

PLC AC500: new CI504-PNIO and CI506-PNIO

Fast PROFINET Remote I/O with Gateways to CAN and Serial Easy Configuration, Complete Diagnostics down to the Port



Powerful like Local I/O, Easy to use like Local I/O – Only the best for your PLC

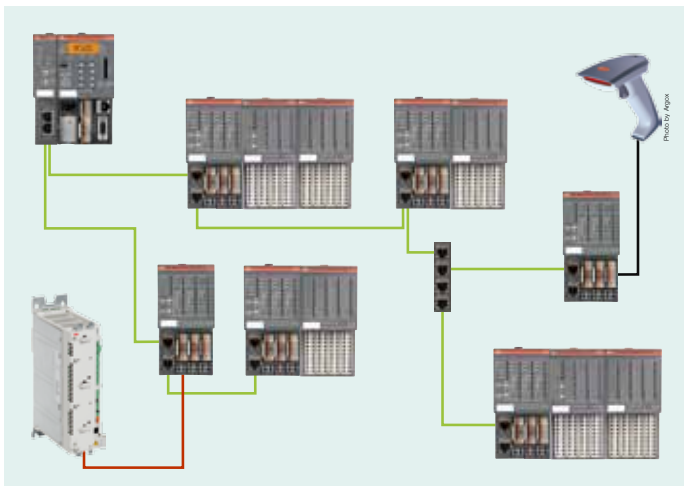
The new CI504-PNIO and CI506-PNIO are PROFINET IO RT slaves using 100MBit/s Ethernet media.

Up to ten S500 or S500-eCo I/O modules can connect to one of the Communication Interfaces, forming masterpieces of remote I/O. The I/O modules used for local and remote I/O are identical in HW, configuration, programming and diagnostics. This makes it very comfortable to carry know-how from local to remote I/O engineering.

Besides connecting I/O modules, CI504-PNIO offers three RS-232/485 ports within the compact module.

CI506-PNIO instead provides two RS-232/422/485 ports and a CAN port. The CAN port work as CANopen master. CAN2A/CAN2B send and receive functionality is included, too.

PNIO master function can be provided by ABB's CM579-PNIO together with any AC500-CPU. Four CM579-PNIO can connect to one AC500-CPU. This is what we mean by AC500's scalability.



here. Of course, comprehensive detailed PROFINET diagnostics is on board, too!

Applications in Large-Scale Manufacturing

High-speed closed-loop controls become possible with PROFINET, supporting Motion Control. There are amazing ABB Drives available with PNIO interface.

Huge installation in plants with widely distributed I/O is easy since Ethernet segments reach up to 100m in length. Distances of many kilometers can be achieved using optical fibre. Such can be found in vehicle production and printing. Large potential is with electronic assembly and production of brown and white goods.

Many logistics benefit from the large range of PROFINET. Characteristics are transportation by conveyors, tracked robots or storage-racks. Numerous sensors and actuators work in those plants.

Serial connect to HMI, displays, keyboards and mice, modems, time sources like DCF77 clocks, printers, bar code readers, remote-controlled power supplies, sensors and actuators using RS-232/422/485 ports.

CAN-equipped actuators or sensors connect to AC500 over PROFINET covering wide areas. Many sensors are available for the vehicle industry which can be used in factory automation solutions as well.

Also connection to vehicle's CAN2A/CAN2B is possible for tests of the complex vehicle networks.

Wind Power

The gateways to Serial or CAN connect sensors for wind speed, revolutions, temperature, humidity, pressure and position. Actuators like drives for control of brakes, pitch and yaw connect reliable with smallest configuration effort to PLC AC500. PROFINET connects nacelle and base easily.

Integrated Ethernet Switch

A two-port switch is built-in for easy extensions.

Reasons for using PROFINET

Placing remote I/O units at sensor and actuator locations significantly reduce the length of connecting wires. Cost-efficient 100MBit/s Ethernet cables link the PLC with the remote I/O, where distances of up to 100m can be simply bridged. PROFINET can run in parallel with commercial IT data. That reduces costs for cables, installation, commissioning and maintenance.

Ethernet is such fast that there is virtually unlimited data capacity even for the largest machines.

Even small machines may use PROFINET. Traditional fieldbusses with their special cables and connectors cannot compete in terms of price-performance ratio and easy installation.

AC500 Benefits for Factory Automation

With CM579-PNIO, CI501-PNIO and CI502-PNIO, ABB offers for a long time powerful, standard-conform PROFINET products.

With the new CI504-PNIO and CI506-PNIO, ABB extends the offering to advanced gateway functionality. CAN and RS-232/422/485 connect now absolutely easy and convenient to PROFINET. Convenient, easy-to-configure diagnostics down to the port is provided by enhanced engineering tool PS501 Control Builder Plus. Engineers can focus on the diagnostics of the port, because the underlying PROFINET is kept invisible

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