

Product datasheet

Specifications



analog isolated high level input module, Modicon X80, 8 inputs, 0 to 20mA, 4 to 20mA, 10V positive or negative

BMXAMI0810

Main

Range Of Product	Modicon X80
Product Or Component Type	Analog input module
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

Measurement Error	<div><= 0.1 % of full scale +/- 10 V 0...60 °C</div> <div><= 0.1 % of full scale +/- 5 V 0...60 °C</div> <div><= 0.1 % of full scale 0...10 V 0...60 °C</div> <div><= 0.1 % of full scale 0...5 V 0...60 °C</div> <div><= 0.1 % of full scale 1...5 V 0...60 °C</div> <div><= 0.3 % of full scale +/- 20 mA 0...60 °C</div> <div><= 0.3 % of full scale 0...20 mA 0...60 °C</div> <div><= 0.3 % of full scale 4...20 mA 0...60 °C</div> <div>0.15 % of full scale +/- 20 mA 25 °C</div> <div>0.15 % of full scale 0...20 mA 25 °C</div> <div>0.15 % of full scale 4...20 mA 25 °C</div> <div>0.075 % of full scale +/- 10 V 25 °C</div> <div>0.075 % of full scale 0...10 V 25 °C</div> <div>0.075 % of full scale 0...5 V 25 °C</div> <div>0.075 % of full scale 1...5 V 25 °C</div> <div>0.075 % of full scale +/- 5 V 25 °C</div>
Temperature Drift	<div>30 ppm/°C +/- 10 V</div> <div>30 ppm/°C +/- 5 V</div> <div>30 ppm/°C 0...10 V</div> <div>30 ppm/°C 0...5 V</div> <div>30 ppm/°C 1...5 V</div> <div>50 ppm/°C +/- 20 mA</div> <div>50 ppm/°C 0...20 mA</div> <div>50 ppm/°C 4...20 mA</div>
Minimum Crosstalk Attenuation	80 dB
Common Mode Rejection	80 dB
Digital Value Format	<div>- 32768 to + 32767 in maximum user scale</div> <div>+/- 10000 by default</div>
Isolation Voltage	<div>300 V DC between channels</div> <div>1400 V DC between channels and ground</div> <div>1400 V DC between channels and bus</div>
Measurement Resolution	<div>0.36 mV +/- 10 V</div> <div>0.36 mV 0...10 V</div> <div>0.36 mV 0...5 V</div> <div>0.36 mV 1...5 V</div> <div>0.36 mV +/- 5 V</div> <div>1.4 µA +/- 20 mA</div> <div>1.4 µA 0...20 mA</div> <div>1.4 µA 4...20 mA</div>
Maximum Conversion Value	<div>+/- 11.4 V +/- 10 V</div> <div>+/- 11.4 V 0...10 V</div> <div>+/- 11.4 V 0...5 V</div> <div>+/- 11.4 V 1...5 V</div> <div>0...30 mA +/- 20 mA</div> <div>0...30 mA 0...20 mA</div> <div>0...30 mA 4...20 mA</div> <div>0...30 mA +/- 5 V</div>
Mtbf Reliability	900000 H
Operating Altitude	<div>0...2000 m</div> <div>2000...5000 m with derating factor</div>
Status Led	<div>1 LED (green) RUN</div> <div>1 LED per channel (green) channel diagnostic</div> <div>1 LED (red) ERR</div> <div>1 LED (red) I/O</div>
Net Weight	0.165 kg
Power Consumption In W	<div>1.06 W 24 V DC typical</div> <div>1.50 W 24 V DC maximum</div> <div>0.32 W 3.3 V DC typical</div> <div>0.48 W 3.3 V DC maximum</div>
Current Consumption	<div>150 mA at 3.3 V DC</div> <div>54 mA at 24 V DC</div>

Environment

Vibration Resistance	3 gn
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Shock Resistance	30 gn
Ambient Air Temperature For Storage	-40...85 °C
Ambient Air Temperature For Operation	0...60 °C
Relative Humidity	5...95 % at 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
Standards	EN/IEC 61010-2-201 EN/IEC 61131-2 UL 61010-2-201 CSA C22.2 No 61010-2-201

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	5.500 cm
Package 1 Width	11.000 cm
Package 1 Length	12.000 cm
Package 1 Weight	159.000 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	2.702 kg
Unit Type Of Package 3	P06
Number Of Units In Package 3	240
Package 3 Height	75.000 cm
Package 3 Width	60.000 cm
Package 3 Length	80.000 cm
Package 3 Weight	49.000 kg

Contractual warranty

Warranty	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-CO₂ products.

