

# Product data sheet

Specifications



I/O expansion module, Modicon M238 logic controller, Twido, 4 inputs voltage/current high level, 2 output, wear part

TM2AMM6HT

! Discontinued - Service only

! Discontinued on: Dec 1, 2020

! End-of-service on: Jun 30, 2024

**Product availability: Non-Stock - Not normally stocked in distribution facility**

## 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	$\leq 2$ 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 $\mu$ A current current
Permissible continuous overload	40 mA current 13 V voltage
Input impedance	$\geq 1$ Ohm voltage $\leq 250$ MOhm current
Load type	Resistive
Load impedance ohmic	$\geq 2000$ Ohm voltage $\leq 300$ 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

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

<b>Measurement error</b>	+/- 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
<b>Temperature coefficient</b>	+/- 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
<b>Repeat accuracy</b>	+/- 1 %FS output +/-0.5 %FS input
<b>Non-linearity</b>	+/- 0.4 %FS current +/- 0.4 %FS voltage +/- 0.5 %FS current +/- 0.5 %FS voltage
<b>Output error</b>	+/- 1 %FS
<b>Output ripple</b>	<= 1 LSB
<b>Total error</b>	+/- 1.5 %FS current +/- 1.5 %FS voltage +/-1 %FS current current +/-1 %FS voltage voltage
<b>Type of Cable</b>	Shielded cable
<b>Insulation between channel and internal logic</b>	Photocoupler
<b>Supply</b>	External supply
<b>[Us] rated supply voltage</b>	24 V DC
<b>Supply voltage limits</b>	19.2...30 V
<b>Electrical connection</b>	1 removable screw terminal block
<b>Current consumption</b>	60 mA 5 V DC internal 80 mA 24 V DC external
<b>Product Weight</b>	0.187 lb(US) (0.085 kg)

## Environment

<b>Dielectric strength</b>	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
<b>Width</b>	0.9 in (23.5 mm)
<b>Depth</b>	2.8 in (70 mm)
<b>Height</b>	3.5 in (90 mm)

## Ordering and shipping details

<b>Category</b>	US1PC1222531
<b>Discount Schedule</b>	PC12
<b>GTIN</b>	3595863996135
<b>Returnability</b>	No
<b>Country of origin</b>	JP

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	2.93 in (7.446 cm)

<b>Package 1 Width</b>	4.11 in (10.434 cm)
<b>Package 1 Length</b>	4.89 in (12.419 cm)
<b>Package 1 Weight</b>	6.01 oz (170.5 g)
<b>Unit Type of Package 2</b>	S03
<b>Number of Units in Package 2</b>	18
<b>Package 2 Height</b>	11.81 in (30.0 cm)
<b>Package 2 Width</b>	11.81 in (30.0 cm)
<b>Package 2 Length</b>	15.75 in (40.0 cm)
<b>Package 2 Weight</b>	6.850 lb(US) (3.107 kg)

## Contractual warranty

<b>Warranty</b>	18 months
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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	
<a href="#">EU RoHS Directive</a>	Pro-active compliance (Product out of EU RoHS legal scope)
REACH Regulation	<a href="#">REACH Declaration</a>
California proposition 65	<b>WARNING:</b> 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
PVC free	Yes

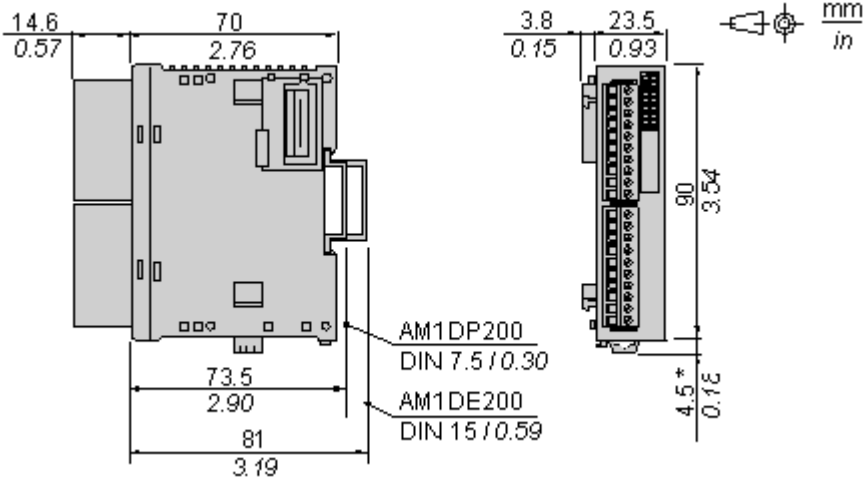
### Use Again

 Repack and remanufacture	
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	 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



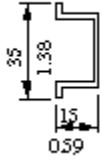
NOTE: \* 8.5 mm (0.33 in) when the clip-on lock is pulled out.

