

Product datasheet

Specifications



Analog input module. Modicon TM3. 4 / temperature inputs (spring) 24 VDC

TM3TI4G

Price: 8,285.07 ZAR

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 thermocouple - 200...1000 °C with thermocouple J thermocouple - 200...1300 °C with thermocouple K thermocouple 0...1760 °C with thermocouple R thermocouple 0...1760 °C with thermocouple S thermocouple 0...1820 °C with thermocouple B thermocouple - 200...400 °C with thermocouple T thermocouple - 200...1300 °C with thermocouple N thermocouple - 200...800 °C with thermocouple E thermocouple 0...2315 °C with thermocouple C Pt 100 temperature probe - 200...850 °C Pt 1000 temperature probe - 200...600 °C

Complementary

Analogue Input Resolution	16 bits 15 bits + sign
Permissible Continuous Overload	13 V, analogue input type: voltage 40 mA, analogue input type: current
Input Impedance	<= 50 Ohm current >= 1 MOhm voltage >= 1 MOhm thermocouple >= 1 MOhm temperature probe
Lsb Value	2.44 mV 0...10 Vvoltage 4.88 mV - 10...10 Vvoltage 4.88 µA 0...20 mAcurrent 3.91 µA 4...20 mAcurrent 0.1 °Ctemperature probe 0.1 °Cthermocouple
Conversion Time	100 ms + 100 ms per channel + 1 controller cycle time for analogue input thermocouple 100 ms + 100 ms per channel + 1 controller cycle time for analogue input temperature probe 10 ms + 10 ms per channel + 1 controller cycle time for analogue input voltage/current
Sampling Duration	10 ms, analogue input type: voltage/current 100 ms, analogue input type: voltage/current 100 ms, analogue input type: thermocouple 100 ms, analogue input type: temperature probe

Excluding VAT and subject to change. Please check with your local distributor through "Where to buy"

Absolute Accuracy Error	+/- 0.2 % of full scale at 25 °C for analogue input voltage/current +/- 0.2 % of full scale at 25 °C for Pt 100/Pt 1000, Ni 100/ Ni 1000 temperature probe +/- 0.2 % of full scale at 25 °C for thermocouple C 0...2315 °C +/- 6 °C at 25 °C for thermocouple R, S 0...200 °C +/- 0.2 % of full scale at 25 °C for thermocouple R, S 200...1760 °C +/- 0.2 % of full scale at 25 °C for thermocouple B 300...1820 °C +/- 0.4 % of full scale at 25 °C for thermocouple K - 200...0 °C +/- 0.2 % of full scale at 25 °C for thermocouple K 0...1300 °C +/- 0.4 % of full scale at 25 °C for thermocouple J - 200...0 °C +/- 0.2 % of full scale at 25 °C for thermocouple J 0...1000 °C +/- 0.4 % of full scale at 25 °C for thermocouple E - 200...0 °C +/- 0.2 % of full scale at 25 °C for thermocouple E 0...800 °C +/- 0.4 % of full scale at 25 °C for thermocouple T - 200...0 °C +/- 0.2 % of full scale at 25 °C for thermocouple T 0...400 °C +/- 0.4 % of full scale at 25 °C for thermocouple N - 200...0 °C +/- 0.2 % of full scale at 25 °C for thermocouple N 0...1300 °C
Temperature Drift	+/- 0.01 %FS/°C
Repeat Accuracy	+/-0.5 %FS
Non-Linearity	+/- 0.2 %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 <30 m for input circuit
Current Consumption	45 mA at 5 V DC via bus connector 50 mA at 5 V DC via bus connector 35 mA at 24 V DC via external supply 40 mA at 24 V DC via external supply
Local Signalling	1 LED (green) for PWR
Electrical Connection	10 x 1.5 mm ² removable screw terminal block with pitch 3.81 mm adjustment for inputs and supply 10 x 1.5 mm ² removable screw terminal block with pitch 3.81 mm adjustment for inputs
Insulation	Between input and supply at 1500 V AC Between input and internal logic at 500 V AC
Marking	CE
Surge Withstand	1 kV power supply common mode conforming to IEC 61000-4-5 0.5 kV power supply differential mode conforming to IEC 61000-4-5 1 kV input common mode conforming to IEC 61000-4-5
Mounting Support	Top hat type TH35-15 rail conforming to IEC 60715 Top hat type TH35-7.5 rail conforming to IEC 60715 plate or panel with fixing kit
Height	90 mm
Depth	70 mm
Width	23.6 mm
Net Weight	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 conforming to IEC 61000-4-2 4 kV on contact conforming to IEC 61000-4-2

