



for a greener tomorrow

MELFA RV-8CRL

Industrial Robot

Product Overview



Mitsubishi Electric's next offering for the FR Series Robot lineup. The RV-8CRL robot is a high quality, low cost solution that offers a high level of versatility due to its slim and compact design. This makes the RV-8CRL well suited for a wide variety of applications.

KEY BENEFITS:

INNOVATION

For Evolution of Automation Cells

- **Compact design** – A smooth curved design complements the slim arm and compact joints which results in a smaller base size foot print. In addition to the slim compact design, its structure features minimal protrusion to the front, back, and sides, reducing potential interference with surroundings while the robot is in operation. This makes it a good fit for automation cells and manufacturing equipment.
- **Expanded effective working area** – With a maximum load capacity of 8kg and a maximum reach of 931mm, the RV-8CRL minimizes the interference region and the “in minimum” turning radius to provide a wider effective working area.
- **User wiring built into arm** – Signal wires and air piping used for gripper controls are built in from the base to the forearm. Both ends of the signal wire have universal D-Sub connectors for easy installation for various applications.

MAINTAINABILITY

Ease of Maintenance

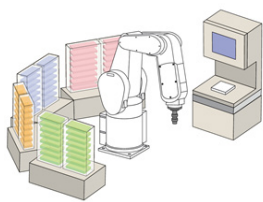
- **Simple structure** – Simplification of the robot arm structure has improved transmission efficiency and reliability while also improving the ease of maintenance.
- **No battery backup** – Batteries are not required to back-up the internal encoders, reducing cost and saving time, as well as eliminating 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.

MELFA RV-8CRL, Mitsubishi Electric Industrial Robot – Product Overview

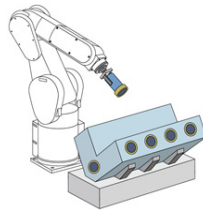
SPECIFICATIONS

		RV-8CRL-D-S15
DEGREES OF FREEDOM		6
INSTALLATION		Floor, ceiling, wall mounted with J1 limitation
STRUCTURE		Vertical, multiple-joint type
DRIVE SYSTEM		HK-KT AC servo motor (brake provided on all axes)
RATED / MAX. PAYLOAD [KG]		7 / 8
MAX. REACH [MM]		931
OPERATING RANGE	J1 [DEG]	±170
	J2 [DEG]	±110
	J3 [DEG]	0 TO +165
	J4 [DEG]	±200
	J5 [DEG]	±120
	J6 [DEG]	±360
MAX. SPEED	J1 [DEG/SEC]	288
	J2 [DEG/SEC]	321
	J3 [DEG /SEC]	360
	J4 [DEG/SEC]	337
	J5 [DEG/SEC]	450
	J6 [DEG/SEC]	720
MAXIMUM COMPOSITE SPEED [MM/SEC]		10,500
POSITION REPEATABILITY [MM]		±0.02
CYCLE TIME [SEC]		0.44
MASS [KG]		41
ENVIRONMENT		IP65
TOOL WIRING		D-SUB 15 POINTS
TOOL PNEUMATIC PIPES		Ø6 X 2
CONTROLLER		CR800-D

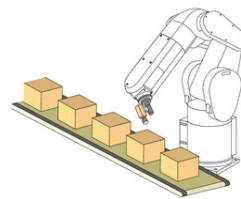
APPLICATION EXAMPLES



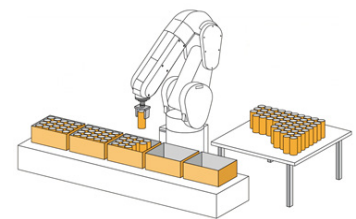
Quality Inspection



Machining



Load/Unload



Pick & Place

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