Product data sheet

Specifications

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

140AMM09000C

Discontinued on: May 11, 2021

To be end-of-service on: Dec 31, 2029

Discontinued

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	Bipolar current +/- 20 mA 15 bits DC Bipolar voltage +/- 10 V 16 bits DC Bipolar voltage +/- 5 V 15 bits DC Unipolar current 0...20 mA 15 bits DC Unipolar offset current 4...20 mA 14 bits DC Unipolar offset voltage 1...5 V 14 bits DC Unipolar voltage 0...10 V 16 bits DC Unipolar voltage 0...5 V 15 bits DC
Absolute maximum input	+/- 25 mA current +/- 50 V voltage
Input impedance	> 10 MOhm voltage > 250 Ohm current
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	0…60 V DC with external resistance output circuit 7…30 V DC output circuit
Maximum voltage drop	<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	+/- 0.004 % of full scale 32…140 °F (0…60 °C) output circuit +/- 0.007 %/°C of full scale maximum 32…140 °F (0…60 °C) output circuit +/- 0.03 % 77 °F (25 °C) input circuit +/- 0.05 % of full scale maximum 77 °F (25 °C) input circuit +/- 0.20 % of full scale 77 °F (25 °C) output circuit

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

Linearity	2.4 % over and under range voltage 2.4 % over range, and - 9.6 % under range current Monotonic +/- 1 LSB input Monotonic +/- 1 LSB output
Update time	15 ms output circuit 320 ms input circuit
Fault type	Open circuit input/output circuit Overtacking scale (unipolar) input circuit Status byte output circuit
Isolation between channels	500 V AC for 1 minute 750 V DC for 1 minute
Isolation between channels and bus	500 V AC for 1 minute 750 V DC for 1 minute
Isolation between input channel and output channel	500 V for 1 minute 750 V for 1 minute
Marking	CE
Local signalling	1 LED (green) for bus communication is present (Active) 1 LED (red) for external fault 6 LEDs (green) for channel is turned on 6 LEDs (red) for channel fault
Bus current requirement	350 mA
Module format	Standard
Net Weight	0.7 lb(US) (0.3 kg)

Environment

Protective treatment	Conformal coating Humiseal 1A33
Product Certifications	FM Class 1 Division 2 C-Tick.1
Standards	UL 508 CSA C22.2 No 142
Resistance to electromagnetic fields	9.1 V/m (10 V/m) 80…2000 MHz IEC 801-3
Ambient Air Temperature for Operation	32…140 °F (0…60 °C)
Ambient Air Temperature for Storage	-40…185 °F (-40…85 °C)
Relative Humidity	95 % without condensation
Operating altitude	<= 16404.2 ft (5000 m)

Ordering and shipping details

Category	18155-QUANTUM I/O & POWER SUPPLIES
Discount Schedule	PC21
GTIN	3595861136199
Returnability	No
Country of origin	FR

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	2.0 in (5.0 cm)
Package 1 Width	6.5 in (16.5 cm)

Package 1 Length	12.4 in (31.5 cm)
Package weight(Lbs)	16.8 oz (476.0 g)

