



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	Voltage 0...10 V non differential Current 4...20 mA non differential
Analogue output number	2
Analogue output type	Voltage 0...10 V Current 4...20 mA
Cross talk	<= 2 LSB

Complementary

Range compatibility	Advantys OTB Twido
Analogue input resolution	12 bits
Analogue output resolution	12 bits
LSB value	4 µA current current 2.5 mV voltage voltage
Permissible continuous overload	40 mA current 13 V voltage
Input impedance	<= 250 MOhm current >= 1 Ohm voltage
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	+/- 0.9 % of full scale 4...20 mA 25 °C +/- 0.9 % of full scale 0...10 V 25 °C +/- 0.5 % of full scale 4...20 mA 25 °C +/- 0.5 % of full scale 0...10 V 25 °C
Temperature coefficient	+/-0.015 %FS/°C 4...20 mA 4...20 mA +/-0.015 %FS/°C 0...10 V 0...10 V +/- 0.02 %FS/°C 4...20 mA +/- 0.02 %FS/°C 0...10 V
Repeat accuracy	+/-0.5 %FS input +/- 1 %FS output
Non-linearity	+/- 0.5 %FS voltage +/- 0.5 %FS current +/- 0.4 %FS voltage +/- 0.4 %FS current
Output error	+/- 1 %FS
Output ripple	<= 1 LSB
Total error	+/-1 %FS voltage voltage +/-1 %FS current current +/- 1.5 %FS voltage +/- 1.5 %FS current
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	80 mA 24 V DC external 60 mA 5 V DC internal
Product weight	0.085 kg

Environment

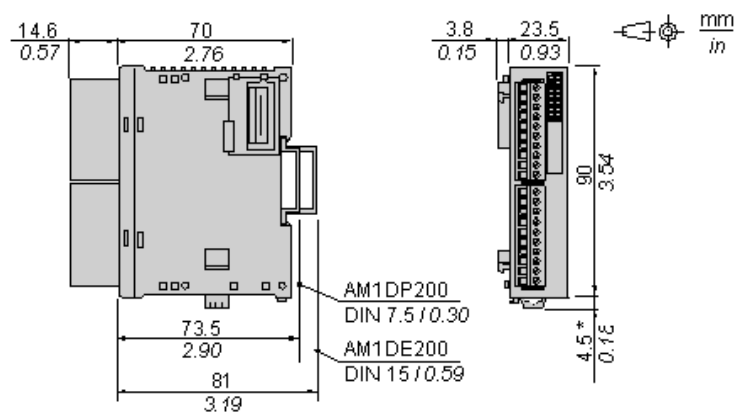
Dielectric strength	800 V between the I/O and internal logic 800 V between I/O channel 1500 V between the I/O and the external supply circuit
Width	23.5 mm
Depth	70 mm
Height	90 mm

Offer Sustainability

Sustainable offer status	Green Premium product
Product environmental profile	Available  Download Product Environmental
Product end of life instructions	Available  Download End Of Life Manual

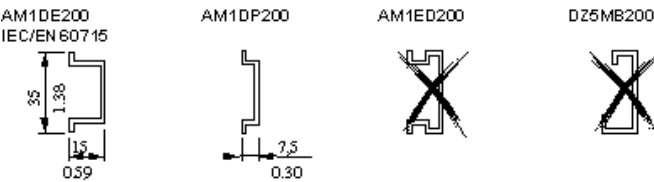
Analog Mixed I/O Module (6-channel, Voltage/Current)

Dimensions



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

DIN Rail Mounting

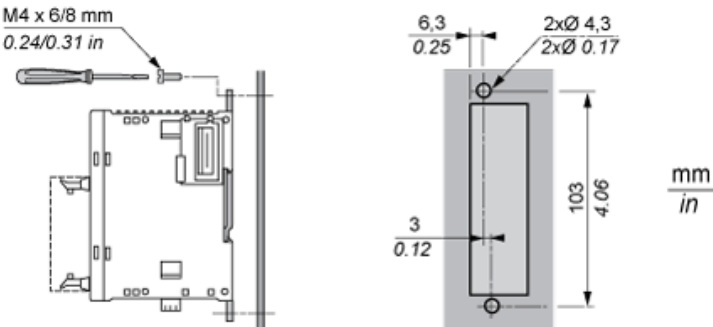


Rail depth	Catalogue part number
15 mm (0.59 in.)	AM1DE200
7,5 mm (0.30 in.)	AM1DP200

NOTE: Do not use AM1ED200 and DZ5MB200

Module Mounting on a Panel Surface

Mounting Hole Layout



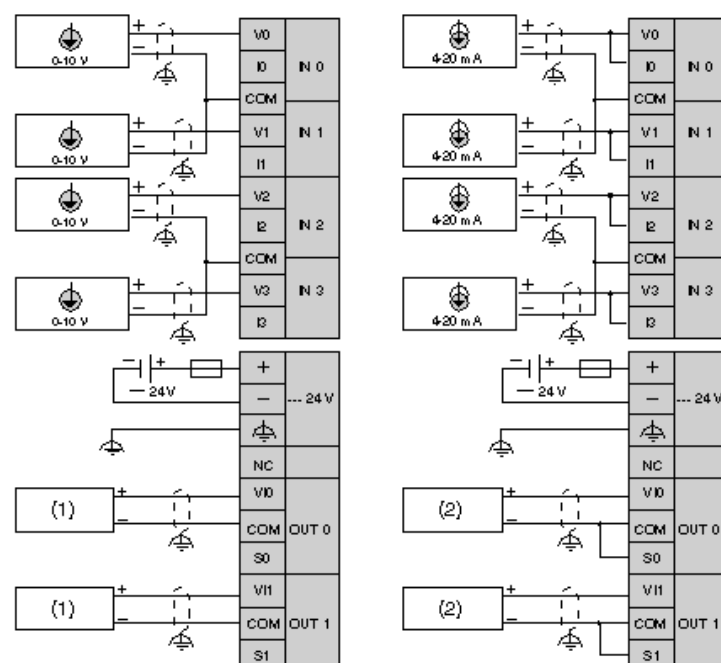
Wiring Requirements

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

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

Wiring Diagram



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