FANUC Robot SR-31A/SR-61A



Application examples



R-30iB Compact Plus controller

FANUC SCARA Robot Features and Benefits

FANUC's new SCARA SR-3iA and SR-6iA robots feature a compact design and four-axis articulation for high-speed and precise small part assembly and handling operations.

- Ultra-compact footprint and slim profile minimizes interference with peripheral devices.
- Two models available: SR-3iA (400mm reach) and SR-6iA (650mm reach).
- · Lightweight design enables easy system integration and continuous fast operation.
- High inertia capacity maximizes flexibility to handle large work
- Generous vertical stroke makes it possible to perform assembly, packaging and handling operations.
- Bottom cable exit (optional) provides cable protection, and saves valuable floor space for higher efficiency.
- Integral air lines, 24VDC power and I/O signal cables, and solenoid valves (optional) simplify system integration and reduce overall cost.
- Brake release switch on the robot's arm allows easy error recovery.
- New high-performance R-30*i*B Compact Plus controller requires
- minimal space and allows layout and installation flexibility.

 New web-based "iRProgrammer" user interface for intuitive and easy robot setup and programming on a Tablet or PC (Teach Pendant is optional).
- Standard CE/NRTL compliance on the R-30iB Compact Plus controller allows global deployment without any additional cost.
- Same high performance intelligent software options across the entire FANUC robot line, including iRVision (Integrated Vision), force sensing, conveyor tracking, fieldbus connectivity and integrated safety.



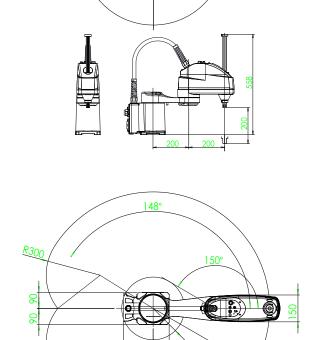
SR-3iA SCARA Robots assembling battery packs

FANUC Robot SR-3iA/SR-6iA

SR-3iA/SR-6iA SPECIFICATIONS:

SR-3*i*A/SR-6*i*A datasheet items

| Model | | | SR-3 <i>i</i> A | SR-6 <i>i</i> A |
|--|-----------|-----------------|--|---|
| Туре | | | Scara Type | |
| Reach | | | 400 | 650 |
| Controlled Axes | | | 4 axes (J1, J2, J3, J4) | |
| Motion Range (Maximum speed) (Note 3) | J1 Axis | | ±142° (720°/s) 2.48 rad (12.57 rad/s) | ±148° (440°/s) 2.58 rad (7.68 rad/s) |
| | J2 Axis | | ±145° (780°/s) 2.53 rad (13.61 rad/s) | ±150° (700°/s) 2.62 rad (12.22 rad/s) |
| | J3 Stroke | | 200mm (1800mm/s) | 210mm (2000mm/s) |
| | J4 Axis | | ±360° (3000°/s) 6.28 rad (52.36 rad/s) | ±360° (2500°/s) 6.28 rad (43.63 rad/s) |
| Cycle Time (Note 2) | | | 0.33s | 0.29s |
| Max. load capacity at wrist | | 3 kg | 6 kg | |
| Allowable load inertia at wrist | | J4 axis | 0.06 kg·m² | 0.12 kg·m² |
| Repeatability J3 Stroke | | J1 + J2 axis | ±0.01 mm | ±0.01 mm |
| | | J3 Stroke | ±0.01 mm | ±0.01 mm |
| | | J4 axis | ±0.004° | |
| Cables and air for user | Standard | | RI x 4 / RO x 4, Φ6mm x1, Φ4mm x 2 | |
| | Option | | RI x 4, Φ6mm x 1, Solenoid valve × 2 | |
| Mass (Note 3) | | 19 kg | 30 kg | |
| Installation environment | | | | |
| Ambient temperature | | | 0 to 45°C | |
| Ambient humidity | | | Normally 75% RH or less (No dew or frost) Short term 95%RH or less (within one month) | |
| Vibration acceleration | | | 4.9m/s² (0.5G) or less | |





350 300

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

Note 2) Cycle time for 25mm-300mm-25mm motion pattern with 2kg payload.

Note 3) Without controller.



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