

Product datasheet

Specifications



isolated analog input module X80 - 4 inputs - high speed

BMXAMI0410

Main

| | |
|----------------------------|--|
| Range of product | Modicon X80 |
| Product or component type | Analog input module |
| Electrical connection | 20 ways 1 connector |
| Isolation between channels | Isolated |
| Input level | High level |
| Analogue input number | 4 |
| 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

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|---|---|
| Analog/Digital conversion | 24 bits |
| Analogue input resolution | 16 bits |
| Permitted overload on inputs | +/- 30 V +/- 10 V +/- 30 V +/- 5 V +/- 30 V 0...10 V +/- 30 V 0...5 V +/- 30 V 1...5 V +/- 90 mA +/- 20 mA +/- 90 mA 0...20 mA +/- 90 mA 4...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 | 5 ms for 4 channels |
| Measurement error | <= 0.1 % of full scale +/- 10 V 0...60 °C <= 0.1 % of full scale +/- 5 V 0...60 °C <= 0.1 % of full scale 0...10 V 0...60 °C <= 0.1 % of full scale 0...5 V 0...60 °C <= 0.1 % of full scale 1...5 V 0...60 °C <= 0.3 % of full scale +/- 20 mA 0...60 °C <= 0.3 % of full scale 0...20 mA 0...60 °C <= 0.3 % of full scale 4...20 mA 0...60 °C 0.075 % of full scale +/- 10 V 25 °C 0.075 % of full scale +/- 5 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
 0.15 % 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

| | |
|--------------------------------------|---|
| Temperature drift | 15 ppm/°C +/- 10 V 15 ppm/°C +/- 5 V 15 ppm/°C 0...10 V 15 ppm/°C 0...5 V 15 ppm/°C 1...5 V 30 ppm/°C +/- 20 mA 30 ppm/°C 0...20 mA 30 ppm/°C 4...20 mA |
| Recalibration | Internal |
| Minimum crosstalk attenuation | 80 dB |
| Common mode rejection | 90 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 | 0.35 mV +/- 10 V 0.35 mV +/- 5 V 0.35 mV 0...10 V 0.35 mV 0...5 V 0.35 mV 1...5 V 0.92 µA +/- 20 mA 0.92 µA 0...20 mA 0.92 µA 4...20 mA |
| Maximum conversion value | +/- 11.4 V +/- 10 V +/- 11.4 V +/- 5 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 |
| 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 | 0.143 kg |
| Power consumption in W | 0.82 W 24 V DC typical 1.30 W 24 V DC maximum 0.32 W 3.3 V DC typical 0.48 W 3.3 V DC maximum |

Environment

| | |
|--|--|
| Vibration resistance | 3 gn |
| 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 |

Packing Units

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|------------------------------|----------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Weight | 177 g |
| Package 1 Height | 5.6 cm |
| Package 1 width | 11.1 cm |
| Package 1 Length | 11.7 cm |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 15 |
| Package 2 Weight | 2.655 kg |
| Package 2 Height | 15 cm |
| Package 2 width | 30 cm |
| Package 2 Length | 40 cm |

Offer Sustainability

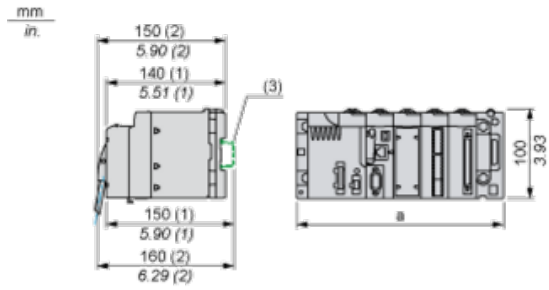
| | |
|----------------------------|---|
| Sustainable offer status | Green Premium product |
| REACH Regulation | REACH Declaration |
| REACH free of SVHC | Yes |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS declaration |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End of Life Information |
| WEEE | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

Contractual warranty

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|----------|-----------|
| Warranty | 18 months |
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Modules Mounted on Racks

Dimensions



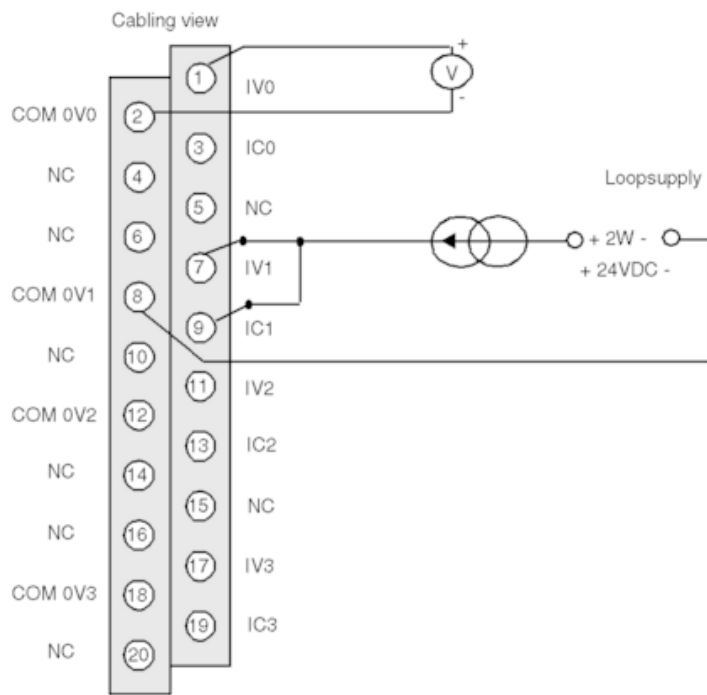
(1) With removable terminal block (cage, screw or spring).

(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 |

Wiring Diagram



IVx + pole input for channel x

COM 0Vx - pole input for channel x

ICx current reading resistor + input

Channel 0 voltage sensor

Channel 1 2-wire current sensor