

A-520i

Applications

PLANNING SOLUTIONS



Basic Description

The A-520i is a high-speed fouraxis, modular construction, electric servo-driven robot, designed for a variety of manufacturing and system processes. The FANUC Robotics' A-520i is engineered for precision, high-speed operation, user-friendly set-up, and maximum reliability.

A-520i, the Solution for:

- | Material handling
- | Mechanical assembly
- | Packing
- | Machine load/unload
- | Testing and sampling

Features

- | Axes speeds up to 720 degrees/sec.
- | Brakes on axes 1 and 3
- | 45 kg vertical force for part pressing operations
- | Brushless AC servo motors minimize motor maintenance
- | Direct-coupled drives on all axes
- | Grease fittings on all lubrication points for quick and easy maintenance
- | Sealed bearings and drives
- | All motors, cables and tooling services are located internally for protection from environment.

Benefits

- | SCARA (selective compliance assembly robot arm) design makes the robot extremely stiff in the vertical direction but gives it some lateral compliance for assembly applications.
- | SCARA configuration provides very high-speed, precise positioning.
- | Rear-located vertical axis improves clearance for restrictive installations.
- | Low profile joint 3 arm increases clearance for restrictive installations.
- | Low profile, small footprint increases installation flexibility.
- | Hollow-joint construction encloses all cable routing to eliminate snagging.
- | End effector connector built into robot shoulder reduces cable routing.
- | Absolute serial encoders eliminate the need for calibration at power-up.

Invert Mount Benefits

- | Floor space savings
- | Cycle time improvement
- | Increased work envelope allows manipulation of larger parts
- | Allows use of large tooling

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A-520i Specifications

| Items | |
|--|--|
| Axis | 4 |
| Max. Payload (kg) | 20 |
| Max. Reach (mm) | 900 |
| Repeatability (mm) | ±0.05 |
| Interference radius (mm) | 238 (floor), 50 (ceiling) |
| Motion range (degrees) | J1 300 mm |
| | J2 300 |
| | J3 300 |
| | J4 540 |
| Motion speed (degrees/sec.) | J1 800 mm/sec |
| | J2 350 |
| | J3 350 |
| | J4 720 |
| Wrist moment (kgf·m) | J4 2.4 |
| Wrist inertia (kgf·cm·s ²) | J4 3.0 |
| Mechanical brakes | Axes 1, 3 |
| Mechanical weight (kg) | 300 |
| Mounting method | Floor, ceiling |
| Installation environment | |
| Temperature °C | 0 to 45 |
| Humidity | Normally: 75% or less Short term (within a month): 95% or less No condensation |
| Vibration (m/s ²) | 4.9 or less |
| IP Rating(s) | IP 54 |
| Ceiling mount | Requires reconfiguring mechanical unit |