Mounting and Clearance

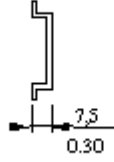
DIN Rail Mounting

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AM1DE200  
IEC/EN 60715



AM1DP200



AM1ED200



DZ5MB200



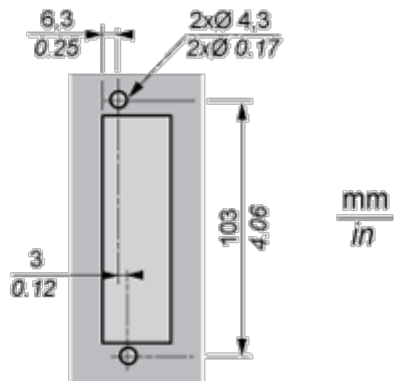
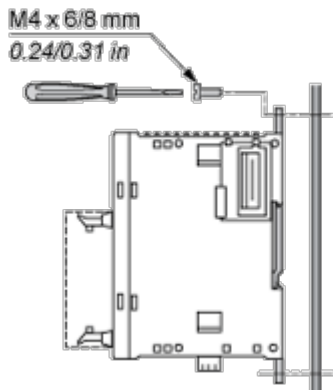
Rail depth	Catalogue part number
15 mm (0.59 in.)	AM1DE200
7,5 mm (0.30 in.)	AM1DP200

NOTE: Do not use AM1ED200 and DZ5MB200

Module Mounting on a Panel Surface

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Mounting Hole Layout



Connections and Schema

Wiring Requirements

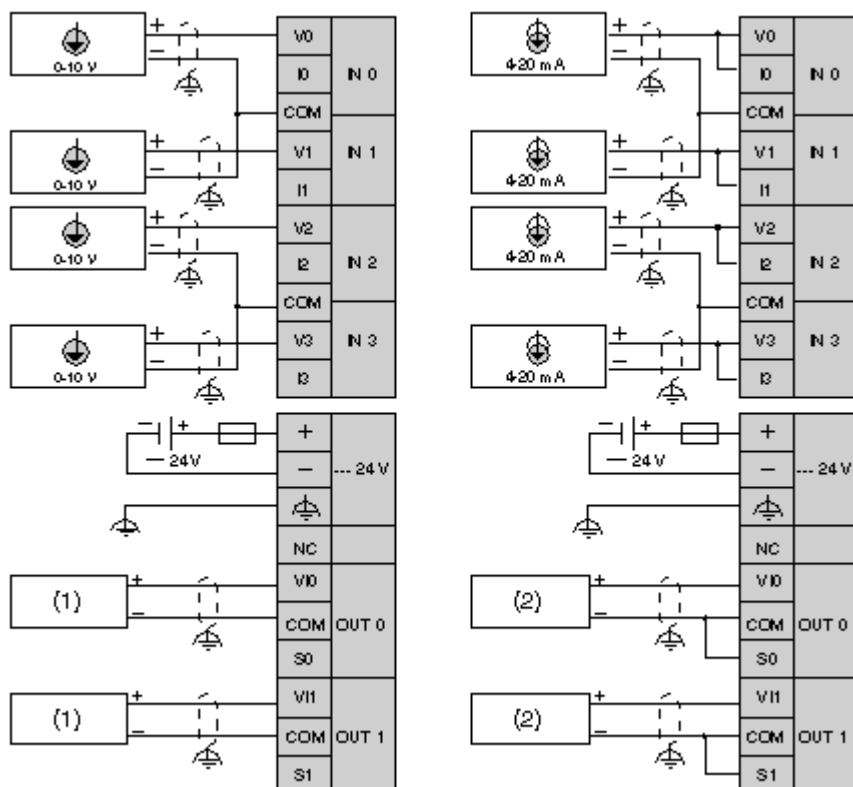
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Cable Types and Wire Sizes for Removable Screw Terminal Block

mm <sup>2</sup>	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