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 output range	+/- 10 V 12 bits 0...20 mA 12 bits
Output short-circuit protection	With discrete output
Output overload protection	With discrete output
Discrete input number	4

Complementary

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
Current state 0 guaranteed	<= 1.2 mA discrete input)
Current state 1 guaranteed	>= 2.5 mA discrete input)
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 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
Maximum voltage drop	<0.5 V 1 A at state on discrete output

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

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

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
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
Discrete input voltage	24 V DC
Discrete input logic	Positive
Voltage state 0 guaranteed	-3...5 V
Voltage state 1 guaranteed	11...24 V
Analogue input type	Differential +/- 10 V Differential +/- 20 mA Differential +/- 5 V Differential 1...5 V Differential 4...20 mA
Analogue input resolution	12 bits 13 bits 14 bits
Common mode rejection	> 54 dB analogue input circuit
Input voltage limits	< 30 V
Discrete output logic	Positive
Discrete output current	1 A per point 2 A per group 2 A per module
Maximum leakage current	1 mAdiscrete output
Conversion time	<= 1 ms analog output 10 ms analogue input circuit
Analogue output resolution	12 bits, +/- 10 V 12 bits, 0...20 mA
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
[Us] rated supply voltage	24 V DC
Local signalling	8 LEDs for channel status
Current consumption	<= 350 mA 24 V DC 200 mA 24 V DC
Maximum power dissipation in W	6 W
Height	4.9 in (125 mm)
Width	5.6 in (141.5 mm)
Depth	1.9 in (47.5 mm)

Environment

Protective treatment	TC
Marking	CE
Product certifications	UL CSA FM Class 1 Division 2
Ambient air temperature for operation	32…140 °F (0…60 °C)
Ambient air temperature for storage	-40…185 °F (-40…85 °C)
Relative humidity	0…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	2.165 in (5.500 cm)
Package 1 Width	7.087 in (18.000 cm)
Package 1 Length	10.236 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	11.811 in (30.000 cm)
Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	10.538 lb(US) (4.780 kg)

Contractual warranty

Warranty (in months)	18

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
SCIP Number	441d5619-6318-4bbf-ac83-96d05888ee7e
EU RoHS Directive	Compliant By Exemption
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
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 Longer

