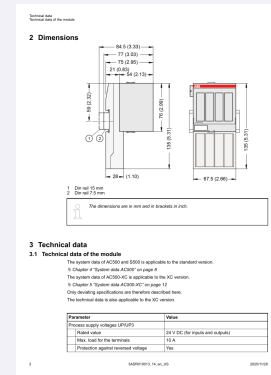


FIELD INSTALLATION QUICK GUIDE

Installation Instructions

ABB CI501-PNIO

PROFINET Communication Interface Module



PRODUCT	CI501-PNIO
FAMILY	AC500 / S500 I/O
FUNCTION	PROFINET Communication Interface Module
STATUS	Verify exact configuration

Prepared by Amikon Limited from ABB 3ADR010013 rev.14, 2025-11-28; CI501-PNIO connections. This guide does not replace the complete manufacturer manual, site procedure, hazardous-area drawing, or approval document.

01 CONFIRM THE ORDERED CONFIGURATION

Onboard channel allocation	4 analog inputs, 2 analog outputs, 8 digital inputs and 8 digital outputs
Analog input selections	0 to 10 V, -10 to +10 V, 0 to 20 mA, 4 to 20 mA; Pt100, Pt1000 or Ni1000
Analog output selections	-10 to +10 V, 0 to 20 mA or 4 to 20 mA
Analog input conversion cycle	1 ms for 4 inputs plus 2 outputs; 1 s with Pt/Ni RTDs
Digital input delay	Typically 0.1 ms; configurable from 0.1 to 32 ms
Digital output current	500 mA per channel at 24 V; 4 A total before mounting derating
Fast-counter frequency	Modes 1-6: 200 kHz; mode 7: 50 kHz; mode 9: 35 kHz; mode 10: 20 kHz maximum

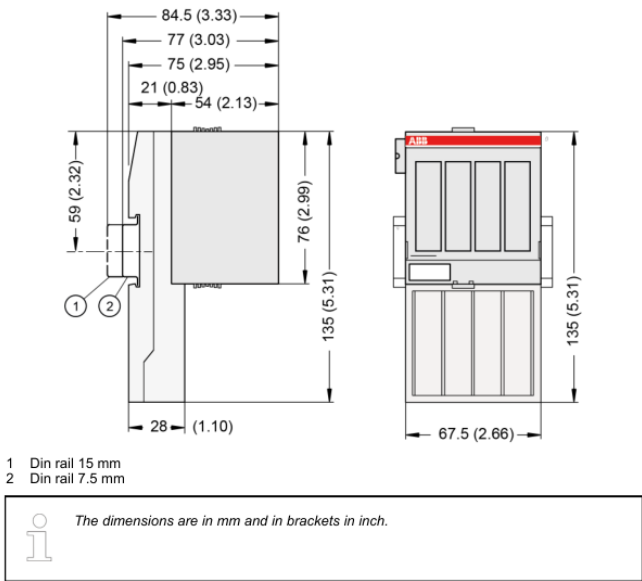
02 MOUNTING AND CONNECTION

- Isolate all supply and field voltages and secure the process before mounting or wiring.
- Fit CI501-PNIO to the documented TU507-ETH or TU508-ETH terminal unit; preserve free convection.
- Connect protected 24 V DC UP to 1.8/2.8 and UP3 to 3.8, with ZP returns on 1.9/2.9/3.9.
- Connect the engineered PROFINET network through the terminal-unit RJ45 ports and restore the device identity.
- Follow the exact analog and digital terminal diagrams, shielding and equipotential bonding requirements.

03
OFFICIAL INSTALLATION REFERENCE

Technical data
Technical data of the module

2 Dimensions



3 Technical data

3.1 Technical data of the module

The system data of AC500 and S500 is applicable to the standard version.
❧ Chapter 4 "System data AC500" on page 8
The system data of AC500-XC is applicable to the XC version.
❧ Chapter 5 "System data AC500-XC" on page 12
Only deviating specifications are therefore described here.
The technical data is also applicable to the XC version.

Parameter	Value
Process supply voltages UP/UP3	
Rated value	24 V DC (for inputs and outputs)
Max. load for the terminals	10 A
Protection against reversed voltage	Yes

Official manufacturer reference reproduced from ABB 3ADR010013 rev.14, 2025-11-28; CI501-PNIO connections. Use the current source document and all referenced drawings and notes for installation.

04

CABLE ROUTING AND CONNECTION

- Fit CI501-PNIO to the documented TU507-ETH or TU508-ETH terminal unit; preserve free convection.
- Connect protected 24 V DC UP to 1.8/2.8 and UP3 to 3.8, with ZP returns on 1.9/2.9/3.9.
- Connect the engineered PROFINET network through the terminal-unit RJ45 ports and restore the device identity.
- Follow the exact analog and digital terminal diagrams, shielding and equipotential bonding requirements.
- Download the station I/O configuration, check channel diagnostics and test output response in a safe process state.

05

INITIAL SYSTEM CHECKS

- Confirm model identity and compatible system components before energizing.
- Verify wiring, grounding, enclosure, and applicable hazardous-area requirements.
- Verify PROFINET state, I/O mapping and safe field-device response after commissioning.
- Record the installed order number and baseline operating condition.

06

CONTROLLED DOCUMENTS

Official source	ABB 3ADR010013 rev.14, 2025-11-28; CI501-PNIO connections
Product record	CI501-PNIO
Manufacturer	ABB
Support	INFO@AMIKON.CN