Versatile Intelligent Mini Robot

FANUC Robot LR Mate 200*i*C

Application system

Load/unload from ROBODRILL

FEATURES

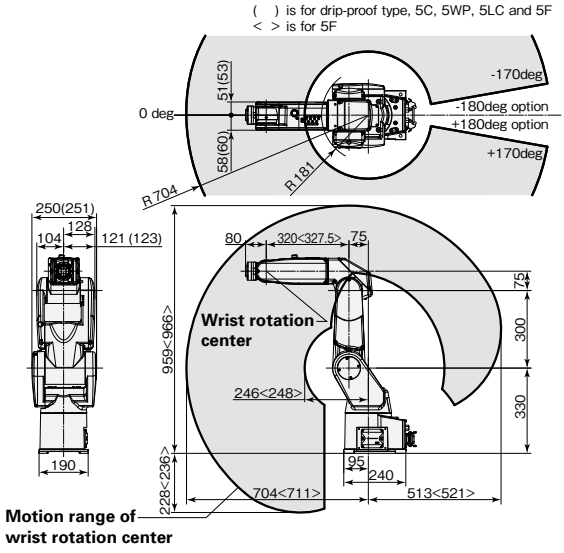
FANUC Robot LR Mate 200*i*C is a human arm sized mini robot.

- Standard type, high-speed type (5H), clean type (5C, 5LC), water-proof type for washing (5WP), long arm type (5L) and 2nd. food type (5F) are available for various application adaptation.
- The slim arm minimizes interference to peripheral devices at narrow space.
- The lightest mechanical unit in its class realizes easy integration into a machine or upside-down mounting on a frame.
- High rigidity arm and the most advanced servo technology enable smooth motion without vibration in high speed operation.
- Wrist load capacity is enhanced extremely. It makes efficiency to increase by handling plural work pieces.
- High performance controller of R-30*i*A Mate has two types, such as standard of enclosed controller that enables reliable operation under factory environment with dust and oil mist, and compact controller for clean environment.
- Various intelligent functions are available as option, such as “robot link” that synchronizes plural robots operation, “soft float” that enables the hand to follow the work piece and “collision detection” that minimizes damage by interference to peripheral devices.
- Advanced intelligent functions are available as an option, such as *i*RVision (integrated vision) and part insertion by force sensor.

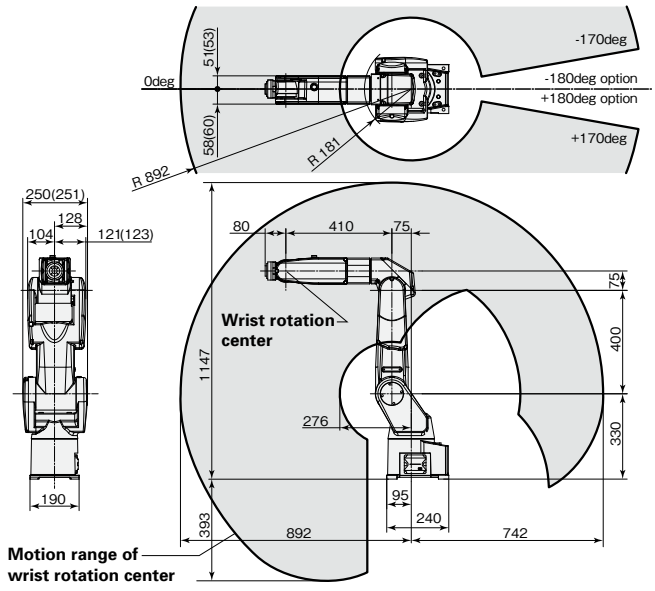
FANUC Robot LR Mate 200*i*C

Operating space

LR Mate 200*i*C, /5H, /5C, /5WP, /5F



LR Mate 200*i*C/5L, /5LC



Specifications

Model		LR Mate 200*i*C LR Mate 200*i*C/5C LR Mate 200*i*C/5WP	LR Mate 200*i*C/5H	LR Mate 200*i*C/5F	LR Mate 200*i*C/5L LR Mate 200*i*C/5LC
Controlled axes		6 axes (J1, J2, J3, J4, J5, J6)	5 axes (J1, J2, J3, J4, J5)		6 axes (J1, J2, J3, J4, J5, J6)
Reach		704mm		711mm	892mm
Installation (Note 1)		Floor, Upside-down, Angle mount			
Motion range (Maximum speed)	J1	340°/360° (option) (350°/sec) 5.93 rad/6.28 rad (option) (6.11 rad/sec)			340°/360° (option) (270°/sec) 5.93 rad/6.28 rad (option) (4.71 rad/sec)
	J2	200° (350°/sec) 3.49 rad (6.11 rad/sec)			230° (270°/sec) 4.01 rad (4.71 rad/sec)
	J3	388° (400°/sec) 6.77 rad (6.98 rad/sec)			373° (270°/sec) 6.51 rad (4.71 rad/sec)
	J4	380° (450°/sec) 6.63 rad (7.85 rad/sec)	240° (450°/sec) 4.19 rad (7.85 rad/sec)		380° (450°/sec) 6.63 rad (7.85 rad/sec)
	J5	240° (450°/sec) 4.19 rad (7.85 rad/sec)	720° (720°/sec) 12.57 rad (12.57 rad/sec)	720° (1200°/sec) 12.57 rad (20.94 rad/sec)	240° (450°/sec) 4.19 rad (7.85 rad/sec)
	J6	720° (720°/sec) 12.57 rad (12.57 rad/sec)			720° (720°/sec) 12.57 rad (12.57 rad/sec)
Max. load capacity at wrist		Max. 5kg			
Allowable load moment at wrist (Note 2)	J4	11.9 N·m			
	J5	11.9 N·m	6.7 N·m	4.0 N·m	11.9 N·m
	J6	6.7 N·m			6.7 N·m
Allowable load inertia at wrist (Note 2)	J4	0.3 kg·m²			
	J5	0.3 kg·m²	0.1 kg·m²	0.036 kg·m²	0.3 kg·m²
	J6	0.1 kg·m²			0.1 kg·m²
Repeatability		±0.02 mm			±0.03 mm
Mass (Note 3)		27 kg	26 kg		29 kg
Installation environment		Ambient temperature : 0～45℃ Ambient humidity : Normally 75%RH or less (No dew nor frost allowed), Short term 95%RH or less (within one month) Vibration : 0.5G or less			

Note 1) In case of the angle mounting, the J1 and J2 axis motion range are restricted.
Note 2) It indicates the value at max. payload. Allowable load moment and inertia at wrist are changed by load.
Note 3) Without controller.
Note 4) Corrosive liquids that deteriorate the sealing members, such as organic solvents, acids, alkalis, and chloric/gasoline coolants, are not acceptable.
Note 5) Clean class 100 (ISO class 5) and clean class 10 (ISO class 4) are available for LR Mate 200*i*C/5C, 5LC.
Note 6) The clean class 10 (ISO class 4) robot needs 180 liter/min vacuum at J1 base.
Note 7) Clean class 10(ISO class 4) robot cannot be used in splash, mist and dust environment because of its joint vacuuming.

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