

Product data sheet

Specifications



analogue input cartridge, Modicon M221, 2 temperature inputs, IO extension

TMC2TI2

Product availability: Stock - Normally stocked in distribution facility

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 thermocouple J thermocouple - 200...1300 °C thermocouple K thermocouple 0...1760 °C thermocouple R thermocouple 0...1760 °C thermocouple S thermocouple 0...1820 °C thermocouple B thermocouple - 200...400 °C thermocouple T thermocouple - 200...1300 °C thermocouple N thermocouple - 200...800 °C thermocouple E thermocouple 0...2315 °C 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 thermocouple 250 ms temperature probe
Absolute accuracy error	+/- 0.1 % of full scale at 77 °F (25 °C) for Pt 100/Pt 1000, Ni 100/ Ni 1000 temperature probe +/- 0.4 % of full scale at 77 °F (25 °C) for thermocouple K - 200...0 °C +/- 0.1 % of full scale at 77 °F (25 °C) for thermocouple K 0...1300 °C +/- 0.4 % of full scale at 77 °F (25 °C) for thermocouple J - 200...0 °C +/- 0.1 % of full scale at 77 °F (25 °C) for thermocouple J 0...1000 °C +/- 0.4 % of full scale at 77 °F (25 °C) for thermocouple E - 200...0 °C +/- 0.1 % of full scale at 77 °F (25 °C) for thermocouple E 0...800 °C +/- 0.4 % of full scale at 77 °F (25 °C) for thermocouple T - 200...0 °C +/- 0.1 % of full scale at 77 °F (25 °C) for thermocouple T 0...400 °C +/- 0.4 % of full scale at 77 °F (25 °C) for thermocouple N - 200...0 °C +/- 0.1 % of full scale at 77 °F (25 °C) for thermocouple N 0...1300 °C +/- 6 °C at 77 °F (25 °C) for thermocouple R, S 0...200 °C +/- 0.1 % of full scale at 77 °F (25 °C) for thermocouple R, S 200...1760 °C +/- 0.1 % of full scale at 77 °F (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 <98.4 ft (30 m) input

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

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	1.6 in (41 mm)
Depth	0.6 in (15 mm)
Width	1.4 in (35 mm)
Product Weight	0.033 lb(US) (0.015 kg)
Input impedance	>= 1 MOhm

Environment

Immunity to microbreaks	10 ms
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Ordering and shipping details

Category	US10MSX22533
Discount Schedule	0MSX
GTIN	3606480649158
Returnability	Yes
Country of origin	JP

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	1.378 in (3.500 cm)
Package 1 Width	1.772 in (4.500 cm)
Package 1 Length	2.756 in (7.000 cm)
Package weight(Lbs)	1.411 oz (40.000 g)
Unit Type of Package 2	S01
Number of Units in Package 2	75
Package 2 Height	5.906 in (15.000 cm)
Package 2 Width	5.906 in (15.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	7.194 lb(US) (3.263 kg)
Unit Type of Package 3	P12
Number of Units in Package 3	3600
Package 3 Height	41.339 in (105.000 cm)
Package 3 Width	31.496 in (80.000 cm)
Package 3 Length	47.244 in (120.000 cm)
Package 3 Weight	376.162 lb(US) (170.624 kg)

Contractual warranty

Warranty (in months)	18
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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	No
Packaging without single use plastic	Yes
EU RoHS Directive	Compliant
REACH Regulation	Reference contains Substances of Very High Concern above the threshold
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
PVC free	Yes

Use Longer



Lifetime extension

Repair	No
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Use Again



Repack and remanufacture

Circularity Profile	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.