



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 +/- 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 mm² 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 MOhm

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
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Available