

Product datasheet

Specifications



distributed analog/discrete I/O Modicon Momentum

Local distributor code:

395517363

170AMM09000

EAN Code: 3595861000292

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 conforming to 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 for discrete input
Voltage state 1 guaranteed	11...30 V for discrete input
Current state 0 guaranteed	<= 1.2 mA (discrete input)
Current state 1 guaranteed	>= 2.5 mA (discrete input)

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

Input overvoltage protection	-50...50 V <= 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	<= 600 Ohm 0...20 mA analogue output >= 3 kOhm +/- 10 V analogue output
Conversion time	1 ms analogue output 10 ms analogue input circuit
Conversion error	+/- 0.35 % +/- 10 V 25 °C analogue output +/- 0.35 % 0...20 mA 25 °C analogue output +/- 0.70 % +/- 10 V 60 °C analogue output +/- 0.70 % 0...20 mA 60 °C analogue output 0,0008 +/- 10 V 25 °C analogue input circuit 0,0015 +/- 10 V 60 °C analogue input circuit 0,0016 +/- 20 mA 25 °C analogue input circuit 0,0016 +/- 5 V 25 °C analogue input circuit 0,0016 1...5 V 25 °C analogue input circuit 0,0016 4...20 mA 25 °C analogue input circuit 0,003 +/- 20 mA 60 °C analogue input circuit 0,003 +/- 5 V 60 °C analogue input circuit 0,003 1...5 V 60 °C analogue input circuit 0,003 4...20 mA 60 °C analogue input circuit
Fail state	For analogue input circuit: hold For 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 for discrete output < 0.1 ms from state 1 to state 0 for discrete output 2.2 ms from state 0 to state 1 for discrete input 3.3 ms from state 1 to state 0 for discrete input
Isolation voltage	500 V (duration = 1 min) between analogue I/O and operating voltage 500 V (duration = 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	<= 350 mA at 24 V DC 200 mA at 24 V DC
Depth	47.5 mm
Height	125 mm
Width	141.5 mm
Net weight	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 conforming to IEC 801-2 8 kV on air conforming to IEC 801-2
Resistance to electromagnetic fields	10 V/m 80...1000 MHz conforming to IEC 801-3
Ambient air temperature for operation	0...60 °C
Ambient air temperature for storage	-40...85 °C
Relative humidity	95 % without condensation
Operating altitude	<= 5000 m

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.500 cm
Package 1 Width	18.000 cm
Package 1 Length	26.000 cm
Package 1 Weight	412.000 g
Unit Type of Package 2	S03
Number of Units in Package 2	10
Package 2 Height	30.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	4.780 kg

Logistical informations

Country of origin	FR
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Contractual warranty

Warranty	18 months
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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

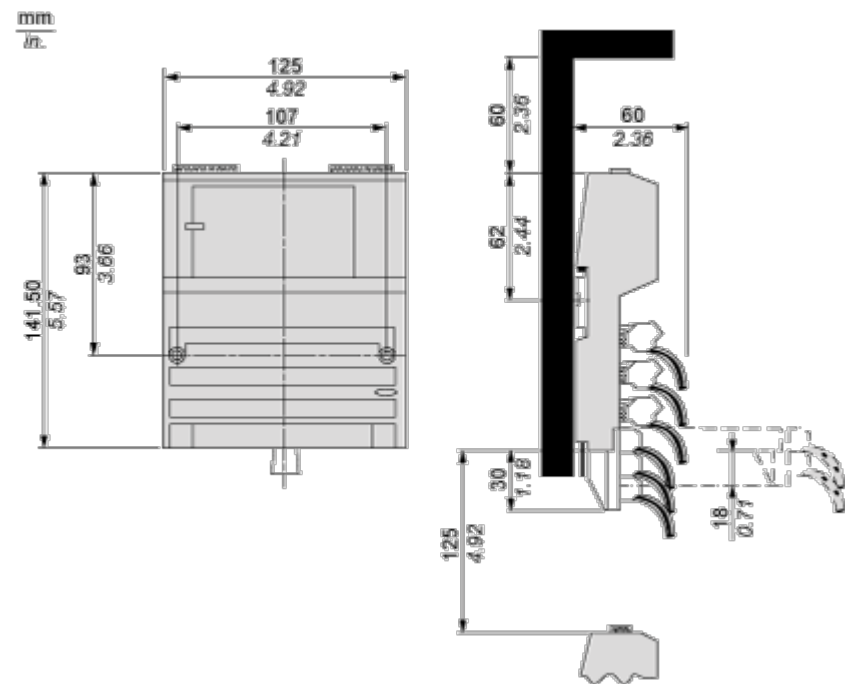
Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	441d5619-6318-4bbf-ac83-96d05888ee7e
REACH Regulation	REACH Declaration

