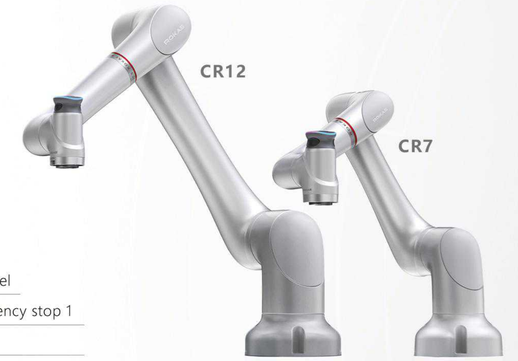
CR Series
Specifications

	CR7	CR12
Specifications		
Payload	7 kg	12 kg
Reach	850 mm	1,300 mm
Weight	21 kg	35 kg
Degrees of freedom	6 revolute joints	6 revolute joints
Rated life	≥ 35,000 h	≥ 35,000 h
Power supply	DC 48V	DC 48V
Programming	Direct teaching control and graphical interface	Direct teaching control and graphical interface
Performance		
Power consumption	Average 500 w / Peak 1,500 w	Average 600 w / Peak 2,000 w
Safety	≥ 20 adjustable safety features	≥ 20 adjustable safety features
Certification	Compliant with EN ISO 13849-1, Cat.3, PL d and EU CE marking requirements	Compliant with EN ISO 13849-1, Cat.3, PL d and EU CE marking requirements
Force sensing (tool flange)	Force, x-y-z / Torque, x-y-z	Force, x-y-z / Torque, x-y-z
Force measurement resolution	0.1 N / 0.02 Nm	0.1 N / 0.02 Nm
Relative accuracy of force control	0.5 N / 0.1 Nm	0.5 N / 0.1 Nm
Adjustable range of Cartesian stiffness	0~3,000 N/m, 0~300 Nm/rad	0~3,000 N/m, 0~300 Nm/rad
Operating temperature	0~50°C	0~50°C
Humidity	90% RH (non-condensing)	90% RH (non-condensing)
Motion		
Repeatability	±0.03 mm	±0.03 mm
Motion joint	Working range / Maximum speed	Working range / Maximum speed
Axis 1	±180° / 180°/s	±180° / 120°/s
Axis 2	±180° / 180°/s	±180° / 120°/s
Axis 3	±285° / 234°/s	±285° / 180°/s
Axis 4	±180° / 240°/s	±180° / 234°/s
Axis 5	±180° / 240°/s	±180° / 240°/s
Axis 6	±360° / 300°/s	±360° / 240°/s
Axis 7	——	——
Maximum speed at tool end	≤ 4 m/s	≤ 3.5 m/s
Features		
IP rating	IP67	IP67
ISO cleanroom class	5	5
Noise	≤ 70 dB(A)	≤ 70 dB(A)
Robot installation	At any angle	At any angle
Common I/O ports	Digital input 4 / Digital output 4	Digital input 4 / Digital output 4
Safety I/O ports	External emergency stop 2 / External safety gate 2	External emergency stop 2 / External safety gate 2
Tool connector type	M8	M8
Tool I/O power supply	24 V/1 A	24 V/1 A



Control System

Controller	Built-in controller
Operator interface	Notebook/PAD/xPad/Interactive Panel
Safety protection device	Handheld enable 1/handheld emergency stop 1
Base interface	Ethernet 2/EtherCAT 1/RS485/DIO
Wrist interface	EtherCAT 1/power 24V/RS485/DIO
Direct teaching control	Drag mode: Cartesian space/joint space; teaching mode: point position/continuous trajectory
Highly dynamic force control	Impedance control of Cartesian/joint space; motion planning for force control search
Communication protocols	TCP/IP 100Mbit, Modbus TCP, Profinet, Ethernet IP
External control interface	Highly dynamic external control; low-level force/position control; robot model library and API

xPad2

Dimensions	290 mm×190 mm×13 mm
Weight	800 g
Connection	Wired
Display	10.1-in LCD with a resolution of 1920×1080
IP rating	IP54

xPad2