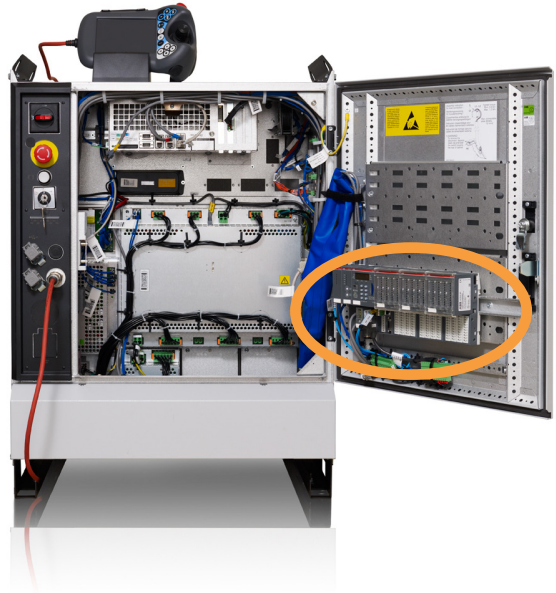


Integrated PLC Controller option

Highly capable ABB PLC conveniently integrated in the IRC5 controller, offers cost saving, ease of use and powerful performance for robotic production cells.



Integrated PLC - AC500

A standard ABB PLC from the AC500 product range is optionally integrated into the IRC5 controller cabinet. The PLC interacts closely with the IRC5 main computer to provide a flexible and powerful platform for a wide scale of automation tasks, where the PLC can take on anything from a subordinate role, e.g. gripper control, all the way to acting as master of a complete production cell.

The AC500 PLC is easy to program and easy to use. It is mounted inside the Single Cabinet door.

The integrated PLC is suitable for control of a wide range of production cell functions, from peripheral equipment such as grippers, feeders and ancillary machines to overall orchestration of the complete cell.

High performance PLC

AC500 is a complete family of PLCs, I/O (local, remote and wireless), fieldbus couplers, operator screens etc. The subset selected for the IRC5 option can easily be extended through the comprehensive AC500 catalogue.

Ease of use

The PLC integration offers ease of use throughout the life cycle:

- Easy to order, "one stop shopping" together with the robot.
- Easy to commission, since the installation is done from factory in a standardized and quality assured way.
- Easy to program, thanks to the high capacity of the powerful CPU, the preinstalled software and templates and the first class PC tool provided through Control Builder (supporting all the six IEC 61131-3 programming languages).
- Easy to operate, with convenient FlexPendant status screens.
- Easy to support and service, with one contact for the complete system.

Integrated PLC

Specification

CPU features

512 MB program memory
Battery for data and clock retention
SD memory card slot for loading/saving programs and data (128 MB card included)
Serial link interface for connection of e.g. CP400 operator panel and/or remote I/O

Performance

1000 instructions: 0.07 ms (binary/word), 1.6 ms (floating point)

I/O support

Up to three I/O modules of type
- 16/16 DI/DO
- 8 DI/Relay out
- 4 AI/4 AO

Controller variant

Available in Single Cabinet controller only

PC connection

The service port on the operator panel connects to both PLC and IRC5 main computer

Fieldbus support

One field bus coupler can be added for master bus control. Available busses:
ModBus, Modbus TCP, DeviceNet, PROFIBUS, CANOpen, CS31 Bus, PROFINET, EtherCat, EtherNet
Available through AC500 sales channel

Communication link

DeviceNet Lean provides a low cost communication link to the PLC (also works on standard DeviceNet)

Software integration

Background tasks for data exchange
RAPID instructions for PLC interaction
PLC function blocks for IRC5 interaction
PLC configurable for master or slave role
Graphical interface on FlexPendant for status and interaction

Control Builder programming tool

Based on CoDeSys, the leading programming tool in discrete manufacturing
Very fast and easy installation
All six IEC 61131-3 programming languages
Powerful debugging environment

ABB reserves the right to change specifications without notice

