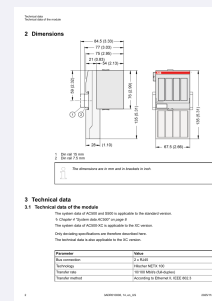


AMIKON TECHNICAL INTELLIGENCE

Product Data Sheet

ABB CI512-ETHCAT

EtherCAT Digital I/O Interface



FIXED INPUTS	FIXED OUTPUTS	CONFIGURABLE I/O	PROCESS SUPPLY
8 DI	8 DO	8 DC	24 V DC

ABB CI512-ETHCAT connects digital field signals to an EtherCAT control system. It combines eight fixed inputs, eight fixed transistor outputs and eight software-configurable digital channels, allowing the station to balance feedback signals and switching commands.

01 VERIFIED PRODUCT PARAMETERS

Onboard digital allocation	8 fixed inputs, 8 fixed outputs and 8 configurable input/output channels
EtherCAT connection	Two RJ45 ports; 10/100 Mbit/s full-duplex
Cyclic process image	10 input bytes and 14 output bytes
S500 expansion availability	Up to 10 modules with device index C0 or above; none below C0
Acyclic service capacity	SDO, maximum 1500 bytes
Process supply voltage	24 V DC at UP and UP3; 10 A fast protection fuse
UP operating current	0.15 A in normal operation
UP3 consumption	0.06 A plus maximum 0.5 A per output
Maximum internal dissipation	6 W
Input filtering range	Typically 0.1 ms; configurable from 0.1 to 32 ms

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ADDITIONAL TECHNICAL DATA

Input voltage thresholds	Signal 0: -3 to +5 V; signal 1: +15 to +30 V
Input current at 24 V	Typically 5 mA per channel
Output load rating	500 mA per channel; 4 A per eight-channel output group before derating
Overload diagnostic threshold	Current above 0.7 A; message after approximately 100 ms
Output signal-high voltage	UP3 minus 0.8 V

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SYSTEM ROLE AND APPLICATIONS

The exact order number is 1SAP221000R0001. Electronic cam functions support position-related output switching, while S500 expansion depends on the device index. Specify the installed terminal unit, channel direction, process supply and EtherCAT configuration before ordering or replacing the interface.

- Moving-material cutting: use the documented cam-switch principle to trigger a cut at the intended sheet position.
- Rotary assembly operations: schedule digital actions at the required angular positions around an assembly table.
- Discrete field monitoring and actuation: connect fixed and configurable digital channels to suitable 24 V feedback circuits and transistor-switched loads.

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OFFICIAL INSTALLATION FACTS

- Isolate all supply and process voltages before removing terminals, mounting or replacing CI512-ETHCAT; this device is not hot-pluggable.
- Fit the module to the documented TU507-ETH or TU508-ETH terminal unit and engage the locks; maintain natural convection.
- Provide protected SELV/PELV 24 V DC at UP 1.8/2.8 and UP3 3.8, with ZP returns at 1.9/2.9/3.9.
- Use terminals 2.0-2.7 for fixed inputs, 3.0-3.7 for fixed outputs and 1.0-1.7 for configured DC channels.

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OFFICIAL DOCUMENTATION

ABB 3ADR010008 rev.14, 2025-11-28; CI512 connections; 2CDC124092L0201

AMIKON PRODUCT SUPPORT

Amikon Limited | INFO@AMIKON.CN