■ Industrial robots RV-4FRLM



RV-4FRLM

The vertical articulated robots RV-4FRLM

The robots of the RV-4 FR series are designed for easy integration into existing work cells or innovative and compact applications. Features such as the direct control over local I/Os allows the robot to interact directly with sensors and actuators, speeding up and simplifying system building. A new innovative design allows a maximum of flexibility, so that the robot can expand his workspace to work faster and more flexible.

Highlights:

- Slim arm design
- IP67 protection
- Internal routed cables and air hoses
- Extended maintenance intervals
- 4 kg rated and maximal payload

* FR Plus compatible and MELFA High Drive function can be activated

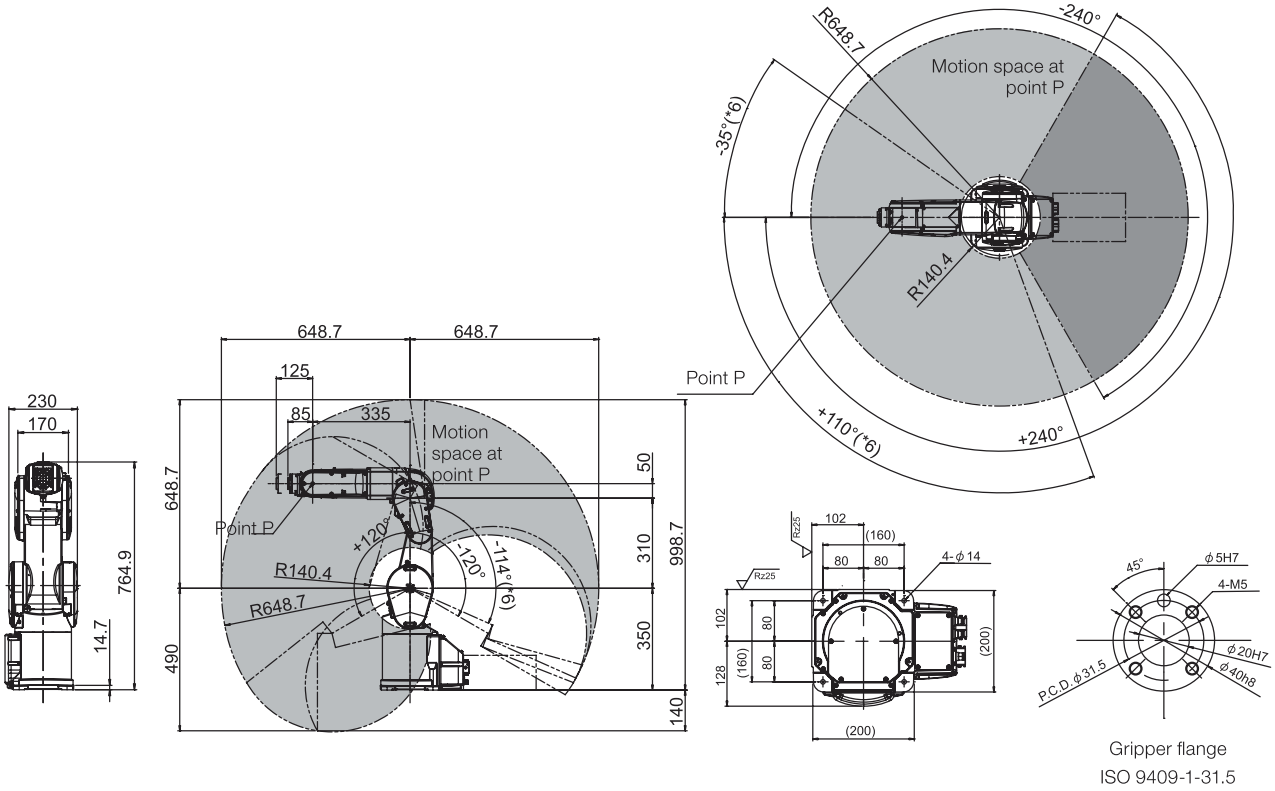
Characteristics/Functions			Specifications	
			RV-4FRLM-D	RV-4FRLM-R
Degrees of freedom (no. of axes)			6	
Installation posture			Floor, ceiling or wall mounting possible (wall mounting with limitations in the J1 axis)	
Structure			Vertical articualed arm	
Drive system			AC servo (brakes on all axes)	
Position detection method			Absolute encoder	
Payload capacity	maximum	kg	4	
Arm reachable radius (to the center point of the J5 axis)		mm	649	
Operating range	waist (J1)	degree	480 (±240)	
	shoulder (J2)		240 (-120–120)	
	elbow (J3)		164 (0–164)	
	wrist twist (J4)		400 (±200)	
	wrist pitch (J5)		240 (-120–120)	
	wrist roll (J6)		720 (±360)	
Maximum speed	waist (J1)	degree/s	420	
	shoulder (J2)		336	
	elbow (J3)		250	
	wrist twist (J4)		540	
	wrist pitch (J5)		623	
	wrist roll (J6)		720	
Maximum composite speed		mm/s	9048	
Cycle time (25x300x25 mm with 1 kg load)		sec	0.36	
Position repeatability		mm	±0.02	
Ambient temperature		°C	0–40	
Weight		kg	41	
Tolerable moment	wrist twist (J4)	Nm	6.66	
	wrist pitch (J5)		6.66	
	wrist roll (J6)		3.96	
Tolerable inertia	wrist twist (J4)	kgm²	0.20	
	wrist pitch (J5)		0.20	
	wrist roll (J6)		0.10	
Tool wiring			Hand input 8 points/hand output 8 points	
Tool pneumatic pipes			Ø 6x2 for robot connection (Ø4x8 from base portion to forearm)	
Supply pneumatic pressure		MPa	0.54 (as overpressure if required)	
Gripper flange			ISO 9409-1-31.5	
Protection rating			IP67	
Robot controller			CR800-D	CR800-R + R16RTCPU

Order information	IP67 model	Art. no.	313089	314056
	IP40 model		313088	314055

Please contact your Mitsubishi Electric representative for ESD, ATEX and cleanroom models.
Additional models without standard 5m machine cable are available.

■ Robot arms RV-4FRLM

RV-4FRL



Dimensions: mm