

# 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

## 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

<b>Measurement Error</b>	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
<b>Temperature Drift</b>	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
<b>Minimum Crosstalk Attenuation</b>	80 dB
<b>Common Mode Rejection</b>	80 dB
<b>Digital Value Format</b>	- 32768 to + 32767 in maximum user scale +/- 10000 by default
<b>Isolation Voltage</b>	300 V DC between channels 1400 V DC between channels and ground 1400 V DC between channels and bus
<b>Measurement Resolution</b>	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
<b>Maximum Conversion Value</b>	+/- 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
<b>Mtbf Reliability</b>	900000 H
<b>Operating Altitude</b>	0...2000 m 2000...5000 m with derating factor
<b>Status Led</b>	1 LED (green) RUN 1 LED per channel (green) channel diagnostic 1 LED (red) ERR 1 LED (red) I/O
<b>Net Weight</b>	0.39 lb(US) (0.175 kg)
<b>Power Consumption In W</b>	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
<b>Current Consumption</b>	150 mA 3.3 V DC 54 mA 24 V DC

## Environment

<b>Vibration Resistance</b>	3 gn
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<b>Shock Resistance</b>	30 gn
<b>Ambient Air Temperature For Storage</b>	-40...185 °F (-40...85 °C)
<b>Ambient Air Temperature For Operation</b>	-13...158 °F (-25...70 °C)
<b>Relative Humidity</b>	5...95 % 131 °F (55 °C) without condensation
<b>Ip Degree Of Protection</b>	IP20
<b>Directives</b>	2014/35/EU - low voltage directive 2014/30/EU - electromagnetic compatibility
<b>Product Certifications</b>	CE RCM CSA EAC Merchant Navy UL ATEX IEC-Ex
<b>Standards</b>	EN/IEC 61010-2-201 EN/IEC 61131-2 UL 61010-2-201 CSA C22.2 No 61010-2-201
<b>Environmental Characteristic</b>	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
<b>Protective Treatment</b>	Conformal coating

## Packing Units

<b>Unit Type Of Package 1</b>	PCE
<b>Number Of Units In Package 1</b>	1
<b>Package 1 Height</b>	2.17 in (5.500 cm)
<b>Package 1 Width</b>	4.33 in (11.000 cm)
<b>Package 1 Length</b>	4.57 in (11.600 cm)
<b>Package 1 Weight</b>	5.93 oz (168.000 g)
<b>Unit Type Of Package 2</b>	S02
<b>Number Of Units In Package 2</b>	15
<b>Package 2 Height</b>	5.91 in (15.000 cm)
<b>Package 2 Width</b>	11.81 in (30.000 cm)
<b>Package 2 Length</b>	15.75 in (40.000 cm)
<b>Package 2 Weight</b>	6.29 lb(US) (2.855 kg)

## Contractual warranty

<b>Warranty</b>	18 months
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## Sustainability


**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.


**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

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[Guide to assess a product's sustainability >](#)

## Well-being performance

 Mercury Free

 Rohs Exemption Information [Yes](#)

**Reach Regulation** [REACH Declaration](#)

**Eu Rohs Directive** Pro-active compliance (Product out of EU RoHS legal scope)

**China Rohs Regulation** [China RoHS declaration](#)

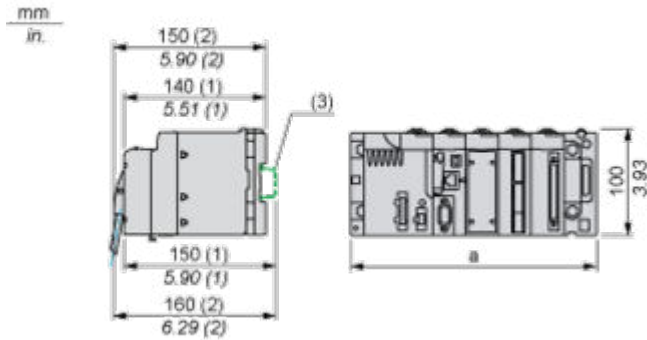
**Weee** The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions Drawings

Modules Mounted on Racks

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Dimensions



(1) With removable terminal block (cage, screw or spring).

