

Product datasheet

Specifications



Input/output analog module, Modicon M238 logic controller, 4 inputs voltage/current high level, 2 output

TM2AMM6HT

Main

Range of product	Modicon M238 logic controller
Product or component type	I/O expansion 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	Twido Advantys OTB
Analogue input resolution	12 bits
Analogue output resolution	12 bits
LSB value	2.5 mV voltage voltage 4 μ A current current
Permissible continuous overload	40 mA, analogue input type: current 13 V, analogue input type: voltage
Input impedance	≥ 1 Ohm voltage ≤ 250 MOhm current
load type	Resistive
Load impedance ohmic	≥ 2000 Ohm voltage ≤ 300 Ohm current
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 at 25 °C +/- 0.5 % of full scale 4...20 mA at 25 °C +/- 0.9 % of full scale 0...10 V at 25 °C +/- 0.9 % of full scale 4...20 mA at 25 °C
Temperature coefficient	+/- 0.02 %FS/°C, analogue output type: 0...10 V +/- 0.02 %FS/°C, analogue output type: 4...20 mA +/-0.015 %FS/°C, analogue input type: 0...10 V, analogue output type: 0...10 V +/-0.015 %FS/°C, analogue input type: 4...20 mA, analogue output type: 4...20 mA

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

Repeat accuracy	+/- 1 %FS for output +/-0.5 %FS for input
Non-linearity	+/- 0.4 %FS, analogue input type: current +/- 0.4 %FS, analogue input type: voltage +/- 0.5 %FS, analogue output type: current +/- 0.5 %FS, analogue output type: voltage
Output error	+/- 1 %FS
Output ripple	<= 1 LSB
Total error	+/- 1.5 %FS, analogue output type: current +/- 1.5 %FS, analogue output type: voltage +/-1 %FS, analogue input type: current, analogue output type: current +/-1 %FS, analogue input type: voltage, analogue output type: voltage
Type of cable	Shielded cable
Insulation between channel and internal logic	Photocoupler
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 at 5 V DC internal 80 mA at 24 V DC external
Net 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

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	7.446 cm
Package 1 Width	10.434 cm
Package 1 Length	12.419 cm
Package 1 Weight	170.5 g
Unit Type of Package 2	S03
Number of Units in Package 2	18
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	3.107 kg

Contractual warranty

Warranty (in months)	18
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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 >](#)

Use Better



Materials and Substances

[EU RoHS Directive](#)

Pro-active compliance (Product out of EU RoHS legal scope)

REACH Regulation

[REACH Declaration](#)

PVC free

Yes

Use Longer



Lifetime extension

Repair

No

Use Again



Repack and remanufacture

End of life manual availability

[End of Life Information](#)

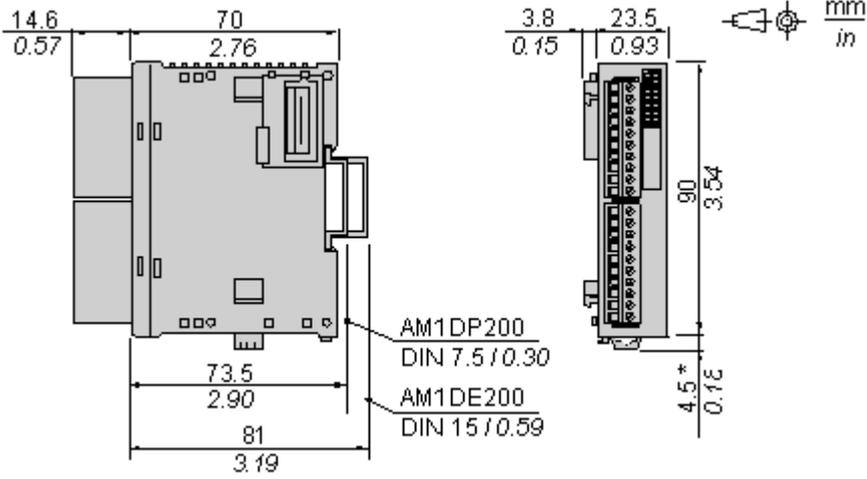
WEEE Label

 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions Drawings

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

Dimensions

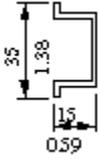


NOTE: * 8.5 mm (0.33 in) when the clip-on lock is pulled out.

