

Communication RobotWare option



On speaking terms with your needs.

The unmatched communication capabilities of the IRC5 robot controller provide you with superior performance in terms of easy integration and total flexibility.

Two Ethernet channels enable optimum separation of communication tasks. The service port is dedicated for local PC connectivity, for booting, service, programming, etc. The LAN channel is used for permanent connection to the factory network for tasks such as program transfer monitoring, data collection, operator communication, and field bus communication.

The IRC5 provides an I/O system with many powerful functions and high performance, which can connect to all the prevalent field bus standards.

Key benefits

- Facilitates integrated solutions and reduces installation costs.
- Increases productivity through easy connection of powerful PC tools, like RobotStudio
- Supports a multitude of field bus standards (master/slave as well as slave only) to fit in any production environment.
- Provides a powerful environment for creating customized communication solutions for any purpose.

Communication

Technical features

I/O System

Functionality	Up to 2048 signals (8192 for PROFINET I/O) Up to four fieldbus channels of mixed type 20 boards per channel, 40 in total Customizable I/O names Grouping of signals Interrupts on discrete and analog signals ABB DeviceNet nodes available Cross connection with logical conditions Sophisticated error handling
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Field buses

DeviceNet™Lean	Scanner only
DeviceNet™	Scanner/Adapter, 1-4 channels
Ethernet/IP	Scanner/Adapter or Adapter only
PROFIBUS DP	Controller/Device or Device only
PROFINET	Controller/Device or Device only
CC-Link	Slave only (via gateway on DeviceNet™)
Allen-Bradley	Remote I/O

Network capability & File management

Service and LAN	Separate built in Ethernet channels
Fast communication	10 or 100 Mbit/s
Network file access	The robot controller can host NFS (Network File System) or FTP (File Transfer Protocol) client software.
IRC5 file access	The FTP server in IRC5 allows the controller to respond to a request from an FTP client on a remote computer.
DNS	Domain Name Server Correlates device names to associated network IP addresses through a DNS server. Allows the robot to access a network computer via a DNS server to determine the network IP addresses of other devices on the network.
DHCP	Dynamic Host Configuration Protocol enables quick connection to the network and IP-addresses are obtained automatically. LAN channel (DHCP client software): The channel has either a fixed IP address or it can be obtained from a DHCP server on the network. Service channel (DHCP server software): The channel has a fixed IP address and can assign the connected PC an IP address.
SNMP	Simple Network Management Protocol Enables quick access to control system network information.

Serial channels

One channel, RS 232 or RS 422

Software tools

OPC server	Enables access to the controller via a standardized OPC server.
Robot Application Builder	A software development kit that allows you to design your own PC application which communicates with the robot controller. It can also be used to create advanced customized FlexPendant applications.
ScreenMaker	A software tool for very simple creation of FlexPendant applications, e.g. operator screens.

ABB reserves the right to change specifications without notice.