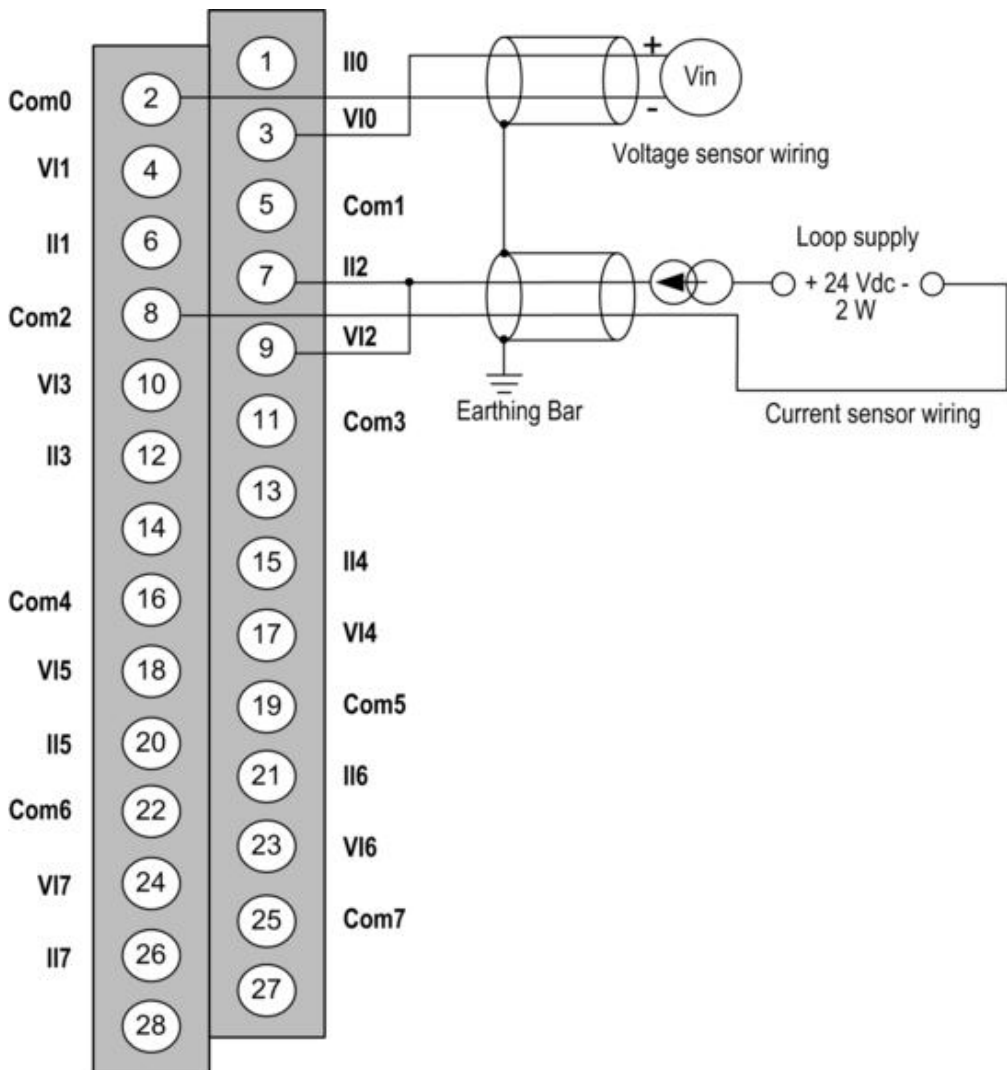
(2) With FCN connector.

(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.