PLC AUTOMATION

S500 I/O system
Easy solution for changing customer needs

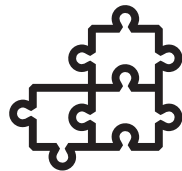# Significantly more...

Easiness

Efficiency

Flexibility

Straightforward engineering
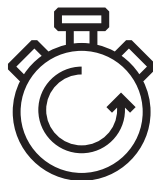## Scalable product range for high availability

The S500 I/O module range, which is part of the AC500 PLC platform, can be used with the AC500 PLCs and other controllers.
Whether for standard situations or extreme conditions: With these I/O modules you will have a cost-efficient solution with low technical barriers in many industry segments, especially in water & wastewater, food & beverage, paper or data centers. In addition to saving time and money you will benefit from more…
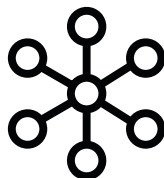
Easiness

- Fast integration into existing environment
- Easy integration with third-party PLCs
- Lean portfolio covers all requirements
- I/O modules with configurable channels allow for less inventory

Efficiency

- Configurable I/Os reduce footprint & price
- Hot-Swap I/Os for increased availability
- Fast counters on each module
- Pre-wiring possible
- Scalable assortment optimizes price

Flexibility

- Terminal units which fit many different I/O modules
- Openness with support of different fieldbus protocols
- S500-eCo and standard S500 I/O modules can be mixed
- Configurable channels make subsequent configuration change possible

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Scalable S500 I/O concept
Modular offering fits many applications

I/O bus
Transmits process data between communication interface module and I/O modules
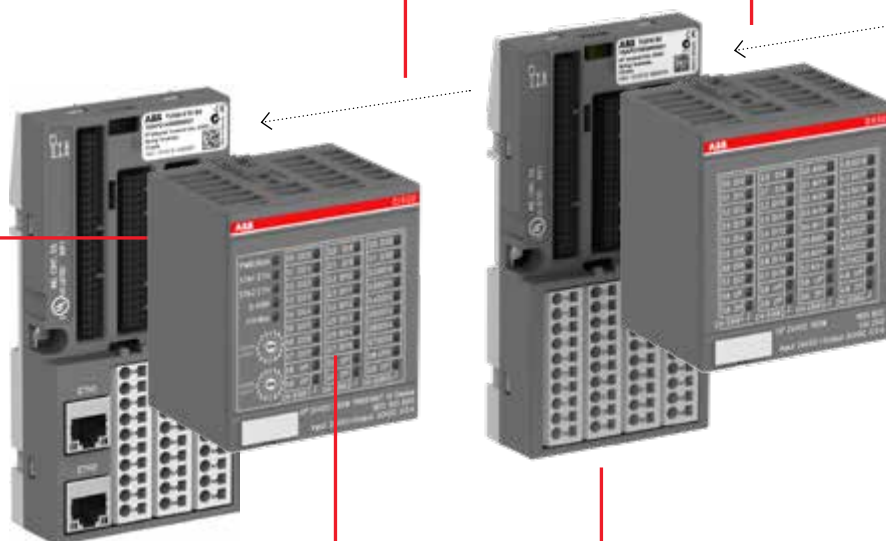
Communication interface modules
Available for common fieldbuses:
- PROFIBUS-DP
- PROFINET
- EtherCAT
- Modbus TCP
- CANopen

Terminal units for communication interface modules
Variants for different fieldbus types

Terminal units for I/Os
Variants with screw or spring connection

Integrated I/Os
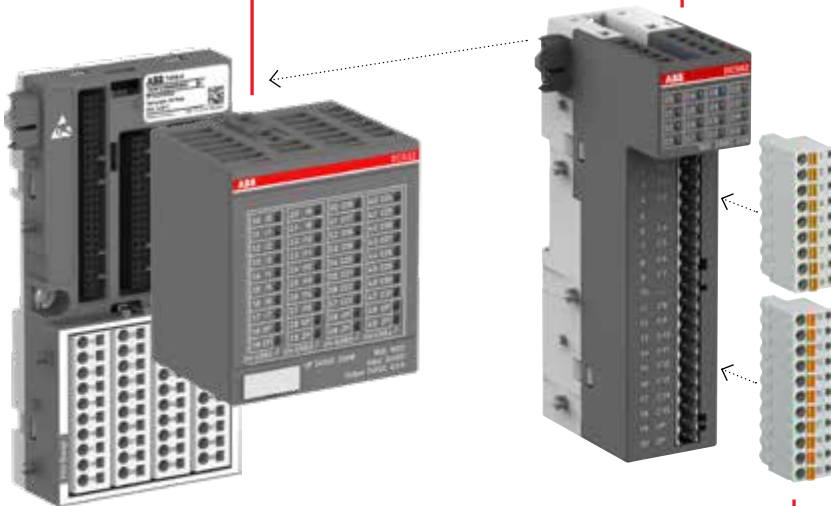Up to 24 I/O channels in the communication interface module save space

