# Product data sheet Characteristics

# TM3TI8T

## module TM3 - 8 inputs temperature

Product availability: Stock - Normally stocked in distribution facility



Price\*: 249.00 USD



#### Main

Modicon TM3	<u> </u>
Analog input module	
Modicon M221	c
Modicon M251	# <b>9</b> 0
8	
Thermocouple, analogue input range: - 2001000 °C with thermocouple J Thermocouple, analogue input range: - 2001300 °C with thermocouple K Thermocouple, analogue input range: 01760 °C with thermocouple R Thermocouple, analogue input range: 01760 °C with thermocouple S Thermocouple, analogue input range: 01820 °C with thermocouple B Thermocouple, analogue input range: - 200400 °C with thermocouple T Thermocouple, analogue input range: - 2001300 °C with thermocouple N Thermocouple, analogue input range: - 200800 °C with thermocouple E Thermocouple, analogue input range: 02315 °C with thermocouple C NTC 10k thermistor, analogue input range: -90150 °C PTC thermistor, analogue input range: 10010000 Ohm Thermocouple, analogue input range: - 2001000 °C	ot to be used for determining enitability or e
	Analog input module  Modicon M221 Modicon M251  8  Thermocouple, analogue input range: - 2001000 °C with thermocouple J Thermocouple, analogue input range: - 2001300 °C with thermocouple K Thermocouple, analogue input range: 01760 °C with thermocouple R Thermocouple, analogue input range: 01760 °C with thermocouple S Thermocouple, analogue input range: 01820 °C with thermocouple B Thermocouple, analogue input range: - 200400 °C with thermocouple T Thermocouple, analogue input range: - 2001300 °C with thermocouple N Thermocouple, analogue input range: - 2001300 °C with thermocouple E Thermocouple, analogue input range: - 2001000 °C with thermocouple C NTC 10k thermistor, analogue input range: -90150 °C PTC thermistor, analogue input range: 10010000 Ohm

#### Complementary

Analogue input resolution	15 bits + sign	
	16 bits	
Input impedance	>= 1 MOhm temperature probe	
	>= 1 MOhm thermistor	
	>= 1 MOhm thermocouple	
LSB value	0.1 °C with NTC probe	
	1 Ohm with PTC/NTC probe	
	0.1 °C thermocouple	
Conversion time	100 ms + 100 ms per channel + 1 controller cycle time	
Sampling duration	100 ms	
Absolute accuracy error	+/- 1 % of full scale	
	+/- 6 °C at 0200 °C for thermocouple R	
	+/- 6 °C at 0200 °C for thermocouple S	

	+/- 0.4 % of full scale at <= 0 °C for thermocouple K +/- 0.4 % of full scale at <= 0 °C for thermocouple J +/- 0.4 % of full scale at <= 0 °C for thermocouple E +/- 0.4 % of full scale at <= 0 °C for thermocouple T +/- 0.4 % of full scale at <= 0 °C for thermocouple N +/- 0.2 % of full scale thermocouple 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	20.428.8 V
Type of cable	<= 98.43 ft (30 m) twisted shielded pairs cable 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 PWR
Electrical connection	10 x 1.5 mm² removable screw terminal block with pitch 3.81 mm adjustment for inputs and supply 10 x 1.5 mm² removable screw terminal block with pitch 3.81 mm adjustment for inputs
Insulation	500 V AC between input and internal logic 1500 V AC between input and supply
Marking	CE
Surge withstand	1 kV for power supply with common mode protection conforming to EN/IEC 61000-4-5 0.5 kV for power supply with differential mode protection conforming to EN/IEC 61000-4-5 1 kV for input with common mode protection conforming to EN/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	3.54 in (90 mm)
Depth	2.76 in (70 mm)
Width	0.93 in (23.6 mm)
Product weight	0.24 lb(US) (0.11 kg)

#### Environment

LIMITOTITIETIL	
Standards	EN/IEC 61131-2 EN/IEC 61010-2-201
Resistance to electrostatic discharge	4 kV on contact conforming to EN/IEC 61000-4-2 8 kV in air conforming to EN/IEC 61000-4-2
Resistance to electromagnetic fields	9.14 V/yd (10 V/m) at 80 MHz1 GHz conforming to EN/IEC 61000-4-3 2.74 V/yd (3 V/m) at 1.4 GHz2 GHz conforming to EN/IEC 61000-4-3 0.91 V/yd (1 V/m) at 2 GHz3 GHz conforming to EN/IEC 61000-4-3
Resistance to magnetic fields	9.14 A/ft (30 A/m) at 5060 Hz conforming to EN/IEC 61000-4-8
Resistance to fast transients	1 kV I/O conforming to EN/IEC 61000-4-4
Resistance to conducted disturbances, induced by radio frequency fields	10 V at 0.1580 MHz conforming to EN/IEC 61000-4-6 3 V at 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 EN/IEC 55011 Radiated emissions, test level: 47 dBμV/m QP class A (10 m at 230 MHz1 GHz) conforming to EN/IEC 55011
Immunity to microbreaks	10 ms
Ambient air temperature for operation	14131 °F (-1055 °C) (horizontal installation) -1035 °C (vertical installation)
Ambient air temperature for storage	-13158 °F (-2570 °C)
Relative humidity	1095 % without condensation in operation 1095 % without condensation in storage
IP degree of protection	IP20
Pollution degree	2
Operating altitude	06561.68 ft (02000 m)
Storage altitude	09842.52 ft (03000 m)

Vibration resistance	3.5 mm at 58.4 Hz with DIN rail mounting support 3 gn at 8.4150 Hz with DIN rail mounting support
Shock resistance	15 gn during 11 ms

## Ordering and shipping details

Category	22533 - M2XX PLC & ACCESSORIES
Discount Schedule	MSX
GTIN	00785901981701
Nbr. of units in pkg.	1
Package weight(Lbs)	0.4700000000000003
Returnability	Υ
Country of origin	JP

### Offer Sustainability

Sustainable offer status	Green Premium product	
RoHS (date code: YYWW)	Compliant - since 1415 - Schneider Electric declaration of conformity	
	Schneider Electric declaration of conformity	
REACh	Reference not containing SVHC above the threshold	
	Reference not containing SVHC above the threshold	
Product environmental profile	Available	
Product end of life instructions	Available	