

COOPERATIVE WELDING ROBOT

CONFIGURATION 1:



Robot body:
CRP-RC09-05-W
CRP-RC13-10-W



Electric cabinet: X2

Name: Collaborative welding robot

Model: CRP-RC09-05-W
CRP-RC13-10-W

Has included:

1. Body: CRP-RC09-05-W/CRP-RC13-10-W
2. Electric cabinet: X2
3. Towing device: 1
4. teaching device: horizontal screen teaching device, line length of 6 meters
5. electrical cabinet and body interconnection line 5 meters

CONFIGURATION 2:

Robot body:
CRP-RC09-05-W
CRP-RC13-10-W

Electric cabinet: X2

Name: Collaborative welding robot

Model: CRP-RC09-05-W
CRP-RC13-10-W

Has included:

1. Body: CRP-RC09-05-W/CRP-RC13-10-W
2. Electric cabinet: X2
3. Towing device: 1
4. Teaching device: horizontal screen teaching device, line length of 6 meters
5. Electrical cabinet and body interconnection line 5 meters
6. Welding torch: Choose 500A air cooling, 500A water cooling; Choose 2.5 meters /5 meters
7. Standard Japanese, optional European interface
8. Can be wired to adapt a variety of welding machines (analog, digital Devicenet)

CONFIGURATION 3:



Robot body:
CRP-RC09-05-W
CRP-RC13-10-W

Electric cabinet: X2

Name: Collaborative welding robot

Model: CRP-RC09-05-W
 CRP-RC13-10-W

Has included:

1. Body: CRP-RC09-05-W/CRP-RC13-10-W
2. Electric cabinet: X2
3. Towing device: 1
4. teaching device: horizontal screen teaching device, line length of 6 meters
5. electrical cabinet and body interconnection line 5 meters
6. welding torch: Choose 500A air cooling, 500A water cooling; Choose 2.5 meters /5 meters: Japanese interface is standard
7. welding machine: select DS350-L/DS500-P, the rest of the adaptive welding machine remarks(The wire feeder will automatically match the corresponding welder)
8. wire tray, wire tube 1 meter
9. positive and negative welding cable;
- 10.optional with magnetic base, water tank;

*** Customers need to design their own cart, wire feeder bracket, wire tray and wire feeder tube mounting bracket**

CONFIGURATION 4:



Robot body:
CRP-RC09-05-W
CRP-RC13-10-W

Electric cabinet: X2

Complete machine

Name: Collaborative welding robot

Model: CRP-RC09-05-W/CRP-RC13-10-W

Has included:

- 1 . Body: CRP-RC09-05-W/CRP-RC13-10-W
- 2 . Electric cabinet: X2
- 3 . Towing device: 1
- 4 . Teaching device: horizontal screen teaching device, line length of 6 meters
- 5 . Electrical cabinet and body interconnection line 5 meters
- 6 . Welding torch: Choose 500A air cooling, 500A water cooling
 Choose 2.5 meters /5 meters
 Japanese interface is standard
- 7 . Welding machine: select DS350-L/DS500-P, the rest of the adaptive welding machine remarks(The wire feeder will automatically match the corresponding welder)
- 8 . Wire tray, wire feeder bracket, wire tray and wire feeder tube installation bracket, wire feeder tube, etc
- 9 . Positive and negative welding cable;
- 10 . Wheeled cart;
- 11 . Optional with magnetic base, water tank;

CHARACTERISTIC INTRODUCTION:

1. tool type convenient operation:

- Support drag, can quickly drag a large distance around the welding point;
- Uniquely designed end manipulator for fast programming without instruction:
 - ① Use the rocker for 6 directions of subtle and rapid operation of the welding torch to the exact welding point;
 - ② Record the position point, movement mode and welding instructions directly on the end operator;
 - ③ Fast speed adjustment;
 - ④ The display displays key information such as speed, pose, command, etc.;
- Welding gun can be quickly disassembled, only one screw can be quickly installed and disassembled, easy to move to a small space;
- Optional magnetic base, can be installed on the workpiece;

2. complete welding functions:

- Welding package
- Swing function
- Multi-layer and multi-channel functions*
- Location finding function*
- Arc tracking function *

