Product data sheet

Specifications



Discrete input module, Modicon X80, 16 isolated inputs, 100 to 120V AC, for severe environments

BMXDAI1614H

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 in severe environment
Discrete input number	16
Discrete input voltage	100...120 V ACisolated
Discrete input logic	Positive logic (sink)

Complementary

Discrete input number	16 isolated conforming to IEC 60947-5-2 at 100...120 V AC 16 isolated conforming to IEC 61131-2 Type 1 at 100...120 V AC
Input wiring mode	2 or 3 wires
Discrete input current	2 mA at 100...120 V AC
Voltage state 1 guaranteed	>= 79 V
Voltage state 0 guaranteed	<= 20 V
Current state 1 guaranteed	>= 2 mA
Current state 0 guaranteed	<= 1 mA
Discrete input frequency	50 Hz (47…63 Hz) 60 Hz (47…63 Hz)
Input impedance	14000 Ohm
Insulation resistance	> 10 MOhm 500 V DC
AC activation response time	10 ms
AC deactivation response time	20 ms
Sensor power supply	85…132 V
Typical current consumption	76 mA DC
Current consumption	<= 126 mA 3.3 V DC
Power dissipation in W	5 W
Isolation between channels	1780 Vrms for 1 minute
Isolation between channels and bus	1780 Vrms for 1 minute
MTBF reliability	3700000 H
Voltage detection threshold	< 40 V AC sensor fault > 85 V AC sensor OK

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

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	5.3 in (134.6 mm)
Width	1.3 in (32 mm)
Depth	3.4 in (86 mm)
Product Weight	0.346 lb(US) (0.157 kg)

Environment

IP Degree of Protection	IP20
Protective treatment	Conformal coating
Marking	CE UKCA CULus EAC RCM
Product certifications	ATEX zone 2 IECEx zone 2 CCC Ex zone 2 (pending) CULus HazLoc
Standards	IEC 61131-2
Dielectric strength	1780 V AC 50/60 Hz 1 min
Ambient air temperature for operation	-13…158 °F (-25…70 °C)
Ambient air temperature for storage	-40…185 °F (-40…85 °C)
Relative humidity	5…95 % -13…158 °F (-25…70 °C) without condensation
Operating altitude	0...6561.68 ft (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

Ordering and shipping details

Category	US1PC3418160
Discount Schedule	PC34
GTIN	3606489485016
Returnability	Yes
Country of origin	US

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	2.126 in (5.400 cm)

Package 1 Width	7.087 in (18.000 cm)
Package 1 Length	10.197 in (25.900 cm)
Package weight(Lbs)	10.511 oz (298.000 g)
Unit Type of Package 2	S03
Number of Units in Package 2	8
Package 2 Height	11.811 in (30.000 cm)
Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	6.151 lb(US) (2.790 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	**28 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**17 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]	**11 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0.3 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**
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**

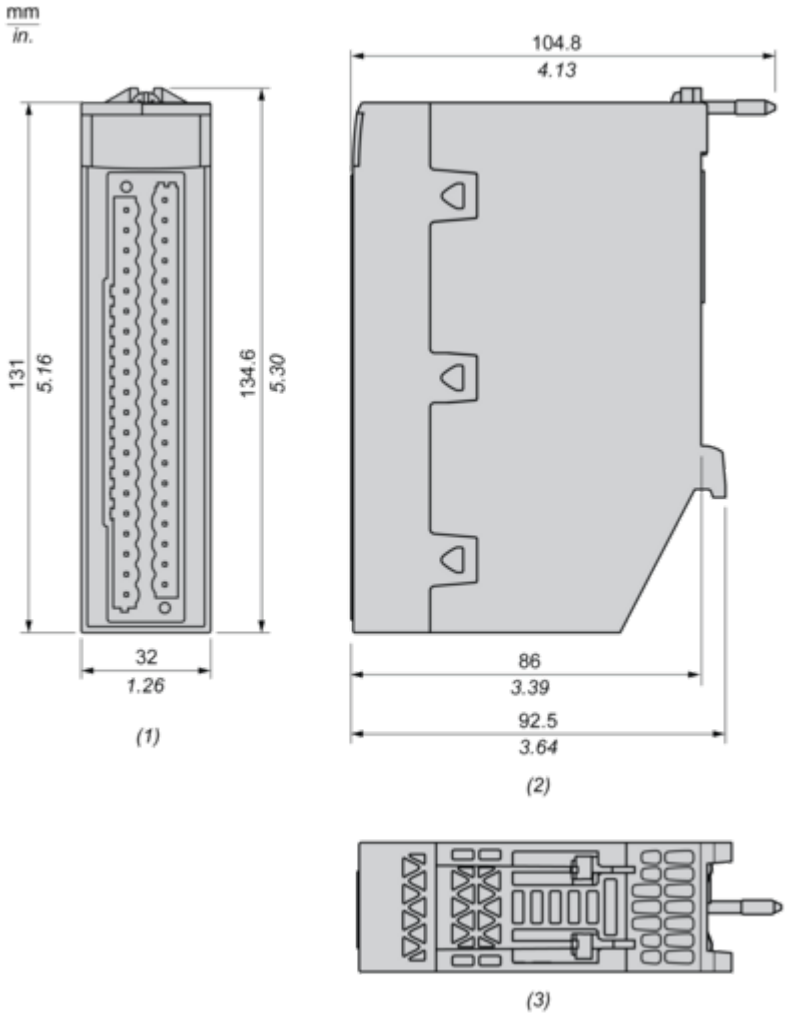
Use Again

Repack and remanufacture

Recyclability potential, in %	**0**
Circularity Profile	**End of Life Information**
Take-back	**No**

