

Product data sheet

Specifications



I/O expansion module, Modicon
M238 logic controller, Twido, 4
inputs voltage/current/temperature,
non differential, wear part

TM2AM14LT

! Discontinued - Service only

! Discontinued on: Dec 1, 2020

! End-of-service on: Jun 30, 2024

**Product availability: Non-Stock - Not normally stocked in
distribution facility**

Main

Range of Product	Modicon M238 logic controller
Product or Component Type	I/O expansion 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	<= 1 LSB

Complementary

Range Compatibility	Twido Advantys OTB
Analogue input resolution	12 bits
LSB value	2.5 mV voltage voltage 4.8 µA 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 current 13 V voltage
Input impedance	>= 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 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

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: 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

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
Net Weight	0.187 lb(US) (0.085 kg)

Environment

Dielectric strength	2500 V between the I/O and internal logic
Width	0.9 in (23.5 mm)
Depth	2.8 in (70 mm)
Height	3.5 in (90 mm)

Ordering and shipping details

Category	22531 - PLCS, TWIDO, TWD
Discount Schedule	PC12
GTIN	3595863996333
Returnability	No
Country of origin	FR

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	2.82 in (7.17 cm)
Package 1 Width	3.991 in (10.138 cm)
Package 1 Length	4.798 in (12.186 cm)
Package weight(Lbs)	5.1 oz (146.0 g)
Unit Type of Package 2	S03
Number of Units in Package 2	18
Package 2 Height	11.8 in (30.0 cm)
Package 2 Width	11.8 in (30.0 cm)
Package 2 Length	15.7 in (40.0 cm)
Package 2 Weight	6.77 lb(US) (3.07 kg)

Contractual warranty

Warranty (in months)	18
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Use Better

Materials and Substances	
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
REACH Regulation	REACH Declaration
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
PVC free	Yes

Use Longer

Lifetime extension	
Repair	No

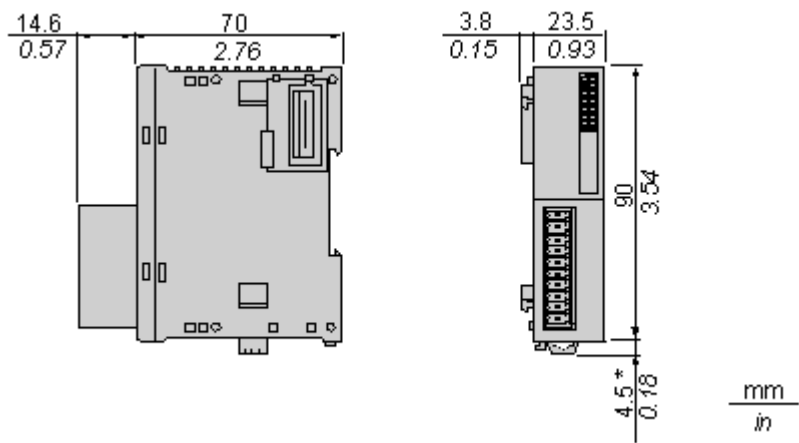
Use Again

Repack and remanufacture	
Circularity Profile	End of Life Information
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Dimensions Drawings

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

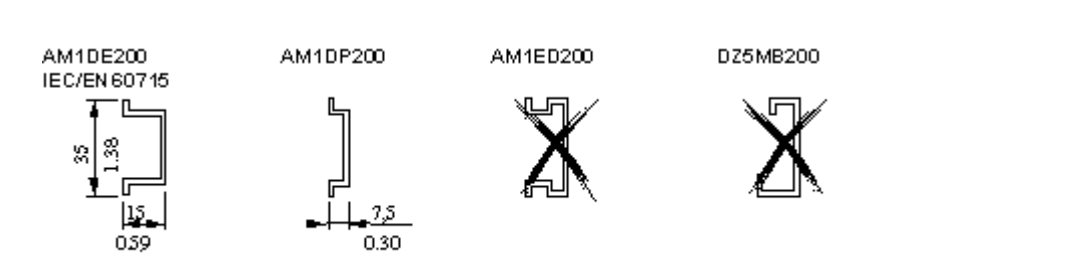
Dimensions



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

Mounting and Clearance

DIN Rail Mounting

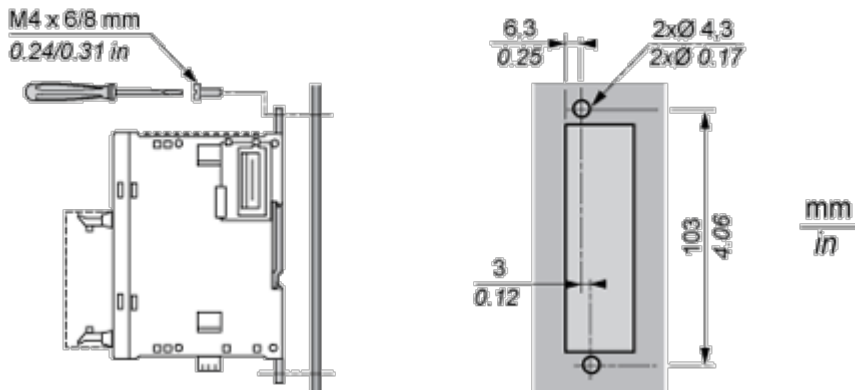


Rail depth	Catalogue part number
15 mm (0.59 in.)	AM1DE200
7,5 mm (0.30 in.)	AM1DP200

NOTE: Do not use AM1ED200 and DZ5MB200

Module Mounting on a Panel Surface

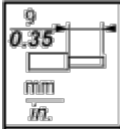
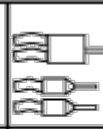
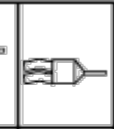
Mounting Hole Layout



Connections and Schema

Wiring Requirements

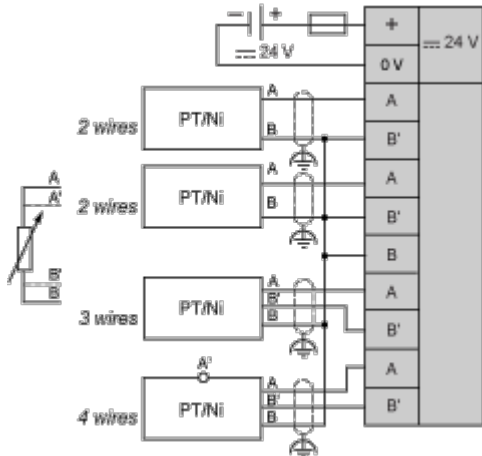
Cable Types and Wire Sizes for Removable Screw Terminal Block

							
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

