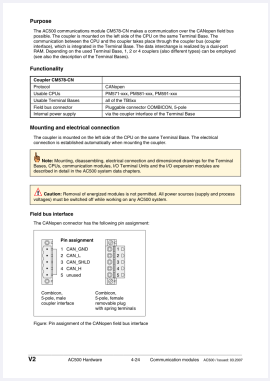
FIELD INSTALLATION QUICK GUIDE

Installation Instructions

ABB CM578-CN

CANopen Master Communication Module



Purpose

The AC500 communications module CM578-CN makes a communication over the CANopen field bus possible. The module is mounted on the left side of the CPU in the Terminal Base. The data communication between the CPU and the coupler takes place through the coupler bus (coupler interface), which is integrated in the Terminal Base. The data interchange is realized by a dual-port RAM. Depending on the used Terminal Base, 1, 2 or 4 couplers (also different types) can be employed (see also the description of the Terminal Bases).

Functionality

Coupler CM578-CN	
Protocol	CANopen
Usable CPUs	PM571 xxx, PM581 xxx, PM891 xxx
Usable Terminal Bases	all of the TB5xx
Field bus connector	Pluggable connector COMBICON, 5-pole
Internal power supply	via the coupler interface of the Terminal Base

Mounting and electrical connection

The coupler is mounted on the left side of the CPU on the same Terminal Base. The electrical connection is established automatically when mounting the coupler.

Note: Mounting, disassembling, electrical connection and dimensioned drawings for the Terminal Bases, CPUs, communication modules, I/O Terminal Units and the I/O expansion modules are described in detail in the AC500 system data chapters.

Caution: Removal of energized modules is not permitted. All power sources (supply and process voltages) must be switched off while working on any AC500 system.

Field bus interface

The CANopen connector has the following pin assignment:

Pin assignment
1 CAN_GND
2 CAN_L
3 CAN_SHLD
4 CAN_H
5 unused

Combicon, 5-pole, male coupler interface

Combicon, 5-pole, female removable plug with spring terminals

Figure: Pin assignment of the CANopen field bus interface

V2 AC500 Hardware 4-24 Communication modules AC500 / Issued: 03.2007

PRODUCT	CM578-CN
FAMILY	AC500 communications
FUNCTION	CANopen Master Communication Module
STATUS	Verify exact configuration

Prepared by Amikon Limited from ABB 3ADR010018 rev.2 (2018-05-04) and AC500 Hardware V2 CM578-CN section (03.2007). This guide does not replace the complete manufacturer manual, site procedure, hazardous-area drawing, or approval document.

01 CONFIRM THE ORDERED CONFIGURATION

Transmission-rate range	10 kbit/s to 1 Mbit/s
Documented CPU families	PM57x, PM58x and PM59x
Supported terminal bases	All TB5xx listed by ABB
Field connector	Pluggable five-pin COMBICON
Connector allocation	1 CAN_GND; 2 CAN_L; 3 CAN_SHLD; 4 CAN_H; 5 unused
Module power path	Via the communication-module interface of the terminal base
Typical CPU-base 24 V current	50 mA

02 MOUNTING AND CONNECTION

- Isolate supply and process voltages before mounting, disassembling or changing connections.
- Fit CM578-CN on the left side of the CPU in the supported terminal-base arrangement.
- Connect CAN_GND, CAN_L, CAN_SHLD and CAN_H to pins 1-4 respectively; pin 5 is unused.
- Match transmission rate to the documented bus-length limit and place 120-ohm termination at the data-line ends.
- Preserve the node addresses, EDS records and application mapping for the configured CANopen devices.

03 OFFICIAL INSTALLATION REFERENCE

Purpose

The AC500 communications module CM578-CN makes a communication over the CANopen field bus possible. The coupler is mounted on the left side of the CPU on the same Terminal Base. The communication between the CPU and the coupler takes place through the coupler bus (coupler interface), which is integrated in the Terminal Base. The data interchange is realized by a dual-port RAM. Depending on the used Terminal Base, 1, 2 or 4 couplers (also different types) can be employed (see also the description of the Terminal Bases).

Functionality

Coupler CM578-CN	
Protocol	CANopen
Usable CPUs	PM571-xxx, PM581-xxx, PM591-xxx
Usable Terminal Bases	all of the TB5xx
Field bus connector	Pluggable connector COMBICON, 5-pole
Internal power supply	via the coupler interface of the Terminal Base

Mounting and electrical connection

The coupler is mounted on the left side of the CPU on the same Terminal Base. The electrical connection is established automatically when mounting the coupler.

Note: Mounting, disassembling, electrical connection and dimensioned drawings for the Terminal Bases, CPUs, communication modules, I/O Terminal Units and the I/O expansion modules are described in detail in the AC500 system data chapters.

Caution: Removal of energized modules is not permitted. All power sources (supply and process voltages) must be switched off while working on any AC500 system.

Field bus interface

The CANopen connector has the following pin assignment:

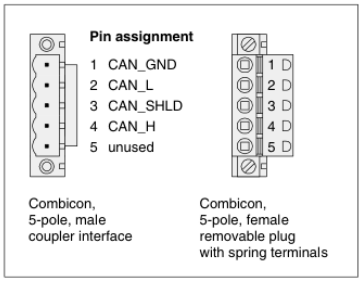


Figure: Pin assignment of the CANopen field bus interface

Official manufacturer reference reproduced from ABB 3ADR010018 rev.2 (2018-05-04) and AC500 Hardware V2 CM578-CN section (03.2007). Use the current source document and all referenced drawings and notes for installation.

04 CABLE ROUTING AND CONNECTION

- Fit CM578-CN on the left side of the CPU in the supported terminal-base arrangement.
- Connect CAN_GND, CAN_L, CAN_SHLD and CAN_H to pins 1-4 respectively; pin 5 is unused.
- Match transmission rate to the documented bus-length limit and place 120-ohm termination at the data-line ends.
- Preserve the node addresses, EDS records and application mapping for the configured CANopen devices.
- Verify master state, data transmission and device-specific application behavior before returning the system to service.

05 INITIAL SYSTEM CHECKS

- Confirm model identity and compatible system components before energizing.
- Verify wiring, grounding, enclosure, and applicable hazardous-area requirements.
- Check CANopen node states, process-data exchange and the connected device functions against the engineered project.
- Record the installed order number and baseline operating condition.

06 CONTROLLED DOCUMENTS

Official source	ABB 3ADR010018 rev.2 (2018-05-04) and AC500 Hardware V2 CM578-CN section (03.2007)
Product record	CM578-CN
Manufacturer	ABB
Support	INFO@AMIKON.CN