Product datasheet

Specification





module TM3 - 8 inputs temperature

TM3TI8T

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	8	
Analogue Input Type	thermocouple - 2001000 °C with thermocouple J	
	thermocouple - 2001300 °C with thermocouple K	
	thermocouple 01760 °C with thermocouple R	
	thermocouple 01760 °C with thermocouple S	
	thermocouple 01820 °C with thermocouple B	
	thermocouple - 200400 °C with thermocouple T	
	thermocouple - 2001300 °C with thermocouple N	
	thermocouple - 200800 °C with thermocouple E	
	thermocouple 02315 °C with thermocouple C	
	NTC 10k thermistor -90150 °C	
	PTC thermistor 10010000 Ohm	
	thermocouple - 2001000 °C	

Complementary

Analogue Input Resolution	16 bits 15 bits + sign
Input Impedance	>= 1 MOhm thermocouple >= 1 MOhm temperature probe >= 1 MOhm thermistor
Lsb Value	0.1 °Cthermocouple 0.1 °C with NTC probe 1 Ohm with PTC/NTC probe
Conversion Time	100 ms + 100 ms per channel + 1 controller cycle time
Sampling Duration	100 ms
Absolute Accuracy Error	+/- 0.2 % of full scale at 25 °C for thermocouple C 02315 °C +/- 6 °C at 25 °C for thermocouple R, S 0200 °C +/- 0.2 % of full scale at 25 °C for thermocouple R, S 2001760 °C +/- 0.2 % of full scale at 25 °C for thermocouple B 3001820 °C +/- 0.4 % of full scale at 25 °C for thermocouple K - 2000 °C +/- 0.2 % of full scale at 25 °C for thermocouple K 01300 °C +/- 0.4 % of full scale at 25 °C for thermocouple J - 2000 °C +/- 0.2 % of full scale at 25 °C for thermocouple J - 2000 °C +/- 0.2 % of full scale at 25 °C for thermocouple E - 2000 °C +/- 0.2 % of full scale at 25 °C for thermocouple E - 2000 °C +/- 0.4 % of full scale at 25 °C for thermocouple T - 2000 °C +/- 0.4 % of full scale at 25 °C for thermocouple T - 2000 °C +/- 0.2 % of full scale at 25 °C for thermocouple T - 2000 °C +/- 0.4 % of full scale at 25 °C for thermocouple T - 2000 °C +/- 0.4 % of full scale at 25 °C for thermocouple N - 2000 °C +/- 0.2 % of full scale at 25 °C for thermocouple N - 2000 °C +/- 0.2 % of full scale at 25 °C for thermocouple N - 2000 °C
Temperature Drift	+/- 0.01 %FS/°C
Repeat Accuracy	+/-0.5 %FS

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

Non-Linearity +/- 0.2 %FS		
Cross Talk	<= 1 LSB	
[Us] Rated Supply Voltage	24 V DC	
Supply Voltage Limits	20.428.8 V	
Type Of Cable	Twisted shielded pairs cable <30 m for input circuit	
Current Consumption	30 mA at 24 V DC via external supply 45 mA at 5 V DC via bus connector 40 mA at 5 V DC via bus connector	
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	0.11 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 MHz1 GHz conforming to IEC 61000-4-3 3 V/m 1.4 GHz2 GHz conforming to IEC 61000-4-3 1 V/m 2 GHz3 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 0.1580 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 30230 MHz conforming to IEC 55011 Radiated emissions - test level: 47 dBμV/m QP class A (10 m) at 2301000 MHz conforming to IEC 55011
Immunity To Microbreaks	10 ms
Ambient Air Temperature For Operation -1055 °C horizontal installation -1035 °C vertical installation	

Ambient Air Temperature For Storage	-2570 °C	
Relative Humidity	1095 %, without condensation (in operation) 1095 %, without condensation (in storage)	
Ip Degree Of Protection	IP20	
Pollution Degree	2	
Operating Altitude	02000 m	
Storage Altitude	03000 m	
Vibration Resistance	3.5 mm at 58.4 Hz on DIN rail 3 gn at 8.4150 Hz on DIN rail	
Shock Resistance	15 an for 11 ms	

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	7.516 cm
Package 1 Width	10.685 cm
Package 1 Length	12.739 cm
Package 1 Weight	210.0 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	2.391 kg
Unit Type Of Package 3	P06
Number Of Units In Package 3	432
Package 3 Height	105 cm
Package 3 Width	120 cm
Package 3 Length	80 cm
Package 3 Weight	122 kg



Green PremiumTM **label** is Schneider Electric's commitment to delivering products with best-inclass 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

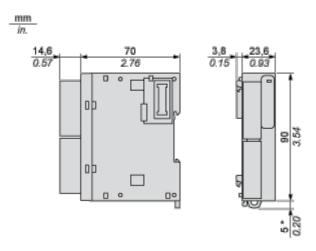
Ø	Toxic Heavy Metal Free	
Ø	Mercury Free	
Ø	Rohs Exemption Information	Yes
⊘	Pvc Free	

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

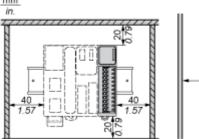
Dimensions

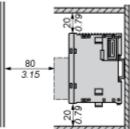


(*) 8.5 mm/0.33 in when the clamp is pulled out.

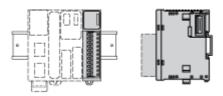
Mounting and Clearance

Spacing Requirements





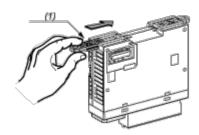
Mounting on a Rail



Incorrect Mounting

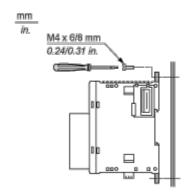


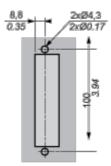
Mounting on a Panel Surface



(1) Install a mounting strip

Mounting Hole Layout

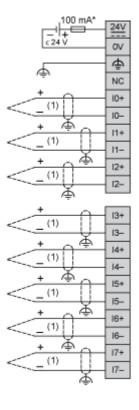




Connections and Schema

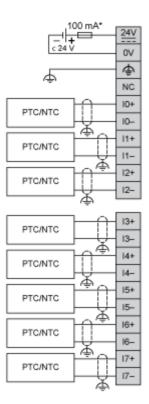
Analogue Input Module

Wiring Diagram (Thermocouple Input Type)



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

Wiring Diagram (Temperature Probe Input Type)



(*) Type T fuse