Resistance To Electromagnetic Fields	10 V/m 80 MHz...1 GHz conforming to IEC 61000-4-3 3 V/m 1.4 GHz...2 GHz conforming to IEC 61000-4-3 1 V/m 2 GHz...3 GHz conforming to IEC 61000-4-3
Resistance To Magnetic Fields	30 A/m conforming to IEC 61000-4-8
Resistance To Fast Transients	1 kV (I/O) conforming to IEC 61000-4-4
Resistance To Conducted Disturbances	10 V 0.15...80 MHz conforming to IEC 61000-4-6 3 V spot frequency (2, 3, 4, 6.2, 8.2, 12.6, 16.5, 18.8, 22, 25 MHz) conforming to Marine specification (LR, ABS, DNV, GL)
Electromagnetic Emission	Radiated emissions - test level: 40 dBµV/m QP class A (10 m) at 30...230 MHz conforming to IEC 55011 Radiated emissions - test level: 47 dBµV/m QP class A (10 m) at 230...1000 MHz conforming to IEC 55011
Immunity To Microbreaks	10 ms
Ambient Air Temperature For Operation	-10...55 °C horizontal installation -10...35 °C vertical installation
Ambient Air Temperature For Storage	-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...2000 m
Storage Altitude	0...3000 m
Vibration Resistance	3.5 mm at 5...8.4 Hz on DIN rail 3 gn at 8.4...150 Hz on DIN rail
Shock Resistance	15 gn for 11 ms

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	7.5 cm
Package 1 Width	12.5 cm
Package 1 Length	10.5 cm
Package 1 Weight	201.0 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	9
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	2.273 kg
Unit Type Of Package 3	P12
Number Of Units In Package 3	432
Package 3 Height	80 cm
Package 3 Width	105 cm
Package 3 Length	125 cm
Package 3 Weight	111.832 kg

Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency RoHS/REACH

Well-being performance

✓ Toxic Heavy Metal Free

✓ Mercury Free

✓ Rohs Exemption Information [Yes](#)

✓ Pvc Free

Certifications & Standards

Reach Regulation

[REACH Declaration](#)

Eu Rohs Directive

Pro-active compliance (Product out of EU RoHS legal scope)

[EU RoHS Declaration](#)

China Rohs Regulation

[China RoHS declaration](#)

Environmental Disclosure

[Product Environmental Profile](#)

Weee

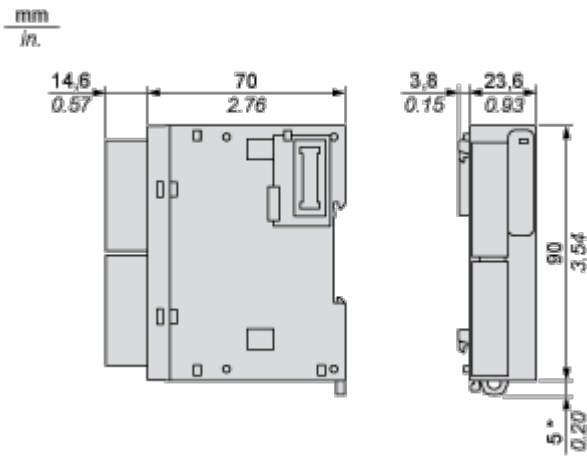
The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Circularity Profile

[End of Life Information](#)

Dimensions Drawings

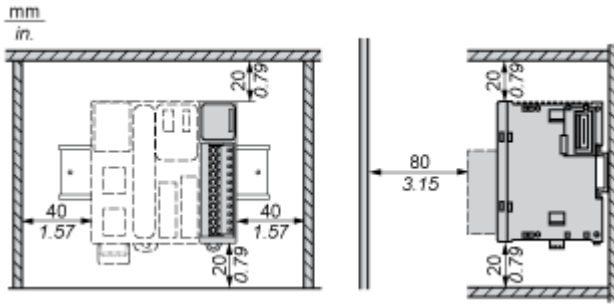
Dimensions



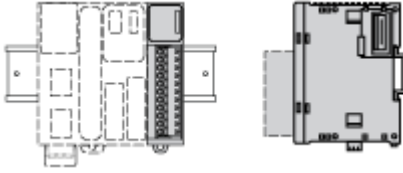
(*) 8.5 mm/0.33 in when the clamp is pulled out.

