

Product datasheet

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

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|-------------------------------|--|
| 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...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 | 0.175 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 at 3.3 V DC 54 mA at 24 V DC |

Environment

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|----------------------|------|
| Vibration Resistance | 3 gn |
|----------------------|------|

| | |
|---------------------------------------|--|
| Shock Resistance | 30 gn |
| Ambient Air Temperature For Storage | -40...85 °C |
| Ambient Air Temperature For Operation | -25...70 °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 ATEX IEC-Ex |
| Standards | EN/IEC 61010-2-201 EN/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 |

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 | 11.600 cm |
| Package 1 Weight | 168.000 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 | 2.855 kg |

Contractual warranty

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|----------|-----------|
| 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.

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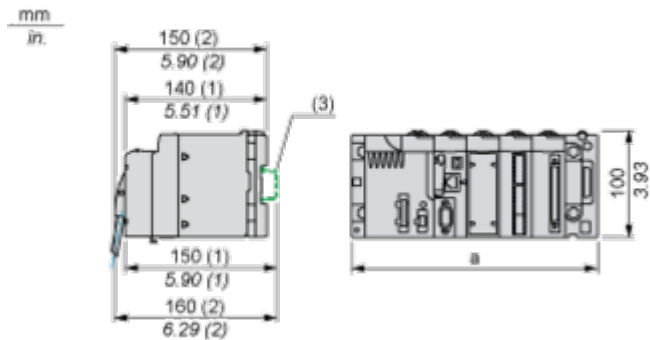
Well-being performance

| | |
|--|---|
|  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

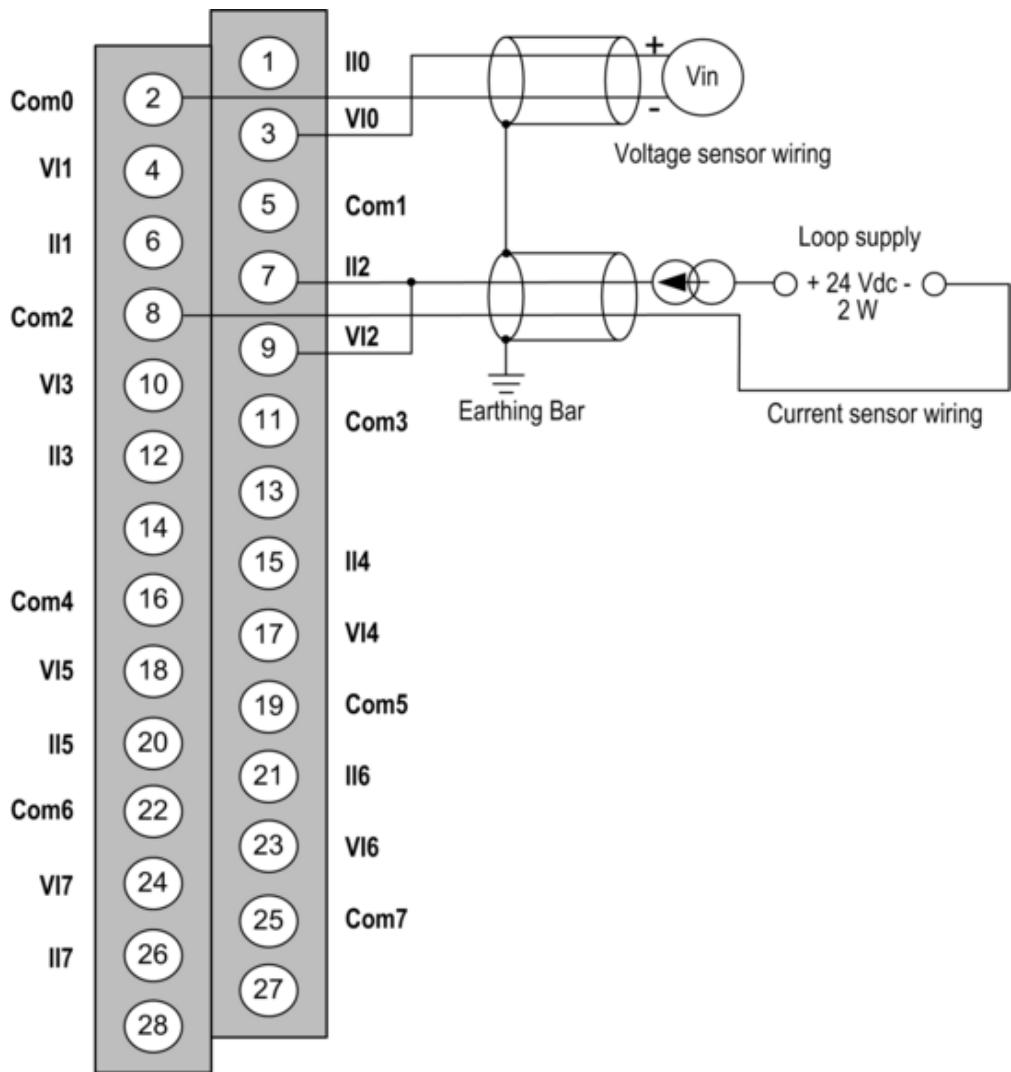


- (1) With removable terminal block (cage, screw or spring).
(2) With FCN connector.
(3) On AM1 ED rail: 35 mm wide, 15 mm deep. Only possible with BMXXBP0400/0400H/0600/0600H/0800/0800H rack.

| 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.