Dimensions Drawings

Dimensions

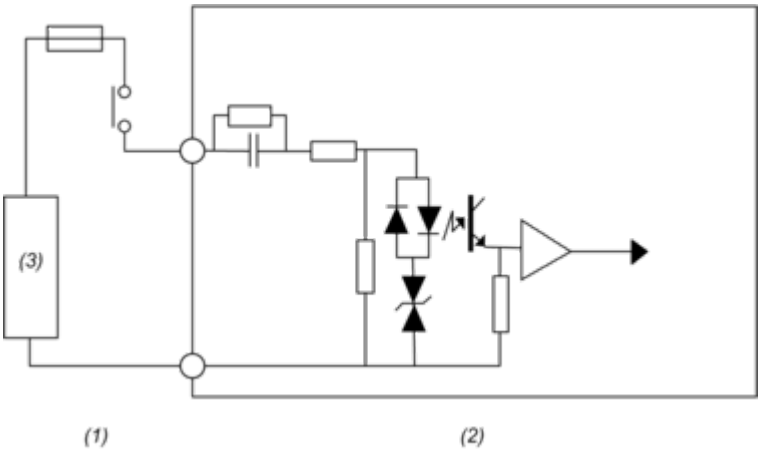


(1) Front view
(2) Right view
(3) Top view

Connections and Schema

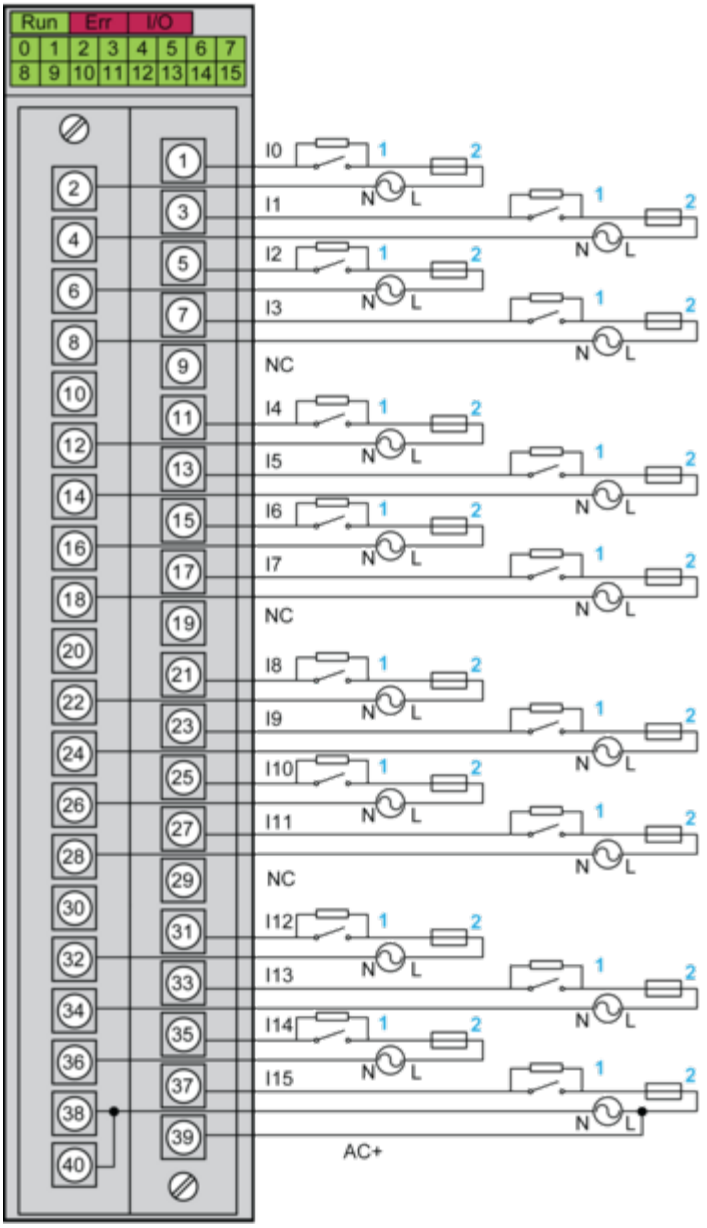
Connecting the Module

Input Circuit Diagram



(1) Process
(2) Module
(3) Power supply

Module Connection



1 : External resistor for open wire detection function
2 : Fast blow fuse of 0.25A
AC+ : Input pin for IO supply monitoring function on channel 15
NC : Not connected
Power supply : 100...120 Vac
NOTE : The maximum input voltage is 132 Vrms@63 Hz. Any over voltage will damage the module.

Image of product / Alternate images

Alternative








SN:XXXXXXXXXXX
PV:XX
RL:XX