Mounting and Clearance

Spacing Requirements



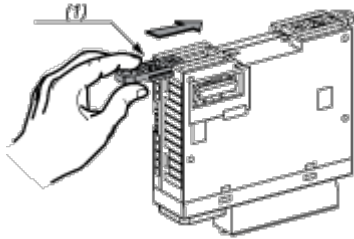
Mounting on a Rail



Incorrect Mounting

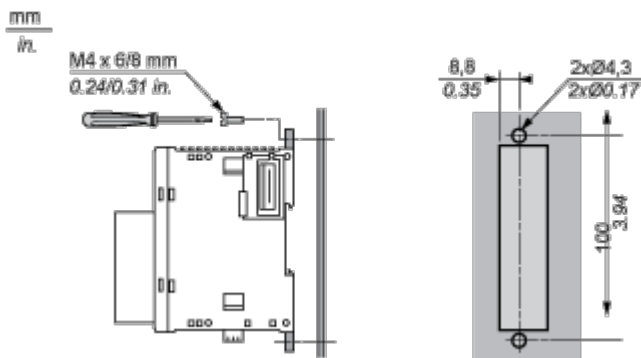


Mounting on a Panel Surface



- (1) Install a mounting strip

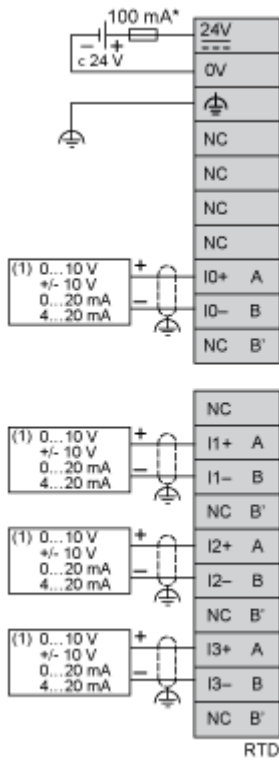
Mounting Hole Layout



Connections and Schema

Analogue Input Module

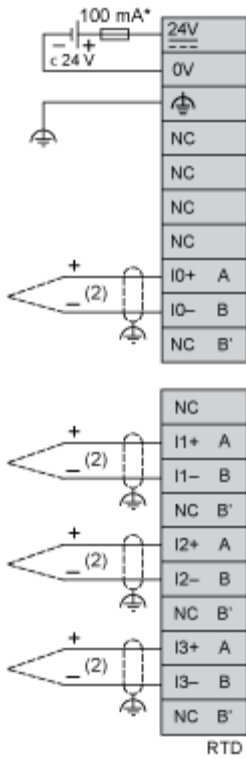
Wiring Diagram (Current/Voltage type)



(*) Type T fuse

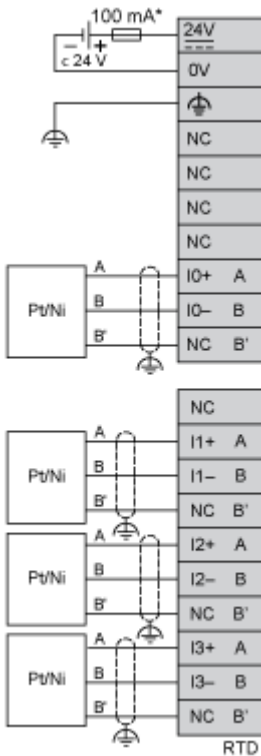
(1) Current/Voltage analog output device

Wiring Diagram (Thermocouple input type)



- (*) Type T fuse
- (2) Thermocouple

Wiring Diagram (Temperature probe input type)



- (*) Type T fuse

