



## Commercial status

Discontinued on: 28 June 2019

To be end-of-service on: 30 June 2024

ⓘ Restricted Sales for Services

### 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	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

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

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
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 Weight	171.9 g
Package 1 Height	7.5 cm
Package 1 width	10.5 cm
Package 1 Length	12.5 cm

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>

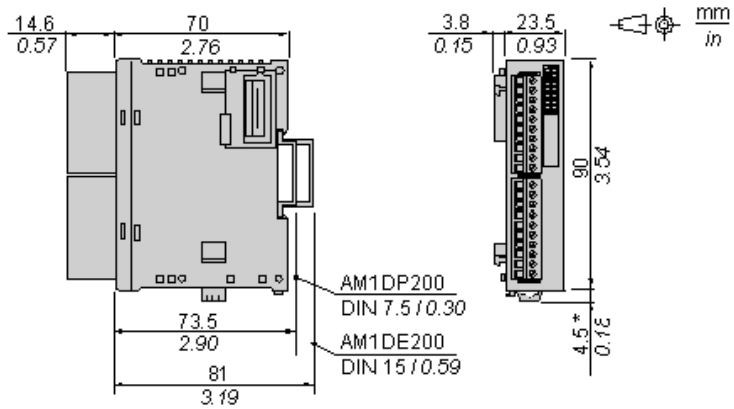
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

### Contractual warranty

Warranty	18 months
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## Analog Mixed I/O Module (6-channel, Voltage/Current)

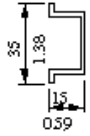
### Dimensions



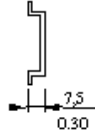
NOTE: \* 8.5 mm (0.33 in) when the clip-on lock is pulled out.

DIN Rail Mounting

AM1DE200  
IEC/EN 60715



AM1DP200



AM1ED200



DZ5MB200

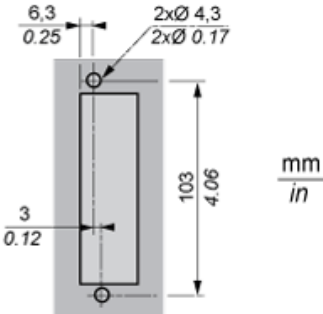
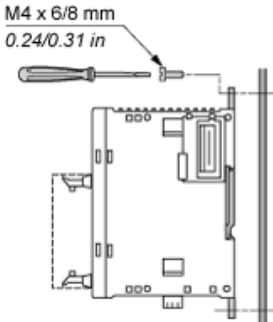


Rail depth	Catalogue part number
15 mm (0.59 in.)	AM1DE200
7,5 mm (0.30 in.)	AM1DP200

NOTE: Do not use AM1ED200 and DZ5MB200

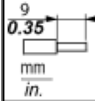







Module Mounting on a Panel Surface

Mounting Hole Layout



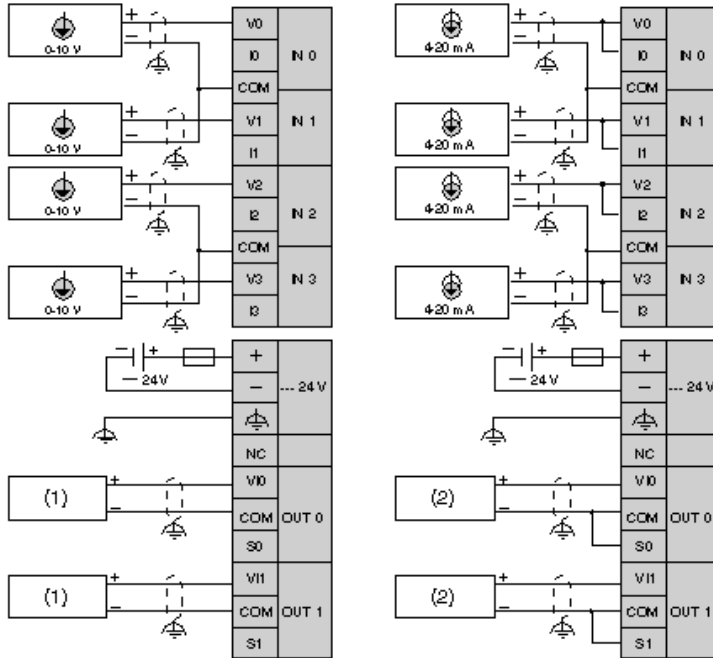
Wiring Requirements

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

TM2AMM6HT is replaced by the following product range:



Modicon TM3

Expansion I/O modules for Modicon M221, M241, M251 and M262

Boost the performance of your controller with the Modicon TM3 I/O system specially designed for the Modicon M221, M241, M251 and M262 logic controllers!