

TM2AMM6HT

analog input/output module M238 - 4 inputs
voltage/current high level - 2 output



Main

Range of product	Modicon M238 logic controller
Product or component type	Input/output analog module
Analogue input number	4
Input level	High level
Analogue input type	Current 4...20 mA non differential Voltage 0...10 V non differential
Analogue output number	2
Analogue output type	Current 4...20 mA Voltage 0...10 V
Cross talk	<= 2 LSB

Complementary

Range compatibility	Advantys OTB Twido
Analogue input resolution	12 bits
Analogue output resolution	12 bits
LSB value	2.5 mV voltage voltage 4 µA current current
Permissible continuous overload	13 V voltage 40 mA current
Input impedance	<= 250 MOhm current >= 1 Ohm voltage
Load type	Resistive
Load impedance ohmic	<= 300 Ohm current >= 2000 Ohm voltage
Stabilisation time	20 ms
Conversion time	20 ms + 1 controller cycle time
Sampling duration	<= 16 ms
Acquisition period	16 ms per channel + 1 controller cycle time
Measurement error	+/- 0.5 % of full scale 0...10 V 25 °C +/- 0.5 % of full scale 4...20 mA 25 °C +/- 0.9 % of full scale 0...10 V 25 °C +/- 0.9 % of full scale 4...20 mA 25 °C
Temperature coefficient	+/- 0.02 %FS/°C 0...10 V +/- 0.02 %FS/°C 4...20 mA +/-0.015 %FS/°C 0...10 V 0...10 V +/-0.015 %FS/°C 4...20 mA 4...20 mA
Repeat accuracy	+/- 1 %FS output +/-0.5 %FS input
Non-linearity	+/- 0.4 %FS current +/- 0.4 %FS voltage +/- 0.5 %FS current +/- 0.5 %FS voltage
Output error	+/- 1 %FS
Output ripple	<= 1 LSB
Total error	+/- 1.5 %FS current +/- 1.5 %FS voltage +/-1 %FS current current +/-1 %FS voltage voltage
Type of cable	Shielded cable
Insulation between channel and internal logic	Photocoupler

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Supply	External supply
[Us] rated supply voltage	24 V DC
Supply voltage limits	19.2...30 V
Electrical connection	1 removable screw terminal block
Current consumption	60 mA 5 V DC internal 80 mA 24 V DC external
Product weight	0.085 kg

Environment

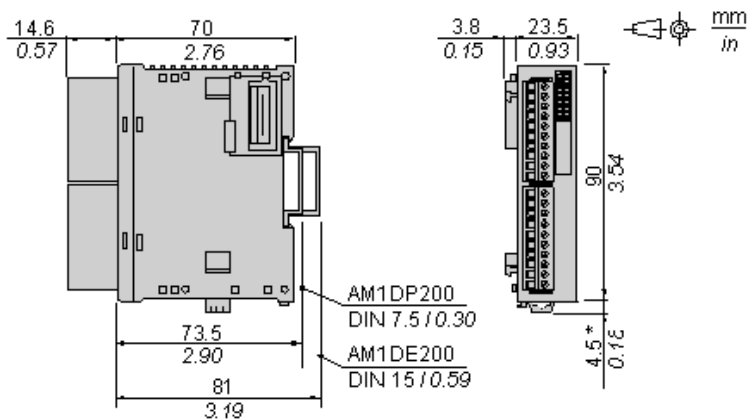
Dielectric strength	1500 V between the I/O and the external supply circuit 800 V between I/O channel 800 V between the I/O and internal logic
Width	23.5 mm
Depth	70 mm
Height	90 mm

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS	Compliant - since 0910 - Schneider Electric declaration of conformity
Product environmental profile	Available
Product end of life instructions	Available

Analog Mixed I/O Module (6-channel, Voltage/Current)

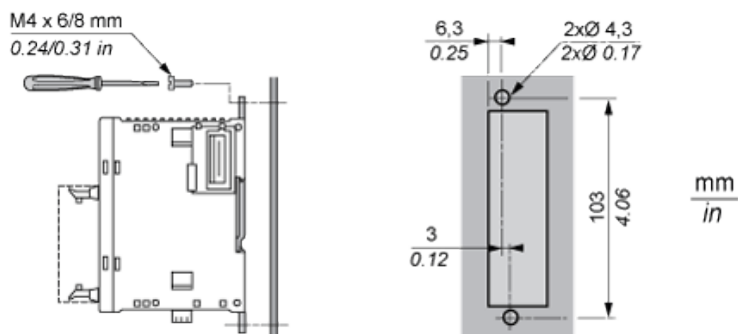
Dimensions



NOTE: * 8.5 mm (0.33 in) when the clip-on lock is pulled out.

Module Mounting on a Panel Surface

Mounting Hole Layout



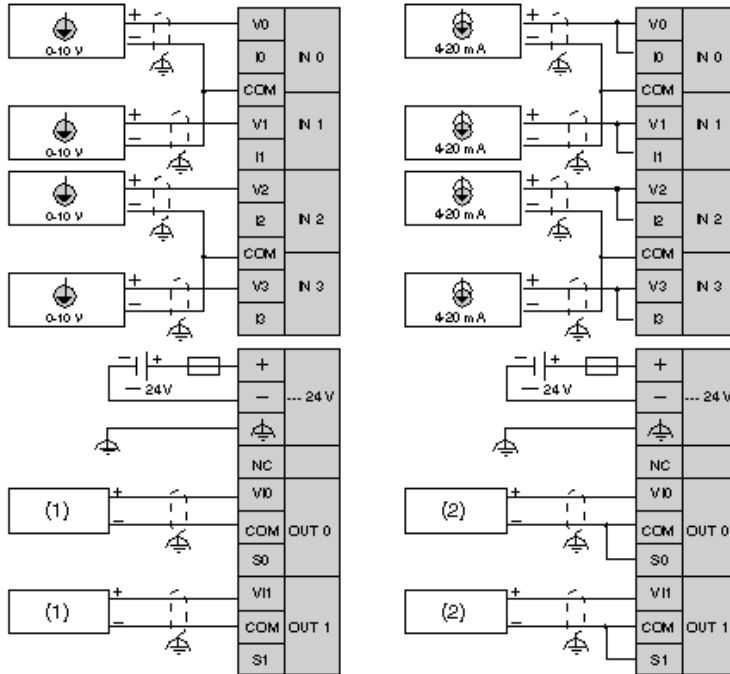
Wiring Requirements

Cable Types and Wire Sizes for Removable Screw Terminal Block

 9 0.35 mm in.							
	mm ²	0,14...1,5	0,25...0,5	0,25...1,5	0,14...0,5	0,14...0,75	0,25...0,34
AWG	26...16	24...20	24...16	26...20	26...18	24...22	20

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Wiring Diagram



- (1) Voltage preactuator
- (2) Current preactuator