

# 140ATI03000

## Modicon Quantum 8-Channel Thermocouple Input Module

Schneider Electric 140ATI03000 is a Modicon Quantum analog input module for eight thermocouple or millivolt channels. Each channel is individually configurable for the documented sensor type and

### PRODUCT SNAPSHOT

**BRAND**  
Schneider Electric

**FAMILY**  
Modicon Quantum

**PART**  
140ATI03000

**DOCUMENT STATUS**  
Controlled engineering copy

### APTER POWER

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# PRODUCT OVERVIEW

Schneider Electric 140ATI03000 provides acquisition of eight individually configured thermocouple or millivolt signals in a Quantum rack in a documented Modicon Quantum installation.

-  Eight thermocouple inputs
-  J, K, E, T, S, R and B support
-  Two millivolt ranges
-  Individual channel configuration

| RELATED APTER POWER PAGES                                                                                                          |                                                                                                                                     |                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
|  <a href="#">Schneider Electric 140CPU67160</a> |  <a href="#">Schneider Electric 140CPU43412U</a> |  <a href="#">Schneider Electric 140CPS22400</a>  |
|  <a href="#">Schneider Electric 140CPS11100</a> |  <a href="#">Schneider Electric 140ARI03010</a>  |  <a href="#">Schneider Electric 140ACO13000</a>  |
|  <a href="#">Schneider Electric 140AMM09000</a> |  <a href="#">Schneider Electric 140ARI03010C</a> |  <a href="#">Schneider Electric 140ACO13000C</a> |

## SYSTEM COMPONENTS

| DOCUMENTED COMPONENT | ROLE IN SYSTEM          |
|----------------------|-------------------------|
| Proximity probe      | Matched extension cable |
| Proximitor Sensor    | AISI 4140 target        |

### ENGINEERING CONTEXT

The component remains matched to its documented cabinet position, power source, interfaces and approved engineering configuration. Commissioning restores that architecture and verifies the affected control or communication function under controlled conditions.

# TECHNICAL DATA

| PARAMETER               | VALUE                             |
|-------------------------|-----------------------------------|
| Product designation     | Thermocouple analog input module  |
| Automation platform     | Modicon Quantum                   |
| Analog inputs           | 8                                 |
| Supported thermocouples | J, K, E, T, S, R and B            |
| Millivolt ranges        | -100 to +100 mV and -25 to +25 mV |
| Type J range            | -210 to +760 degC                 |
| Type K range            | -270 to +1370 degC                |
| Type E range            | -270 to +1000 degC                |
| Type T range            | -270 to +400 degC                 |
| Type S / R range        | -50 to +1665 degC                 |

| PARAMETER                 | VALUE                                              |
|---------------------------|----------------------------------------------------|
| Type B range              | -130 to +1820 degC                                 |
| Selectable resolution     | 1 degC, 0.1 degC, 1 degF or 0.1 degF               |
| Input data                | 10 input words                                     |
| Bus current required      | 280 mA                                             |
| Maximum power dissipation | 1.5 W                                              |
| External supply           | Not required                                       |
| Channel configuration     | Each channel individually configurable             |
| Approvals                 | UL 508, CSA 22.2-142, CE and FM Class I Division 2 |
| Official replacement      | BMXART0814                                         |

## RELATED PRODUCT PAGES

1 Schneider Electric 140CPU67160

2 Schneider Electric 140CPU43412U

3 Schneider Electric 140CPS22400

4 Schneider Electric 140CPS11100

5 Schneider Electric 140ARI03010

6 Schneider Electric 140ACO13000

7 Schneider Electric 140AMM09000

8 Schneider Electric 140ARI03010C

9 Schneider Electric 140ACO13000C

## TECHNICAL NOTE

Install 140ATI03000 only in the documented Modicon Quantum position and preserve its exact wiring, interfaces and configuration. After controlled energization, verify diagnostics and acquisition of eight individually configured thermocouple or millivolt signals in a Quantum rack before service release.

# APPLICATIONS & PRECAUTIONS

## COMMON APPLICATIONS

### Process-temperature measurement

Acquires configured thermocouple signals from plant sensors.

### High-temperature monitoring

Supports documented S, R or B thermocouple installations.

### Millivolt sensor acquisition

Reads one of the two official low-level voltage ranges.

### Temperature-loop commissioning

Verifies sensor type, polarity, cold-junction practice and scaling per channel.

## PRODUCT PRECAUTIONS

1

Confirm the complete 140ATI03000 marking and the documented Modicon Quantum 8-Channel

2

Place the machine, controller and affected process in the approved maintenance state.

3

Isolate all hazardous energy and prove the safe state before disconnecting hardware.

4

Record the installed position, every terminal or port, and the active engineering configuration.

5

Verify the exact electrical, interface and environmental limits in the manufacturer evidence.

6

Restore protective earth, shielding, wiring, communications and the approved project or

7

Energize under control and review all device, rack, network and process diagnostics.

8

Complete a controlled functional test of acquisition of eight individually configured thermocouple or millivolt

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Schneider Electric 140ACO13000

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Schneider Electric 140ARI03010C

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Schneider Electric 140ACO13000C

# ENGINEER FAQ

**Q1**     **How many temperature-input channels does Schneider Electric 140ATI03000 provide?**

140ATI03000 provides eight individually configurable analog input channels.

**Q2**     **Which thermocouple types can be assigned to 140ATI03000 channels?**

The module supports J, K, E, T, S, R and B thermocouples.

**Q3**     **Which millivolt ranges are available on 140ATI03000?**

The documented ranges are -100 to +100 mV and -25 to +25 mV.

**Q4**     **Can different 140ATI03000 channels use different sensor types?**

Yes. Schneider Electric confirms that each channel is individually configurable.

**Q5**     **What engineering-unit resolutions can 140ATI03000 report?**

Selectable resolutions are 1 degC, 0.1 degC, 1 degF and 0.1 degF.

**Q6**     **Does 140ATI03000 require a separate external power supply?**

No external supply is required for the module.

**Q7**     **How much Quantum bus current does 140ATI03000 require?**

The module requires 280 mA from the Quantum bus.

**Q8**     **What must be proven before returning 140ATI03000 to service?**

Verify every channel's sensor type, polarity, cold-junction practice, scaling and controlled temperature response.

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**SOURCE**     Schneider Electric 140ATI03000 product record and Modicon Quantum catalog | Official manufacturer evidence verified 28 September 2026

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