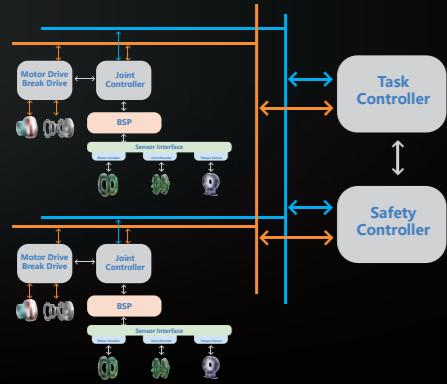


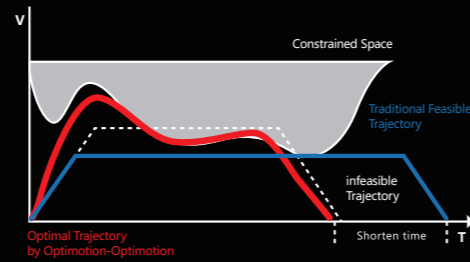
Extreme Safety

Suction band-type brakes, independently certified safety controllers, more than 21 TÜV functional safety features, and ultrasensitive collision detection by torque sensors, comprehensively ensure a safer human-machine collaboration.



Superior Performance

Cutting-edge motion control technologies for industrial robots to deliver first-class path accuracy, combined with customized motor drive control systems, create a powerful performance.



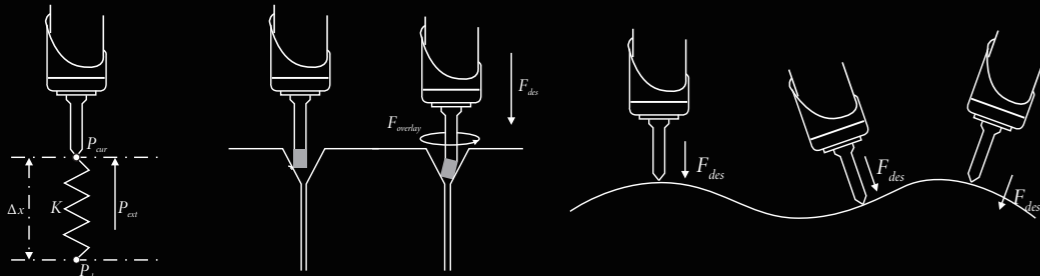
CR-C

Series Flexible Collaborative Robots

A Powerful Yet Flexible All-Rounder

Compliant Flexibility

By adopting force-position hybrid control technology, highly dynamic force control is integrated into robot joints, which provides compliance control close to human hands, while the force control process kit helps greatly enhance force control task efficiency with no additional extensions required.



Ease of Use

Fast installation and flexible deployment, direct teaching control, and graphical programming enable greater ease of use. Applicable to a variety of application scenarios by supporting most extensions in the industrial ecosystem.



Excellent Reliability

IP67 protection, 100+ design verification experiments, and 20+ factory tests, build them into an ideal choice for industrial applications.



A Powerful Yet Flexible All-Rounder |



ROKAE Robotics

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	CR7-C	CR12-C	CR18-C	CR20-C	CR25/5-C	CR17/5-C
Specifications						
Payload	7 kg	12 kg	18 kg	20 kg	25 kg	17 kg
Reach	988 mm	1,434 mm	1,062 mm	1,798 mm	1,798 mm	2,047 mm
Weight	About 25 kg	About 41 kg	About 38 kg	About 71 kg	About 69 kg	About 71 kg
Degrees of freedom	6	6	6	6	5	5
MTBF*	> 80,000 h	> 80,000 h	> 80,000 h	> 80,000 h	> 80,000 h	> 80,000 h
Power supply	48VDC					
Programming	Direct teaching control and graphical interface					

Performance

Typical Power	300 w	500 w	600 w	1,000 w	900 w	600 w
Safety	Over 21 adjustable safety features including collision detection, virtual walls, and collaboration mode.					
Certification*	EN ISO 13849-1, EN ISO 10218-1/ PL d, Cat. 3; ISO 15066, and EU CE marking requirements, KCs marking requirements, EAC marking requirements					
Force sensing (tool flange)	Force, x-y-z	Torque, x-y-z	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	0.1N	0.02Nm	0.1N	0.02Nm
Relative accuracy of force control	0.5 N	0.1 Nm	0.5N	0.1Nm	0.5N	0.1Nm
Adjustable range of Cartesian stiffness	0~3,000 N/m, 0~300 Nm/rad	0~3,000 N/m, 0~300 Nm/rad	0~3,000 N/m, 0~300 Nm/rad	0~3,000 N/m, 0~300 Nm/rad	0~3,000 N/m, 0~300 Nm/rad	0~3,000 N/m, 0~300 Nm/rad

