

FANUC Robot SR series

FEATURES

FANUC Robot SR series are high-speed SCARA robots that achieve high precision and excellent continuous operation performance through its lightweight arm and high-performance servo technology.

They are controlled by the R-30*i*B Compact Plus controller and support wide range of intelligent functions such as *i*RVision (integrated vision) and *i*RPickTool.

- The SR-3*i*A, 6*i*A, 12*i*A and 20*i*A can be installed either on the floor or mounted on a wall. Variants are available to suit different installation environments, including types using food-grade lubricants and waterproof specifications.
- The SR-3*i*A/U is a ceiling mount type robot. It can use its full 360° envelope to maximize work space, even in limited areas.
- The SR-9*i*A/R is a robot that excels at working in areas below the installation surface. It is suitable for high-speed handling work between conveyors.



Lineup

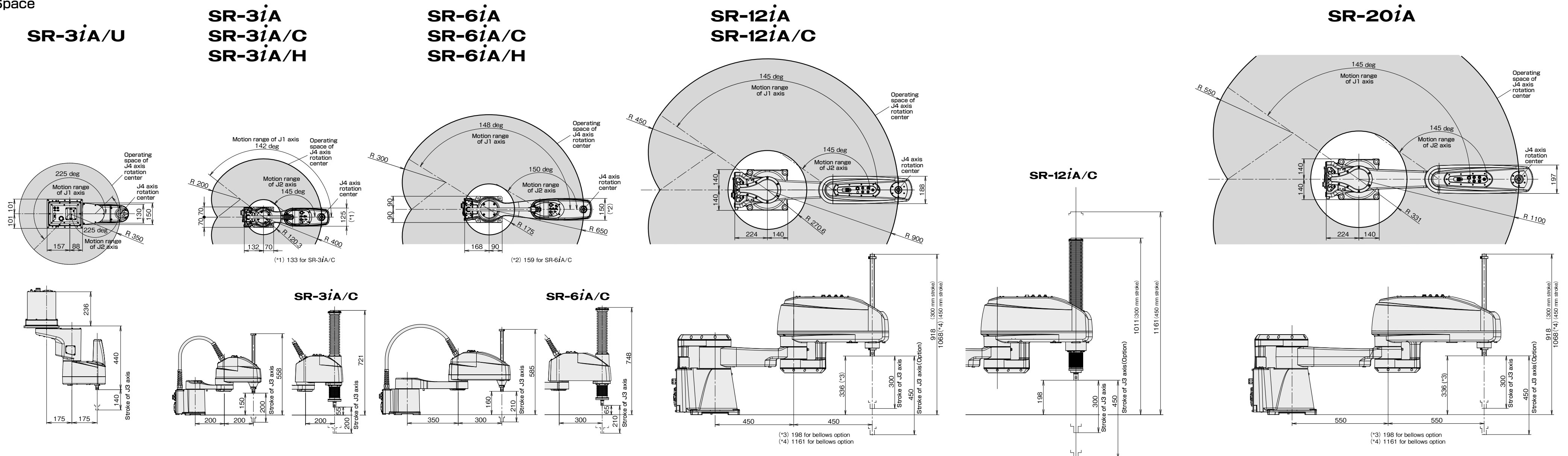


Food-grade Clean Type



Ceiling / Rack mount Type

Operating Space



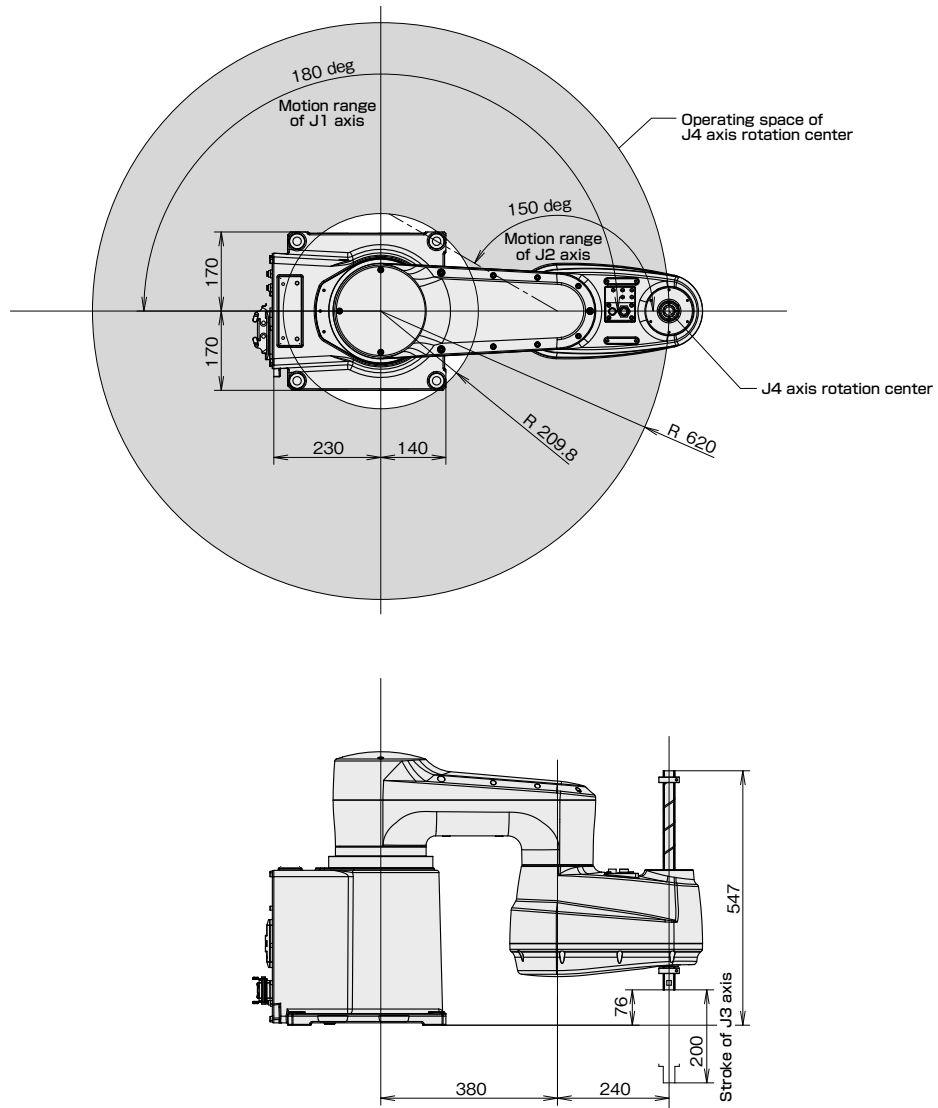
Specifications

Model	SR-3iA/U	SR-3iA	SR-3iA/C	SR-3iA/H	SR-6iA	SR-6iA/C	SR-6iA/H	SR-12iA	SR-12iA/C	SR-20iA
Type	SCARA Type									
Controlled axes	4 axes (J1, J2, J3, J4)				3 axes (J1, J2, J3)			4 axes (J1, J2, J3, J4)		3 axes (J1, J2, J3)
Reach	350 mm		400 mm			650 mm		900 mm		1100 mm
Installation	Ceiling				Floor, Wall					
Motion range (Maximum speed) (Note 1)	J1 axis	± 225 deg (610 deg/s) ± 3.93 rad (10.65 rad/s)		± 142 deg (720 deg/s) ± 2.48 rad (12.57 rad/s)			± 148 deg (440 deg/s) ± 2.58 rad (7.68 rad/s)		± 145 deg (440 deg/s) ± 2.53 rad (7.68 rad/s)	