3. Main functions of collaborative robots:

- With UPS, support power failure regeneration;
- Support gravity compensation, tool load identification;
- Support collision detection, stop immediately when hit, man-machine collaboration;
- Double encoder design, more secure;
- Interactive information, man-machine collaborative work;

Note: * is supported after the upgrade version after June

ROBOT TECHNICAL PARAMETER			
Model:	CRP-RC09-13-10-W	CRP-RC09-05-W	
Number of axes	6	6	
load	10KG	5KG	
Operating radius	1360mm	900mm	
Repeated positioning accuracy	±0.02mm	±0.02mm	
absolute precision	≤ 0.3mm	≤ 0.3mm	
Maximum Angle of each axis	J1	±360°	±360°
	J2	±360°	±360°
	J3	-78°~256°	-75°~250°
	J4	±360°	±360°
	J5	±360°	±360°
	J6	±360°	±360°
Maximum joint velocity	J1	107°/s	225°/s
	J2	107°/s	225°/s
	J3	200°/s	225°/s
	J4	250°/s	250°/s
	J5	250°/s	250°/s
	J6	250°/s	250°/s
End button	2	Drag and mark	
End I/O port	4	Four digital inputs and outputs	
breathing light	1		
towing apparatus	1	6 programming buttons: ARC, MOVL, Toggle (XYZ/ABC) MOV, RES, MOVJ	
rocker	1	arbitrary direction	
environmental conditions	Temperature: 0~45°, humidity: 20%~80%(no frost and dew)		
Body weight	About 33KG	About 22KG	
way to install	Formal/upside down/wall mounted		
Ip code	IP54		

Technical specifications of CRP-X2 robot control cabinet

Electric cabinet series	X2
demonstrator	Touch screen, emergency stop button, mode selection switch, safety switch, shortcut keyboard
	Type C network demonstrator, standard 6 meters cable
	8 inch TFT-LCD touch screen
	156 (W) X310 (H) X50 (H) mm, 0.88KG
Size/Weight	173 (W) X316 (H) X456 (D) mm, about 11.5KG
protective construction	IP20
type of cooling	forced cooling
enviromental parameter	Storage temperature: -10-65°C
	Operating temperature: 0-45°C
	Relative humidity: 20-85% (no condensation)
	Altitude: ≤2000M
	Corrosion: no corrosive gas, liquid
	Use place: indoor, ventilated, non-airtight
power supply	Single-phase three-wire AC220V±10%, 50/60HZ
cable jumper	Power cable standard 3 meters, interconnect standard 5 meters
ground connection	Must have protective grounding (PE)
system configuration	The core consists of 4+1 64-bit Arm®Cortex®-A55 cores at 2GHz; Three Cortex-R5F cores at 800MHz. Onboard 4GB LPDDR4, 8GB eMMC, and 32KB FRAM
hardware interface	16 user isolation quantity input, low active;
	16 user isolation NPN type digital output, 300mA load [except DO12, DO13, DO14, DO15]
	2-channel orthogonal coding or two-channel pulse counting, DI10 multiplexed as A+, DI11 multiplexed as A-, DI12 multiplexed as B+, DI13 multiplexed as B-, DI14 multiplexed as C+, DI15 multiplexed as C-
	DO12, DO13, DO14, DO15 can be reused as PWM output, 0.1Hz~50KHz, 250mA load
	Cabinet door panel 1 100 Mbit/s network, 1 Gigabit network (can be configured as EtherCAT master station 2)
	Built-in one RS485 port and one CAN2.0 port
	Cabinet door panel 1 standard USB3.0 Host
Robot safety	External emergency stop, servo off the main power
EMC test standard	IEC 61000-6-2:2016
Communication protocol operation mode	ModusRTU、 ModusTCP
	Teaching, reproduction, remote
	Point-to-point, linear interpolation, circular interpolation, gate motion
instruction system	Movement, logic, craft, arithmetic
coordinate system	Joint coordinates, cartesian coordinates, user coordinates, tool coordinates, base coordinates
Software feature pack	Welding/handling/palletizing/etc are optional
Number of control axes	6-axis, EtherCAT bus extension (external axis optional)
Supported body models	CRP-RC09-05, CRP-RC13-10