

Product data sheet

Characteristics

140AMM09000C

analog input output module Modicon Quantum - 4 I - 2 O



Main

Range of product	Modicon Quantum automation platform
Product or component type	Input/Output analog module
Type of filter	Single pole low pass - 3 dB at 21 Hz +/- 20 % input circuit

Complementary

I/O modularity	6 channels
Addressing requirement	2 output words 5 input words
Analogue input number	4
Analogue input type	Unipolar voltage 0...5 V 15 bits DC Unipolar voltage 0...10 V 16 bits DC Unipolar offset voltage 1...5 V 14 bits DC Unipolar offset current 4...20 mA 14 bits DC Unipolar current 0...20 mA 15 bits DC Bipolar voltage +/- 5 V 15 bits DC Bipolar voltage +/- 10 V 16 bits DC Bipolar current +/- 20 mA 15 bits DC
Absolute maximum input	+/- 50 V voltage +/- 25 mA current
Input impedance	> 250 Ohm current > 10 MOhm voltage
Offset	+/- 0.0014 % of full scale maximum/°C 0...60 °C input circuit
Gain shift	+/- 0.002 of full scale maximum 0...60 °C input circuit
Common mode rejection	> 80 dB 50/60 Hz input circuit
Analogue output number	2
Analogue output range	4...20 mA
Analogue output resolution	12 bits
Loop voltage	7...30 V DC output circuit =< 60 V DC with external resistance output circuit
Voltage drop	7...30 V DC 20 mA
Setting time	900 µs to +/-. 0.1 % of the final value output circuit
External power requirement	7...30 V output circuit
Absolute accuracy error	+/- 0.20 % of full scale at 25 °C output circuit +/- 0.05 % of full scale maximum at 25 °C input circuit +/- 0.03 % at 25 °C input circuit +/- 0.007 %/°C of full scale maximum at 0...60 °C output circuit +/- 0.004 % of full scale at 0...60 °C output circuit
Linearity	Monotonic +/- 1 LSB output Monotonic +/- 1 LSB input 2.4 % over range, and - 9.6 % under range current 2.4 % over and under range voltage
Update time	320 ms input circuit 15 ms output circuit
Fault type	Status byte output circuit Overtacking scale (unipolar) input circuit Open circuit input/output circuit

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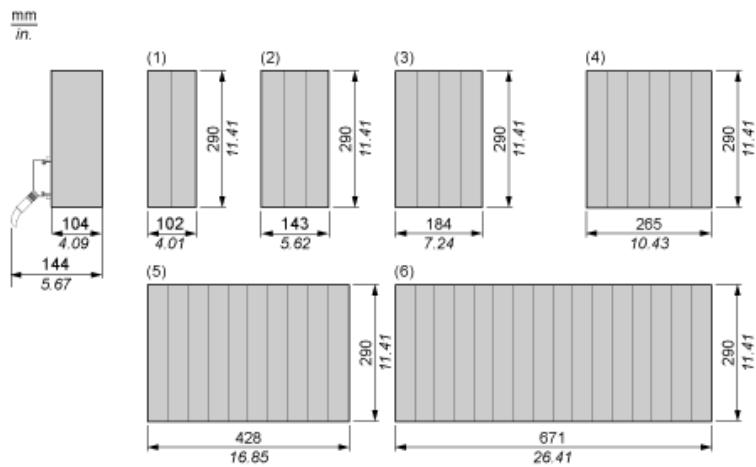
Isolation between channels	750 V DC for 1 minute 500 V AC for 1 minute
Isolation between channels and bus	750 V DC for 1 minute 500 V AC for 1 minute
Isolation between input channels and output channels	750 V for 1 minute 500 V for 1 minute
Marking	CE
Local signalling	6 LEDs red channel fault 6 LEDs green channel is turned on 1 LED red external fault 1 LED green bus communication is present (Active)
Bus current requirement	350 mA
Module format	Standard
Product weight	0.3 kg

Environment

Protective treatment	Conformal coating Humiseal 1A33
Product certifications	C-Tick.1 FM Class 1 Division 2
Standards	CSA C22.2 No 142 UL 508
Resistance to electromagnetic fields	10 V/m 80...2000 MHz conforming to IEC 801-3
Ambient air temperature for operation	0...60 °C
Ambient air temperature for storage	-40...85 °C
Relative humidity	95 % without condensation
Operating altitude	<= 5000 m

Racks for Modules Mounting

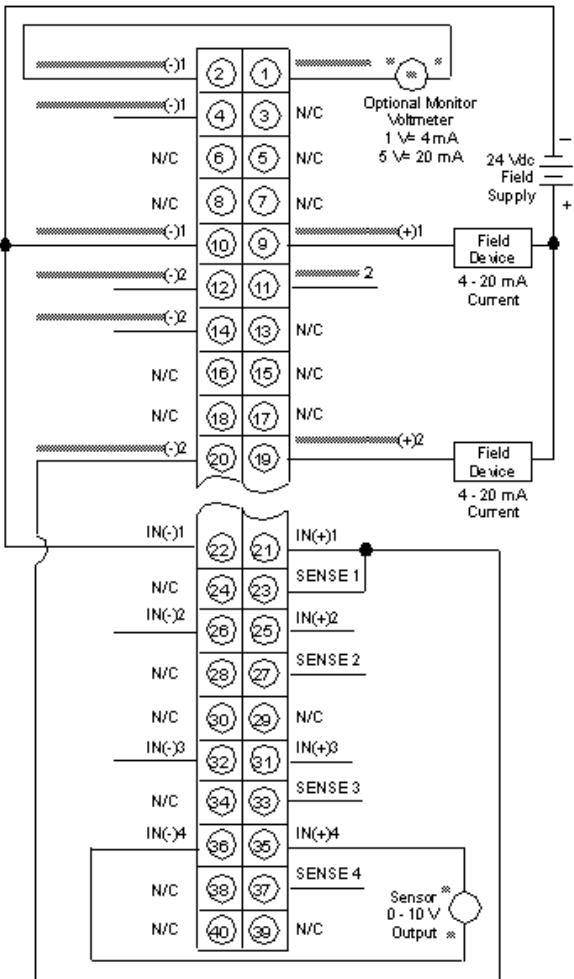
Dimensions of Modules and Racks



- (1) 2 slots
- (2) 3 slots
- (3) 4 slots
- (4) 6 slots
- (5) 10 slots
- (6) 16 slots

Analog Input/Output Module

Wiring Diagram



N/C Not Connected

- Jumpers are required between IN (+) and SENSE terminals for all current input ranges.
- Pins 1 ... 20 are outputs.
- Pins 21 ... 40 are inputs.
- For Inputs, the maximum channel to channel working voltage cannot exceed 30 Vdc.