Product data sheet
Characteristics

BMXDDI3232H
Discrete input module, Modicon X80, 32 inputs, 12/24V DC positive or negative, for severe environments

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) Current source (logic negative)
Discrete input voltage	12 V DC, discrete input logic: positive or negative 24 V DC, discrete input logic: positive or negative
Discrete input current	3.3 mA

Complementary

Input compatibility	With 2-wire/3-wire proximity sensors conforming to IEC 61131-2 type 3
Sensor power supply	19...30 V
Voltage state 1 guaranteed	>= 10 V <= -10 V
Current state 1 guaranteed	>= 2 mA
Voltage state 0 guaranteed	<= 5 V >= -5 V
Current state 0 guaranteed	<= 1.5 mA
Input impedance	7270 Ohm
Insulation resistance	> 10 MOhm 500 V DC
Power dissipation in W	4.7 W
DC typical response time	4 ms
DC maximum response time	7 ms
Paralleling of outputs	Yes
Typical current consumption	100 mA at 3.3 V DC
MTBF reliability	2200000 H
Protection type	1 external fuse per group of channel0.5 A fast blow
Voltage detection threshold	< 14 V DC sensor fault > 19 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	0.138 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 1500 V AC at 50/60 Hz 1 minute, between group of channels
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 -25…70 °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	5.600 cm
Package 1 Width	18.000 cm
Package 1 Length	25.800 cm
Package 1 Weight	317.000 g
Unit Type of Package 2	S03
Number of Units in Package 2	10
Package 2 Height	30.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	3.920 kg

Offer Sustainability

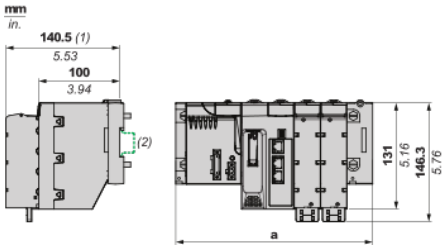
Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Contractual warranty

Warranty	18 months

Modules Mounted on Racks

Dimensions



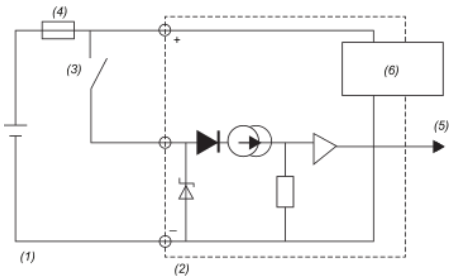
(1) With removable terminal block (cage, screw or spring).

(2) On AM1 ED rail: 35 mm wide, 15 mm deep.

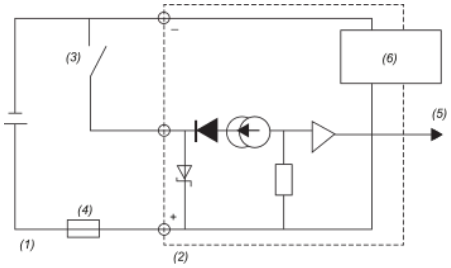
Rack references	a in mm	a in in.
BMXXBP0400 and BMXXBP0400H	242.4	9.54
BMXXBP0600 and BMXXBP0600H	307.6	12.11
BMXXBP0800 and BMXXBP0800H	372.8	14.68
BMXXBP1200and BMXXBP1200H	503.2	19.81
BMEXBP0400 and BMEXBP0400H	242.4	9.54
BMEXBP0800 and BMEXBP0800H	372.8	14.68
BMEXBP1200 and BMEXBP1200H	503.2	19.81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

Connecting the Module

Input Circuit Diagram

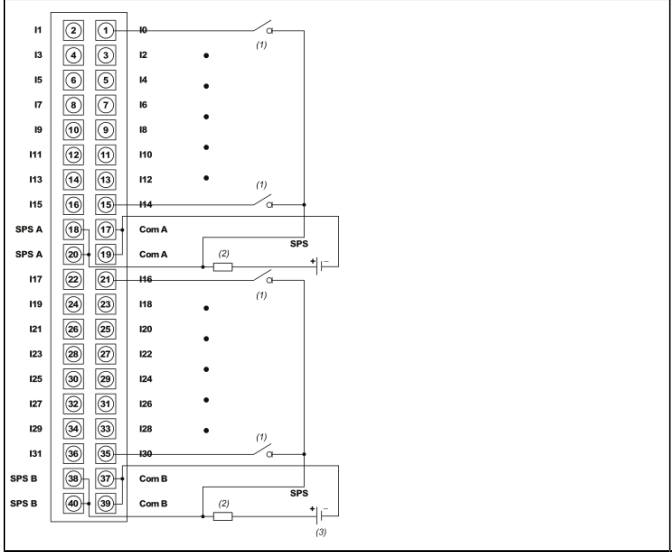
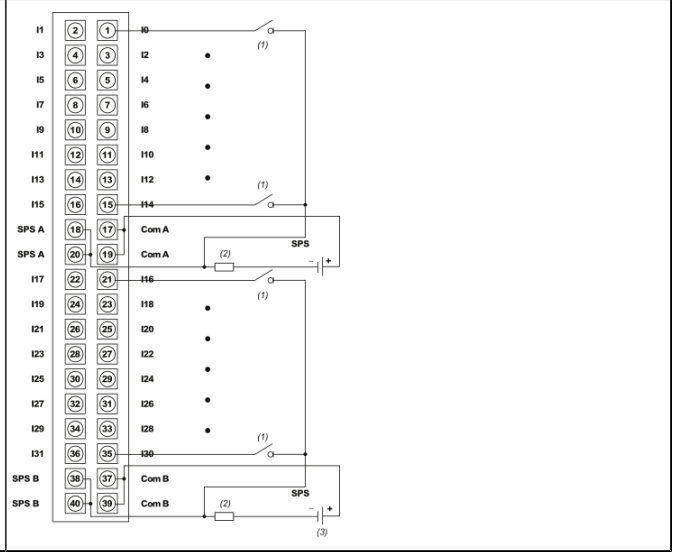


The following diagram shows the circuit of a direct current input (negative logic).



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

Module Connection

Positive logic (sink)	Negative logic (source)
	

(1) Sensor
(2) Fuse : fast-blow fuse of 0.5A
(3) 12 VDC/24 VDC

SPS: Sensor power supply