Product datasheet

Specifications

Modicon M221, Analogue input cartridge, 2 temperature inputs, I/O extension

TMC2TI2

Main

Range Of Product	Modicon M221
Product Or Component Type	Analogue input cartridge
Product Compatibility	Modicon M221C
Analogue Input Number	2

Complementary

Analogue Input Type	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 Ni 100/Ni 1000 temperature probe - 60...180 °C Pt 100 temperature probe - 200...850 °C Pt 1000 temperature probe - 200...600 °C
Analogue Input Resolution	14 bits
Lsb Value	0.1 °C
Sampling Duration	125 ms, analogue input type: thermocouple 250 ms, analogue input type: temperature probe
Absolute Accuracy Error	+/- 0.1 % of full scale at 25 °C for Pt 100/Pt 1000, Ni 100/ Ni 1000 temperature probe +/- 0.4 % of full scale at 25 °C for thermocouple K - 200...0 °C +/- 0.1 % 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 +/- 0.1 % 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 +/- 0.1 % 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 +/- 0.1 % 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 +/- 0.1 % of full scale at 25 °C for thermocouple N 0...1300 °C +/- 6 °C at 25 °C for thermocouple R, S 0...200 °C +/- 0.1 % of full scale at 25 °C for thermocouple R, S 200...1760 °C +/- 0.1 % of full scale at 25 °C for thermocouple C 0...2315 °C
Temperature Drift	+/- 0.02 %FS/°C
Repeat Accuracy	+/- 0.5 %FS
Non-Linearity	+/- 0.01 %FS
Cross Talk	<= 1 LSB
Type Of Cable	Twisted shielded pairs cable
Electrical Connection	3 x 1.5 mm² 2 screw terminal blocks with pitch 3.81 mm adjustment for inputs
Maximum Cable Distance Between Devices	Twisted shielded pairs cable: <30 m for input

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Insulation	Non-insulated between analogue input and internal logic
Height	41 mm
Depth	15 mm
Width	35 mm
Net Weight	0.015 kg
Input Impedance	>= 1 MOhm

Environment

Immunity To Microbreaks	10 ms

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	3.5 cm
Package 1 Width	7.0 cm
Package 1 Length	4.6 cm
Package 1 Weight	20.0 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	75
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	3.324 kg
Unit Type Of Package 3	P12
Number Of Units In Package 3	2400
Package 3 Height	100 cm
Package 3 Width	125 cm
Package 3 Length	55 cm
Package 3 Weight	75 kg

Sustainability

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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
Circularity Profile	End of Life Information