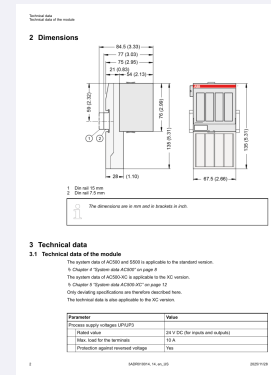


FIELD INSTALLATION QUICK GUIDE

Installation Instructions

ABB CI502-PNIO

PROFINET Digital I/O Interface



PRODUCT	CI502-PNIO
FAMILY	AC500 / S500 I/O
FUNCTION	PROFINET Digital I/O Interface
STATUS	Verify exact configuration

Prepared by Amikon Limited from ABB 3ADR010014 rev.14, 2025-11-28; CI502-PNIO hardware connections. This guide does not replace the complete manufacturer manual, site procedure, hazardous-area drawing, or approval document.

01 CONFIRM THE ORDERED CONFIGURATION

Onboard I/O allocation	8 fixed DI, 8 fixed DO and 8 configurable digital I/O
Configurable channel terminals	DC0 to DC7 on terminals 1.0 to 1.7
Digital input delay	Typically 0.1 ms; configurable from 0.1 to 32 ms
Input switching levels	Signal 0: -3 to +5 V; signal 1: +15 to +30 V
Typical input current	5 mA per channel at 24 V
Digital output rating	500 mA per channel; 4 A per eight-channel output group before derating
Off-state output leakage	Less than 0.5 mA

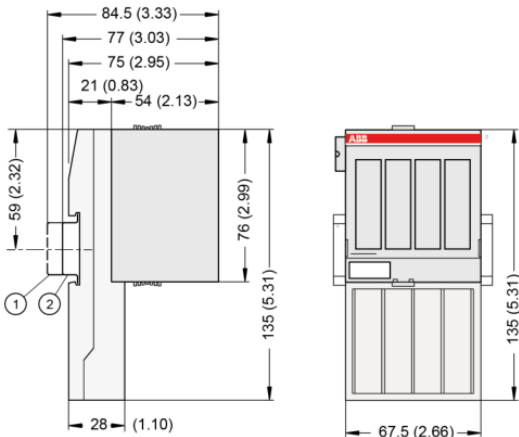
02 MOUNTING AND CONNECTION

- Switch off all supply and process voltages and secure the connected equipment before work.
- Seat standard CI502-PNIO on TU507-ETH or TU508-ETH and preserve unobstructed natural convection.
- Connect protected 24 V DC UP to 1.8/2.8, UP3 to 3.8 and ZP returns to 1.9/2.9/3.9.
- Assign DC0-DC7 to their intended digital input or output function; use the documented UP3-related input source arrangement.
- Prevent external voltage from backfeeding DO or DC terminals; follow the engineered network and terminal connections.

OFFICIAL INSTALLATION REFERENCE

Technical data
Technical data of the module

2 Dimensions



- 1 Din rail 15 mm
- 2 Din rail 7.5 mm



The dimensions are in mm and in brackets in inch.

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 3ADR010014 rev.14, 2025-11-28; CI502-PNIO hardware connections. Use the current source document and all referenced drawings and notes for installation.

04

CABLE ROUTING AND CONNECTION

- Seat standard CI502-PNIO on TU507-ETH or TU508-ETH and preserve unobstructed natural convection.
- Connect protected 24 V DC UP to 1.8/2.8, UP3 to 3.8 and ZP returns to 1.9/2.9/3.9.
- Assign DC0-DC7 to their intended digital input or output function; use the documented UP3-related input source arrangement.
- Prevent external voltage from backfeeding DO or DC terminals; follow the engineered network and terminal connections.
- Restore the PROFINET station configuration and safely test input states, output commands and channel diagnostics.

05

INITIAL SYSTEM CHECKS

- Confirm model identity and compatible system components before energizing.
- Verify wiring, grounding, enclosure, and applicable hazardous-area requirements.
- Test digital input states, commanded outputs and network diagnostics under safe conditions.
- Record the installed order number and baseline operating condition.

06

CONTROLLED DOCUMENTS

Official source	ABB 3ADR010014 rev.14, 2025-11-28; CI502-PNIO hardware connections
Product record	CI502-PNIO
Manufacturer	ABB
Support	INFO@AMIKON.CN