Product data sheet

Specifications



discrete input module, Modicon X80, 16 inputs, 24V AC or DC, positive or negative

BMXDAI1602

Product availability: Stock - Normally stocked in distribution facility

Main

Range of Product	Modicon X80
Product or Component Type	Discrete input module
Device Application	Industrial Application
Discrete input number	16
Discrete input voltage	24 V ACisolated 24 V DC
Discrete input logic	Positive logic (sink)

Complementary

Discrete input number	16 isolated conforming to IEC 60947-5-2 at 24 V AC 16 isolated conforming to IEC 61131-2 Type 1 at 24 V DC
Input wiring mode	2 or 3 wires
Discrete input current	3 mA at 24 V AC 3.9 mA at 24 V DC
Voltage state 1 guaranteed	>= 15 V
Voltage state 0 guaranteed	<= 5 V
Current state 1 guaranteed	>= 2 mA AC >= 2 mA DC
Current state 0 guaranteed	<= 1 mA AC <= 0.5 mA DC
Discrete input frequency	50 Hz (47…63 Hz) 60 Hz (47…63 Hz)
Input impedance	6 kOhm
Paralleling of inputs	No
Insulation resistance	> 10 MOhm 500 V DC
AC activation response time	15 ms
AC deactivation response time	20 ms
Sensor power supply	20…26 V 19…30 V
Typical current consumption	76 mA DC
Current consumption	<= 107 mA 3.3 V DC
Power dissipation in W	3 W
Isolation between channels and bus	1500 V for 1 minute
MTBF reliability	1125000 H

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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

Voltage detection threshold	< 14 V AC/DC sensor fault > 18 V AC/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
Height	4.08 in (103.7 mm)
Width	1.3 in (32 mm)
Depth	3.4 in (86 mm)
Product Weight	0.254 lb(US) (0.115 kg)

Environment

IP Degree of Protection	IP20
Protective treatment	Standard version
Marking	CE UKCA CULus EAC RCM
Standards	IEC 61131-2
Directives	2014/35/EU - low voltage directive 2014/30/EU - electromagnetic compatibility
Dielectric strength	1500 V AC 50/60 Hz 1 minute, primary/secondary
Ambient air temperature for operation	32…140 °F (0…60 °C)
Ambient air temperature for storage	-40…185 °F (-40…85 °C)
Relative humidity	5…95 % 131 °F (55 °C) without condensation
Operating altitude	0...6561.68 ft (0...2000 m) 2000...5000 m with derating
Pollution degree	2
Vibration resistance	3 gn
Shock resistance	30 gn

Ordering and shipping details

Category	US1PC3418160
Discount Schedule	PC34
GTIN	3595863966800
Returnability	Yes

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	2.165 in (5.500 cm)
Package 1 Width	4.646 in (11.800 cm)
Package 1 Length	4.921 in (12.500 cm)
Package weight(Lbs)	4.832 oz (137.000 g)
Unit Type of Package 2	S02

Number of Units in Package 2	15
Package 2 Height	5.906 in (15.000 cm)
Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	5.234 lb(US) (2.374 kg)

Contractual warranty

Warranty (in months)	18

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	**31 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 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**13 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0.2 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**
EU RoHS Directive	Compliant By Exemption
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
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**

Use Longer

Lifetime extension

Repair	**No**

Use Again

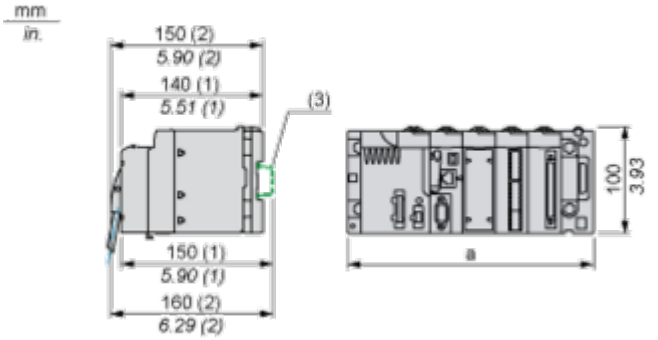
Repack and remanufacture

Recyclability potential, in %	**3**
Circularity Profile	End of Life Information
Take-back	**No**

Dimensions Drawings

Modules Mounted on Racks

Dimensions



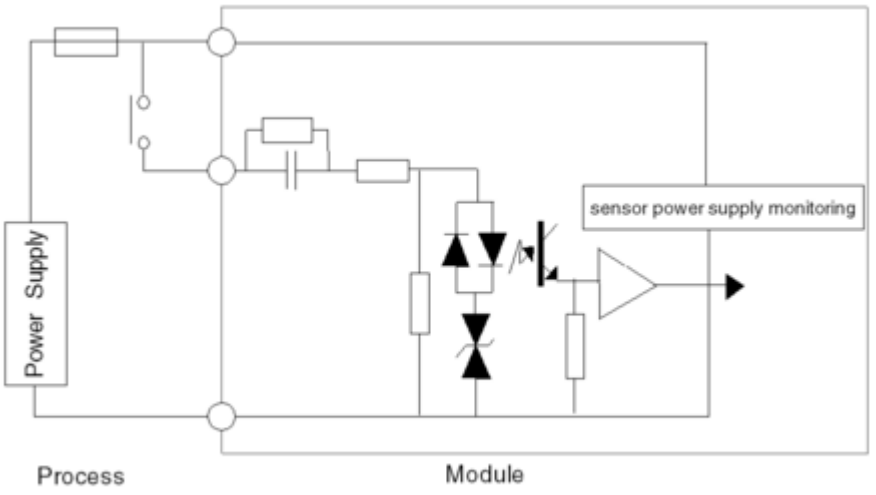
(1) With removable terminal block (cage, screw or spring).
(2) With FCN connector.
(3) On AM1 ED rail: 35 mm wide, 15 mm deep. Only possible with BMXXBP0400/0400H/0600/0600H/0800/0800H rack.

