

Product data sheet

Specifications



distributed analog/discrete I/O Modicon Momentum

170AMM09000

Product availability: Stock - Normally stocked in distribution facility

Main

Range of Product	Modicon Momentum automation platform
Product or Component Type	Analogue,discrete I/O base
Group of channels	1 group of 2 discrete outputs 1 group of 4 discrete inputs 1 group of 4 analog differential inputs 1 group of 2 analog outputs
Analogue input range	+/- 10 V +/- 20 mA +/- 5 V 1...5 V 4...20 mA
Analogue Input Type	Differential
Analogue input resolution	12 bits 1...5 V 12 bits 4...20 mA 13 bits +/- 20 mA 13 bits +/- 5 V 14 bits +/- 10 V
Discrete input voltage	24 V DC
Analogue output range	+/- 10 V 12 bits 0...20 mA 12 bits
Discrete output voltage	<= 30 V
Output short-circuit protection	With discrete output
Output overload protection	With discrete output

Complementary

Discrete input number	4 IEC 1131-2 Type 1
[Us] rated supply voltage	24 VDC
Conversion consistency	+/- 0.02 % +/- 10 V analogue input circuit +/- 0.04 % +/- 20 mA analogue input circuit +/- 0.04 % +/- 5 V analogue input circuit +/- 0.04 % 1...5 V analogue input circuit +/- 0.04 % 4...20 mA analogue input circuit
Common mode rejection	> 54 dB analogue input circuit
Input voltage limits	< 30 V
Discrete input logic	Positive
Voltage state 0 guaranteed	-3...5 V discrete input
Voltage state 1 guaranteed	11...30 V discrete input
Current state 0 guaranteed	<= 1.2 mA discrete input)
Current state 1 guaranteed	>= 2.5 mA discrete input)

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Input overvoltage protection	-50...50 V \leq 100 s analogue input circuit -30...30 V 24 V analogue input circuit
Input resistance	1 MOhm analogue input circuit 4 kOhm discrete input
Output load	\leq 600 Ohm 0...20 mA analogue output \geq 3 kOhm +/- 10 V analogue output
Conversion time	1 ms analogue output 10 ms analogue input circuit
Conversion error	+/- 0.35 % +/- 10 V 77 °F (25 °C) analogue output +/- 0.35 % 0...20 mA 77 °F (25 °C) analogue output +/- 0.70 % +/- 10 V 140 °F (60 °C) analogue output +/- 0.70 % 0...20 mA 140 °F (60 °C) analogue output 0,0008 +/- 10 V 77 °F (25 °C) analogue input circuit 0,0015 +/- 10 V 140 °F (60 °C) analogue input circuit 0,0016 +/- 20 mA 77 °F (25 °C) analogue input circuit 0,0016 +/- 5 V 77 °F (25 °C) analogue input circuit 0,0016 1...5 V 77 °F (25 °C) analogue input circuit 0,0016 4...20 mA 77 °F (25 °C) analogue input circuit 0,003 +/- 20 mA 140 °F (60 °C) analogue input circuit 0,003 +/- 5 V 140 °F (60 °C) analogue input circuit 0,003 1...5 V 140 °F (60 °C) analogue input circuit 0,003 4...20 mA 140 °F (60 °C) analogue input circuit
Fail state	Analogue input circuit hold Analogue input circuit reset to zero
Discrete output type	Transistor
Discrete output logic	Positive
Discrete output current	1 A per point 2 A per group 2 A per module
Maximum leakage current	1 mA DC 24 V discrete output
Maximum voltage drop	<0.5 V 1 A at state on discrete output
Operating rate	100 cyc/s resistive 1 A discrete output 1000 cyc/h inductive 1 A discrete output 8 cyc/s tungsten <2.4 W discrete output
Response time	< 0.1 ms from state 0 to state 1 discrete output < 0.1 ms from state 1 to state 0 discrete output 2.2 ms from state 0 to state 1 discrete input 3.3 ms from state 1 to state 0 discrete input
Isolation voltage	500 V 1 min) between analogue I/O and operating voltage 500 V 1 min) between operating voltage and I/O from ground
Maximum power dissipation in W	6 W
Marking	CE
Local signalling	8 LEDs for channel status
Electrical connection	2 connectors for removable terminal blocks
Current consumption	\leq 350 mA 24 V DC 200 mA 24 V DC
Depth	1.9 in (47.5 mm)
Height	4.9 in (125 mm)
Width	5.6 in (141.5 mm)
Net Weight	0.53 lb(US) (0.24 kg)

Environment

Product Certifications	UL CSA FM Class 1 Division 2
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Protective treatment	TC
Resistance to electrostatic discharge	4 kV contact IEC 801-2 8 kV on air IEC 801-2
Resistance to electromagnetic fields	9.1 V/m (10 V/m) 80...1000 MHz IEC 801-3
Ambient Air Temperature for Operation	32...140 °F (0...60 °C)
Ambient Air Temperature for Storage	-40...185 °F (-40...85 °C)
Relative Humidity	95 % without condensation
Operating altitude	<= 16404.2 ft (5000 m)

