Product datasheet





Modicon TM3 - 8 analog inputs (screw) 24Vdc

TM3AI8

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	current 420 mA	
3.	current 020 mA	
	voltage 010 V	
	voltage - 1010 V	

Complementary

Analogue Input Resolution	12 bits 11 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
Lsb Value	2.44 mV 010 Vvoltage 4.88 mV - 1010 Vvoltage 4.88 μA 020 mAcurrent 3.91 μA 420 mAcurrent
Conversion Time	1 ms + 1 ms per channel + 1 controller cycle time
Sampling Duration	1 ms
Absolute Accuracy Error	+/- 1 % of full scale +/- 0.2 % of full scale at 25 °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	Twisted shielded pairs cable <30 m for input circuit
Current Consumption	40 mA at 5 V DC via bus connector full load 35 mA at 5 V DC via bus connector no load 30 mA at 24 V DC via external supply no load 40 mA at 24 V DC via external supply full load
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 screw terminal block with pitch 3.81 mm adjustment for	
	inputs and supply	
	$10 \times 1.5 \text{ mm}^2$ 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	eight 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	tic 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	netic 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 Mł 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 gn for 11 ms

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	7.368 cm
Package 1 Width	10.513 cm
Package 1 Length	12.603 cm
Package 1 Weight	216.5 g
Unit Type Of Package 2	S04
Number Of Units In Package 2	42
Package 2 Height	30 cm
Package 2 Width	40 cm
Package 2 Length	60 cm
Package 2 Weight	10.0 kg
Unit Type Of Package 3	P12
Number Of Units In Package 3	504
Package 3 Height	105 cm
Package 3 Width	120 cm
Package 3 Length	80 cm
Package 3 Weight	130 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

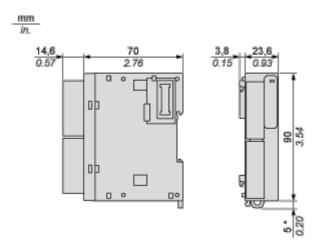
②	Toxic Heavy Metal Free	
②	Mercury Free	
②	Rohs Exemption Information	Yes
⊘	Pvc Free	

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

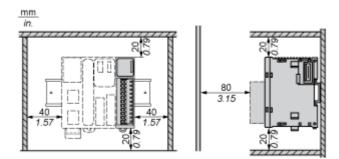


(*) 8.5 mm/0.33 in when the clamp is pulled out.

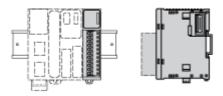
TM3A18

Mounting and Clearance

Spacing Requirements



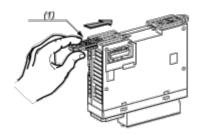
Mounting on a Rail



Incorrect Mounting

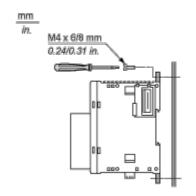


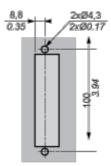
Mounting on a Panel Surface



(1) Install a mounting strip

Mounting Hole Layout

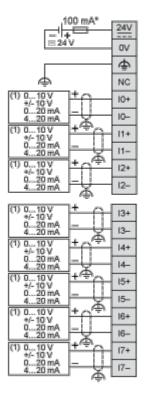




Connections and Schema

Analogue Input Module

Wiring Diagram (Current / Voltage)



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