	J2 axis	± 225 deg (840 deg/s) ± 3.93 rad (14.66 rad/s)		± 145 deg (780 deg/s) ± 2.53 rad (13.61 rad/s)			± 150 deg (700 deg/s) ± 2.62 rad (12.22 rad/s)		± 145 deg (510 deg/s) ± 2.53 rad (8.90 rad/s)	
	J3 stroke	140 mm (1500 mm/s)		200 mm (1800 mm/s)			210 mm (2000 mm/s)		300 mm (2800 mm/s) 450 mm (Option) (2800 mm/s)	
	J4 axis	± 720 deg (3000 deg/s) ± 12.57 rad (52.36 rad/s)					± 720 deg (2500 deg/s) ± 12.57 rad (43.63 rad/s)		± 720 deg (1700 deg/s) ± 12.57 rad (43.63 rad/s)	
Max. load capacity at wrist			3 kg			6 kg		12 kg		20 kg
Allowable load inertia at wrist			0.06 kg·m ²			0.12 kg·m ²		0.30 kg·m ²		0.45 kg·m ²
Repeatability	J1 + J2 axis					± 0.01 mm				
	J3 axis					± 0.01 mm				
	J4 axis	± 0.004 deg				± 0.004 deg				± 0.005 deg
J3 axis maximum push down force (Note 2)	150 N				200 N				250 N	
Cables and air for user	Standard		RI × 4 / RO × 4, Φ6 mm × 1, Φ4 mm × 2			RI × 4, Φ6 mm × 1, Solenoid valve × 2		RI × 4 / RO × 4, Φ6 mm × 3		
Option										
Mass (Note 3)	27 kg	19 kg	21 kg	17 kg	30 kg	32 kg	28 kg	53 kg	56 kg	64 kg
Clean class			ISO class 2 to 5							ISO class 2 to 5
Installation environment	Ambient temperature : 0 to 45 °C Ambient humidity : Normally 75 %RH or less (No dew nor frost allowed) Short term (within one month) 95 %RH or less (No dew nor frost allowed) Vibration acceleration : 4.9 m/s ² (0.5 G) or less									
Matching controller R-30iB Compact Plus	Rated Voltage	200-240V AC Single phase +10 % -15 %, 50/60 Hz ± 1 Hz								
	Mass of controller	9 kg								
	Dimensions (W×D×H)	440 × 260 × 85.5 mm								
	Degree of protection	Conforming to IP20								