Ordering and shipping details

Category	US1PC3118206
Discount Schedule	PC31
GTIN	3595861000292
Returnability	Yes
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	2.17 in (5.500 cm)
Package 1 Width	7.09 in (18.000 cm)
Package 1 Length	10.24 in (26.000 cm)
Package weight(Lbs)	14.533 oz (412.000 g)
Unit Type of Package 2	S03
Number of Units in Package 2	10
Package 2 Height	11.81 in (30.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	10.538 lb(US) (4.780 kg)

Contractual warranty

Warranty	18 months
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Environmental footprint

[Environmental Disclosure](#)

[Product Environmental Profile](#)

Use Better

Materials and Substances

Packaging made with recycled cardboard

Yes

Packaging without single use plastic

No

[EU RoHS Directive](#)

Pro-active compliance (Product out of EU RoHS legal scope)

SCIP Number

441d5619-6318-4bbf-ac83-96d05888ee7e

REACH Regulation

[REACH Declaration](#)

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 www.P65Warnings.ca.gov

Use Again

Repack and remanufacture

Circularity Profile

[End of Life Information](#)

Take-back

No

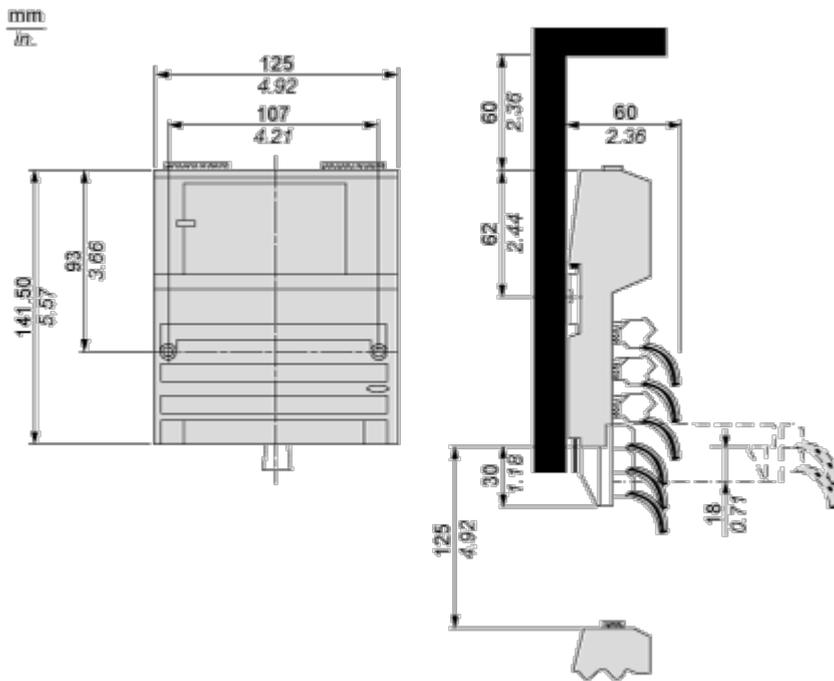
WEEE

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

Dimensions Drawings

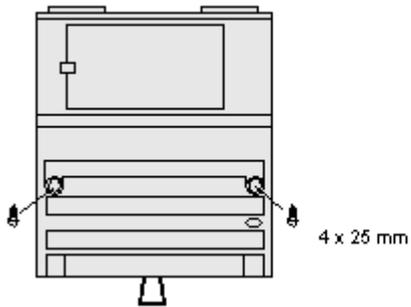
Standard Adapter on a Typical Base

Dimensions



Mounting and Clearance

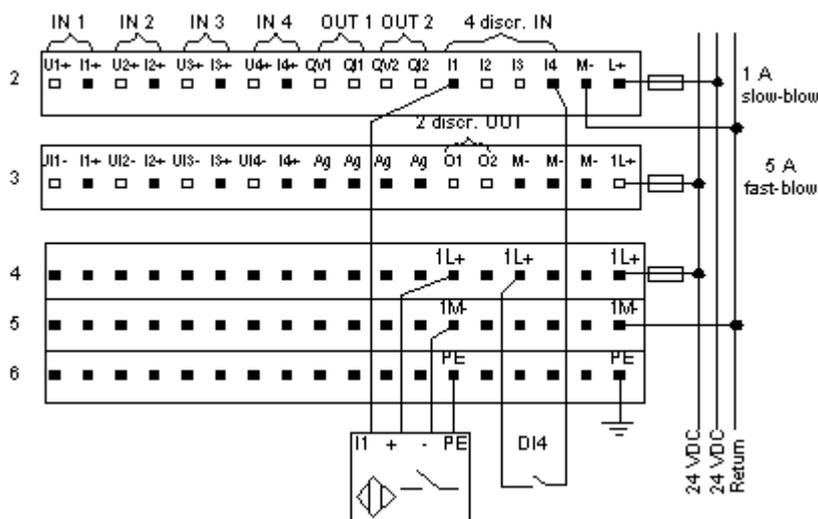
Mounting on a Wall



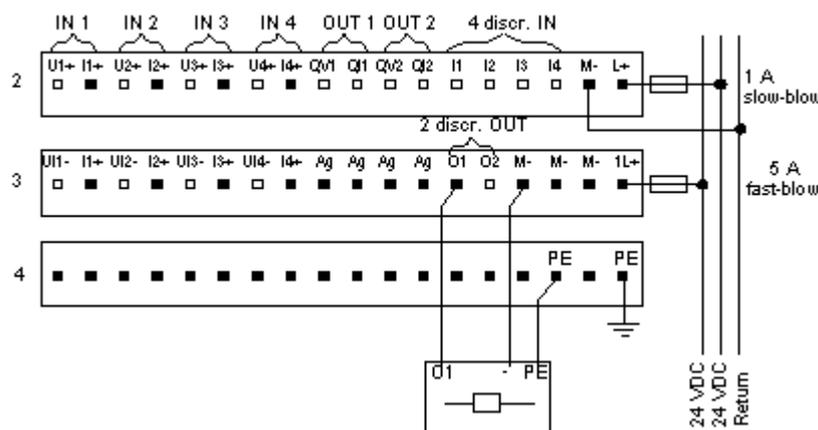
Connections and Schema

External Wiring Diagrams

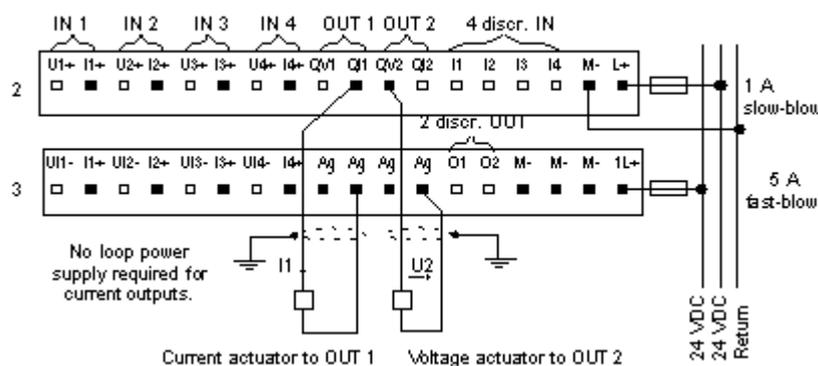
Discrete Inputs



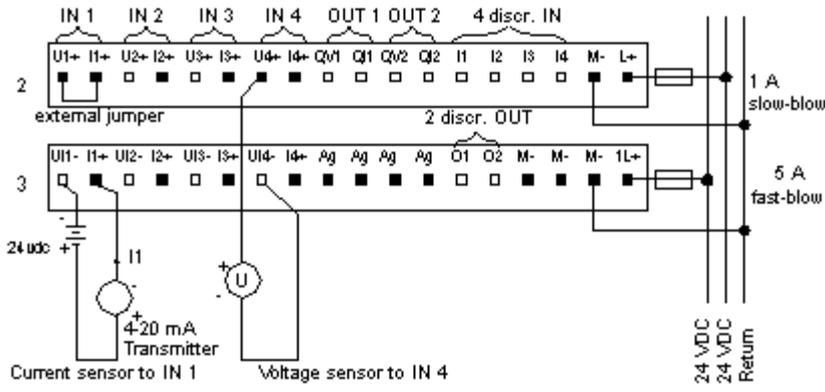
Discrete Outputs



Analog Outputs



Analog Inputs



Internal Pin Connections

Rows 1 through 3 show the internal connections between terminals on the I/O base. Rows 4 through 6 show the internal connections on the optional busbar.

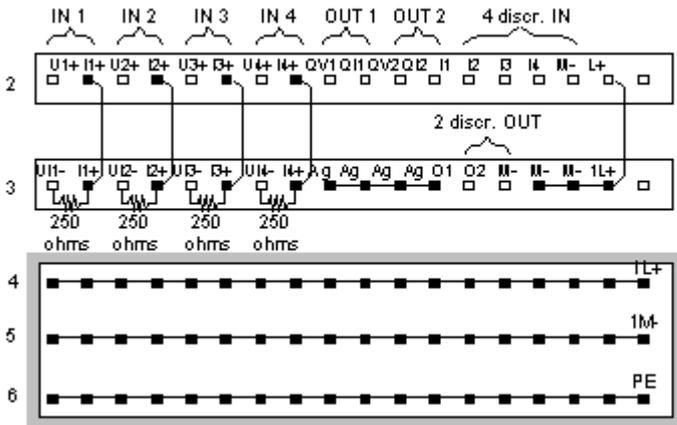


Image of product / Alternate images

Alternative

