

SRCI

YASKAWA PLC controlled robotics
using a standardized interface



The Standard Robot Command Interface (SRCI) is the new industry standard for PLC controlled robotics* and is the result of a large group of robot- and PLC manufacturers teaming up to create an interface which is best for the customer, not just for a single vendor.

The aim of this standardized interface: Whatever PLC brand and whatever robot brand – you use the same interface, and the same PLC code.

TYPICAL REASONS FOR CHOOSING YASKAWA SRCI

- Deep integration of a robot in your PLC and HMI environment
- Lack of vendor specific robot skills at the end-user's facility
- Minimizing PLC programming effort by purchasing ready-to-use applications from your PLC vendor
- Virtual commissioning using a third-party SRCI digital twin solution

KEY BENEFITS

- Industry standard interface
- Vendor independent
- No YASKAWA specific knowhow required
- No programming pendant required**
- YASKAWA motion control and path accuracy
- Available for all major fieldbuses
- Built upon MotoLogix technology

* PLC controlled robotics: The programming of the trajectories and (most of) the setup is done from within the PLC, using a library of function blocks. The path planning and kinematic calculations are still carried out by the robot controller.

** The programming pendant might still be required during the first-time setup (especially on systems with Function Safety Unit). For this purpose, you can also consider the YASKAWA Software Pendant solution.

YASKAWA SRCI Specifications	
Supported controllers	YRC1000 YRC1000micro (early 2024)
Number of robots	1
Supported robots	GP series (other series pending)
Additional axes	base axis (e.g. linear track or gantry)
SRCI feature set	All "core profile" functions
Supported fieldbuses	- EtherCAT - EtherNet/IP (optional: CIP safety) - POWERLINK - PROFINET (optional: PROFIsafe)

SCOPE OF DELIVERY

1. SRCI activation in the robot system software (paid option function)
2. SRCI interpreter app (free download)
3. SRCI is always delivered with FSU

To use YASKAWA SRCI in your project you also need to obtain a SRCI PLC library from your PLC vendor. This library is not supplied by YASKAWA.

FURTHER READING

We created a documentation website for YASKAWA SRCI, which also includes a FAQ section.

<https://srci.yaskawa.eu/faq/>

SRCI PACKAGES

SRCI Profinet
(SAP: 220715)

SRCI Ethernet-IP
(SAP: 220716)

SRCI EtherCat
(SAP: 220717)

SRCI Powerlink
(SAP: 220718)

These functions are supported by Yaskawa SRCI:

- ChangeSpeedOverride • EnableRobot • ExchangeConfiguration • GroupContinue •
- GroupInterrupt • GroupJog • GroupReset • GroupStop • MoveAxesAbsolute •
- MoveDirectAbsolute • MoveLinearAbsolute • ReadActualPosition • ReadActualPositionCyclic •
- ReadFrameData • ReadLoadData • ReadMessages • ReadRobotData •
- ReadRobotDefaultDynamics • ReadRobotReferenceDynamics • ReadRobotSWLimits • ReadToolData •
- ReturnToPrimary • RobotTask • SecondarySequence • SetSequence •
- WriteFrameData • WriteLoadData • WriteRobotDefaultDynamics •
- WriteRobotReferenceDynamics • WriteToolData**

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All drawing dimensions in mm. Technical data may be subject to change without previous notice. Please request detailed drawings at robotics@yaskawa.eu.

