

# LR Mate<sup>®</sup> 200iC Series & R-30iA<sup>™</sup> Mate Controller

FANUC  
Robotics

## Basic Description

The new LR Mate 200iC Series is FANUC Robotics' next generation, electric servo-driven mini-robot series offering best-in-class performance in a light, efficient, accurate and nimble (LEAN) package. The new LR Mate 200iC's tabletop size, slimmer arm profile, lighter weight, highest dexterity, faster sustained speed and superior positioning accuracies make it the perfect solution for countless industrial and commercial applications.

## LR Mate 200iC, the Solution for:

- Machine tending
- Material handling
- Assembly
- Picking and packing
- Part washing
- Material removal
- Dispensing
- Testing and sampling
- Education and entertainment

## Features and Benefits

- 5 or 6 degrees of freedom
- ±0.02 mm (200iC & 200iC/5H) and ±0.03 mm (200iC/5L) repeatability at full payload and full speed within entire robot work envelope
- Up to 5 kg payload at wrist
- Best-in-class wrist moment and inertias for real-world EOATs and workpieces
- Pneumatic and electrical (6 RDI) connections for EOAT conveniently located on J4
- Two, double-acting solenoid valves integrated in forearm simplify EOAT dressout (no built-in valves on 200iC/5H SCARA Eliminator model)
- Highest joint speeds maximize throughput
- Tabletop size, slim wrist, and small footprint permit operation in tight work spaces.
- Robot can flip over backwards for a larger work envelope
- Enclosed mechanical design eliminates cables and hose snagging
- Upright, angle, wall or invert mounting increases installation flexibility



- Higher rigidity and the most advanced servo technology enable smooth motion without vibration in high speed operation
- Advanced communication capabilities via standard Ethernet and serial connections
- Integrated PMC provides ladder-logic control for peripheral devices
- Lighter and more compact than its predecessor
- The arm profile cross-section area is 42% smaller than the previous generation LR Mate 200iB
- Same footprint and wrist bolt pattern as previous generation for easy upgrades

## Robot Reliability

- The latest generation of a proven design
- Sealed bearings and brushless AC motors
- Standard "C" size batteries for encoder backup
- Grease fittings on all lubrication points for quick and easy preventive maintenance

## Robot and Controller Options

- 110 VAC single phase input voltage
- 360-degree J1 axis rotation
- Fail-safe mechanical brakes on all joints

- Available R-30iA Mate rack mount compact controller fits in standard 19" electronics rack and is ideal for climate controlled applications such as food, lab, pharmaceutical, medical and education.
- *iPendant*<sup>™</sup>, a color, Internet-ready teach pendant for even easier programming and custom cell user interface design
- Extended networked I/O capabilities: I/O Link, DeviceNet, Profibus
- Supports a variety of intelligent functions including *iRVision*<sup>®</sup> (built-in vision-ready controller) and force sensing
- Available IP67 rating for the entire robot allows it to withstand harsh environments
- 7 m or 14 m controller-to-robot connection cables

## Unique Software Options

- Patented real-time singularity avoidance
- Collision protection
- Internet connectivity
- KAREL<sup>®</sup> programming language
- Many more software solutions for control, communication, and motion

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