Product data sheet

Specifications

analog input module, Modicon TM3, 4 inputs, spring, 24V DC

TM3AI4G

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

Main

Range of Product	Modicon TM3
Product or Component Type	Analog input module
Range Compatibility	Modicon M221 Modicon M241 Modicon M251 Modicon M262
Analogue input number	4
Analogue input type	current 4...20 mA current 0...20 mA voltage 0...10 V voltage - 10...10 V

Complementary

Analogue input resolution	12 bits 11 bits + sign
Permissible continuous overload	13 V voltage 40 mA current
Input impedance	<= 50 Ohm current >= 1 MOhm voltage
LSB value	2.44 mV 0...10 V voltage 4.88 mV - 10...10 V voltage 4.88 µA 0...20 mA current 3.91 µA 4...20 mA current
Conversion time	1 ms + 1 ms per channel + 1 controller cycle time
Sampling duration	1 ms
Absolute accuracy error	+/- 0.1 % of full scale at 77 °F (25 °C) +/- 1 % of full scale
Temperature Drift	+/- 0.006 %FS/°C
Repeat accuracy	+/-0.5 %FS
Non-linearity	+/- 0.01 %FS
Cross talk	<= 1 LSB
[Us] rated supply voltage	24 V DC
Supply voltage limits	20.4…28.8 V
Type of cable	Twisted shielded pairs cable <98.4 ft (30 m) input
Current consumption	35 mA 5 V DC via bus connector no load 45 mA 5 V DC via bus connector full load 30 mA 24 V DC via external supply
Local signalling	1 LED (green) for PWR

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

Electrical connection	10 x 1.5 mm² removable spring terminal block with pitch 3.81 mm adjustment for inputs and supply 10 x 1.5 mm² removable spring terminal block with pitch 3.81 mm adjustment for inputs
Insulation	Between input and supply 1500 V AC Between input and internal logic 500 V AC
Marking	CE
Surge withstand	1 kV power supply common mode IEC 61000-4-5 0.5 kV power supply differential mode IEC 61000-4-5 1 kV input common mode IEC 61000-4-5
Mounting support	Top hat type TH35-15 rail IEC 60715 Top hat type TH35-7.5 rail IEC 60715 plate or panel with fixing kit
Height	3.5 in (90 mm)
Depth	2.8 in (70 mm)
Width	0.9 in (23.6 mm)
Net Weight	0.2 lb(US) (0.1 kg)

Environment

Standards	IEC 61131-2
Product Certifications	CE UKCA RCM EAC cULus cULus HazLoc
Resistance to electrostatic discharge	8 kV in air IEC 61000-4-2 4 kV on contact IEC 61000-4-2
Resistance to electromagnetic fields	9.1 V/m (10 V/m) 80 MHz...1 GHz IEC 61000-4-3 2.7 V/m (3 V/m) 1.4 GHz...2 GHz IEC 61000-4-3 0.9 V/m (1 V/m) 2 GHz...3 GHz IEC 61000-4-3
Resistance to magnetic fields	98.4 A/m (30 A/m) IEC 61000-4-8
Resistance to fast transients	1 kV IEC 61000-4-4 I/O)
Resistance to conducted disturbances	10 V 0.15...80 MHz IEC 61000-4-6 3 V spot frequency (2, 3, 4, 6.2, 8.2, 12.6, 16.5, 18.8, 22, 25 MHz) Marine specification (LR, ABS, DNV, GL)
Electromagnetic emission	Radiated emissions 40 dBµV/m QP class A 10 m)30…230 MHz IEC 55011 Radiated emissions 47 dBµV/m QP class A 10 m)230…1000 MHz IEC 55011
Immunity to microbreaks	10 ms
Ambient Air Temperature for Operation	14…131 °F (-10…55 °C) horizontal installation 14…95 °F (-10…35 °C) vertical installation
Ambient Air Temperature for Storage	-13…158 °F (-25…70 °C)
Relative humidity	10…95 %, without condensation in operation) 10…95 %, without condensation in storage)
IP Degree of Protection	IP20
Pollution degree	2
Operating altitude	0...6561.68 ft (0...2000 m)
Storage altitude	0…9842.5 ft (0…3000 m)
Vibration resistance	3.5 mm 5…8.4 Hz DIN rail 3 gn 8.4…150 Hz DIN rail
Shock resistance	15 gn 11 ms

Ordering and shipping details

Category	US10MSX22533
Discount Schedule	0MSX
GTIN	3606480648915
Returnability	No
Country of origin	JP

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	3.0 in (7.5 cm)
Package 1 Width	4.9 in (12.5 cm)
Package 1 Length	4.1 in (10.5 cm)
Package weight(Lbs)	6.9 oz (195.0 g)
Unit Type of Package 2	S02
Number of Units in Package 2	9
Package 2 Height	5.9 in (15 cm)
Package 2 Width	11.8 in (30 cm)
Package 2 Length	15.7 in (40 cm)
Package 2 Weight	5.053 lb(US) (2.292 kg)
Unit Type of Package 3	P12
Number of Units in Package 3	288
Package 3 Height	31.5 in (80 cm)
Package 3 Width	41.3 in (105 cm)
Package 3 Length	49.2 in (125 cm)
Package 3 Weight	201.15 lb(US) (91.24 kg)

