

X3 Control cabinet

Collaboration electrical box



Functional Features

- CRP-X3-ZMC900E control box, referred to as the X3 control box, is a dedicated control box for collaborative robots on the ARM platform.
- Strong stability :ARM architecture has the characteristic of strong stability ,the controller system operation stability, high reliability, can support various industrial agreements, network interfaces and a variety of peripheral devices.
 - Excellent performance: The industrial robot control cabinet based on ARM platform has high efficiency, low power consumption and multi-task capability, and can support real-time multi-service operation; ensure the accuracy and speed of the robot.
 - With its IP51-rated design, the robot is engineered to excel in demanding conditions, providing superior protection for continuous and reliable operation.

X3 Collaboration control cabinet specifications

Model	CRP-X3-ZMC900E
Teaching pendant	Touch Panel, Emergency Stop Button, Mode Selector Switch, Safety Switch, Quick Keypad
	C-type Teaching pendant, standard 6m cable
	8-inch TFT-LCD touch panel
	290(W)×220(H)×110(T)mm, 1.3kg
Size & weight	178(W)×343(H)×495(D)mm, 13kg
Protective structure	IP51
Cooling method	Forced air cooling
Environmental parameters	Storage temperature: -10℃~65℃
	Use temperature: 0~45℃
	Relative humidity: 20%~85%RH (no condensation)
	Altitude: ≤2000m
Power supply	Corrosion: no corrosive gases and liquids
	Place of use: indoor, ventilated, non-confined
	Single-phase AC110V ~242V, 50/60Hz
Connection cable	Power cord standard 2 meters, interconnecting cable standard 3 meters
Grounding	Must have protective earth (PE)
System configuration	Cores include 4+1 64-bit Arm® Cortex®-A55 cores at 2GHz and 3 Cortex-R5F cores at 800MHz. 4GB LPDDR4, 8GB eMMC, and 32KB FRAM are onboard.
Hardware interface	16 user isolated quantity inputs, active low;
	16 user-isolated NPN-type digital outputs, 300mA load (except DO12, DO13, DO14, DO15)
	2-way quadrature coding or two-way pulse counting, DI10 multiplexed to A+, DI11 multiplexed to A-, DI12 multiplexed to B+, DI13 multiplexed to B-, DI14 multiplexed to C+, DI15 multiplexed to C-
	DO12, DO13, DO14, DO15 can be multiplexed to PWM output, 0.1Hz~50KHz, 250mA load
Robot safety	Cabinet door panel 1x 100 Gigabit, 1x Gigabit (configurable as EtherCAT master 2)
	Built-in 1-channel RS485, 1-channel CAN2.0
	Cabinet door panel 1 channel standard USB3.0 Host
EMC Test standards	Cabinet door emergency stop, external emergency stop
Communication protocols	IEC 61000-6-2:2016
Operating mode	Standard: ModbusRTU master/slave, ModbusTCP master/slave, EtherCAT master
	Teach, reproduce, remote
Command system	Point-to-point, linear interpolation, circular interpolation, gate motion
Coordinate system	Motion, Logic, Process, Arithmetic
Software package	Joint coordinates, Cartesian coordinates, User coordinates, Tool coordinates, World coordinates
Number of control axis	Arc Welding / Spot Welding / Laser Welding / Pendulum Arc / Arc Tracking / Expert Database / Servo Collision / Torch Collision / Chinese Programming
Supported body model	Standard configuration 6 axes (external axes are optional, the maximum expansion of external axes 6 axes)
	RC Series Collaborative Robots

Dimensions of the electrical cabinet