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

[Learn more about Green Premium >](#)

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

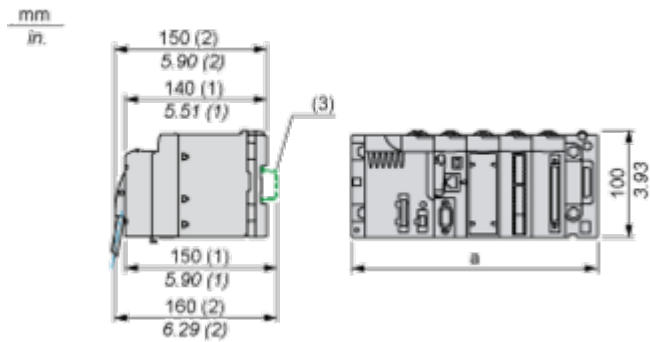
Well-being performance

 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

Dimensions



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

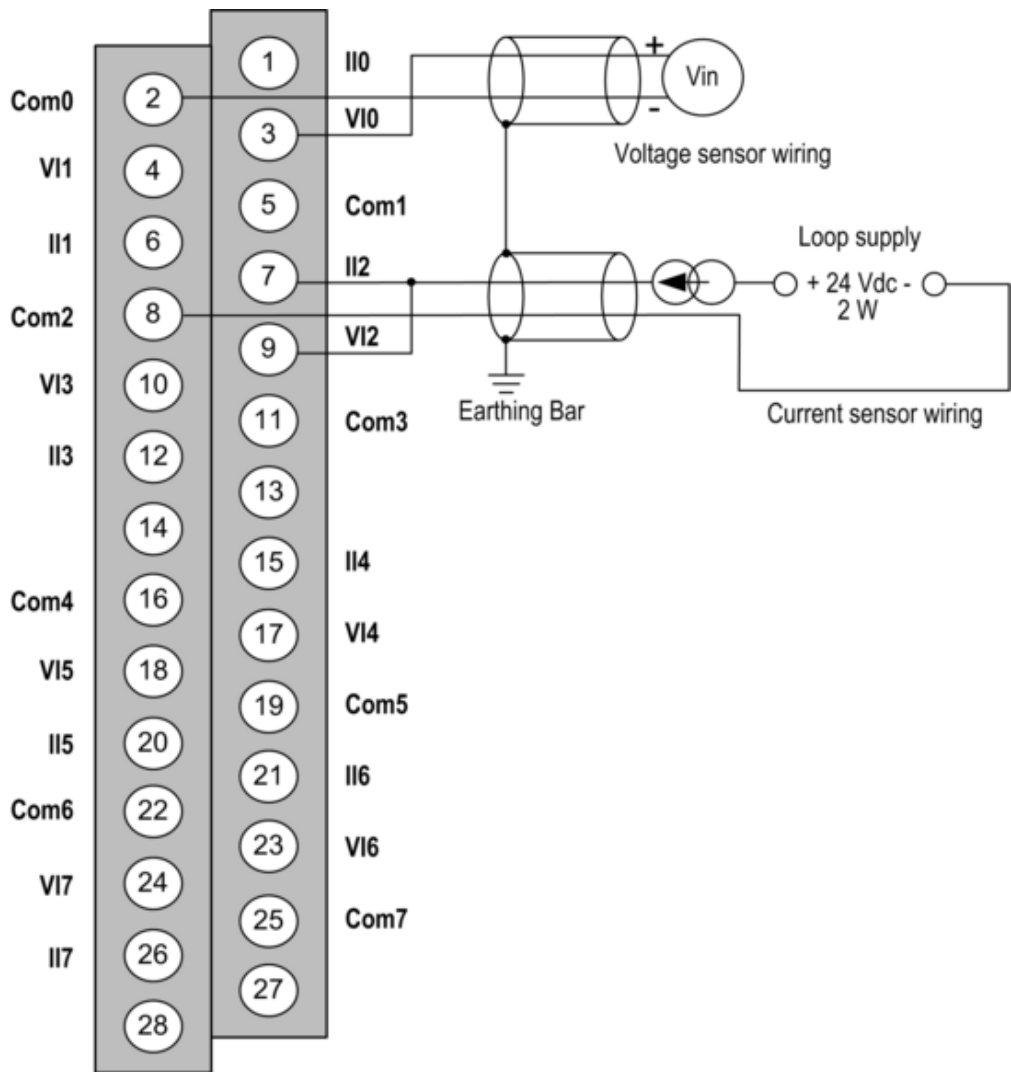
(2) With FCN connector.

(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.