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 >

Environmental footprint

Carbon footprint (kg CO2 eq, Total Life cycle)	41
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	7cc01735-94b8-432b-9a81-f9da4dd7709d
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

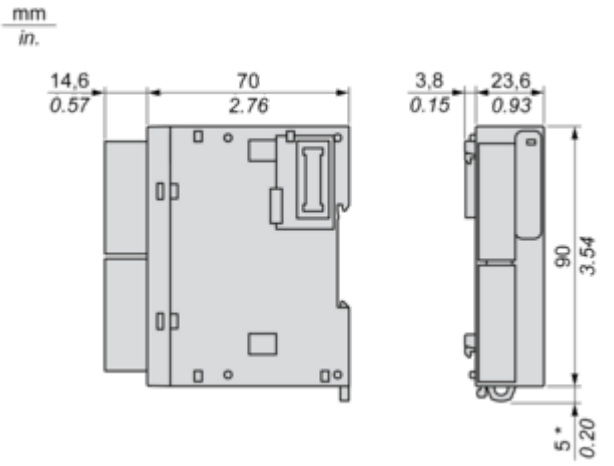
Use Again

Repack and remanufacture

Circularity Profile	End of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Dimensions Drawings

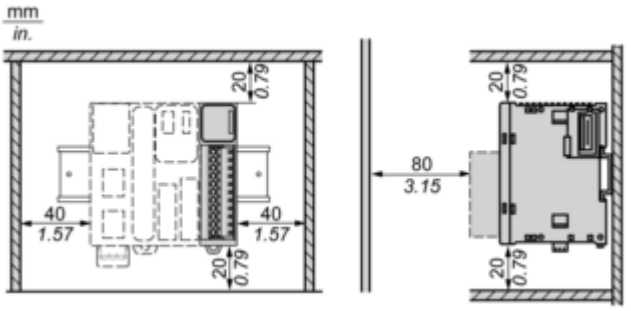
Dimensions



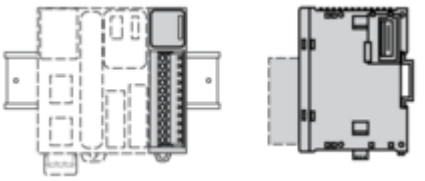
(*) 8.5 mm/0.33 in when the clamp is pulled out.

Mounting and Clearance

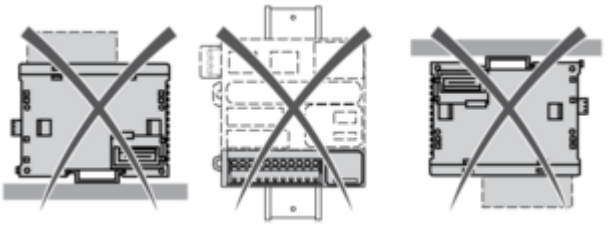
Spacing Requirements



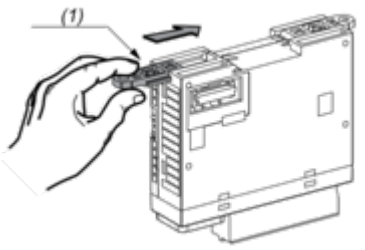
Mounting on a Rail



Incorrect Mounting

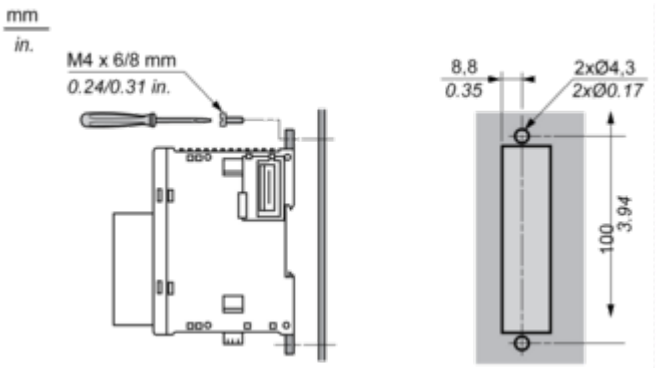


Mounting on a Panel Surface



(1) Install a mounting strip

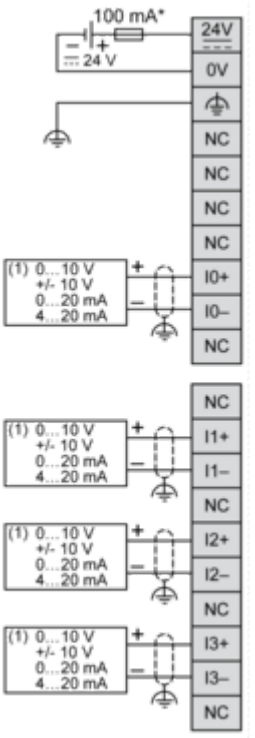
Mounting Hole Layout



Connections and Schema

Analogue Input Module

Wiring Diagram (Current / Voltage)



(*) Type T fuse
(1) Current/Voltage analog output device