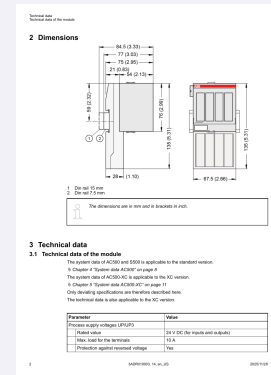


FIELD INSTALLATION QUICK GUIDE

Installation Instructions

ABB CI521-MODTCP

Modbus TCP I/O Interface



PRODUCT	CI521-MODTCP
FAMILY	AC500 / S500 I/O
FUNCTION	Modbus TCP I/O Interface
STATUS	Verify exact configuration

Prepared by Amikon Limited from ABB 3ADR010003 rev.14, 2025-11-28; CI521 connections and Modbus system technology. This guide does not replace the complete manufacturer manual, site procedure, hazardous-area drawing, or approval document.

01 CONFIRM THE ORDERED CONFIGURATION

Integrated I/O allocation	4 analog inputs, 2 analog outputs, 8 digital inputs and 8 digital outputs
Ethernet hardware	10/100 Base-TX; internal switch with two RJ45 sockets
Process data structure	20 input bytes and 24 output bytes
Process supply	24 V DC at UP and UP3; -15% / +20% system tolerance
Normal UP current	0.20 A
UP3 current demand	0.06 A plus maximum 0.5 A per output
Internal power dissipation	Maximum 6 W

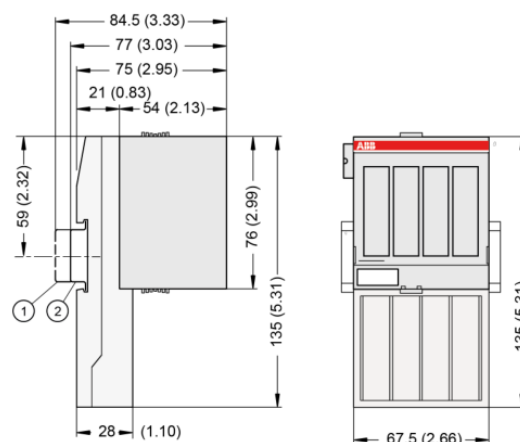
02 MOUNTING AND CONNECTION

- Remove all supply and process voltages before mounting, disconnecting terminals or exchanging the interface.
- Seat CI521-MODTCP on TU507-ETH or TU508-ETH and preserve unobstructed natural convection.
- Provide SELV/PELV 24 V DC at UP terminals 1.8/2.8 and UP3 terminal 3.8; use ZP terminals 1.9/2.9/3.9 as documented.
- Follow ABB terminal drawings for each analog mode. Route analog cables with the documented shielding and equipotential bonding.
- Restore the IP configuration, channel parameters, register mapping and bus-failure behavior before enabling process writes.

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 11

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

04

CABLE ROUTING AND CONNECTION

- Seat CI521-MODTCP on TU507-ETH or TU508-ETH and preserve unobstructed natural convection.
- Provide SELV/PELV 24 V DC at UP terminals 1.8/2.8 and UP3 terminal 3.8; use ZP terminals 1.9/2.9/3.9 as documented.
- Follow ABB terminal drawings for each analog mode. Route analog cables with the documented shielding and equipotential bonding.
- Restore the IP configuration, channel parameters, register mapping and bus-failure behavior before enabling process writes.
- Check sensor readings, receiver response and Modbus diagnostics under safe test conditions; retain the verified configuration.

05

INITIAL SYSTEM CHECKS

- Confirm model identity and compatible system components before energizing.
- Verify wiring, grounding, enclosure, and applicable hazardous-area requirements.
- Verify sensor readings, analog commands, digital response and Modbus diagnostics safely.
- Record the installed order number and baseline operating condition.

06

CONTROLLED DOCUMENTS

Official source	ABB 3ADR010003 rev.14, 2025-11-28; CI521 connections and Modbus system technology
Product record	CI521-MODTCP
Manufacturer	ABB
Support	INFO@AMIKON.CN