



Main

Range of product	Modicon Momentum automation platform
Product or component type	Analogue, Discrete I/O base
Group of channels	1 group of 2 analog outputs 1 group of 2 discrete outputs 1 group of 4 analog differential inputs 1 group of 4 discrete inputs
Analogue input range	4...20 mA 1...5 V +/- 5 V +/- 20 mA +/- 10 V
Analogue input type	Differential
Analogue input resolution	14 bits +/- 10 V 13 bits +/- 5 V 13 bits +/- 20 mA 12 bits 4...20 mA 12 bits 1...5 V
Discrete input voltage	24 V DC
Analogue output range	0...20 mA 12 bits +/- 10 V 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	+/- 0.04 % 4...20 mA analogue input circuit +/- 0.04 % 1...5 V analogue input circuit +/- 0.04 % +/- 5 V analogue input circuit +/- 0.04 % +/- 20 mA analogue input circuit +/- 0.02 % +/- 10 V 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
Maximum overvoltage on input	-50...50 V <= 100 s -30...30 V 24 V discrete input
Input resistance	4 kOhm discrete input 1 kOhm analogue input circuit
Output load	600 Ohm 0...20 mA analogue output 3 kOhm +/- 10 V analogue output
Conversion time	10 ms analogue input circuit 1 ms analogue output

Conversion error	0,003 4...20 mA 60 °C analogue input circuit 0,003 1...5 V 60 °C analogue input circuit 0,003 +/- 5 V 60 °C analogue input circuit 0,003 +/- 20 mA 60 °C analogue input circuit 0,0016 4...20 mA 25 °C analogue input circuit 0,0016 1...5 V 25 °C analogue input circuit 0,0016 +/- 5 V 25 °C analogue input circuit 0,0016 +/- 20 mA 25 °C analogue input circuit 0,0015 +/- 10 V 60 °C analogue input circuit 0,0008 +/- 10 V 25 °C analogue input circuit +/- 0.70 % 0...20 mA 60 °C analogue output +/- 0.70 % +/- 10 V 60 °C analogue output +/- 0.35 % 0...20 mA 25 °C analogue output +/- 0.35 % +/- 10 V 25 °C analogue output
Fail state	Reset to zero analogue input circuit Hold analogue input circuit
Discrete output type	Transistor
Discrete output logic	Positive
Discrete output current	2 A per module 2 A per group 1 A per point
Leakage current	< 1 mA DC 24 V discrete output
Voltage drop	< 0.5 V 1 A at state on discrete output
Operating rate	8 cyc/s tungsten 2.4 W discrete output 1000 cyc/h inductive 1 A discrete output 100 cyc/s resistive 1 A discrete output
Response time	3.3 ms from state 1 to state 0 discrete input 2.2 ms from state 0 to state 1 discrete input < 0.1 ms from state 1 to state 0 discrete output < 0.1 ms from state 0 to state 1 discrete output
Isolation voltage	500 V 1 min between operating voltage and I/O from ground 500 V 1 min between analogue I/O and operating voltage
Power dissipation in W	<= 6 W
Marking	CE
Local signalling	16 LEDs channel status
Electrical connection	2 connectors for removable terminal blocks
Current consumption	200 mA 24 V DC <= 350 mA 24 V DC
Depth	47.5 mm
Height	125 mm
Width	141.5 mm
Product weight	0.24 kg

Environment

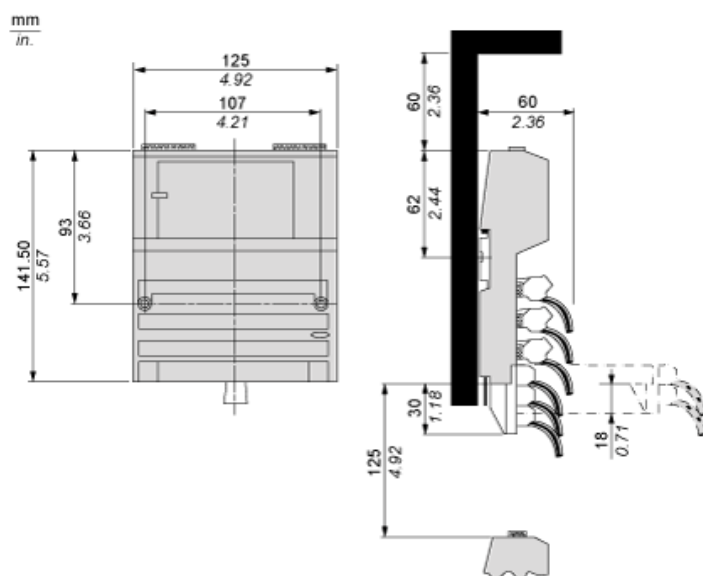
Product certifications	CSA FM Class 1 Division 2 UL
Protective treatment	Conformal coating Humiseal 1A33 TC
Resistance to electrostatic discharge	8 kV on air IEC 801-2 4 kV contact IEC 801-2
Resistance to electromagnetic fields	10 V/m 80...1000 MHz IEC 801-3
Ambient air temperature for operation	0...60 °C
Ambient air temperature for storage	-40...85 °C
Relative humidity	95 % without condensation
Operating altitude	<= 5000 m