S500 I/O modules
With up to 32 channels
in variants for analog and
digital signals

**Compact S500-eCo
I/O modules**
With up to 16 channels
in variants for analog and
digital signals

**Terminal units for
Hot Swap of I/Os**
For exchange of
I/O modules while
the system is running

**Removable terminal
blocks**
Push-in spring or screw
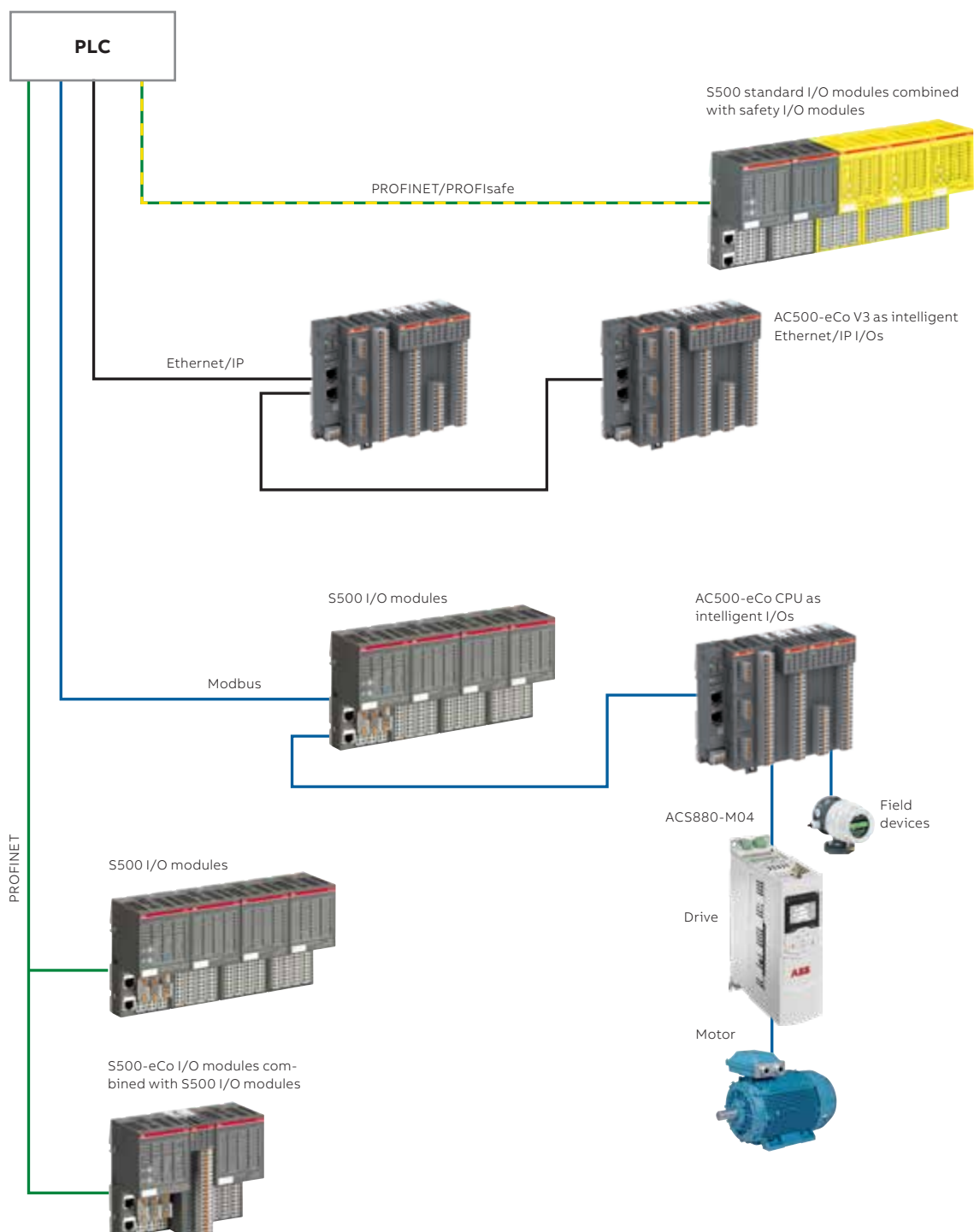connectors for cables
up to 2.5 mm²

Variety of fieldbuses supported
One I/O system for all protocols

One
for all.
All in one.

