

140ACI05100SC

32-channel selectable current-or-voltage analog input module for Quantum

VERIFIED OVERVIEW

The 140ACI05100SC collects thirty-two single-ended analog signals in four isolated channel groups and transfers their configured values and status to a Quantum controller. The information below is restricted to the exact model and the available manufacturer evidence.

Core identity

Product type	Selectable current-or-voltage analog input module
Platform	Quantum Automation Series
Input count	32 single-ended analog inputs
Channel grouping	4 groups of 8
Current ranges	4 to 20 mA; 0 to 20 mA
Voltage ranges	+/-10 V DC; 0 to 10 V DC; 0 to 5 V DC; 1 to 5 V DC

SELECTION RULE

Use the full product marking and the approved project record. A shared Quantum family name or similar terminal pattern is not proof that another module can replace this one.

Documented function markers

- 32 single-ended analog inputs
- Four configurable groups of eight channels
- Current or voltage input selection
- Over-range, under-range and active-notch-filter functions

RECORD BOUNDARY

Packaging data, shipping dimensions and seller descriptions are not used as installed-product engineering parameters in this document.

Documented parameters

Exact-model electrical and system values

Product type	Selectable current-or-voltage analog input module
Platform	Quantum Automation Series
Input count	32 single-ended analog inputs
Channel grouping	4 groups of 8
Current ranges	4 to 20 mA; 0 to 20 mA
Voltage ranges	+/-10 V DC; 0 to 10 V DC; 0 to 5 V DC; 1 to 5 V DC
Isolation	500 V AC channel-to-backplane; 15 V group-to-group; 0 V channel-to-channel within a group
Data formats	12-bit; signed integer; unsigned integer; scaled 0 to 10,000

PARAMETER USE

Apply these values as product boundaries, then confirm the installed circuit, fuse, field supply, controller configuration and environmental design in the approved site documentation.

Parameter verification prompts

- Record the complete 140ACI05100SC marking.
- Confirm the Quantum rack and exact slot position.
- Isolate field wiring and rack power before removal.
- Verify each group-of-eight input range and data format.

NO INFERRED VALUES

Where the exact Spectrum Controls evidence does not state a value, the value remains installation-specific and must be obtained from the approved project record or the installed nameplate.

Application context

How the exact model fits a documented MODICON QUANTUM system

HIGH-DENSITY ANALOG ACQUISITION

Collects thirty-two documented current or voltage signals.

GROUPED RANGE CONFIGURATION

Applies one approved range to each group of eight inputs.

PROCESS AND UTILITY MONITORING

Supports controlled multi-loop acquisition in a Quantum system.

CHANNEL DIAGNOSTICS

Reports over-range, under-range and front-panel status information.

Integration controls

- Configure each group of eight channels for its approved current or voltage range.
- Use shielded twisted-pair field cable and ground each shield at one end only as directed by the installation manual.
- Match the field terminal block, channel map and register allocation to the approved Quantum project.
- Record the Ready, Active, Fault and channel LED states before removal and after commissioning.

TRACEABILITY

Retain the full model, rack and slot, terminal or cable identities, software configuration and acceptance results. These records make later troubleshooting and replacement decisions auditable.

Controlled release checks

- Check every channel label and shield termination.
- Confirm the terminal block and connector arrangement.
- Review Ready, Active, Fault and channel indications.
- Document all restored readings and diagnostics before release.

Exact-model FAQ

Questions answered only from the documented product identity

What is 140ACI05100SC?

A Spectrum Controls 32-channel selectable current-or-voltage analog input module for the Quantum platform.

How many inputs are provided?

Thirty-two single-ended analog inputs.

How are the channels organized?

Four groups of eight channels.

Which current ranges are documented?

4 to 20 mA and 0 to 20 mA.

Which voltage ranges are documented?

+/-10 V DC, 0 to 10 V DC, 0 to 5 V DC and 1 to 5 V DC.

What isolation is specified?

500 V AC channel-to-backplane, 15 V group-to-group and no channel-to-channel isolation within a group.

Which diagnostics are documented?

Over-range, under-range, Ready, Active, Fault and channel status indications.

What must be verified before replacement?

The full marking, rack and slot, four group configurations, data format, terminal block and every channel label.

Verified references

ApterPower navigation, evidence boundary and direct contact

Verified related ApterPower product pages

Schneider Electric 140DAI74000

Schneider Electric 140CRP93100

SOURCE BOUNDARY

Product facts in this document were prepared from the available exact-model Spectrum Controls evidence. Related product links are navigation references, not compatibility claims.

IDENTITY BOUNDARY

The complete model remains the controlling identity. Similar product names, adjacent catalog rows or a matching connector do not establish interchangeability.

Talk to Apter Power

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SUPPORT REQUEST

When contacting Apter Power, include the full label, rack and slot, cabinet photos, controller diagnostic text and the exact required operating function.