

Product data sheet

Specifications



Analog input/output module, Modicon M238 logic controller, 2 inputs voltage/current high level, 1 output

TM2AMM3HT

! Discontinued

! Discontinued on: Jan 23, 2021

Main

Range of Product	Modicon M238 logic controller
Product or Component Type	Input/output analog module
Analogue input number	2
Input level	High level
Analogue input type	current 4...20 mA non differential voltage 0...10 V non differential
Analogue output number	1
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 4.8 μ A current current
Permissible continuous overload	40 mA current 13 V voltage
Input impedance	≥ 10 Ohm current ≥ 1 MOhm voltage
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	10 ms
Acquisition period	60 ms per channel + 1 controller cycle time
Measurement error	+/- 0.2 % of full scale 0...10 V 0...10 V 25 °C +/- 0.2 % of full scale 4...20 mA 4...20 mA 25 °C
Temperature coefficient	+/-0.006 %FS/°C 0...10 V +/-0.006 %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

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

Repeat accuracy	+/-0.5 %FS input/output
Non-linearity	+/- 0.2 %FS current current +/- 0.2 %FS voltage voltage
Output error	+/- 1 %FS
Output ripple	<= 1 LSB
Total error	+/-1 %FS current current +/-1 %FS voltage 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	50 mA 24 V DC external 50 mA 5 V DC internal
Net Weight	0.187 lb(US) (0.085 kg)

Environment

Dielectric strength	500 V between I/O channel 500 V between the I/O and the external supply circuit 500 V between the I/O and internal logic
Width	0.9 in (23.5 mm)
Depth	2.8 in (70 mm)
Height	3.5 in (90 mm)

Ordering and shipping details

Category	22531-PLCS, TWIDO, TWD
Discount Schedule	PC12
GTIN	3595863995992
Returnability	No
Country of origin	JP

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	3.0 in (7.5 cm)
Package 1 Width	4.1 in (10.5 cm)
Package 1 Length	4.9 in (12.5 cm)
Package weight(Lbs)	7.02 oz (199.0 g)
Unit Type of Package 2	S01
Number of Units in Package 2	6
Package 2 Height	5.9 in (15.0 cm)
Package 2 Width	5.9 in (15.0 cm)
Package 2 Length	15.7 in (40.0 cm)

Package 2 Weight	2.868 lb(US) (1.301 kg)
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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
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
PVC free	Yes

Use Longer



Lifetime extension

Repair	No
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Use Again



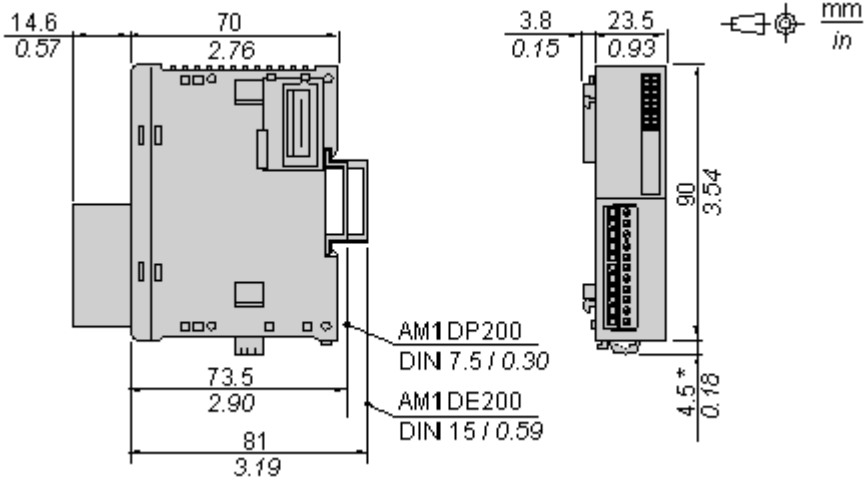
Repack and remanufacture

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

Analog Mixed I/O Module (3-channel, Voltage/Current)

Dimensions

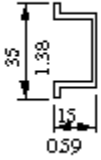


NOTE: * 8.5 mm (0.33 in) when the clip-on lock is pulled out.

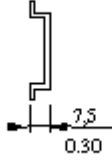
Mounting and Clearance

DIN Rail Mounting

AM1DE200
IEC/EN 60715



AM1DP200



AM1ED200



DZ5MB200

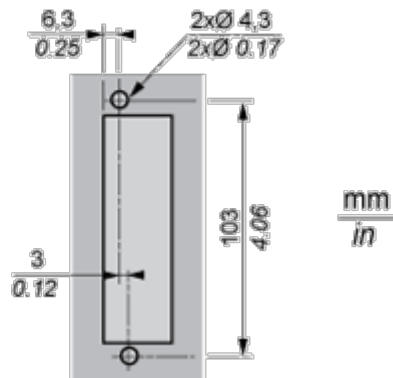
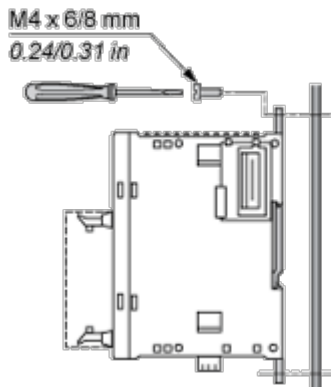


Rail depth	Catalogue part number
15 mm (0.59 in.)	AM1DE200
7,5 mm (0.30 in.)	AM1DP200

NOTE: Do not use AM1ED200 and DZ5MB200

Module Mounting on a Panel Surface

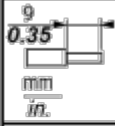



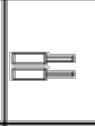

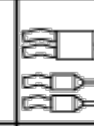

Mounting Hole Layout



Connections and Schema

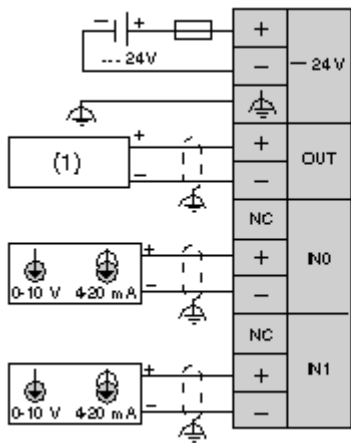
Wiring Requirements

Cable Types and Wire Sizes for Removable Screw Terminal Block

 <p>9 0.35 mm in.</p>							
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 (3-channel, Voltage/Current)

Wiring Diagram



(1) Voltage/current preactuator

The (-) poles of inputs IN0 and IN1 are connected internally.