



Main

Range of product	Modicon Momentum automation platform
Product or component type	Analogue, Discrete I/O base
Group of channels	1 group of 4 analog differential inputs 1 group of 4 discrete inputs 1 group of 2 discrete outputs 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 V DC
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
Input overvoltage protection	-30...30 V 24 V discrete input -50...50 V <= 100 s
Input resistance	1 kOhm analogue input circuit 4 kOhm discrete input
Output load	3 kOhm +/- 10 V analogue output 600 Ohm 0...20 mA analogue output
Conversion time	1 ms analogue output 10 ms analogue input circuit
Conversion error	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 +/- 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
Fail state	Hold analogue input circuit Reset to zero analogue input circuit
Discrete output type	Transistor
Discrete output logic	Positive
Discrete output current	1 A per point 2 A per group 2 A per module
Leakage current	< 1 mA DC 24 V discrete output
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
Power dissipation in W	<= 6 W
Marking	CE
Local signalling	16 LEDs channel status
Electrical connection	2 connectors for removable terminal blocks
Current consumption	<= 350 mA 24 V DC 200 mA 24 V DC
Depth	47.5 mm
Height	125 mm
Width	141.5 mm
Product weight	0.24 kg

Environment

Product certifications	FM Class 1 Division 2 UL
------------------------	-----------------------------

CSA

Protective treatment	Conformal coating Humiseal 1A33 TC
Resistance to electrostatic discharge	4 kV contact IEC 801-2 8 kV on air IEC 801-2
Resistance to electromagnetic fields	10 V/m 80...1000 MHz 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

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 1350 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Available

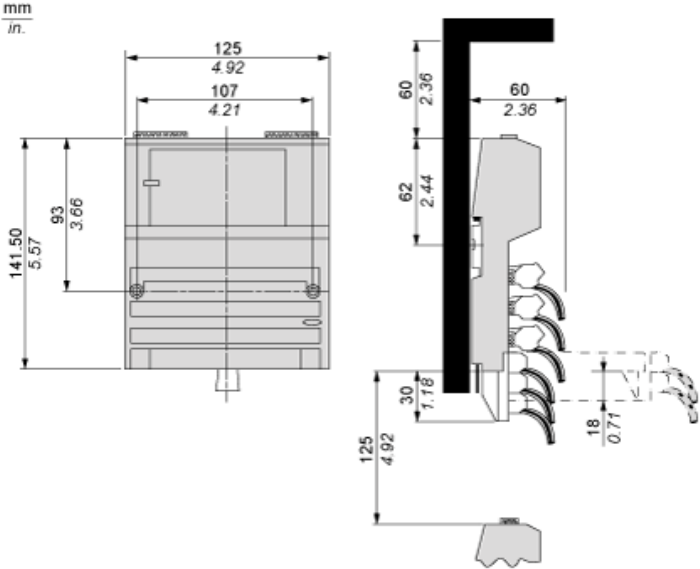
Contractual warranty

Warranty period	18 months
-----------------	-----------

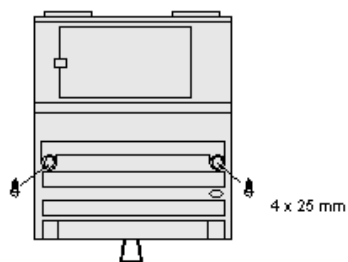
170AMM09000C

Standard Adapter on a Typical Base

Dimensions



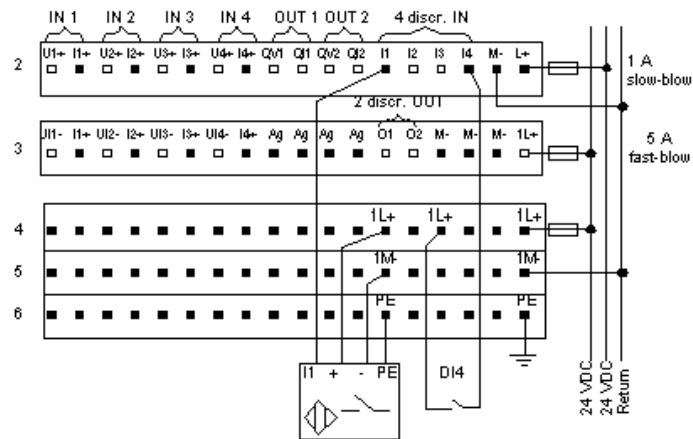
Mounting on a Wall



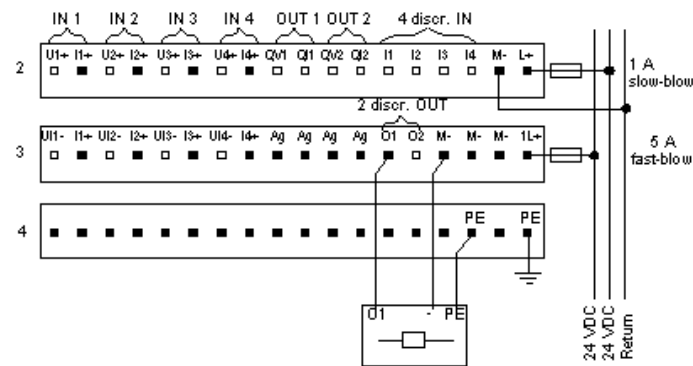
170AMM09000C

External Wiring Diagrams

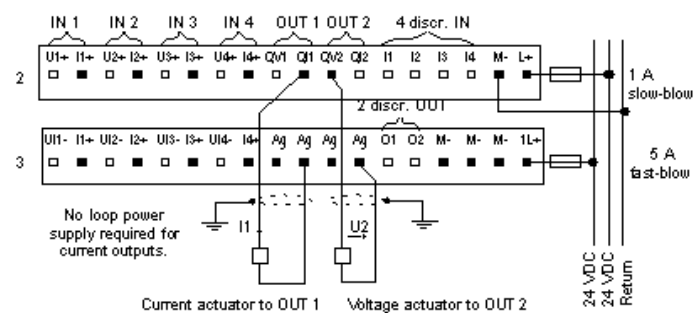
Discrete Inputs



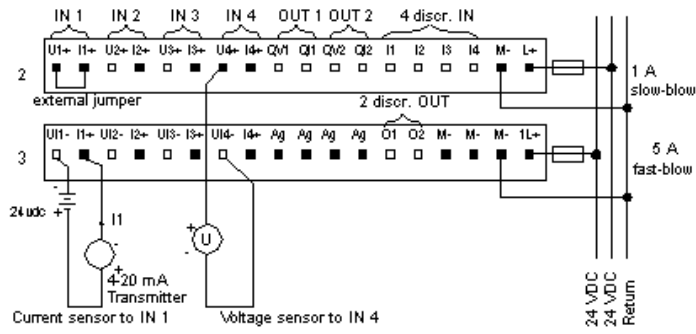
Discrete Outputs



Analog Outputs



Analog Inputs



170AMM09000C

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.