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 >

Use Longer

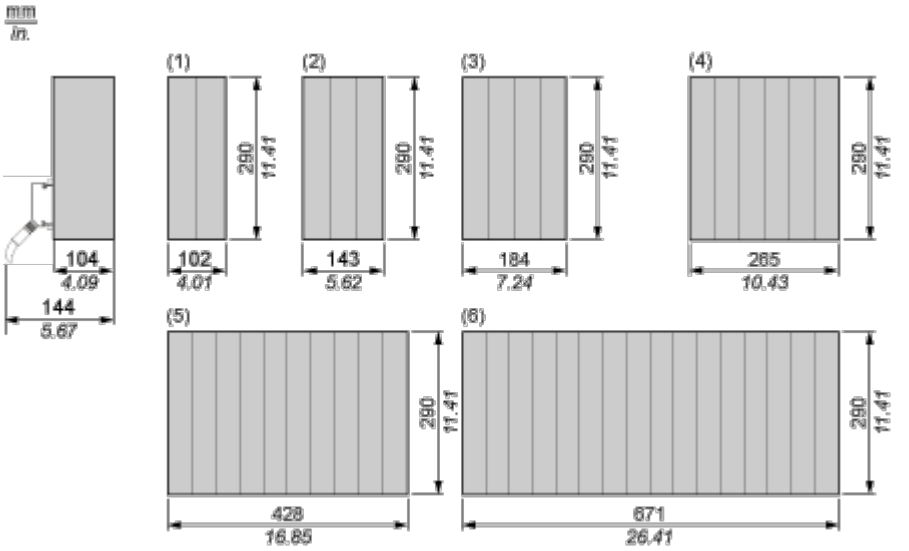
Lifetime extension

Repair	No

Dimensions Drawings

Racks for Modules Mounting

Dimensions of Modules and Racks



(1) 2 slots

(2) 3 slots

(3) 4 slots

(4) 6 slots

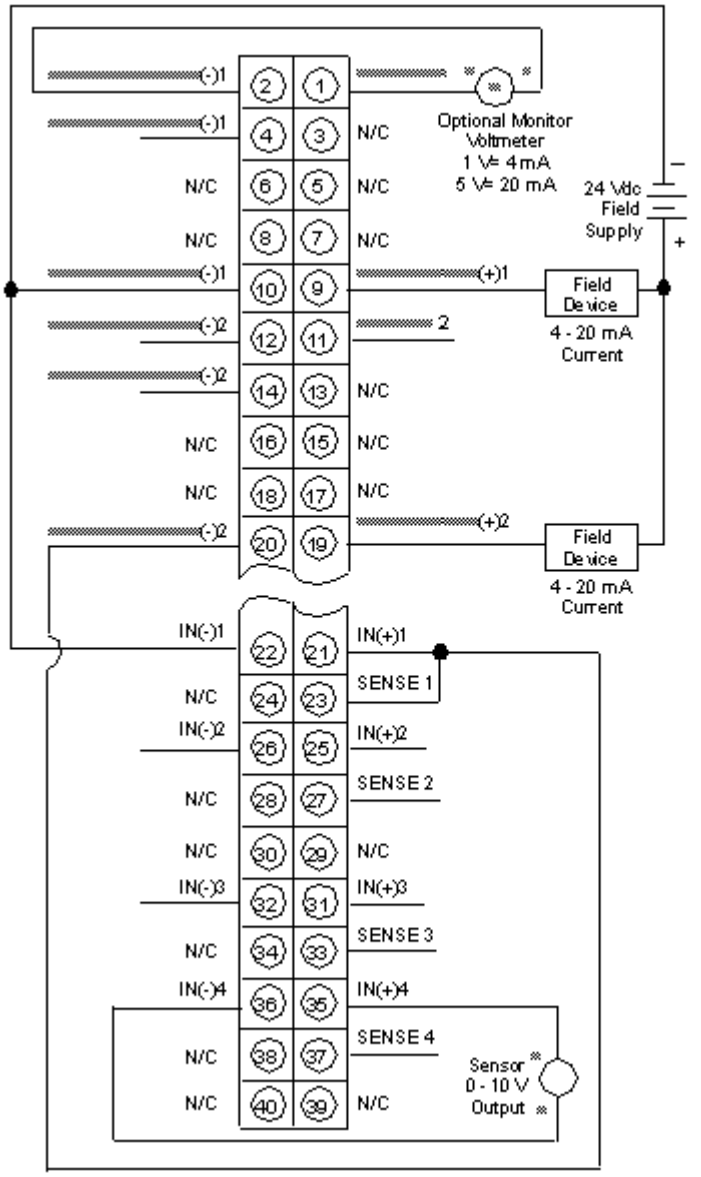
(5) 10 slots

(6) 16 slots

Connections and Schema

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.