Product data sheet

Specifications



analog input module Modicon Quantum - 8 I thermocouple

140ATI03000

Discontinued on: Jan 15, 2023

To be end-of-service on: Dec 31, 2030

Discontinued - Service only

Product availability: Non-Stock - Not normally stocked in distribution facility

Main

Range of Product	Modicon Quantum automation platform
Product or Component Type	Analogue input module
Type of filter	Notch filter - 3 dB at 50/60 Hz Single pole low pass - 3 dB at 20 Hz

Complementary

Analogue input number	8
Addressing requirement	10 input words
Analogue input type	Thermocouple - 210...760 °C thermocouple J Thermocouple - 270...1000 °C thermocouple E Thermocouple - 270...1370 °C thermocouple K Thermocouple - 270...400 °C thermocouple T Thermocouple - 50...1665 °C thermocouple R Thermocouple - 50...1665 °C thermocouple S
Analogue input resolution	16 bits
Absolute accuracy error	+/- 2 °C plus + 0.1 % of reading thermocouple E +/- 2 °C plus + 0.1 % of reading thermocouple J +/- 2 °C plus + 0.1 % of reading thermocouple K +/- 2 °C plus + 0.1 % of reading thermocouple T +/- 4 °C plus + 0.1 % of reading thermocouple R +/- 4 °C plus + 0.1 % of reading thermocouple S
Linearity error	1 °C, 0.1 °C, 1 F, 0.1 F - 210...760 °C 1 °C, 0.1 °C, 1 F, 0.1 F - 270...1000 °C 1 °C, 0.1 °C, 1 F, 0.1 F - 270...1370 °C 1 °C, 0.1 °C, 1 F, 0.1 F - 270...400 °C 1 °C, 0.1 °C, 1 F, 0.1 F - 50...1665 °C
Accuracy drift according to temperature	0.15 µV/°C + 0.0015 % of reading/°C max low level voltage
Common mode rejection	> - 120 dB 50/60 Hz
Isolation between channels and bus	1780 V AC 60 s 2500 V DC 60 s
Isolation between channels	300 V DC 220 V AC
Update time	1000 ms
Fault type	Broken wire Overtacking scale
Marking	CE
Cold junction compensation	Internal 32…140 °F (0…60 °C)

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

Local signalling	1 LED (green) for bus communication is present (Active) 1 LED (red) for external fault 8 LEDs (green) for channel is turned on 8 LEDs (red) for channel fault
Bus current requirement	280 mA
Power dissipation in W	1.5 W
Module format	Standard
Product Weight	0.7 lb(US) (0.3 kg)

Environment

Standards	CSA C22.2 No 142 UL 508
Product Certifications	cUL FM Class 1 Division 2
Resistance to electrostatic discharge	4 kV contact IEC 801-2 8 kV on air IEC 801-2
Resistance to electromagnetic fields	9.1 V/m (10 V/m) 80…1000 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	US1PC2118155
Discount Schedule	PC21
GTIN	3595861126602
Returnability	No

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	1.969 in (5.000 cm)
Package 1 Width	6.496 in (16.500 cm)
Package 1 Length	12.402 in (31.500 cm)
Package weight(Lbs)	14.991 oz (425.000 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 Better

Materials and Substances

EU RoHS Directive	Compliant
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

