

Product datasheet

Specifications



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

TMC2TI2

EAN Code: 3606480649158

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 mm ² 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
Insulation	Non-insulated between analogue input and internal logic

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

Height	41 mm
Depth	15 mm
Width	35 mm
Product 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	3.500 cm
Package 1 Width	4.500 cm
Package 1 Length	7.000 cm
Package 1 Weight	40.000 g
Unit Type of Package 2	S01
Number of Units in Package 2	75
Package 2 Height	15.000 cm
Package 2 Width	15.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	3.263 kg
Unit Type of Package 3	P12
Number of Units in Package 3	3600
Package 3 Height	105.000 cm
Package 3 Width	80.000 cm
Package 3 Length	120.000 cm
Package 3 Weight	170.624 kg

Logistical informations

Country of origin	JP
-------------------	----

Contractual warranty

Warranty (in months)	18
----------------------	----



Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



Environmental footprint

Total lifecycle Carbon footprint	5 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	1 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	4 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile

Use Better



Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Compliant
REACH Regulation	Reference contains Substances of Very High Concern above the threshold
PVC free	Yes

Use Longer



Lifetime extension

Repair	No
--------	----

Use Again



Repack and remanufacture

End of life manual availability	End of Life Information
Take-back	No
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins