ROKAE

SR Series

Flexible Cobots

Lightweight & Flexible,
Extreme Safety

Specifications

	SR3	SR4
Payload	3 kg	4 kg
Reach	705 mm	919 mm
Weight	About 13.8 kg	About 16.5 kg
Degrees of freedom	6 revolute joints	6 revolute joints
MTBF	> 50,000 h	> 50,000 h
Power supply	48VDC	48VDC
Programming	Direct teaching control and graphical interface	Direct teaching control and graphical interface

Performance

Typical Power	160w		225w	
Safety	Over 20 adjustable safety features including collision detection, virtual walls, and collaboration mode.			
Certification	EN ISO 13849-1, Cat.3, PL d; EN ISO 10218-1, 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	0~3000N/m, 0~300Nm/rad		0~3000N/m, 0~300Nm/rad	
Operating temperature	0°C~50°C		0°C~50°C	
Humidity	⩽ 95% RH (non-condensing)		⩽ 95% RH (non-condensing)	

Motion

Repeatability	±0.03 mm		±0.03 mm	
Motion joint	Working range	Maximum speed	Working range	Maximum speed
Axis 1	±175°	180°/s	±175°	180°/s
Axis 2	-155°~+140°	180°/s	-160°~+150°	180°/s
Axis 3	-175°~+135°	180°/s	-170°~+140°	180°/s
Axis 4	±175°	180°/s	±175°	180°/s
Axis 5	±175°	180°/s	±175°	180°/s
Axis 6	±175°	180°/s	±175°	180°/s
Maximum speed at tool end	⩽ 1.5 m/s		⩽ 2.0m/s	

Features

IP rating	IP54
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	One 100-megabit Ethernet port with RJ45 interface on the connection base
Tool I/O power supply	(1) 24V/12V, 1A (2) 5V, 1.5A
Pedestal common I/O ports	4 Digital outputs, 4 Digital inputs
Pedestal communication interface	2 channels Ethernet
Pedestal output power supply	24V, 1.5A

ROKAE Robotics

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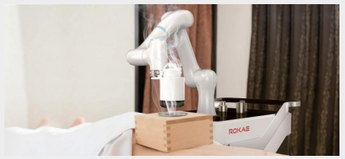
2023-11-13

SR Series

Flexible Cobots

xMate SR,ROKAE's next-generation flexible cobot series that is lightweight, flexible, and great in cost performance, is a good helper for people's work and life.

Applications



SR3

- Unmanned retail
- Robotic coffee
- Robotic ice cream
- Robotic popcorn
- Medical test
- Loading and unloading
- Assembly
- Inspection

SR4

- Robot moxibustion
- Robot massage
- Automated catering
- Medical test
- Loading and unloading
- Assembly
- Inspection

Features

Extreme Safety, Comprehensive Guarantee

High-precision torque sensors in all joints enable ultra-sensitive force sensing, thus effectively avoiding accidental collisions and injuries and ensuring safe operation.

- Collision sensitivity improved by 5 times
- Over 20 TÜV-certified safety features
- Independent RSC design, dual-channel redundant monitoring
- Suction band-type brake for reliable and safe shielding
- Human-machine collaboration for the perfect guarantee of production efficiency
- Compliance with international safety standards for worry-free certification and approval

Lightweight & Flexible Fashionable & Friendly

The innovative design brings superb lightweight flexibility as well as user-friendly human-machine interaction, shattering stereotypes about robots.

- Streamlined shape
- Delicate and delightful color scheme
- Simple and fashionable design

Excellent Reliability Solid Partner

Industry-leading 50,000 hours of MTBF makes it an economical and solid partner

- 100+ design verification experiments, 120-hour 20+ ex-factory tests
- Component-level quality control based on a mature and reliable supply chain
- 30% longer gear reducer life thanks to advanced robot algorithms
- Dynamic modeling based on over 200 parameters, effectively preventing overload

Excellent Accessibility, Easy to Use

Extremely easy to use and deploy, allowing quick installation and commissioning by beginners

- Only 1N for dragging and direct teaching programming, enabling easy handling of complex paths
- Graphical user interface that can be mastered within one hour
- Extensive SDK interfaces for rapid development of specialized applications

Sound Ecosystem, Full Empowerment

ROKAE versatile one-stop solutions for human-machine collaboration empower partners and fulfill customer goals

- Millisecond-level real-time secondary development interfaces that help customize high-end functions, making it a reliable partner for equipment manufacturers and integrators
- 6 categories of ecosystem extensions and 100+ ecosystem partners that fully empower industrial applications
- Various communication protocols such as Modbus, PROFINET and CC-Link are supported, enabling it to be quickly integrated into the application environment
- The powerful offline simulation software, RokaeStudio, supports users in quickly creating solutions