Motion

Repeatability	±0.02 mm		±0.03 mm		±0.03 mm		±0.05 mm		±0.05 mm		±0.05 mm	
Motion joint	Working range	Maximum speed	Working range	Maximum speed	Working range	Maximum speed	Working range	Maximum speed	Working range	Maximum speed	Working range	Maximum speed
Axis 1	±360°	180°/s	±360°	120°/s	±360°	120°/s	±360°	120°/s	±360°	120°/s	±360°	120°/s
Axis 2	±360°	180°/s	±360°	120°/s	±360°	120°/s	±360°	120°/s	±360°	120°/s	±360°	120°/s
Axis 3	±360°	234°/s	±360°	180°/s	±165°	180°/s	±170°	120°/s	±170°	120°/s	±165°	120°/s
Axis 4	±360°	240°/s	±360°	234°/s	±360°	180°/s	±360°	180°/s	±360°	234°/s	±360°	234°/s
Axis 5	±360°	240°/s	±360°	240°/s	±360°	180°/s	±360°	234°/s	±360°	234°/s	±360°	234°/s
Axis 6	±360°	240°/s	±360°	240°/s	±360°	180°/s	±360°	234°/s	—	—	—	—
Maximum speed at tool end	≤ 3.2 m/s		≤ 3.0 m/s		≤ 3.0 m/s		≤ 3.5 m/s		≤ 3.5 m/s		≤ 4.0 m/s	

Considering the upgrade of the product, the actual parameters of the product shall be subject to the corresponding hardware installation manual

Physical properties

IP rating	IP67
ISO cleanroom class*	5
Noise	≤ 70 dB(A)
Robot installation	At any angle
Tool I/O ports	2 Digital outputs, 2 Digital inputs, 2 Analog inputs
Tool communication interface	RS485(Alternative with two analog input pins, can not be used simultaneously)
Tool I/O power supply	12V/24V 1A (rated)
Operating ambient temperature	0°C~50°C
Humidity	≤ 93% RH (non-condensing)

Control cabinet

Name	xMate Control Cab (Abbreviated as MCC)
IP rating	IP54
Operating ambient temperature	0°C~50°C
Humidity	≤93% RH (Non-condensing)
Dimensions	450mm x 250mm x 350mm
Weight*	About 15kg
General digital IO	16 inputs and 16 outputs (standard)
Safety IO	5 safety inputs, 4 safety outputs (all dual-redundant channels)
Communication	RS232*1; Gigabit Ethernet RJ45*1; USB3.0*2; HDMI*1; EtherCAT*1

xPad2

Dimensions	290 mm×170 mm×80 mm
Weight	About 840g (excluding cable)
Cable length	5 m/7 m/15 m/22 m
Display	10.1-in LCD with a resolution of 1,920×1,200
IP rating	IP54



* Note: If you have any questions about the status of product certification, please contact the manufacturer. There will be some differences in the weight of the control cabinet in different configurations. Please refer to the corresponding product manual for more details

CR-C Series

Flexible Collaborative Robots

The **xMate CR-C** series of flexible cobots continues the leading functional characteristics of the CR series, and moves the controller in the base of the CR series out of the body to form an independent control cabinet with IP54 protection level, which reduces the installation size of the base and improves the protection level of the body to IP67, which can adapt to more stringent application scenarios. The independent control cabinet provides richer IO resources and more flexible extensibility. Its built-in independent safety controller, TÜV certified, functional safety meets ISO 13849-1:2015 standard, up to PL d/Cat 3 level.

The newly upgraded xMate CR-C series of flexible cobots further broadens the application scenarios with the characteristics of safer, more flexible and easier to use.



Model CR7-C
Payload 7 kg
Reach 988 mm

Model CR12-C
Payload 12 kg
Reach 1,434 mm

Model CR18-C
Payload 18 kg
Reach 1,062 mm

Model CR20-C
Payload 20 kg
Reach 1,798 mm

Model CR25/5-C
Payload 25 kg
Reach 1,798 mm

Model CR17/5-C
Payload 17 kg
Reach 2,047 mm

Applications

xMate CR-C series flexible collaborative robots can undertake a variety of tasks, including

- Compliant assembly
- Screw locking
- Deburring and grinding
- Handling
- Loading and unloading
- Material removal
- Packaging and palletizing
- Welding

Driving improved productivity and flexible automation for companies of all sizes.