Product data sheet

Specifications



Analog isolated high level input module, Modicon X80, 8 I, 0 to 20mA, 4 to 20mA, 10V positive or negative, severe environment

BMXAMI0810H

Product availability: Stock - Normally stocked in distribution facility

Main

Range of Product	Modicon X80
Product or Component Type	Analog input module
Product Specific Application	For severe environments
Electrical connection	28 ways 1 connector
Isolation between channels	Isolated
Input level	High level
Analogue input number	8
Analogue input type	Current +/- 20 mA Current 0...20 mA Current 4...20 mA Voltage +/- 10 V Voltage +/- 5 V Voltage 0...10 V Voltage 0...5 V Voltage 1...5 V

Complementary

Analog/digital conversion	16 bits
Analogue input resolution	15 bits + sign
Permitted overload on inputs	+/- 30 mA 0...20 mA +/- 30 mA 4...20 mA +/- 30 V +/- 10 V +/- 30 V +/- 5 V +/- 30 V 0...10 V +/- 30 V 0...5 V +/- 30 V 1...5 V +/- 30 mA +/- 20 mA
Input impedance	10 MOhm in voltage mode 250 Ohm + 3.6...50 Ohm internal protective resistor in current mode
Precision of internal conversion resistor	0.1 % - 15 ppm/°C
Type of filter	First order digital filtering
Fast read cycle time	1 ms + 1 ms x number of channels used
Nominal read cycle time	9 ms for 8 channels

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

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

Measurement error	0.15 % of full scale +/- 20 mA 25 °C 0.15 % of full scale 0...20 mA 25 °C 0.15 % of full scale 4...20 mA 25 °C 0.075 % of full scale +/- 10 V 25 °C 0.075 % of full scale 0...10 V 25 °C 0.075 % of full scale 0...5 V 25 °C 0.075 % of full scale 1...5 V 25 °C 0.075 % of full scale +/- 5 V 25 °C <= 0.2 % of full scale +/- 10 V - 25...70 °C <= 0.2 % of full scale +/- 5 V - 25...70 °C <= 0.2 % of full scale 0...10 V - 25...70 °C <= 0.2 % of full scale 0...5 V - 25...70 °C <= 0.2 % of full scale 1...5 V - 25...70 °C <= 0.55 % of full scale +/- 20 mA - 25...70 °C <= 0.55 % of full scale 0...20 mA - 25...70 °C <= 0.55 % of full scale 4...20 mA - 25...70 °C
Temperature drift	30 ppm/°C +/- 10 V 30 ppm/°C +/- 5 V 30 ppm/°C 0...10 V 30 ppm/°C 0...5 V 30 ppm/°C 1...5 V 50 ppm/°C +/- 20 mA 50 ppm/°C 0...20 mA 50 ppm/°C 4...20 mA
Minimum crosstalk attenuation	80 dB
Common mode rejection	80 dB
Digital value format	- 32768 to + 32767 in maximum user scale +/- 10000 by default
Isolation voltage	300 V DC between channels 1400 V DC between channels and ground 1400 V DC between channels and bus
Measurement resolution	0.36 mV +/- 10 V 0.36 mV 0...10 V 0.36 mV 0...5 V 0.36 mV 1...5 V 0.36 mV +/- 5 V 1.4 µA +/- 20 mA 1.4 µA 0...20 mA 1.4 µA 4...20 mA
Maximum conversion value	+/- 11.4 V +/- 10 V +/- 11.4 V 0...10 V +/- 11.4 V 0...5 V +/- 11.4 V 1...5 V 0...30 mA +/- 20 mA 0...30 mA 0...20 mA 0...30 mA 4...20 mA 0...30 mA +/- 5 V
MTBF reliability	900000 H
Operating altitude	0...6561.68 ft (0...2000 m) 2000...5000 m with derating factor
Status LED	1 LED (Green) RUN 1 LED per channel (Green) channel diagnostic 1 LED (Red) ERR 1 LED (Red) I/O
Net Weight	0.386 lb(US) (0.175 kg)
Power consumption in W	1.06 W 24 V DC typical 1.50 W 24 V DC maximum 0.32 W 3.3 V DC typical 0.48 W 3.3 V DC maximum
Current consumption	150 mA 3.3 V DC 54 mA 24 V DC

Environment

Vibration resistance	3 gn

Shock resistance	30 gn
Ambient Air Temperature for Storage	-40…185 °F (-40…85 °C)
Ambient Air Temperature for Operation	-13…158 °F (-25…70 °C)
Relative humidity	5…95 % 131 °F (55 °C) without condensation
IP Degree of Protection	IP20
Directives	2014/35/EU - low voltage directive 2014/30/EU - electromagnetic compatibility
Product Certifications	CE RCM CSA EAC Merchant Navy UL ATEX IEC-Ex
Standards	IEC 61010-2-201 IEC 61131-2 UL 61010-2-201 CSA C22.2 No 61010-2-201
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 Hazardous location
Protective treatment	Conformal coating