Note 1) In case of short distance motion, the axis speed may not reach the maximum value stated.
 Note 2) Alarms may be occurred if push down for a long time.
 Note 3) Without controller.

Operating Space

SR-9iA/R



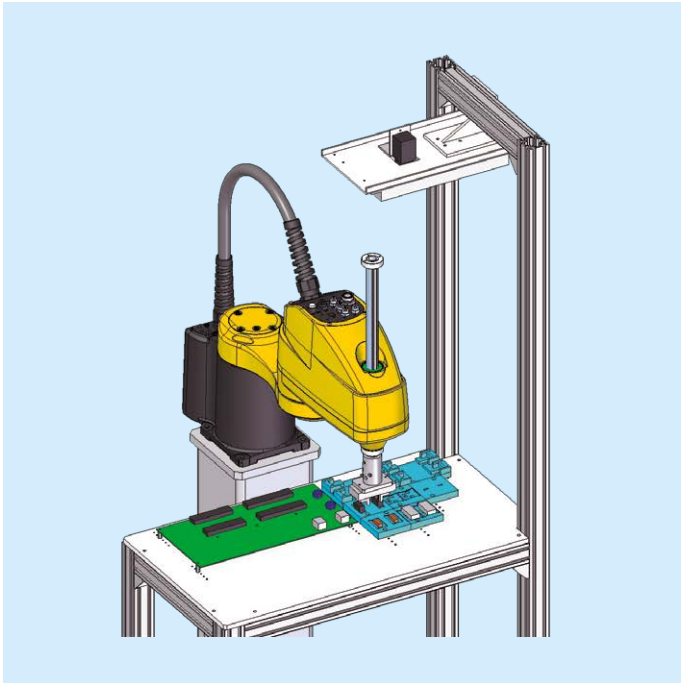
Specifications

Model		SR-9iA/R
Type		SCARA Type
Controlled axes		4 axes (J1, J2, J3, J4)
Reach		620 mm
Installation		Rack
Motion range (Maximum speed) (Note 1)	J1 axis	± 180 deg (560 deg/s) ± 3.14 rad (9.77 rad/s)
	J2 axis	± 150 deg (480 deg/s) ± 2.62 rad (8.38 rad/s)
	J3 stroke	200 mm (2800 mm/s)
	J4 axis	± 720 deg (2500 deg/s) ± 12.57 rad (43.63 rad/s)
Max. load capacity at wrist		9 kg
Allowable load inertia at wrist	J4 axis	0.12 kg·m ²
Repeatability	J1 + J2 axis	± 0.01 mm
	J3 axis	± 0.01 mm
	J4 axis	± 0.004 deg
Cables and air for user	Standard	RI × 4 / RO × 4, Φ6 mm × 3
	Option	RI × 4, Φ6 mm × 1, Solenoid valve × 2
Mass (Note 2)		76 kg
Installation environment		Ambient temperature : 0 to 45 °C Ambient humidity : Normally 75 %RH or less (No dew nor frost allowed) Short term (within one month) 95 %RH or less (No dew nor frost allowed) Vibration acceleration : 4.9 m/s ² (0.5 G) or less
Matching controller R-30iB Mate Plus	Rated Voltage	200-230V AC Three phase +10 % - 15 %, 50/60 Hz ± 1 Hz
	Mass of controller	40 kg
	Dimensions (W×D×H)	470 × 400 × 400 mm
	Degree of protection	IP54

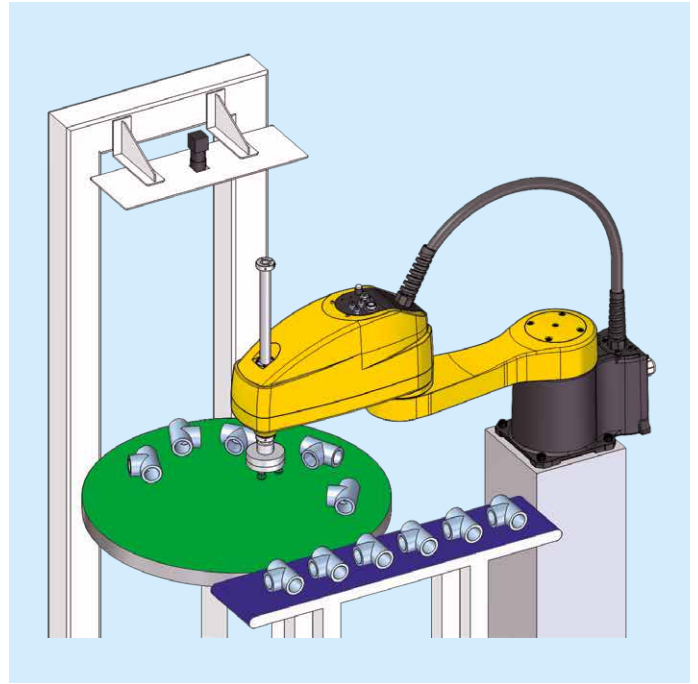
Note 1) In case of short distance motion, the axis speed may not reach the maximum value stated.

Note 2) Without controller.

Application Examples



Circuit board assembly by SR-3iA

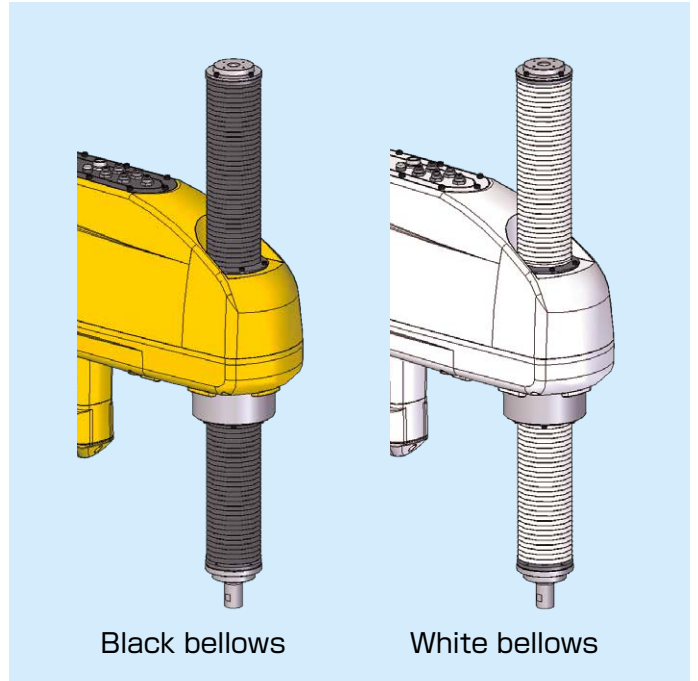


Visual circular tracking by SR-6iA

Option



SR-12iA water proof



Black bellows

White bellows

Example of bellows option

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