

# Product data sheet

Specifications



## Analog input module, Modicon M238 logic controller, 4 inputs voltage/current/temperature, non differential

TM2AMI4LT

! Discontinued on: 28 June 2019

! To be end-of-service on: 30 June 2024

! Discontinued - Service only

### Main

Range of product	Modicon M238 logic controller
Product or component type	Analog input module
Analogue input number	4
Analogue input type	voltage 0...10 V non differential Pt 100/Pt 1000 temperature probe - 200...600 °C non differential Ni 100/Ni 1000 temperature probe - 50...150 °C non differential current 0...20 mA non differential
Cross talk	$\leq 1$ LSB

### Complementary

Range compatibility	Twido Advantys OTB
Analogue input resolution	12 bits
LSB value	2.5 mV voltage voltage 4.8 $\mu$ A current current 0.2 °C temperature probe Pt 100/Pt 1000 0.05 °C temperature probe Ni 100/Ni 1000
Permissible continuous overload	40 mA, analogue input type: current 13 V, analogue input type: voltage
Input impedance	$\geq 10$ kOhm temperature probe 470 Ohm current 10 kOhm voltage
Sampling duration	160 ms
Acquisition period	320 ms per channel + 1 controller cycle time temperature probe 160 ms per channel + 1 controller cycle time voltage/current
Measurement error	+/- 0.2 % of full scale 0...10 V 0...10 V at 25 °C +/- 0.2 % of full scale 4...20 mA 4...20 mA at 25 °C +/- 0.4 % of full scale Pt 100/Pt 1000, Ni 100/ Ni 1000 at 25 °C
Temperature coefficient	+/- 0.004 %FS/°C, analogue input type: temperature probe +/- 0.009 %FS/°C, analogue input type: current +/- 0.009 %FS/°C, analogue input type: 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 at 5 V DC internal 60 mA at 24 V DC external
Net weight	0.085 kg

## Environment

Dielectric strength	2500 V between the I/O and internal logic
Width	23.5 mm
Depth	70 mm
Height	90 mm

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	7.17 cm
Package 1 Width	10.138 cm
Package 1 Length	12.186 cm
Package 1 Weight	146.0 g
Unit Type of Package 2	S03
Number of Units in Package 2	18
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	3.07 kg

## Offer Sustainability

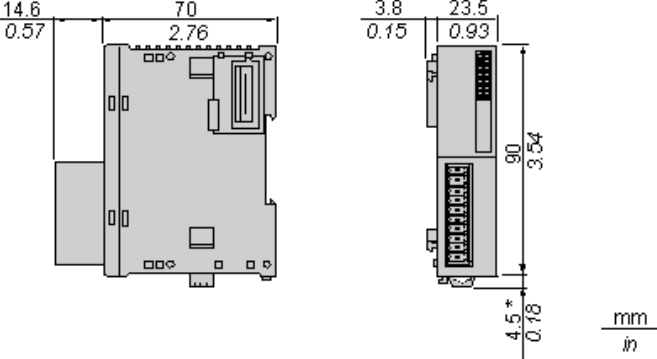
Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a>
RoHS exemption information	Yes
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
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>

## Contractual warranty

Warranty	18 months
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Analog Input Module (4-channel, Voltage/Current/Temperature)

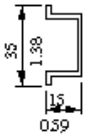
Dimensions



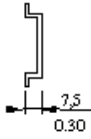
NOTE: \* 8.5 mm (0.33 in) when the clip-on lock is pulled out.

**DIN Rail Mounting**

AM1DE200  
 IEC/EN 60715



AM1DP200



AM1ED200



DZ5MB200

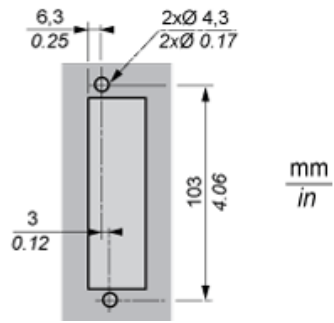
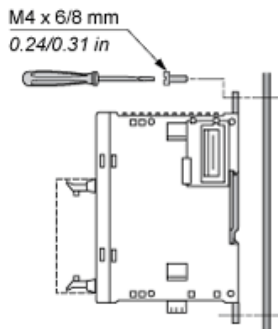


Rail depth	Catalogue part number
15 mm (0.59 in.)	AM1DE200
7,5 mm (0.30 in.)	AM1DP200

NOTE: Do not use AM1ED200 and DZ5MB200

Module Mounting on a Panel Surface

Mounting Hole Layout



**Wiring Requirements**

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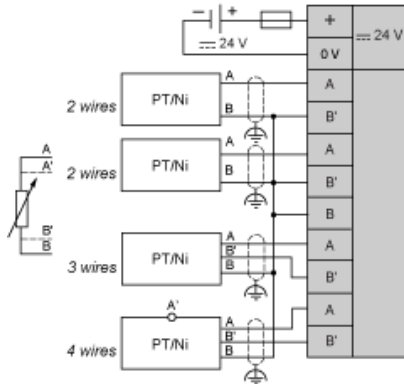
**Cable Types and Wire Sizes for Removable Screw Terminal Block**

 9 0.35 mm in.							
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

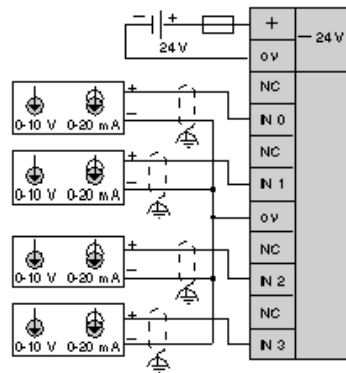
**Analog Input Module (4-channel, Voltage/Current/Temperature)**

**Wiring Diagrams**

Inputs configured for measuring temperature



Inputs configured for measuring voltage/current



**Recommended replacement(s)**

TM2AMI4LT is replaced by the following product range:



**Modicon TM3**

Expansion I/O modules for Modicon M221, M241, M251 and M262

Products: 65