Use Longer

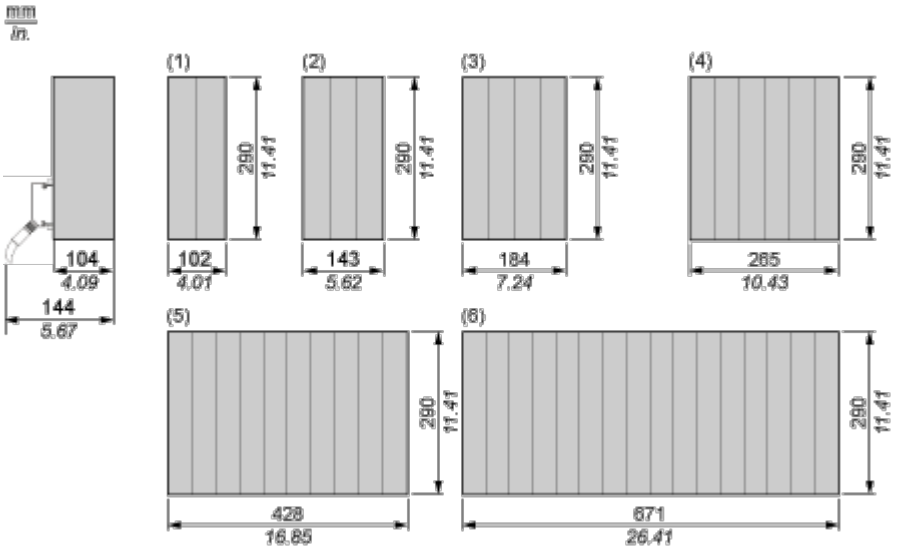
Lifetime extension

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

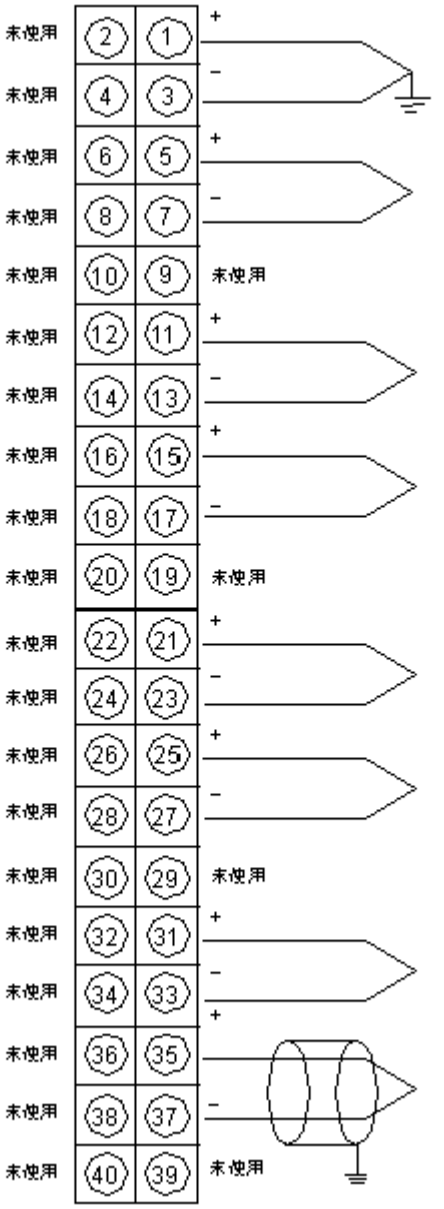
(5) 10 slots

(6) 16 slots

Connections and Schema

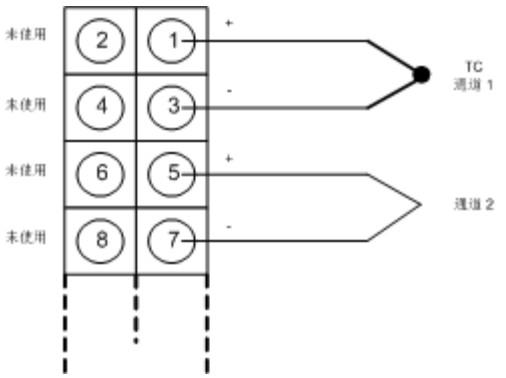
Thermocouple Input 8-Channel Module

Wiring Diagram



Using Cold Junction Compensation (CJC)

For temperature measurements, the module provides an internal CJC. However, a remote CJC can be used with the following TC types: J,K and T. The TC must be connected to Channel.


未使用
2
1
+
TC
通道 1
未使用
4
3
-
未使用
6
5
+
通道 2
未使用
8
7
-