



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 4 µA 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

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

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

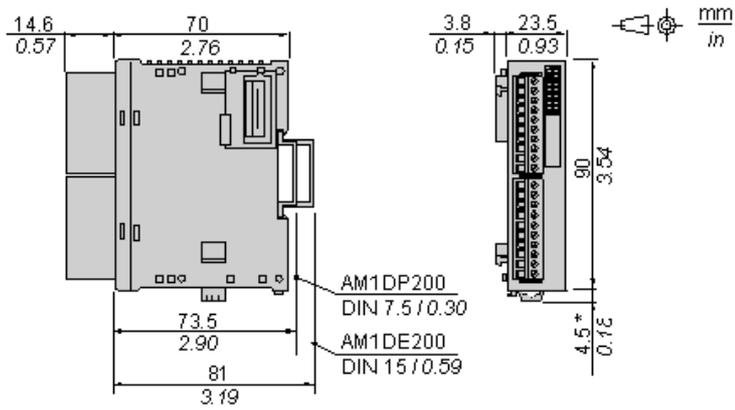
Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
REACH Regulation	REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information
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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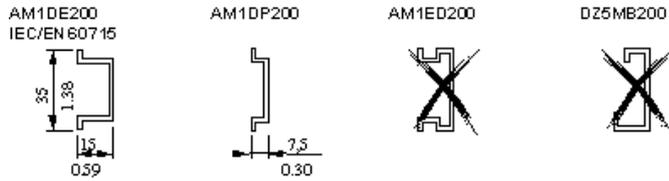
Analog Mixed I/O Module (6-channel, Voltage/Current)

Dimensions



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

DIN Rail Mounting

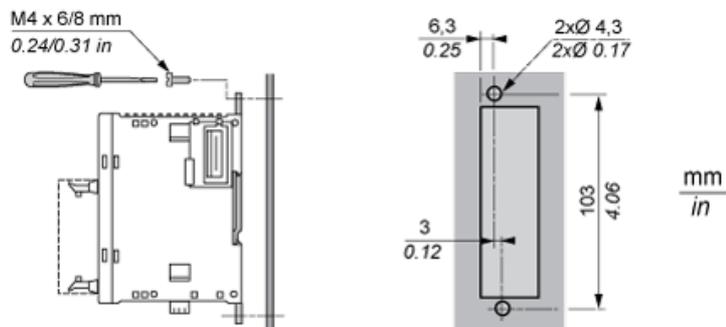


Rail depth	Catalogue part number
15 mm (0.59 in.)	AM1DE200
7,5 mm (0.30 in.)	AM1DP200

NOTE: Do not use AM1ED200 and DZ5MB200

Module Mounting on a Panel Surface

Mounting Hole Layout



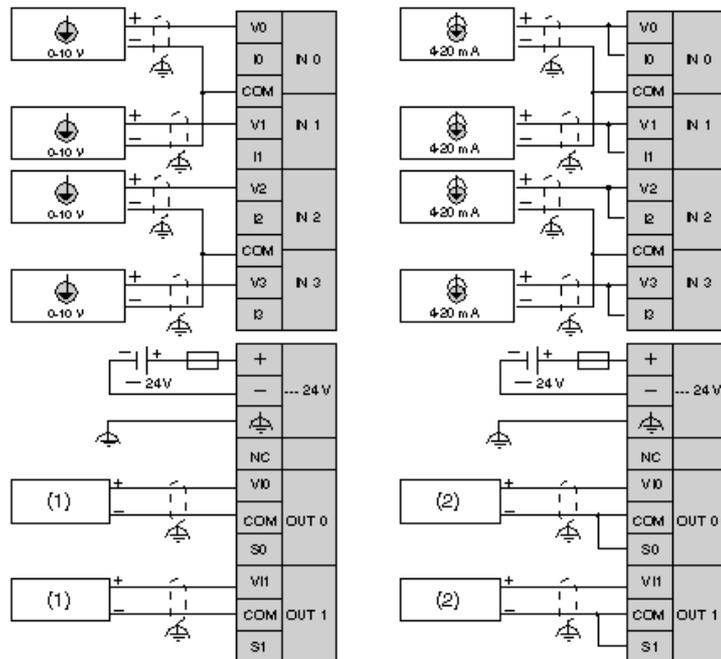
Wiring Requirements

Cable Types and Wire Sizes for Removable Screw Terminal Block

	mm 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

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Wiring Diagram



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

Mouser Electronics

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