

# discrete input module, Modicon X80, 16 inputs, 48V DC positive

BMXDDI1603

# Main

Range of product	Modicon X80
Product or component type	Discrete input module
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	3660 V	
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	777000 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
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	-4085 °C
Ambient air temperature for operation	060 °C
Relative humidity	595 % at 55 °C without condensation
Operating altitude	02000 m 20005000 m with derating factor

# **Packing Units**

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.700 cm
Package 1 Width	11.700 cm
Package 1 Length	11.700 cm
Package 1 Weight	158.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	2.849 kg

# **Contractual warranty**

Warranty 18 months



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	
Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	34
Environmental Disclosure	Product Environmental Profile

### **Use Better**

<b>⊗</b> Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	3377ad7c-3df3-40dc-a26f-b9807ced8c10
REACh Regulation	REACh Declaration

### **Use Again**

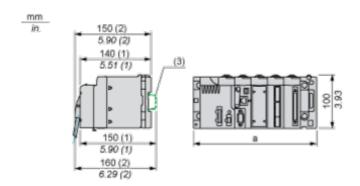
○ Repack and remanufacture	
Circularity Profile	End of Life Information
Take-back	No
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

# **BMXDDI1603**

### **Dimensions Drawings**

## **Modules Mounted on Racks**

#### **Dimensions**



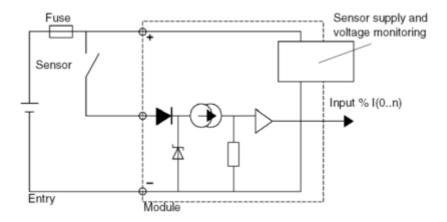
- (1) With removable terminal block (cage, screw or spring).
- (2) With FCN connector.
- (3) On AM1 ED rail: 35 mm wide, 15 mm deep. Only possible with BMXXBP0400/0400H/0600/0600H/0800/0800H rack.

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

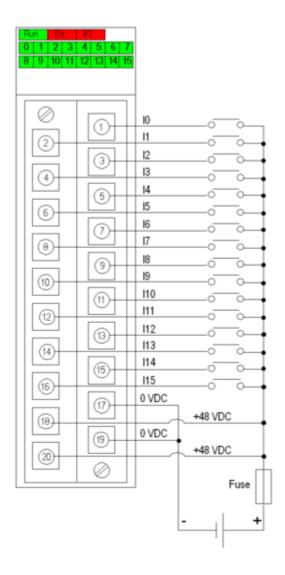
Connections and Schema

### **Connecting the Module**

# **Input Circuit Diagram**



#### **Module Connection**



# **Product datasheet**

# **BMXDDI1603**

power supply 48 VDC fuse fast blow fuse of 0.5 A

9 Apr 2025