Product data sheet

Specifications

Green Premium™

analog input module Modicon Quantum - 8 I thermocouple

140ATI03000C

⚠ Discontinued on: 31 December 2021

⚠ To be end-of-service on: 31 December 2029

⚠ Discontinued - Service only

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 for thermocouple J Thermocouple: - 270...1000 °C for thermocouple E Thermocouple: - 270...1370 °C for thermocouple K Thermocouple: - 270...400 °C for thermocouple T Thermocouple: - 50...1665 °C for thermocouple R Thermocouple: - 50...1665 °C for 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 for 60 s 2500 V DC for 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 0…60 °C
Local signalling	1 LED (green) for bus communication is present (Active)

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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
Net weight	0.3 kg

Environment

Protective treatment	Conformal coating Humiseal 1A33
Standards	UL 508 CSA C22.2 No 142
Product certifications	cUL FM Class 1 Division 2
Resistance to electrostatic discharge	4 kV contact conforming to IEC 801-2 8 kV on air conforming to IEC 801-2
Resistance to electromagnetic fields	10 V/m 80…1000 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

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.5 cm
Package 1 Width	16.5 cm
Package 1 Length	32.0 cm
Package 1 Weight	459.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	2
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	1.344 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACh free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile

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Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
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

Contractual warranty

Warranty	18 months

Racks for Modules Mounting

Dimensions of Modules and Racks
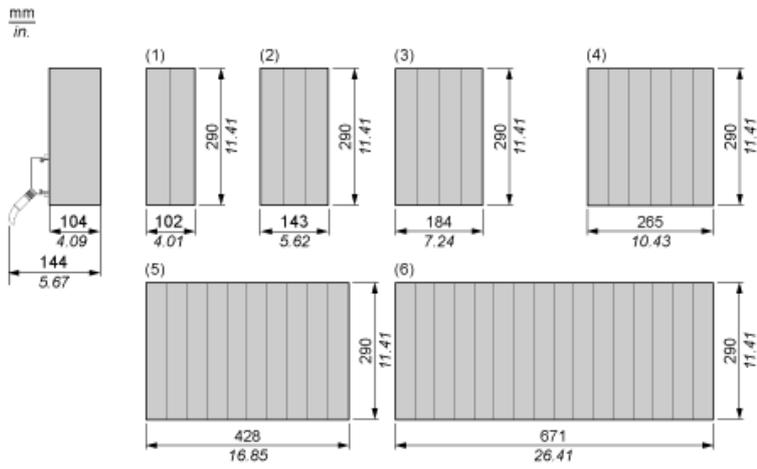
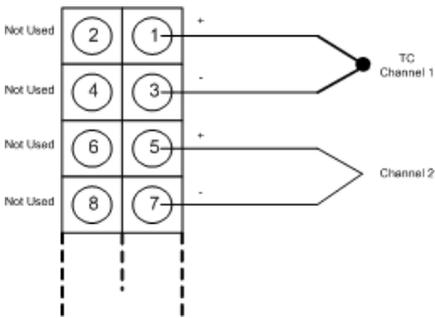|	
(1)	2 slots
(2)	3 slots
(3)	4 slots
(4)	6 slots
(5)	10 slots
(6)	16 slots

Thermocouple Input 8-Channel Module

Wiring Diagram
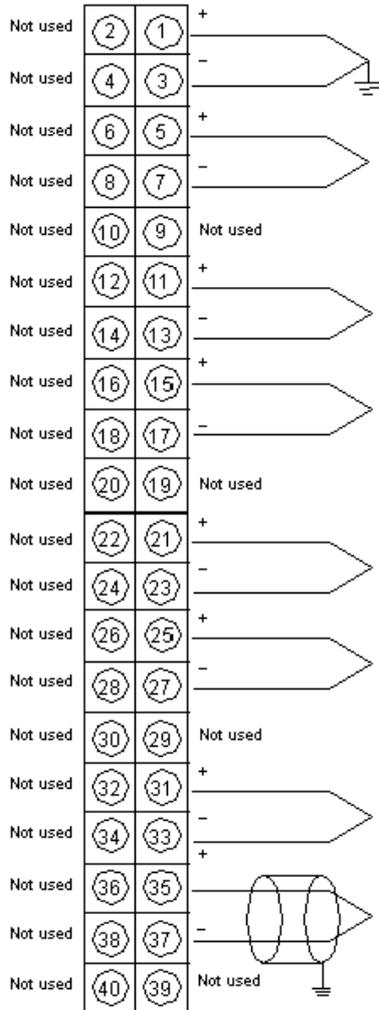
Using Cold Junction Compensation (CJC)

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.

Recommended replacement(s)

140ATI03000C is replaced by:

1x		analog input module X80 - 8 inputs - temperature BMXART0814H