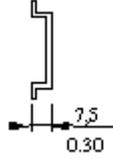
Mounting and Clearance

DIN Rail Mounting

AM1DE200
IEC/EN 60715



AM1DP200



AM1ED200



DZ5MB200

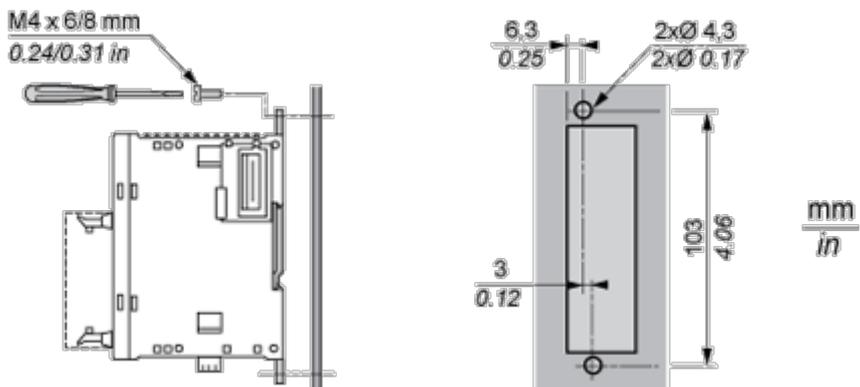


Rail depth	Catalogue part number
15 mm (0.59 in.)	AM1DE200
7,5 mm (0.30 in.)	AM1DP200

NOTE: Do not use AM1ED200 and DZ5MB200

Module Mounting on a Panel Surface

Mounting Hole Layout



Connections and Schema

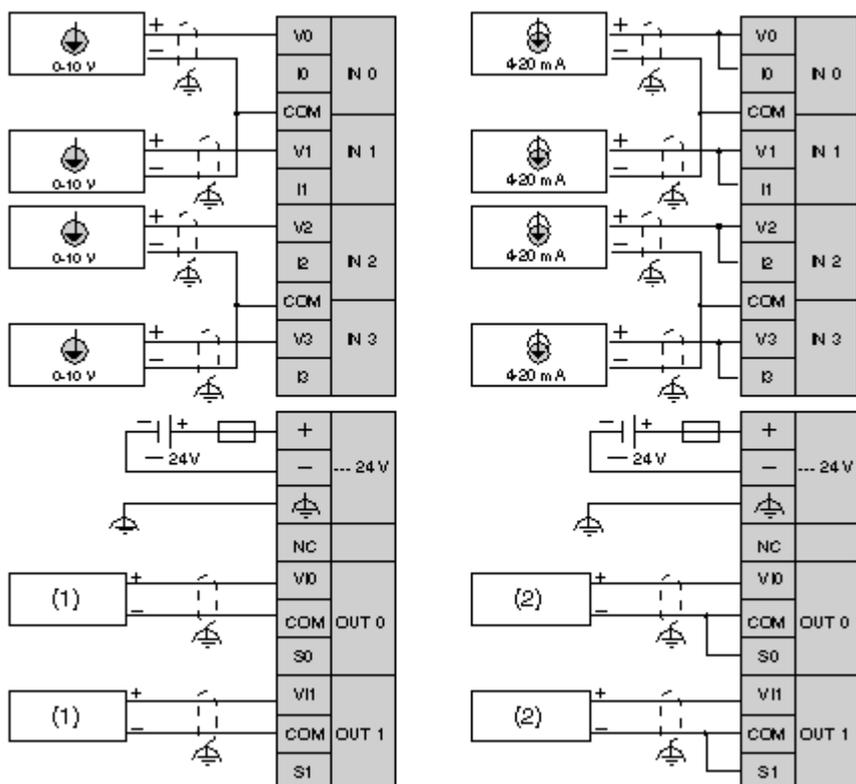
Wiring Requirements

Cable Types and Wire Sizes for Removable Screw Terminal Block

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	0,5
AWG	26...16	24...20	24...16	26...20	26...18	24...22	20

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

Wiring Diagram



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