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

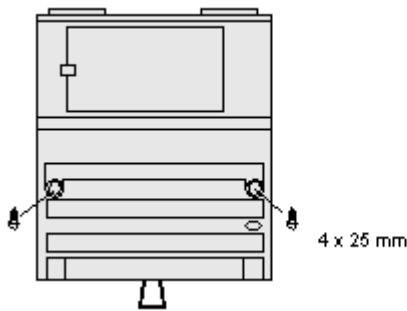
Standard Adapter on a Typical Base

Dimensions



Mounting and Clearance

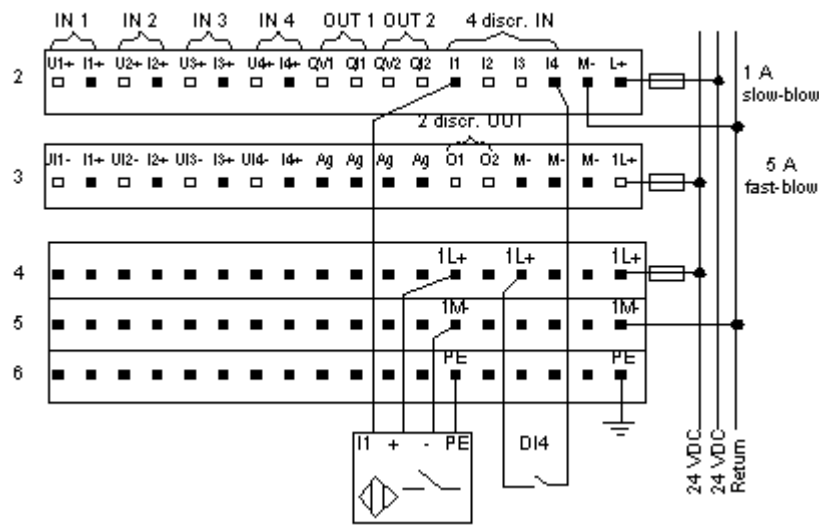
Mounting on a Wall



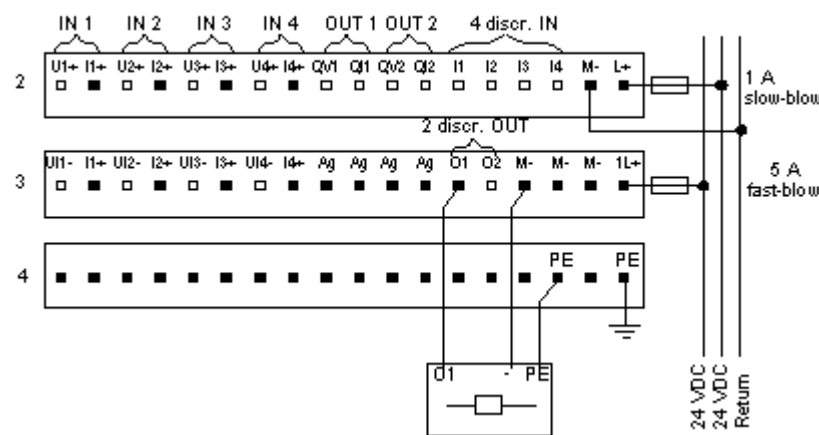
Connections and Schema

External Wiring Diagrams

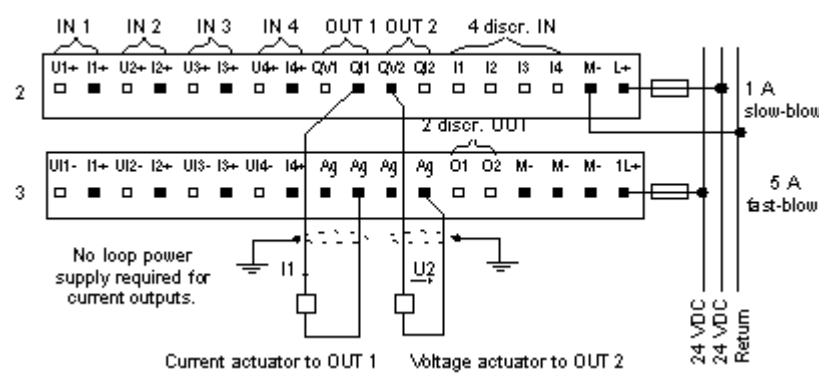
Discrete Inputs



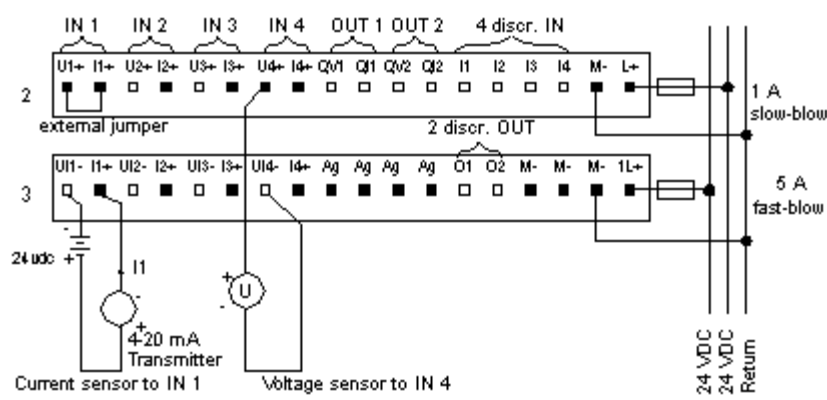
Discrete Outputs



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.

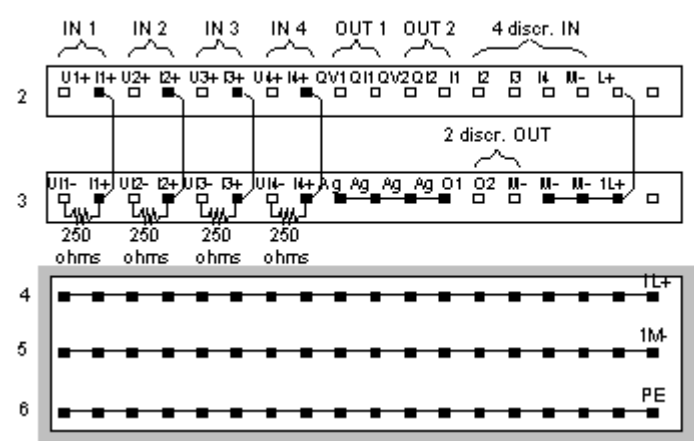


Image of product / Alternate images

Alternative

