

# BMXAMI0810H

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



## 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
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&nbsp;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	0.39 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[RETURN]RCM[RETURN]CSA[RETURN]EAC[RETURN]Merchant Navy[RETURN]UL[RETURN]ATEX[RETURN]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

### Ordering and shipping details

Category	18160-MODICON M340
Discount Schedule	PC34
GTIN	3595864156620
Returnability	Yes
Country of origin	FR

### Packing Units

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

### Offer Sustainability

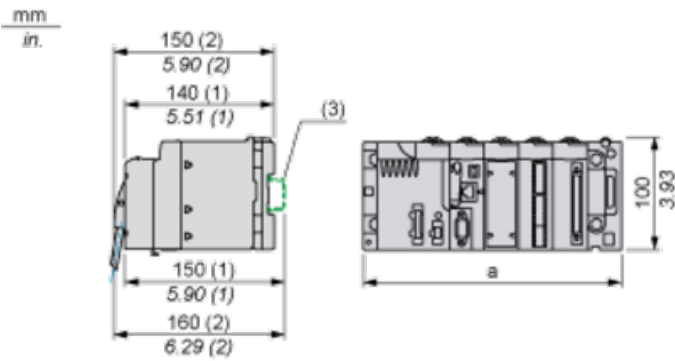
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	 <a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	 <a href="#">China RoHS Declaration</a>
RoHS exemption information	 <a href="#">Yes</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

### Contractual warranty

Warranty	18 months
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Modules Mounted on Racks

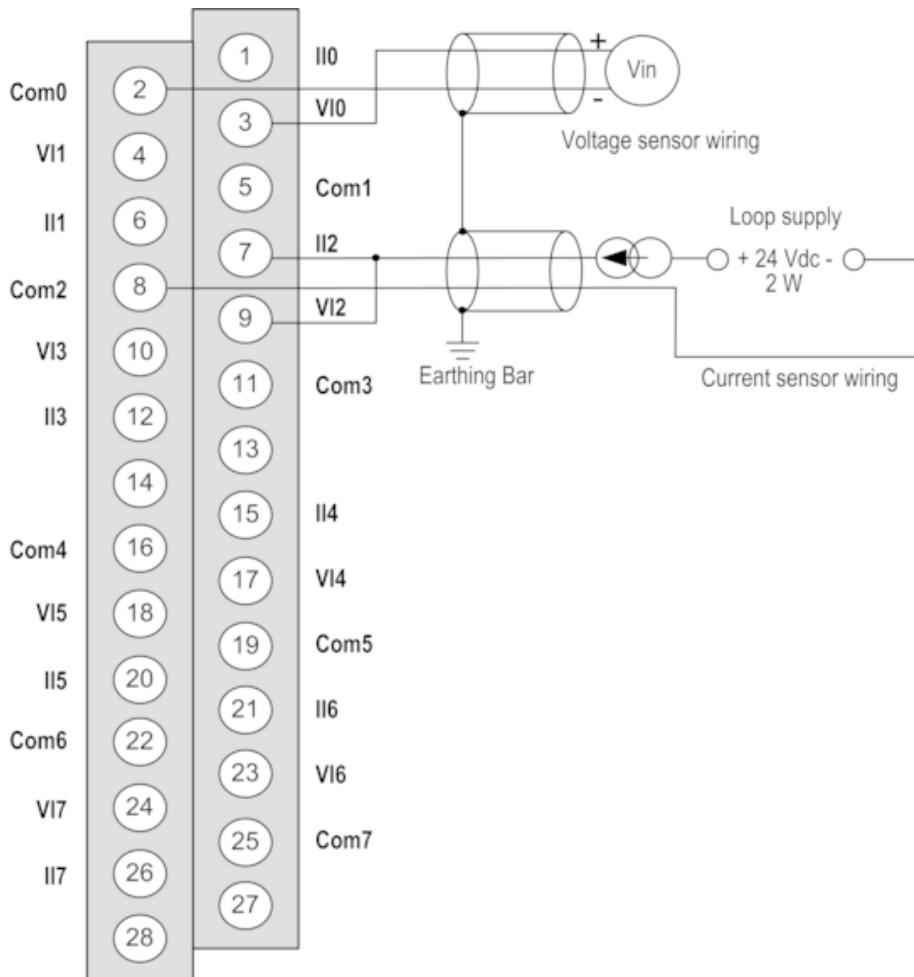
Dimensions



- (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



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.