Lifetime extension

Repair	No

Use Again

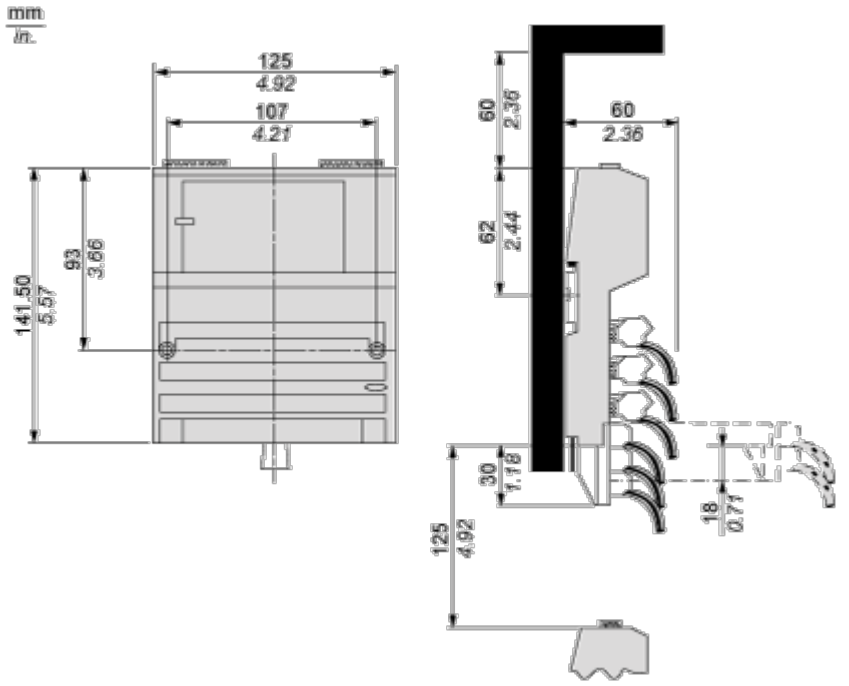
Repack and remanufacture

Circularity Profile	End of Life Information
Take-back	No

Dimensions Drawings

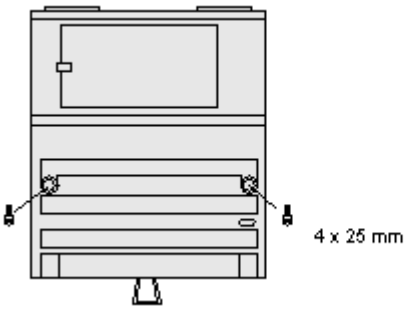
Standard Adapter on a Typical Base

Dimensions



Mounting and Clearance

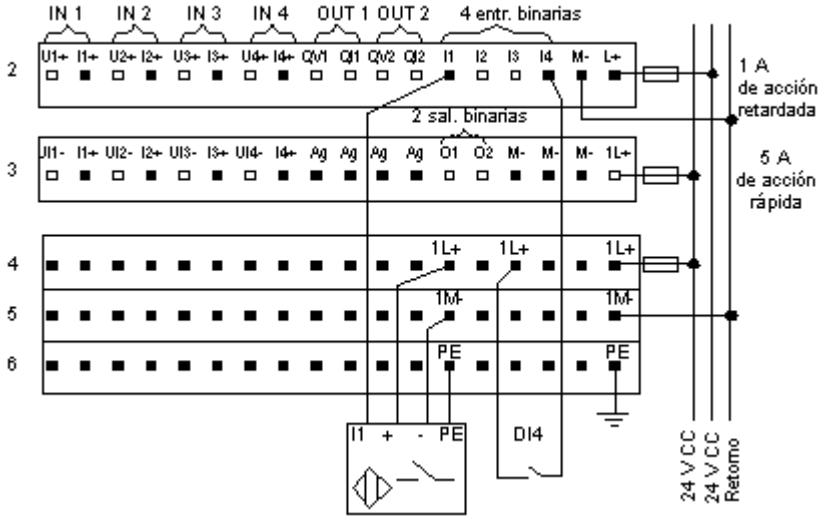
Mounting on a Wall



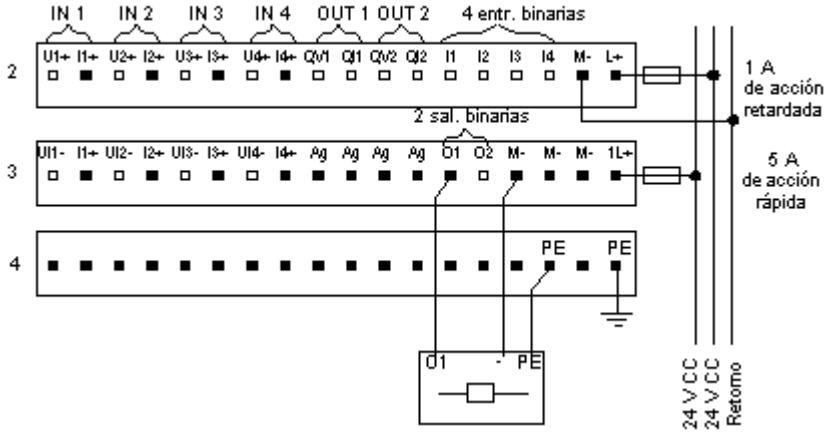
Connections and Schema

External Wiring Diagrams

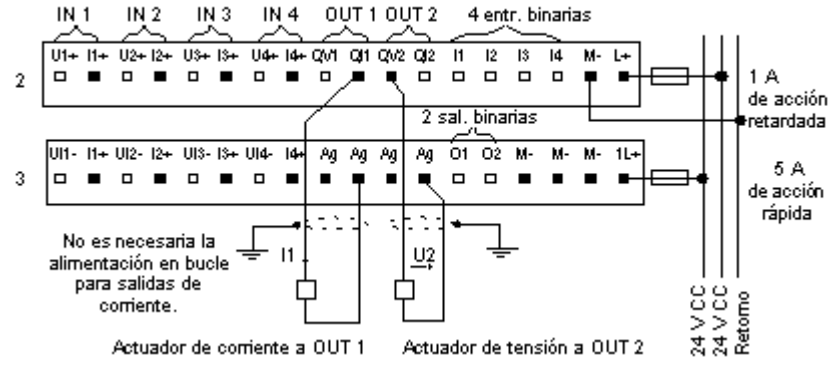
Discrete Inputs



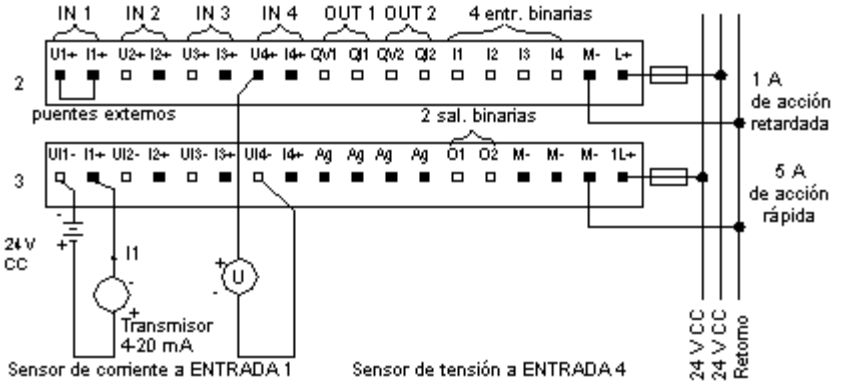
Discrete Outputs



Analog Outputs



Analog Inputs


IN 1
IN 2
IN 3
IN 4
OUT 1
OUT 2
4 entr. binarias
