



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	Advantys OTB Twidth
Analogue input resolution	12 bits
Analogue output resolution	12 bits
LSB value	2.5 mV voltage voltage 4.8 µA current current
Permissible continuous overload	13 V voltage 40 mA current
Input impedance	>= 1 MOhm voltage >= 10 Ohm current
Load type	Resistive
Load impedance ohmic	<= 300 Ohm current >= 2000 Ohm voltage
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
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

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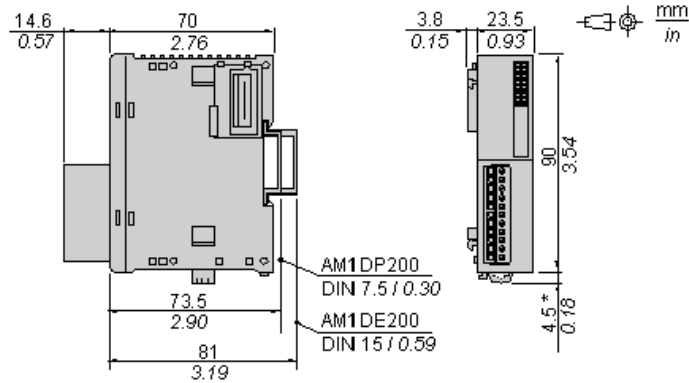
Current consumption	50 mA 24 V DC external 50 mA 5 V DC internal
Product weight	0.085 kg

Environment

Dielectric strength	500 V between I/O channel 500 V between the I/O and internal logic 500 V between the I/O and the external supply circuit
RoHS EUR status	Compliant
RoHS EUR conformity date	0830

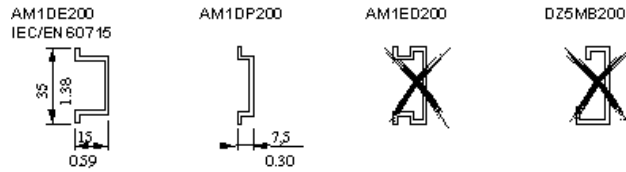
Analog Mixed I/O Module (3-channel, Voltage/Current)

Dimensions



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

DIN Rail Mounting

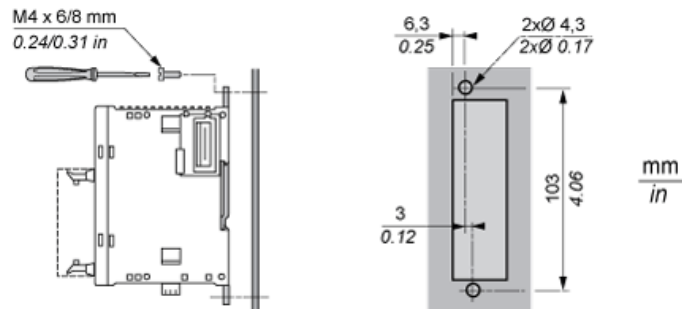


Rail depth	Catalogue part number
15 mm (0.59 in.)	AM1DE200
7,5 mm (0.30 in.)	AM1DP200

NOTE: Do not use AM1ED200 and DZ5MB200

Module Mounting on a Panel Surface

Mounting Hole Layout



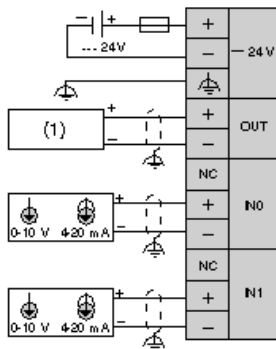
Wiring Requirements

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
AWG	26...16	24...20	24...16	26...20	26...18	24...22	20

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Wiring Diagram



(1) Voltage/current preactuator

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