

Schneider Electric

AM-SA85-000

Network Adapter

Schneider Electric AM-SA85-000 is a single-channel ISA host adapter for connecting a computer to a Modbus Plus network. Its usable communication path depends on the installed SA85 driver and the configuration of the host application.

Schneider Electric AM-SA85-000 connects an ISA-equipped host computer to a single Modbus Plus channel. Driver loading, board selection and PLC routing must agree with the host application's documented setup.

Functional position



AM-SA85-000 is not a dual-channel Profibus card or a PCI adapter. Legacy Citect setup values below apply to the software versions identified in Q1683, not automatically to newer operating systems or driver packages.

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Control and integration highlights

Provides the ISA host path into a Modbus Plus network.

Uses board-level address settings alongside application configuration.

Supports addressed PLC communication through the installed SA85 driver.

Separates board identification, virtual ports and destination routing.

Technical capability map

Host bus	ISA
Network protocol	Modbus Plus
Network channels	1
Original supply identity	Adapter only
Replacement kit	AM-SA85-030: AM-SA85-000 adapter and driver-suite CD
Address configuration	On-board DIP switches: memory address and station address
Legacy Citect board type	MBPLUS
Legacy Citect board identifier	Matches SA85.SYS /n option when multiple boards are used
Legacy Citect routing format	Five-part PLC route: p.p.p.p.p

Legacy Citect virtual ports	Up to 8 per board; each can address multiple units
Legacy Citect driver files	SA85.SYS, DOS_MP.EXE, MBPLUS.DLL
Q1683 driver interrupt	0x5B with /r2; applies to the documented legacy Citect setup
Q1683 timeout	2000 ms
Q1683 poll time	20 ms
Q1683 watch time	30 seconds
Q1683 pending requests	2
Q1683 transfer block	238 bytes
Q1683 StringReverse	0: no byte swapping within string words

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Integration and applications

Legacy Citect PLC access

Connects a supported CitectSCADA host to Modicon PLCs through the documented MBPLUS driver configuration.

Multi-device polling

Allows multiple Modbus Plus units behind virtual ports, with port allocation matched to the supported host configuration.

Bridged Modbus Plus routes

Supports the destination path entered in the I/O-device form when a PLC is reached through a Modbus Plus bridge.

ISA workstation renewal

Restores the existing single-channel host interface while retaining the applicable address and driver setup.

For the legacy Citect versions covered by Q1683, the board, port and I/O-device forms form one linked communication chain. Check that chain against the loaded SA85.SYS and DOS_MP components before diagnosing PLC data exchange.

Integration boundary

The I-O-device address identifies the PLC route, whereas the device number identifies the I-O device within the network configuration. The selected port name completes the chain back to the adapter. A bridged route includes the bridge and target node in the correct order.

Q1683 describes CitectSCADA 1.00-3.00 settings; its interrupt and timing values are not universal recommendations for other software or operating systems.

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Model-specific engineering FAQ

Will AM-SA85-000 fit a PCI-only host computer?

AM-SA85-000 uses ISA, so a PCI-only slot is not its host interface. Keep it separate from PCI or PCIe Modbus Plus adapter references.

Which driver startup settings are used for AM-SA85-000 in the Q1683 Citect configuration?

That legacy setup uses SA85.SYS with software interrupt 0x5B and /r2, then loads DOS_MP from WINSTART.BAT before Windows. These settings apply to the Citect versions named in Q1683.

How is a second AM-SA85-000 selected in the legacy Citect board form?

The board address must match the board number supplied with the SA85.SYS /n option. The port form then references that board's unique name.

How is a bridged PLC path entered for AM-SA85-000 communication?

Enter the PLC's Modbus Plus route in the I/O-device address field. Q1683 gives a direct node as 1 and a PLC at node 2 through bridge node 5 as 5,2; the route has up to five parts.

Can one AM-SA85-000 virtual port serve more than one Modbus Plus unit?

Yes. Q1683 allows multiple units per virtual port and up to eight ports per board. It recommends a separate virtual port for each unit when maximizing performance.

Should baud rate and parity be entered in the AM-SA85-000 Citect port form?

Q1683 marks baud rate, data bits, stop bits and parity as unused in this MBPLUS port form. Do not apply serial Modbus RTU settings to those fields.

How does AM-SA85-000 string handling avoid byte reversal in the documented Citect setup?

Set MBPLUS StringReverse to 0 for the Q1683 configuration. This keeps the bytes within string words from being swapped; verify the resulting PLC string representation.

What changes when ordering AM-SA85-030 instead of AM-SA85-000?

AM-SA85-030 is the kit containing the AM-SA85-000 single-channel adapter together with a Modbus Plus driver-suite CD. The older AM-SA85-000 supply identity refers to the adapter alone.

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Installation and service precautions

Verify AM-SA85-000 as the single-channel ISA adapter before host work. Use the driver and application instructions for the installed software; the Q1683 settings describe a legacy Citect environment.

01

Use an ISA-compatible host; do not treat a PCI SA85 product as the same physical interface.

02

Retain the on-board memory and station-address settings and check them against the host configuration.

03

For the Q1683 Citect setup, match SA85.SYS to interrupt 0x5B and the /r2 option.

04

Load DOS_MP from WINSTART.BAT before starting Windows in the documented legacy setup.

05

Keep the Citect board address consistent with the SA85.SYS /n identifier when more than one board is installed.

06

Link each port to the correct board name and each I/O device to the intended port name.

07

Use the actual five-part PLC route; do not replace a bridged path with only the final PLC node.

08

Check digital and register addresses plus string byte order against the intended PLC data before enabling application writes.

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Evidence and related portfolio

Technical evidence record

Replacement for the Modbus Plus ISA adapter AM-SA85-000 - FA197319
Using SA85 Modbus Plus Card - CitectSCADA Q1683, 23 November 2007

Related portfolio navigation

These separate product pages are reference navigation, not a statement of interchangeability or approval for the installed system.

Schneider Electric 416NHM30030A	View Schneider Electric 416NHM30030A page
Schneider Electric 490NRP25400	View Schneider Electric 490NRP25400 page
Schneider Electric 140NOE77100	View Schneider Electric 140NOE77100 page
Schneider Electric 140NOE77101	View Schneider Electric 140NOE77101 page
Schneider Electric 140NOE77110	View Schneider Electric 140NOE77110 page
Schneider Electric 140NOE77111	View Schneider Electric 140NOE77111 page

The technical reference identifies the ISA adapter and the legacy driver/configuration fields; the installation guide follows the supported Citect board, port, route and variable-verification sequence.

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