Ordering and shipping details

Category	US1PC3418160
Discount Schedule	PC34
GTIN	3595864156620
Returnability	Yes
Country of origin	US

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	4.331 in (11.000 cm)
Package 1 Length	4.567 in (11.600 cm)
Package weight(Lbs)	5.926 oz (168.000 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	6.294 lb(US) (2.855 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	**93 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**21 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]	**71 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	**3377ad7c-3df3-40dc-a26f-b9807ced8c10**
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 Again

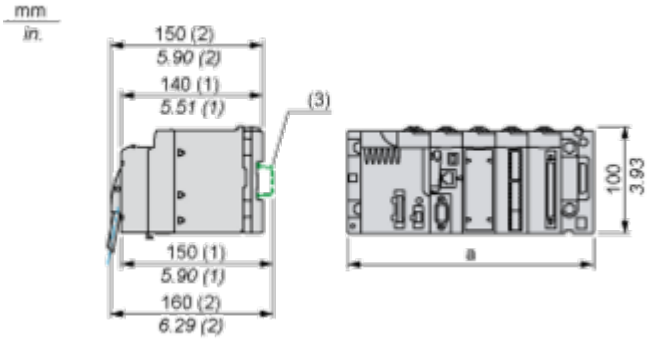
Repack and remanufacture

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

Dimensions Drawings

Modules Mounted on Racks

Dimensions

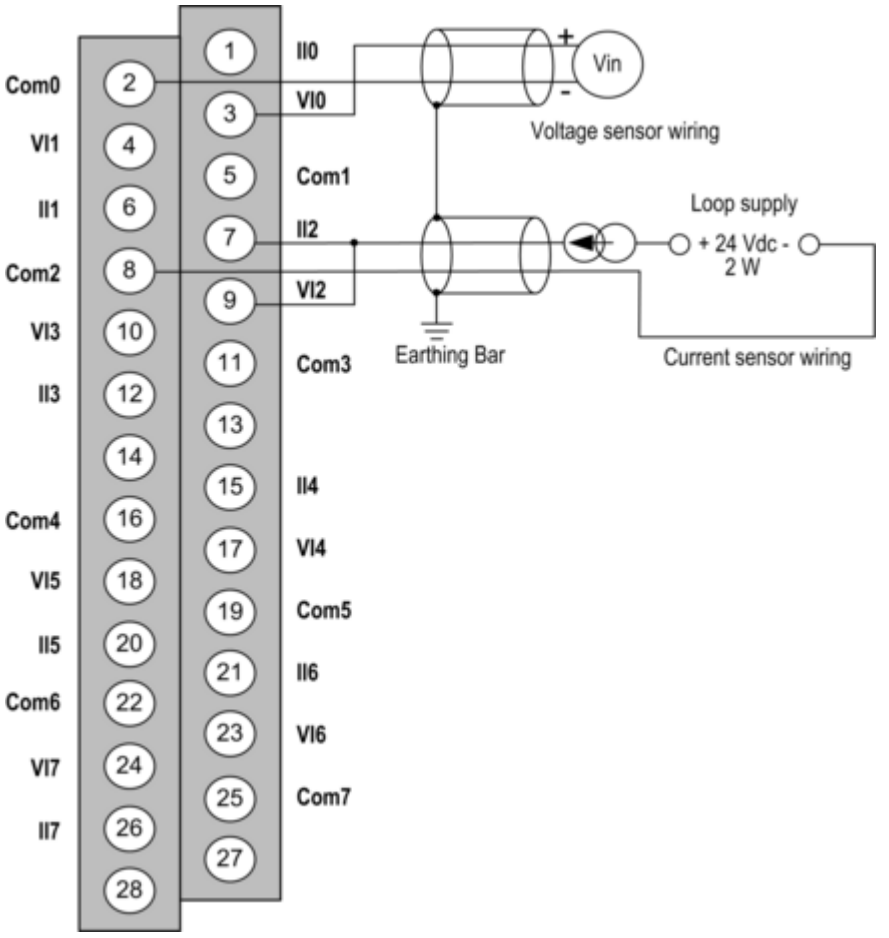


(1) With removable terminal block (cage, screw or spring).
(2) With FCN connector.
(3) On AM1 ED rail: 35 mm wide, 15 mm deep. Only possible with BMXXBP0400/0400H/0600/0600H/0800/0800H rack.

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

Wiring Diagram



VIx + pole input for channel x.
COMx - pole input for channel x, COMx are connected together internally.
IIx current reading resistor + input.
Channel 0 voltage sensor.
Channel 1 2-wire current sensor.

Image of product / Alternate images

Alternative












SN:XXXXXXXXXXX
PV:XX SV:XX RL:XX