FANUC Robot Series
R-50*i*A/R-50*i*A Mate/R-50*i*A Compact DC Controller



Teach Pendant



R-50*i*A Compact DC Controller



R-50*i*A Mate Controller



A-Cabinet



B-Cabinet



C-Cabinet

R-50*i*A Controller

Features

Hardware/Control Performance

- Higher accuracy improvement of signal output and sensor tracking on the motion path.
- DCS Position/Speed Check zones expanded four times from R-30*i*B Plus.
- Flexible network configuration using 4 Ethernet ports and PROFINET without an option board.
- Battery-less main board for easy maintenance.
- Newly designed Teach Pendant with comfortable experience.

Cybersecurity

- Cybersecurity certificates for IEC 62443-4-1 and IEC62443-4-2 are supported.
- Security by design functions support HTTPS, SFTP, firewall, and so on.
- Corporate user authentication is provided with an improved password function.



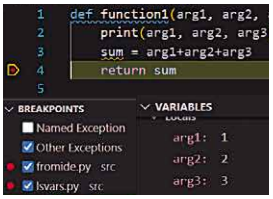
*i*RVision

- Easily set up and operate Ethernet cameras using integrated robot vision functions.
- Redesigned 5 million pixels camera packaging provides more straightforward cable access and lens adjustment.



Rich Development Function

- Allows you to execute Python NOTE1) scripts on the controller and provides Visual Studio Code NOTE2) integration.
- Supports a ROS NOTE3) robot framework and IEC 61131-3 software PLC function on the robot.



- Easy creation of an operation panel displayable on a Tablet device

NOTE1) Python is a registered trademark of the Python Software Foundation.
NOTE2) Visual Studio Code is a registered trademark of Microsoft Corporation
NOTE3) ROS is a trademark of Open Source Robotics Foundation.

Energy Saving Environment

- Low power fans and amplifiers with low loss power elements save energy. High efficiency brake control reduces power consumption.
- A new Eco mode allows the robot to move smoothly along the taught path and also reduces power consumption.

Remote Maintenance

- Connect a smartphone to your robot controller with a USB cable to allow FANUC service personnel to maintain your robot controller remotely.
- A FANUC service location connects to your robot controller using a secure communication method.



Specifications and Supported Robot Models

	R-50*i*A Controller			R-50*i*A Mate Controller	R-50*i*A Compact DC Controller
	A-Cabinet	B-Cabinet	C-Cabinet		
					
Rated Supply Voltage	AC200～575V 50/60Hz, 3-Phase			AC200～240V 50/60Hz, 1/3-Phase	DC24～48V
Mass of Controller(kg)	120-140 *1)	180-200 *1)	190-210 *1)	35/40 *1)	9
Dimensions (W×D×H mm)	600×470×500	600×550×950	740×600×870	470×322×400 470×402×400 *1)	440×280×99
Overvoltage Category / Pollution degree	Overvoltage Category Ⅲ, Pollution degree 3				Overvoltage Category Ⅱ, Pollution degree 2
Protection Class	IP54				IP20
Emergency stop	Emergency stop function PL=e, Cat4, SIL3 Position/Speed check function PL=d, Cat3, SIL2				
External Memory	USB,SD				
Fieldbus	Ethernet, DeviceNet, PROFINET, CC-Link, CC-Link IE, EtherNet/IP, EtherCAT				
Supported robot model (○: Supported −: Not supprted)					
LR Mate	○	○	○	○	−
ARC Mate	○	○	○	○	−
M-10	○	○	○	○	−
M-20	○	○	○	○	−
M-710	○	○	○	−	−
M-800	○	○	○	−	−
M-810	○	○	○	−	−
R-1000	○	○	○	−	−
R-2000	○	○	○	−	−
M-900	○	○	○	−	−
M-910	−	○	○	−	−
M-950	−	○	○	−	−
M-1000	○	○	○	−	−
M-2000	○	○	○	−	−
M-410	○	○	○	−	−
DR	○	−	−	○	−
CR	○	−	−	−	−
CRX	○	−	−	○	○

*1 : These values differ depending on the robot model.

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R-50*i*A(E)-05, 2026.10, Printed in Japan