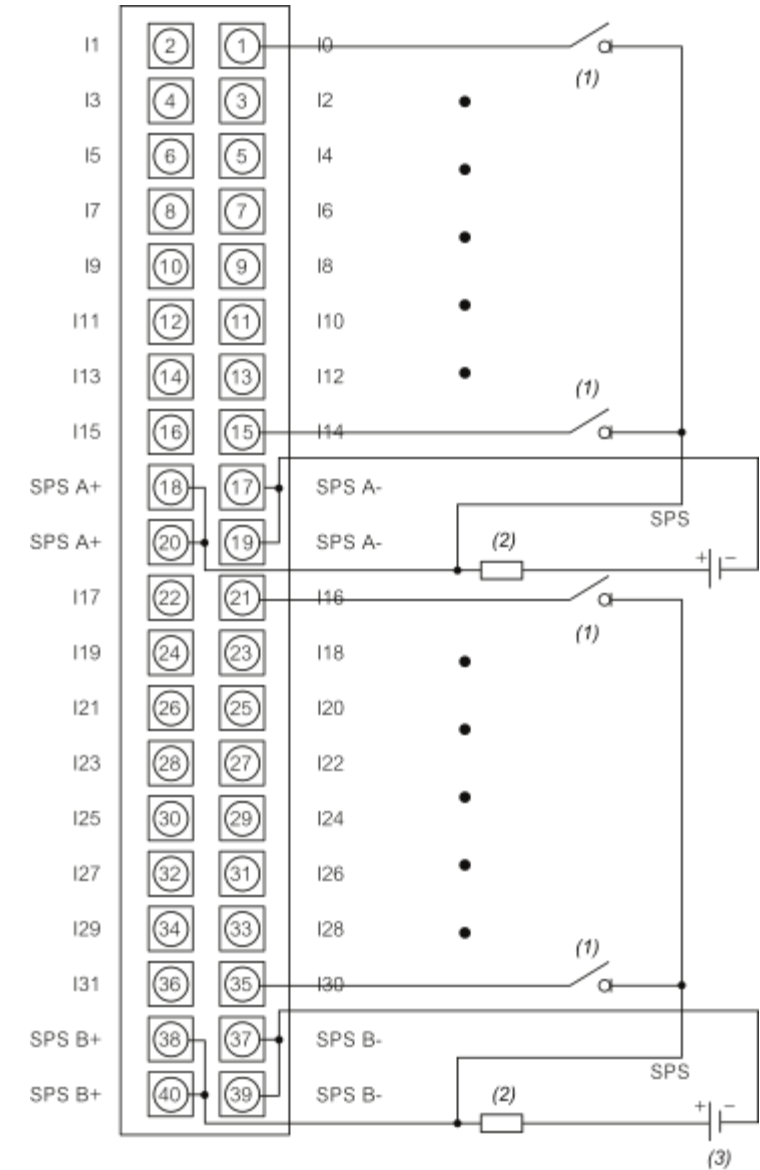
Connecting the Module

Input Circuit Diagram



- (1) Entry
- (2) Module
- (3) Sensor
- (4) Fuse
- (5) Input % I(0...n)
- (6) Sensor supply and voltage monitoring

Module Connection



- (1) Sensor
(2) Fuse : fast-blow fuse of 0.5A
(3) 48 VDC
SPS: Sensor power supply

Image of product / Alternate images

Alternative



