



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, input range: - 200...1000 °C for thermocouple J Thermocouple, input range: - 200...1300 °C for thermocouple K Thermocouple, input range: 0...1760 °C for thermocouple R Thermocouple, input range: 0...1760 °C for thermocouple S Thermocouple, input range: 0...1820 °C for thermocouple B Thermocouple, input range: - 200...400 °C for thermocouple T Thermocouple, input range: - 200...1300 °C for thermocouple N Thermocouple, input range: - 200...800 °C for thermocouple E Thermocouple, input range: 0...2315 °C for thermocouple C Temperature probe, input range: - 60...180 °C (Ni 100/Ni 1000) Temperature probe, input range: - 200...850 °C (Pt 100) Temperature probe, input range: - 200...600 °C (Pt 1000)
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 Pt 100/Pt 1000, Ni 100/ Ni 1000 25 °C +/- 0.4 % of full scale thermocouple K - 200...0 °C 25 °C +/- 0.1 % of full scale thermocouple K 0...1300 °C 25 °C +/- 0.4 % of full scale thermocouple J - 200...0 °C 25 °C +/- 0.1 % of full scale thermocouple J 0...1000 °C 25 °C +/- 0.4 % of full scale thermocouple E - 200...0 °C 25 °C +/- 0.1 % of full scale thermocouple E 0...800 °C 25 °C +/- 0.4 % of full scale thermocouple T - 200...0 °C 25 °C +/- 0.1 % of full scale thermocouple T 0...400 °C 25 °C +/- 0.4 % of full scale thermocouple N - 200...0 °C 25 °C +/- 0.1 % of full scale thermocouple N 0...1300 °C 25 °C +/- 6 °C thermocouple R, S 0...200 °C 25 °C +/- 0.1 % of full scale thermocouple R, S 200...1760 °C 25 °C

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

+/- 0.1 % of full scale thermocouple C 0...2315 °C 25 °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	2 screw terminal blocks (pitch 3.81 mm) 1.5 mm ² 3 for inputs
Cable distance between devices	Twisted shielded pairs cable: 30 m for input
Insulation	Non-insulated between analogue input and internal logic
Height	41 mm
Depth	15 mm
Width	35 mm
Product weight	0.015 kg
Input impedance	>= 1 MΩ

Environment

Immunity to microbreaks	10 ms
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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 Environmental Profile
Product end of life instructions	Available End of Life Information