



Robokai R12 – 6XS Welding Robot

Robokai R12 – 6XS Welding Robot of payload 12 Kg with a reach of 1980mm is designed to perform precise welding tasks with speed and consistency, improving quality and workplace safety in manufacturing.

Application Areas

- Automotive Manufacturing
- Electronics
- Consumer goods
- Heavy Equipment



Robokai R25-4XS

Robokai R25-4XS Pick and Place Robot of payload 25kg with a reach of 1910mm automate material handling thereby increasing efficiency and speed of the process

Application Areas

- Assembly Lines
- Packaging
- Bin Picking
- Inspection and Quality Control
- Sorting and Logistics
- Medical and Research
- Hazardous Material handling



Robokai S5-4X Scara Robots

Robokai S5-4X Scara Robots of payload 5kg and 600mm reach are also called as Selective Compliance Assembly Robot Arm are used for high-speed precise assembly operations ideally for small parts handling

Application Areas

- Assembly and Disassembly
- Electronics Manufacturing
- Food, Beverage and Pharma
- Machine Tending
- Specialized Operations

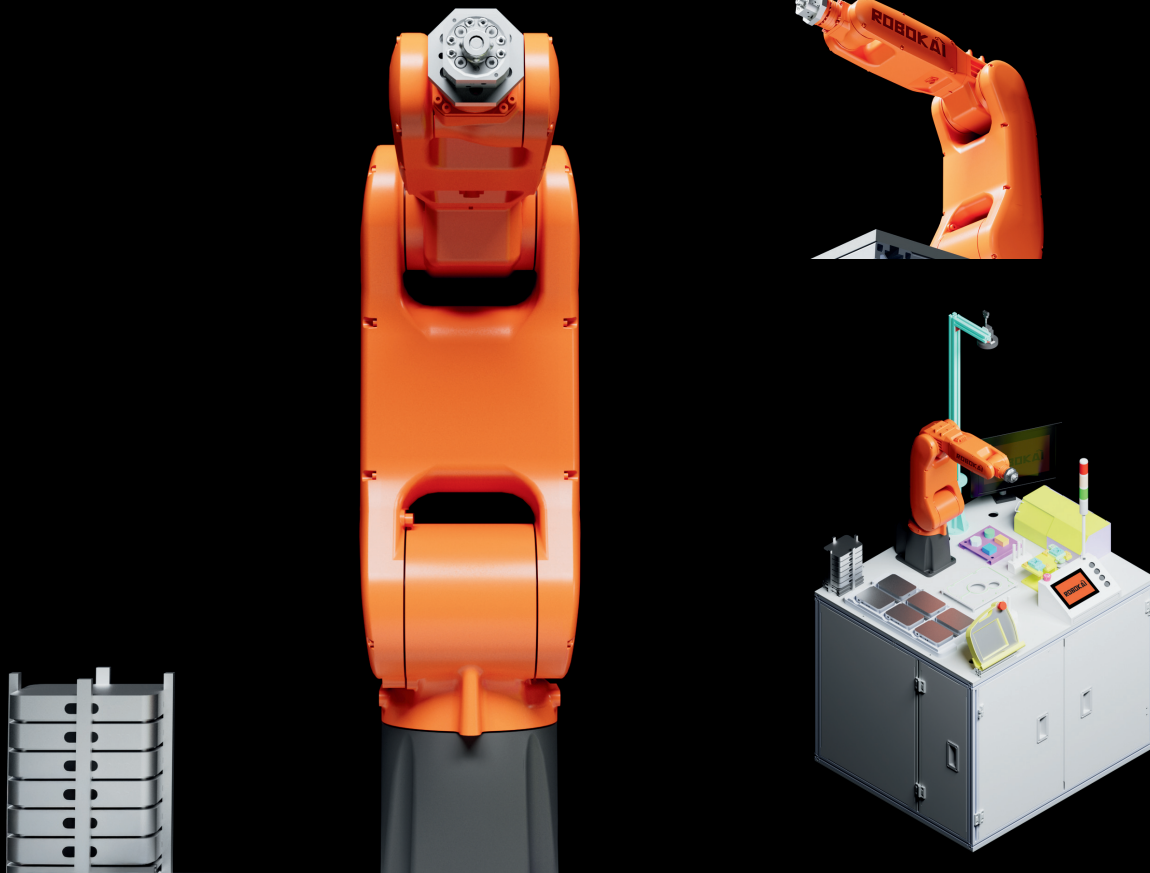


Training and Simulation Bench

Training and Simulation Bench with Robokai R8-6X Robot with a payload of 8kg and 827mm reach is a controlled set up designed for workforce training, test, evaluate performances, safety and functionality of Robots and processes involving various equipment used for automation before real world deployment. It simulates the Robots and other equipment at various operational conditions to validate and diagnose ensuring quality standards are met.

