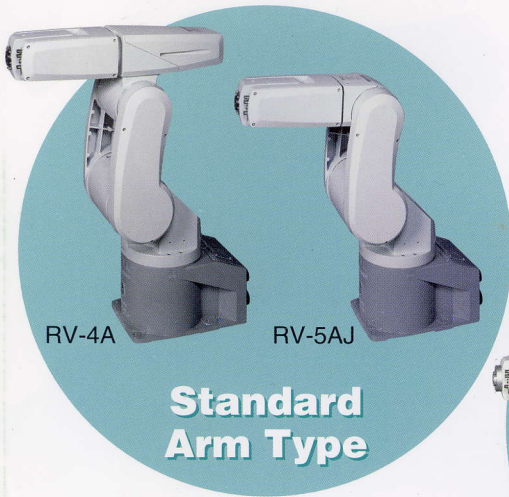


# Small Size MELFA Robot serves for various applications with enhanced high-speed and expansion

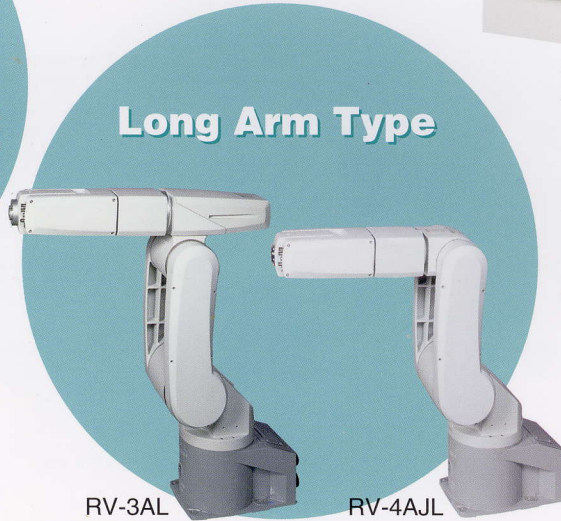
High Speed, High Accuracy and Improved Function are achieved by a new controller with 64 bit CPU. Vertically Articulated Small Robot series enhance the production capability for many applications.



RV-4A

RV-5AJ

**Standard Arm Type**



**Long Arm Type**

RV-3AL

RV-4AJL



Controller  
CR2-532



**64 bit CPU**

Adopting the newest controller carrying 64 bit RISC chip.



**Durability of Environment**

Meeting IP54F specifications



**Network**

Adaptable to CC-Link and Ethernet. Capable additional serial interface.



**Safety**

Upgraded safety with dual emergency stop circuits.

## Basic Specifications

### Main Body

Model	RV-4A	RV-5AJ	RV-3AL	RV-4AJL		
Motion degrees-of-freedom	6	5	6	5		
Motor drive	AC servomotor (all-axis brake attached)					
Position detection	Absolute encoder					
Maximum load capacity (rated) <sup>*1</sup>	kg	4 (3)	5 (4)	3 (2)	4 (3)	
Arm length	mm	250+250	250+280	350+370	350+400	
Maximum radial reach	mm	634	630	843	850	
Operating limits	Deg.	±160				
		230 (-90→+140)				
		J1	154	270	154	270
		J4	±160	—	±160	—
		J5	±120			
		J6	±200			
Maximum speed	Deg./s	J1	216	—	216	—
		J2	270	—	180	—
		J3	270	—	216	—
		J4	270	—	270	—
		J5	270	—	270	—
		J6	432	—	432	—
Maximum quasi-speed	mm/s	Approx. 5800	Approx. 5700	Approx. 6000	Approx. 6000	
Repeat position accuracy	mm	±0.03		±0.04		
Temperature	°C	0-40				
Weight	kg	Approx. 50	Approx. 46	Approx. 58	Approx. 53	
Tool wiring <sup>*2</sup>		Input: 6 points (hand) Output: 6 points (base)				
Tool air piping		First piping: ø6×2 ports Second piping: ø4×6 ports				
Installation		Floor-standing, hanging from ceiling, wall decoration type <sup>*4</sup>				
Protective structure		IP54F				

<Cleaning Specifications>

<Special Specifications>

Cleaning	Class 10 (0.3µm)	RV-4AC-SA	RV-5AJC-SA	RV-3ALC-SA	RV-4AJLC-SA
	Class 100 (0.3µm)	RV-4AC-SB	RV-5AJC-SB	RV-3ALC-SB	RV-4AJLC-SB

Note: Cleaning specifications are determined when an order is received, so please confirm the delivery term.

Note: Some parts of specifications and external dimensions like setting conditions and internal suction requirements for Clean Specification type are different. Please refer separate specification sheet for the details.

\*1: Maximum load capacity is that with wiring flange surface in downward position (±10 deg).

\*2: Air-hand interface (optional) is required when tool output is used.

\*3: Electricity consumption is approximately 0.7kW during general pattern operation.

\*4: Please limit within ±45° of J1 axis operating range when using by wall decorations type.

\*5: Maximum 8 of additional axis are programmed by SSC NET (connect with only MR-J2 and MR-J2 super).

### Controller

Model	CR2-532		
Path control	PTP, CP		
No. of control axes	axis	6 simultaneous (max.) and maximum 8 axis of additional axis control <sup>*5</sup>	
CPU	64 bit RISC/DSP		
Main functions	Indirect interpolation, direct interpolation, 3-dimensional radi interpolation, palletizing, condition branching, subroutines, multi-tasking, optimum adjustable speed control, optimum override control, optimum route connection, etc. The most suitable acceleration/deceleration speed control and over ride control function.		
Programming language	MELFA-BASIC IV		
Position learning	Teaching method, MDI method		
Memory capacity	Teaching position	Points	2,500
	No. of steps	Steps	5,000
	No. of programs	Points	88
External input	General I/O	Points	32/32 (max. when using options: 256/256)
	Exclusive input	Points	Allocated by general output (1"STOP" point is fixed)
	Hand I/O	Points	8/0 (when using options: 8/8)
	Emergency stop input	Points	1(2b connecting point)
Interface	RS232C	Ports	1 (for PC, vision sensor, etc. connection)
	RS422	Ports	1 (for teaching box connection)
	Exclusive hand slot	Slots	1 (for pneumatic hand interfaces only)
	Extension slot	Slots	2
	Robot I/O link	Channels	1 (for connecting parallel I/O unit)
SSCNET		1 (for additional axis connection) <sup>*5</sup>	
Temperature	°C		0-40
Humidity	%RH		45-85
Power supply	Input voltage limit	V	180-253VAC, 3-phase (207-253VAC, 3-phase at CE)
	Power capacity <sup>*3</sup>	kVA	3.5
Ground	Ω		less than 100 (D-type ground)
Configuration			Independent mounting, open configuration (IP20)
Overall dimensions <sup>*6</sup>	mm		420 (W)×510 (D)×220 (H)
Weight <sup>*6</sup>	kg		Approx. 28

Note: Specifications are subject to change without prior notification.