U1+ I1+ U2+ I2+ U3+ I3+ U4+ I4+ QV1 QI1 QV2 QI2 I1 I2 I3 I4 M- L+
2
puentes externos
2 sal. binarias
UI1- I1+ UI2- I2+ UI3- I3+ UI4- I4+ Ag Ag Ag Ag O1 O2 M- M- M- 1L+
3
1 A
de acción
retardada
5 A
de acción
rápida
24 V
CC
I1
U
Transmisor
4-20 mA
Sensor de corriente a ENTRADA 1
Sensor de tensión a ENTRADA 4
24 V CC
24 V CC
Retorno

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.

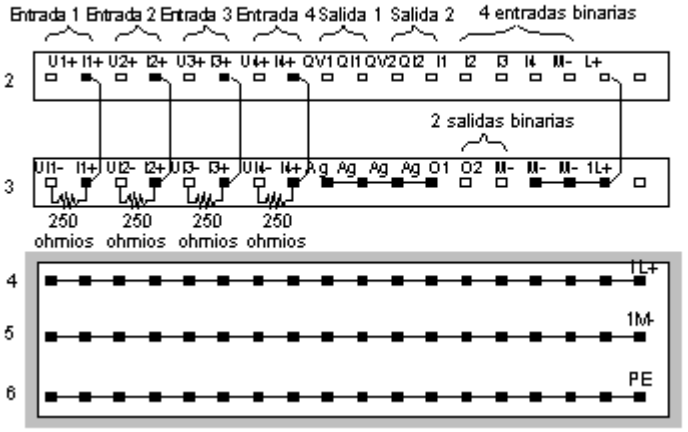
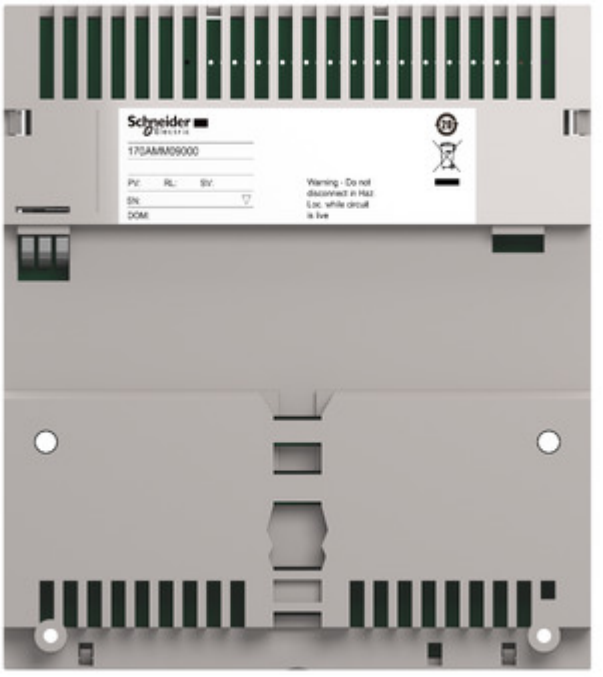
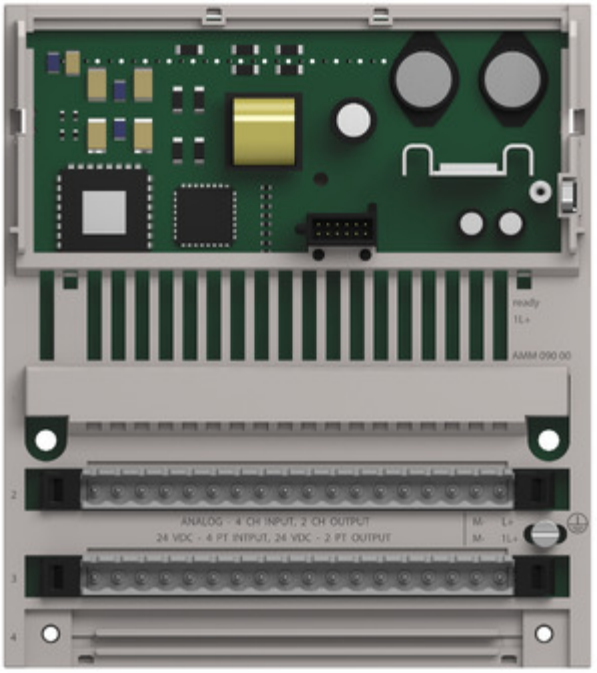


Image of product / Alternate images

Alternative






ready
1L+
AMM 090 00
ANALOG - 4 CH INPUT, 2 CH OUTPUT
24 VDC - 4 PT INTPUT, 24 VDC - 2 PT OUTPUT
M-
L+
M-
1L+

