

MELFA RV-8CRL & RV-12CRL ROBOTS

PRODUCT OVERVIEW



- Slim and compact
- High scalability
- Supports a wide variety of functions and options

The RV-CRL robots are high-quality, low-cost solutions that offer a high level of versatility due to their compact design. This makes them well suited for a wide variety of applications.

KEY BENEFITS:

INNOVATION

For Evolution of Automation Cells

- **Compact design** – Smooth curved designs complement the slim arms and compact joints, resulting in smaller foot prints. Their structures feature minimal protrusions on the front, back, and sides, reducing potential interference with surroundings while in operation, making them a great fit for automation cells and manufacturing equipment.
- **Expanded effective working area** – With a maximum load capacity of 8kg and 12kg, and a maximum reach of 931mm and 1504mm respectively, the RV-CRL robots minimize the interference region and “in-minimum” turning radius to provide a wide effective working area.
- **User wiring built into arm** – Signal wires and air piping for end-of-arm tooling are internally routed from the robot base to the forearm. The CR800 controller comes standard with 32/32 points of I/O for controlling a wide variety of end-of-arm tooling options.

MAINTAINABILITY

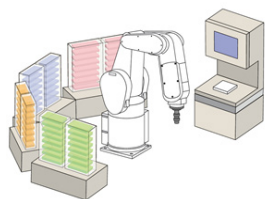
Ease of Maintenance

- **Simple structure** – Simplification of the robot arm structure has improved transmission efficiency and reliability while also improving the ease of maintenance.
- **No battery backup** – Batteries are not required to back-up the internal encoders, reducing cost and saving time, as well as eliminating the risk of losing origin coordinates due to battery failure.
- **Higher IP rating** – IP65 rating comes standard with environmental resistance features allowing installation in plants and on equipment where higher IP ratings are required.

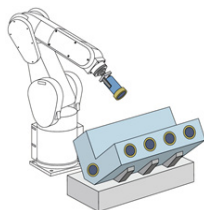
Specifications

Model Number	RV-8CRL-D-S15	RV-12CRL-D-S15
Degrees of Freedom	6	6
Installation	Floor, ceiling, wall mounted with J1 limitation	Floor, ceiling
Structure	Vertical articulated robot	Vertical articulated robot
Drive System	MR-J5 AC servo motor (brake provided on all axes)	MR-J5 AC servo motor (brake provided on all axes)
Rated / Max. Payload (kg)	7 / 8	12 / 12
Max. Reach (mm)	931	1504
Operating Range (Deg)	J1	±170
	J2	±110
	J3	0 to +165
	J4	±200
	J5	±120
	J6	±360
Maximum Speed (Deg / Sec)	J1	288
	J2	321
	J3	360
	J4	337
	J5	450
	J6	720
Position Repeatability (mm)	±0.02	±0.04
Weight (kg)	41	110
Environment	IP65	IP65
Tool Wiring	D-sub 15 points	2 x 15 points
Tool Pneumatic Pipes	Ø6 x 2	Ø6 x 2, Ø8 x 1
Controller	CR800-D	CR800-D

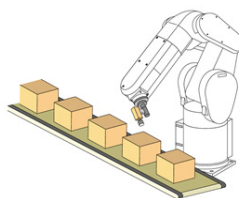
APPLICATION EXAMPLES



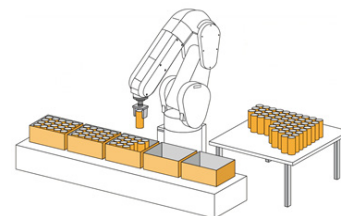
Quality Inspection



Machining



Load/Unload



Pick & Place

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L-VH-03039