



## 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 current 13 V 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 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
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
Net Weight	0.19 lb(US) (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	0.93 in (23.5 mm)
Depth	2.76 in (70 mm)
Height	3.54 in (90 mm)

## Ordering and shipping details

Category	22531-PLCS, TWIDO, TWD
Discount Schedule	PC12
GTIN	3595863996135
Nbr. of units in pkg.	1
Package weight(Lbs)	6.01 oz (170.5 g)
Returnability	No
Country of origin	FR

## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	2.93 in (7.446 cm)
Package 1 width	4.11 in (10.434 cm)
Package 1 Length	4.89 in (12.419 cm)
Unit Type of Package 2	S03
Number of Units in Package 2	18
Package 2 Weight	6.85 lb(US) (3.107 kg)
Package 2 Height	11.81 in (30 cm)
Package 2 width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)

## Offer Sustainability

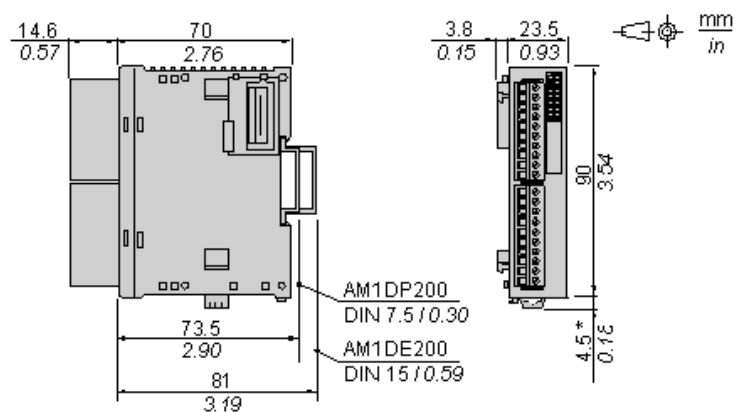
Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
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

Contractual warranty

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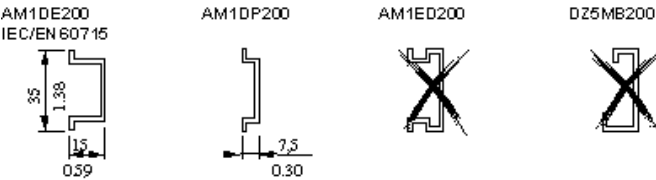
Analog Mixed I/O Module (6-channel, Voltage/Current)

Dimensions



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

DIN Rail Mounting

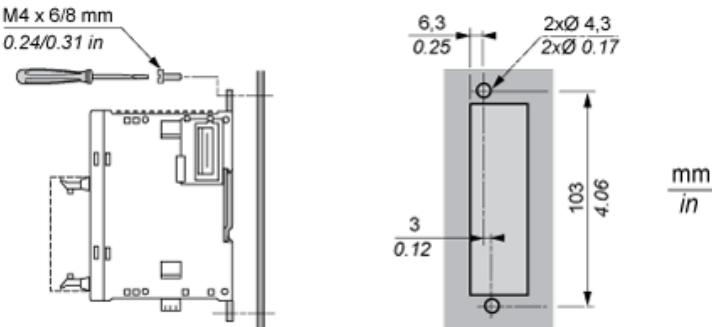


Rail depth	Catalogue part number
15 mm (0.59 in.)	AM1DE200
7,5 mm (0.30 in.)	AM1DP200

NOTE: Do not use AM1ED200 and DZ5MB200

Module Mounting on a Panel Surface

Mounting Hole Layout



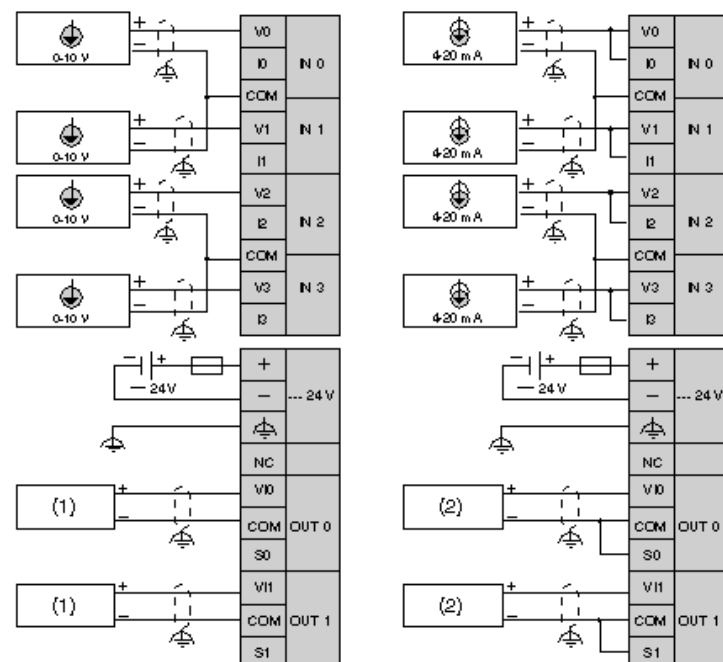
## Wiring Requirements

### 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



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