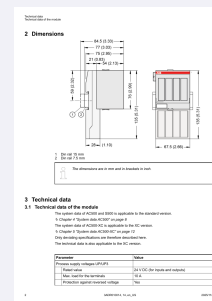


AMIKON TECHNICAL INTELLIGENCE

Product Data Sheet

ABB CI502-PNIO

PROFINET Digital I/O Interface



FIXED INPUTS	FIXED OUTPUTS	CONFIGURABLE	PROTOCOL
8 digital	8 transistor	8 digital I/O	PROFINET IO RT

ABB CI502-PIIO connects a digital S500 remote station to PROFINET IO RT. It provides eight dedicated digital inputs, eight dedicated transistor outputs and eight configurable digital input/output channels, allowing the engineered station to accommodate different combinations of status signals and commands.

01 VERIFIED PRODUCT PARAMETERS

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
Inductive-load switching rate	Maximum 0.5 Hz
Lamp-load switching limit	Maximum 11 Hz at maximum 5 W
Cyclic data length	12 input bytes and 20 output bytes

Technical values were verified against ABB 3ADR010014 rev.14, 2025-11-28: CI502-PNIO hardware connections.

02 ADDITIONAL TECHNICAL DATA

Ethernet interface	Two RJ45 ports; integrated switch; 10/100 Mbit/s full-duplex
S500 expansion capacity	Maximum 10 additional I/O modules
Normal UP consumption	0.15 A
Maximum internal power loss	6 W
Process supply protection	24 V DC UP/UP3 with 10 A fast fuses

03 SYSTEM ROLE AND APPLICATIONS

Standard order 1SAP220700R0001 is distinct from CI502-PNIO-XC. The programmable DC channels are digital I/O, not analog converters. Their circuit and supply relationship must be checked before connection, particularly where an external source could backfeed the output supply.

- Robot peripheral integration: ABB lists an IRC5 and CI502 application with separate safety I/O modules; use the original safety instructions and validated system design.
- Configurable status acquisition: assign suitable DC channels as inputs while observing their UP3-related source restrictions.
- Inductive-load switching: command compatible 24 V DC loads within the documented current, switching-frequency and mounting limits.

04 OFFICIAL INSTALLATION FACTS

- 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.

05 OFFICIAL DOCUMENTATION

[ABB 3ADR010014 rev.14, 2025-11-28; CI502-PNIO hardware connections](#)

AMIKON PRODUCT SUPPORT

Amikon Limited | INFO@AMIKON.CN