



Main

Range of product	Modicon M238 logic controller
Product or component type	Analog input module
Analogue input number	4
Analogue input type	Current 4...20 mA non differential Voltage 0...10 V non differential Temperature probe - 200...600 °C Pt 100/Pt 1000 non differential Temperature probe - 50...150 °C Ni 100/Ni 1000 non differential
Cross talk	<= 1 LSB

Complementary

Range compatibility	Advantys OTB Twido
Analogue input resolution	12 bits
LSB value	2.5 mV voltage voltage 4.8 µA current current 0.15 °K temperature probe
Permissible continuous overload	13 V voltage 40 mA current
Input impedance	>= 10 kOhm temperature probe 10 kOhm voltage 470 Ohm current
Sampling duration	<= 160 ms
Acquisition period	160 ms per channel + 1 controller cycle time voltage/current 320 ms per channel + 1 controller cycle time temperature probe
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 +/- 0.4 % of full scale Pt 100/Pt 1000, Ni 100/ Ni 1000 25 °C
Temperature coefficient	+/- 0.004 %FS/°C temperature probe +/- 0.009 %FS/°C current +/- 0.009 %FS/°C voltage
Repeat accuracy	+/-0.1 %FS
Non-linearity	+/- 0.02 %FS
Total error	+/-0.5 %FS
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	20.4...28.8 V
Electrical connection	1 removable screw terminal block
Current consumption	50 mA 5 V DC internal 60 mA 24 V DC external
Product weight	0.085 kg

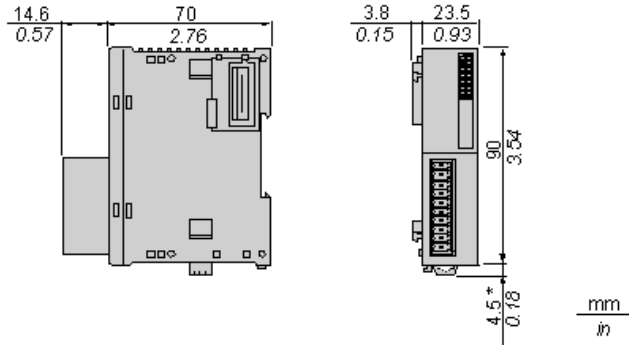
Environment

Dielectric strength	2500 V between the I/O and internal logic
RoHS EUR status	Compliant
RoHS EUR conformity date	0839

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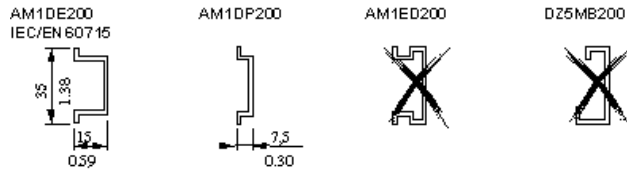
Analog Input Module (4-channel, Voltage/Current/Temperature)

Dimensions



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

DIN Rail Mounting

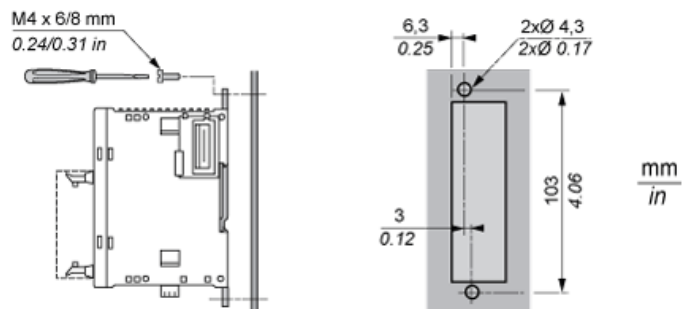


Rail depth	Catalogue part number
15 mm (0.59 in.)	AM1DE200
7,5 mm (0.30 in.)	AM1DP200

NOTE: Do not use AM1ED200 and DZ5MB200

Module Mounting on a Panel Surface

Mounting Hole Layout



Wiring Requirements

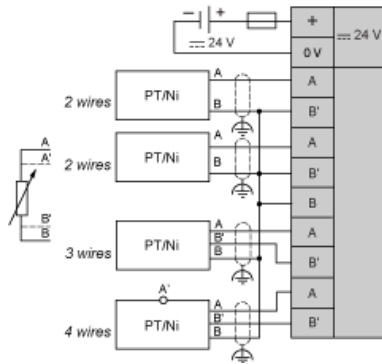
Cable Types and Wire Sizes for Removable Screw Terminal Block

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 Input Module (4-channel, Voltage/Current/Temperature)

Wiring Diagrams

Inputs configured for measuring temperature



Inputs configured for measuring voltage/current

