Product data sheet
Characteristics

BMXDDI1603H
discrete input module X80 - 16 inputs - 48V DC current sink (logic positive) - severe

Green Premium™ Product

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	48 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	36...60 V 60 °C 42.2...52.8 V 70 °C
Current state 1 guaranteed	>= 2 mA
Current state 0 guaranteed	<= 0.5 mA
Input impedance	19200 Ohm
Insulation resistance	> 10 MOhm 500 V DC
Power dissipation in W	3.6 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	738749 H
Protection type	1 external fuse per group of channel0.5 A fast blow Reverse polarity protection
Voltage detection threshold	< 24 V DC sensor fault > 36 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

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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

Package 1 Weight	0.155 kg
Package 1 Height	50.000 mm
Package 1 width	110.000 mm
Package 1 Length	120.000 mm

Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
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

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Modules Mounted on Racks

Dimensions
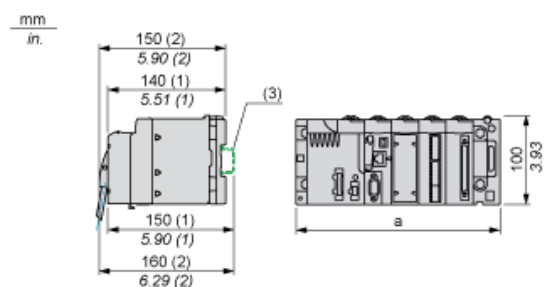
(1)   With removable terminal block (cage, screw or spring).
(2)   With FCN connector.
(3)   On AM1 ED rail: 35 mm wide, 15 mm deep. Only possible with BMXXBP0400/0400H/0600/0600H/0800/0800H rack.
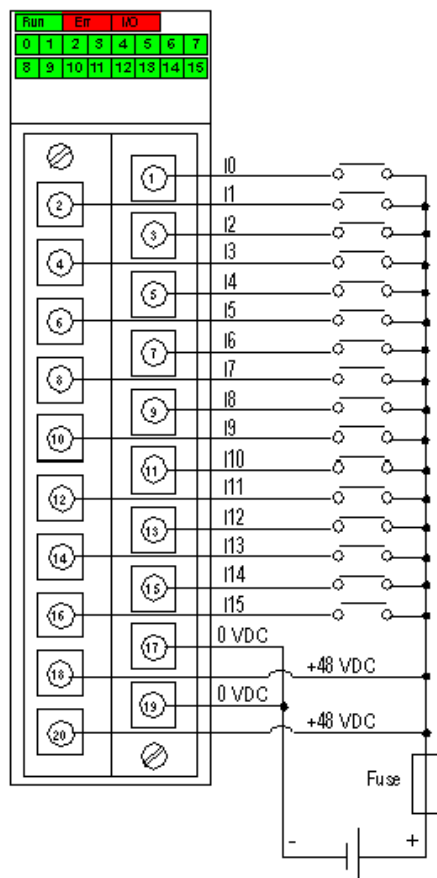
Rack references	a in mm	a in in.
BMXXBP0400 and BMXXBP0400H	242.4	09.54
BMXXBP0600 and BMXXBP0600H	307.6	12.11
BMXXBP0800 and BMXXBP0800H	372.8	14.68
BMXXBP1200 and BMXXBP1200H	503.2	19.81

Connecting the Module

Input Circuit Diagram
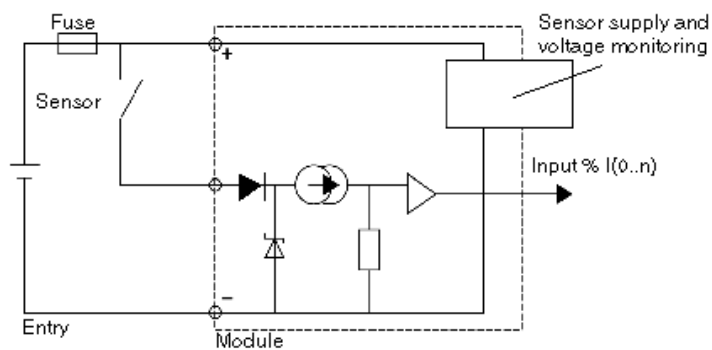
Module Connection

power 48 VDC
supply
fuse fast blow fuse of 0.5 A