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

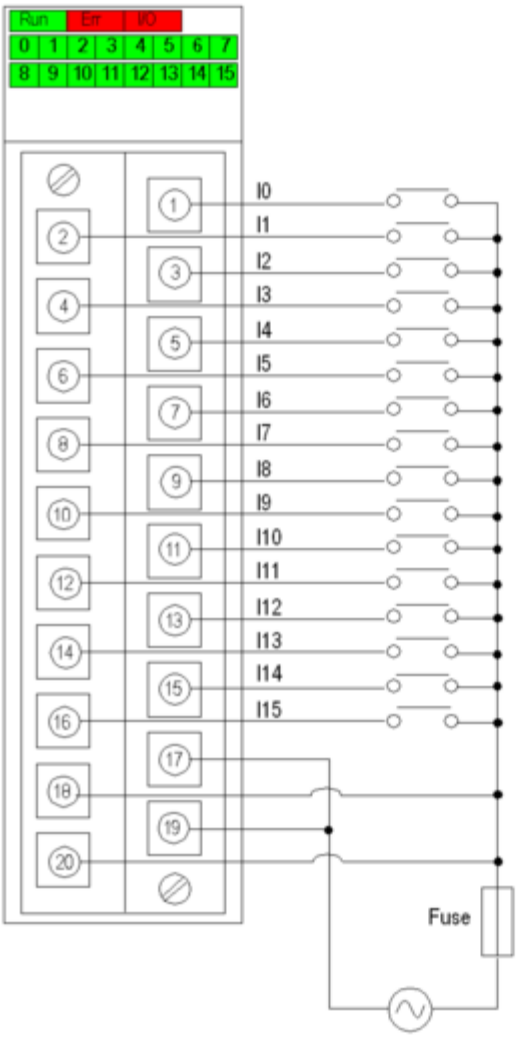
Connections and Schema

Connecting the Module

Input Circuit Diagram

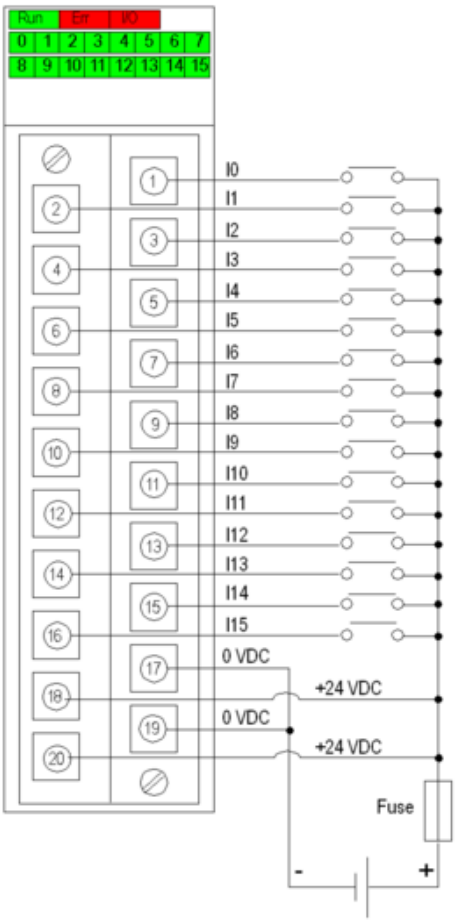


Module Connection (AC Power Supply)

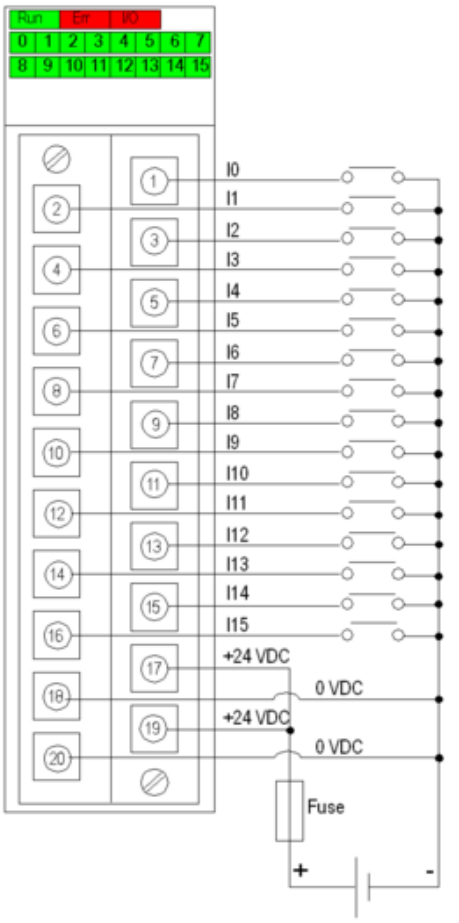


power supply 24 VAC
fuse fast blow fuse of 0.5 A

Module Connection (DC Power Supply)



Positive Logic Wiring



Negative Logic Wiring

power supply 24 VDC
fuse fast blow fuse of 0.5 A

Image of product / Alternate images

Alternative