Offer Sustainability

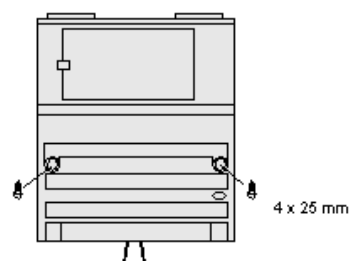
Sustainable offer status	Not Green Premium product
RoHS (date code: YYWW)	Will be Compliant on 4Q2013

Standard Adapter on a Typical Base

Dimensions

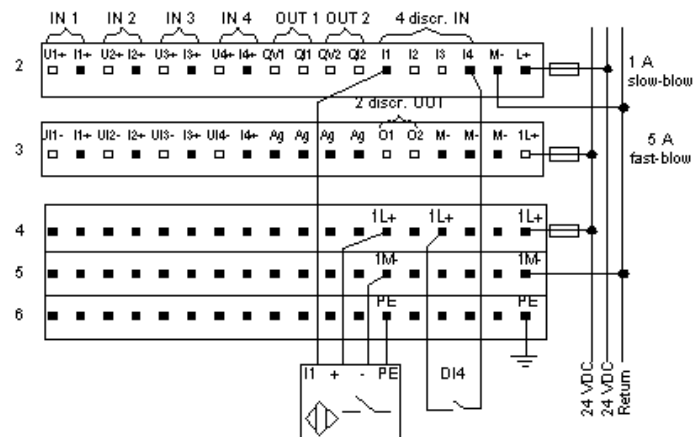


Mounting on a Wall

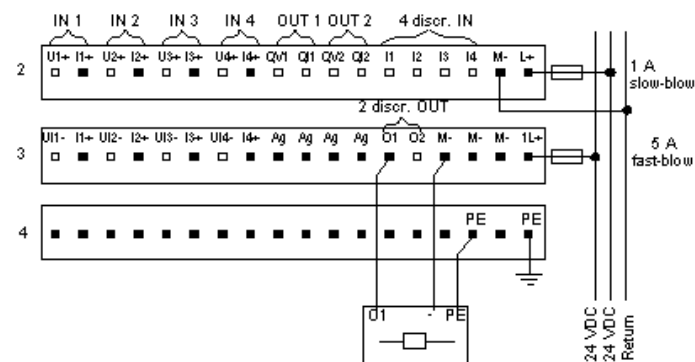


External Wiring Diagrams

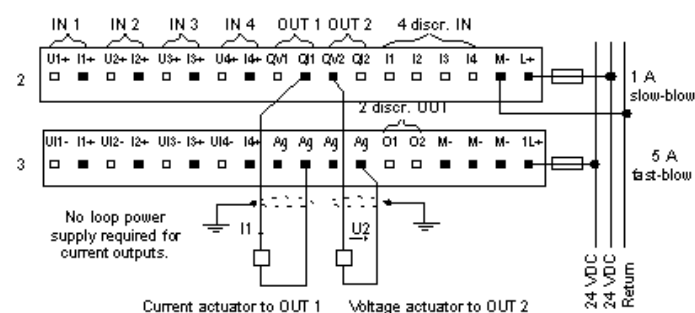
Discrete Inputs



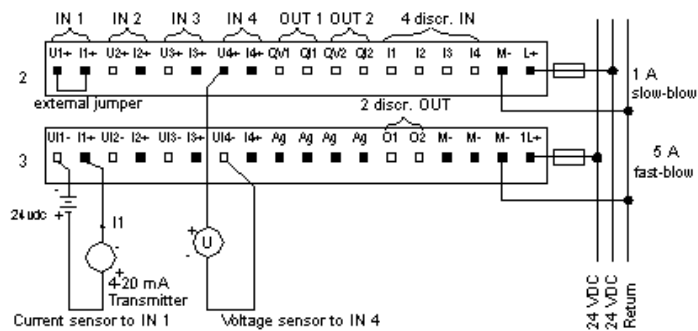
Discrete Outputs



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.