Application Areas

- Robot Performance and evaluation
- Safety and compliance testing
- Industrial Quality assurance
- Research on Robot control and calibration
- Sensor Calibration
- Training in Robotics and Automation
- Demonstration of processes
- Product testing



RP-2 Robox Motion Controller



www.robox.it

**Robox HMI
Teach gun**



**Programming
RDE**



Remote Service



**Third Party
PLC and HMI**

**Communication towards the
lower level**

Modbus TCP TCP/IP UDP/IP

**Deterministic Communication
towards the lower level**

CANopen EtherCAT



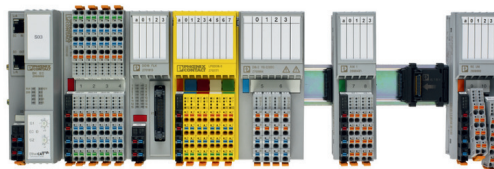
**Communication towards the
upper level**

DeviceNet EtherNet/IP
WiFi activeX TCP/IP
UDP/IP Microsoft .NET OPC UA
Modbus TCP PROFINET

Robox Motor Drive



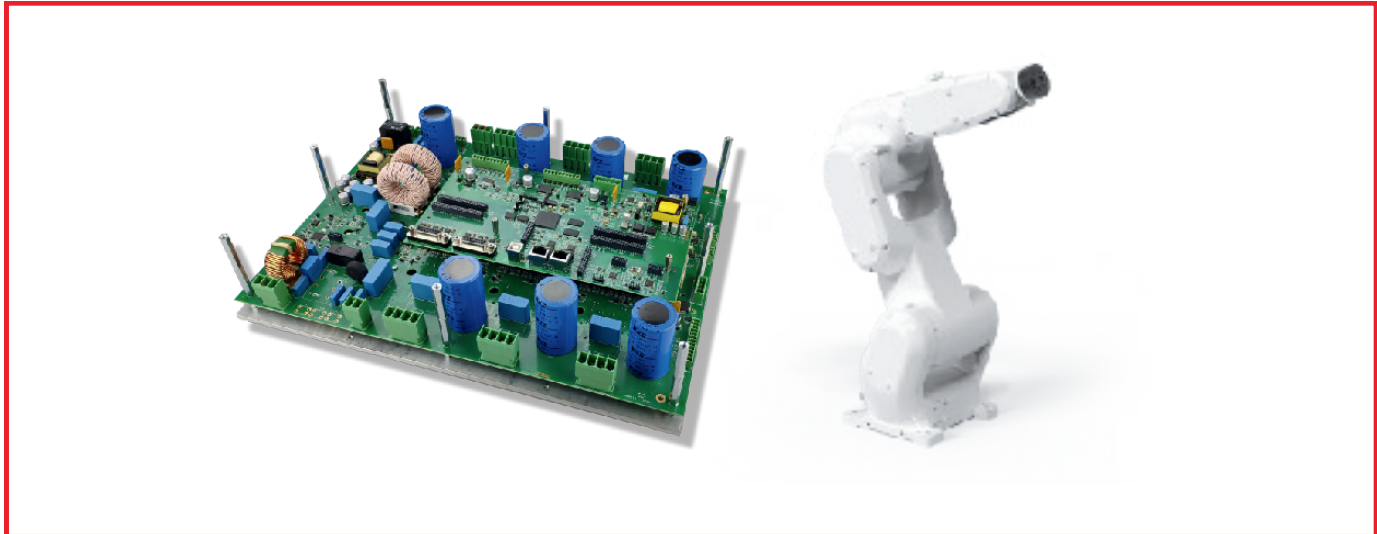
ROBOX Remote I/O



**Third Party
Servo Drive,
remote I/O or
generic devices**

Six in one Servo Drives for Robotics

Robox EC2A & EC2B



High Voltage Section

AC/DC input stage :

EC2A - PFC (Power Factor Correction)
EC2B - Diode Rectifier

DC stage

Bulk capacitor
Bleeding resistor circuit for overvoltage protection

Inverter

6 x IGBT (DC/AC) - to transfer power toward controlled motors

Modulators

6 x 2 $\Sigma\Delta$ for motor current measurements

Low Voltage Section

Main digital controller

Microprocessor + FPGA

Sensor interfaces

6 x motor shaft position

Cooling fan

2 x interfaces

Communications

- 6 x digital outputs dedicated to holding brakes management
- 8+8 digital inputs
- Dual channel STO inputs
- 2 x Industrial Ethernet Fieldbus interfaces (EtherCAT protocol)
- USB interface
- Pushbutton & LEDs

Galvanically separated and supplied separately

For high voltage circuits

- EC2A - 230 Vac, single phase
- EC2B - 380 to 400V Vac, three phase

For low voltage circuits

- 24Vdc AUX for multi-level supply distribution
- 24Vdc HBR for brake command outputs
- 24Vdc for digital inputs and outputs

Robox EC2A & EC2B are certified by



ROBOKAI

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