—
Third-party PLCs, IPC
or machine controller

Controller can also
be an industrial PC
with ABB Ability™
for data center

PLC

PROFINET/PROFIsafe

S500 standard I/O modules combined
with safety I/O modules

Ethernet/IP

AC500-eCo V3 as intelligent
Ethernet/IP I/Os

S500 I/O modules

AC500-eCo CPU as
intelligent I/Os

Modbus

PROFINET

ACS880-M04

Field
devices

Drive

S500 I/O modules

Motor

S500-eCo I/O modules com-
bined with S500 I/O modules

Benefits with S500 I/O system

ABB provides tailor-made solutions to run customers' plants uninterruptedly, and to meet their quality and performance needs: Reliable and cost-effective applications with robustness and longevity throughout the life cycle.

Reliable data center automation for efficiency
ABB provides intelligent and energy-efficient solutions for data centers in different parts of the world. ABB Ability™ Data Center Automation makes real-time visualization and management possible. Direct system connection of a large number of unbundled S500 hot-swap I/Os helps with comprehensive, distributed monitoring to enable continuous balancing of data center demand and functionality – while maximizing availability and minimizing energy consumption.
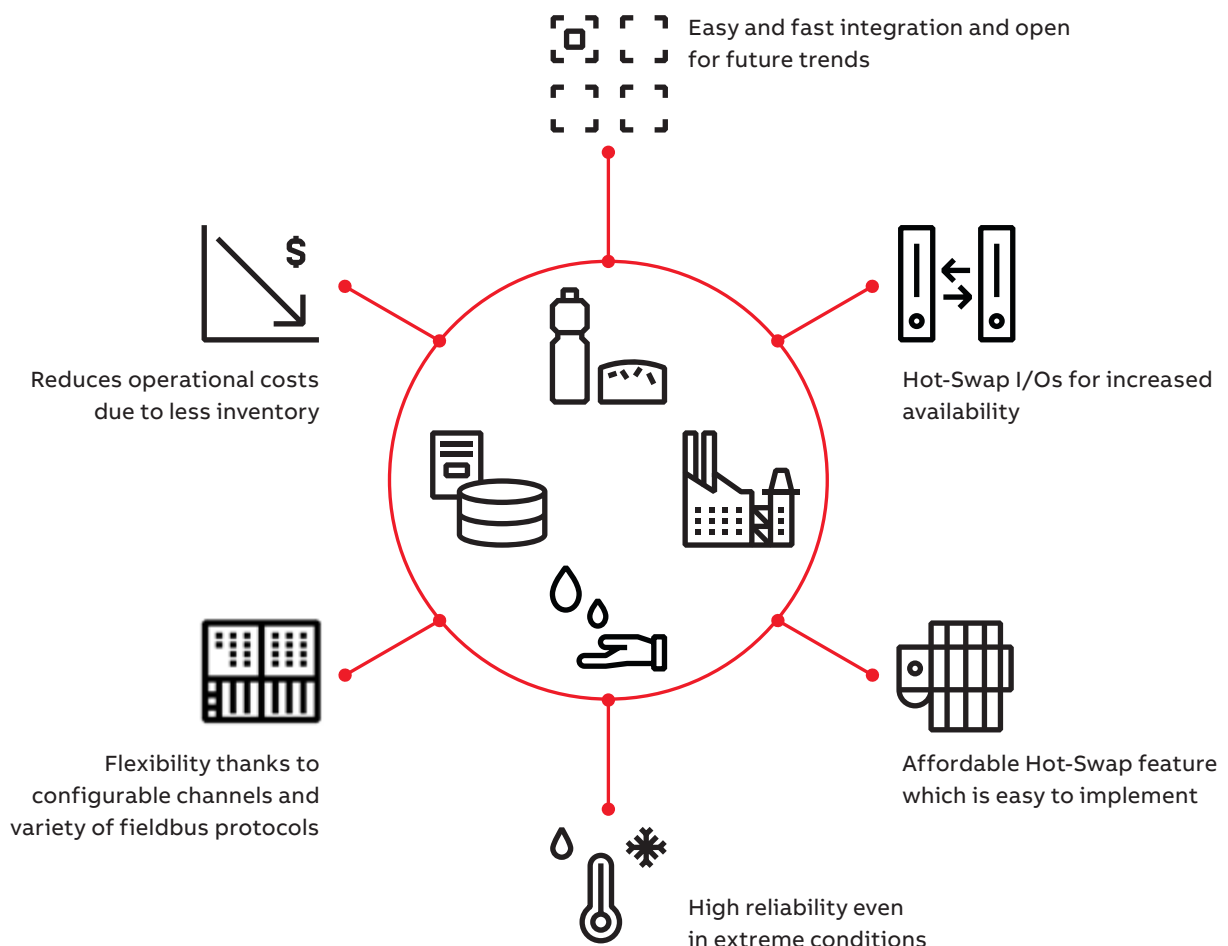

Easy and fast integration and open for future trends

Hot-Swap I/Os for increased availability

Reduces operational costs due to less inventory

Affordable Hot-Swap feature which is easy to implement

Flexibility thanks to configurable channels and variety of fieldbus protocols

High reliability even in extreme conditions

ABB

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