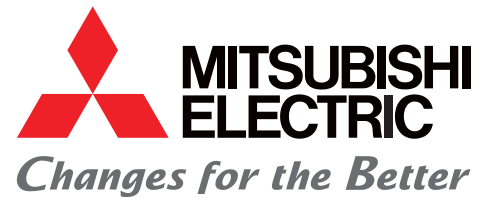




for a greener tomorrow



NEXT GENERATION, HIGH PERFORMANCE INDUSTRIAL ROBOTS

Product Overview



MELFA FR
SERIES

With consumer needs rapidly evolving towards increased diversification and reduced time to market, today's manufacturers face a time of considerable change. It is no longer enough for industrial robots to simply perform a single task. Industry now demands robots with the capacity and flexibility to readily take on more sophisticated tasks. The MELFA FR-Series provides new, more intelligent solutions that underpin "Next-Generation Manufacturing," offering a simpler approach to advanced and flexible production.

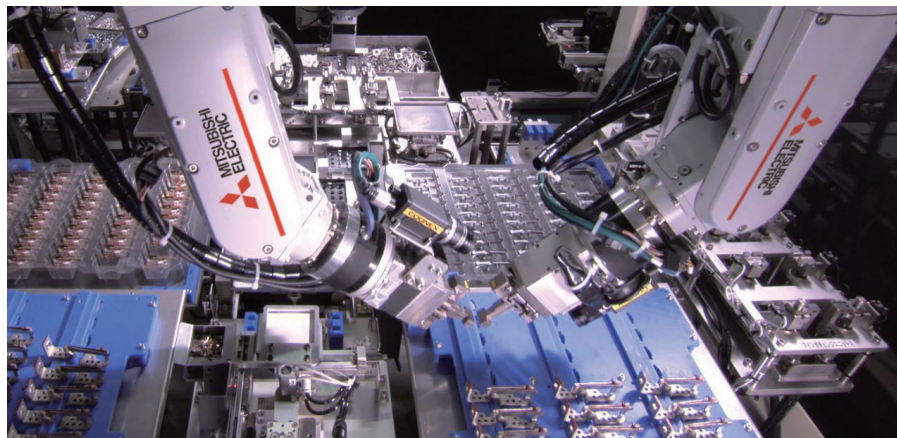
"Next-Generation Intelligent Functions" make it simple to carry out work that has always defied automation. With the MELFA Safe Plus feature "safe, collaborative work applications" allow robots and people to work together with high levels of safety while still providing the speed and performance the industry demands. The MELFA Smart Plus feature, which among other functions, provides real-time compensation for thermal expansion as well as automates complex calibration tasks which enables and simplifies automating applications that require higher levels of accuracy or complex calibration.

"FA-IT Integration Functions" with the full line of Mitsubishi FA products such as PLCs, motion controllers, VFDs, HMIs, and CNC as well as MES/SCADA packages provide a level of performance, functionality and ease of use unparalleled in the industry. In addition, the open platform architecture OS enables integration with 3rd party devices normally difficult or impossible to use on closed platforms. With such flexibility, capability and performance, increases to both productivity and maintainability can be achieved, resulting in a lower TCO (Total Cost of Ownership).

With an extensive selection of arm sizes, configurations, protection ratings, backed with "Next-Generation" features, and options, the MELFA FR-Series line of robots are ready to handle all of your automation needs.

INDUSTRY'S
BEST
INITIAL
WARRANTY

3 YEARS FOR ALL NEW REGISTERED ROBOTS



Next Generation, High Performance Industrial Robots – Product Overview

KEY STANDARD FEATURES

- **Internal pneumatic and electrical connections** – Easy connection to peripheral devices
- **Internal arm memory** – Maintains error history even without a controller
- **Open architecture MELFA Basic IV platform** – Powerful yet easy to use robot OS that does not require costly software adders
- **Singularity avoidance** – Ease of programming in areas of singularity
- **Built-in collision detection** – Safety and cost savings
- **Compliance control** – User-defined path forgiveness
- **Multi-task programming** – Allows tasks to be easily separated and programmed
- **Oscillograph function** – High speed, real time capture and logging of events
- **Space-saving compact controller** – Easy to integrate into any controls package
- Plug and play interface to Cognex cameras
- **Built in SLMP support** – Flexible and easy communication to a large number of devices
- **Remote access capable** – Convenient monitoring and control of robot operation
- **Additional axis interface** – Plug and play SSCNETIII connection to MR-J4 servos
- **Serial encoder interface** – 2 channels for conveyor tracking
- **Gigabit Ethernet communication port** – High speed communication and easy integration to vision or other accessories
- **64 Bit RISC processing** – Faster, more precise moves and execution
- **3.5ms motion control loop** – Increased precision and response times
- **USB 2.0** – Quick connection to PC and hassle free program archiving
- **SD memory card slot** – High capacity storage for data logging
- **Battery free controller** – Worry-free program storage that eliminates waste

Vertically Articulated (RV)

Model Number	RV2FR	RV2FL	RV4FR	RV4FRL	RV7FR	RV7FRL	RV7FRL	RV7FRL	RV13FR	RV13FRL	RV20FR
Maximum Load Capacity (kg)	2	2	4	4	7	7	7	7	13	13	20
Maximum Reach Radius (mm)	504	649	515	649	713	908	1,503	1,094	1,388	1,094	
Environmental Specifications	Standard	IP30		IP40							
	Oil Mist	-		IP67							
	Cleanroom	-		ISO class3							
Controller	CR800-R, CR800-D										

Horizontally Articulated SCARA (RH)

Model Number	RH1FRHR	RH3FRHR	RH3FRH35	RH3FRH45	RH3FRH55	RH6FRH35	RH6FRH45	RH6FRH55
Maximum Load Capacity (kg)	1	3	3	3	3	6	6	6
Maximum Reach Radius (mm)	550	350	350	450	550	350	450	550
Environmental Specifications	Standard	IP20/IP67		IP20				
	Oil Mist	-		IP65			IP65	
	Cleanroom	-		ISOclass5			ISOclass3	
Controller	CR800-R, CR800-D							

Model Number	RH12FRH55	RH12RFH70	RH12FRH85	RH20FRH85	RH20FRH100
Maximum Load Capacity (kg)	12	12	12	20	20
Maximum Reach Radius (mm)	550	700	850	850	1000
Environmental Specifications	Standard	IP20			
	Oil Mist	IP65			
	Cleanroom	ISOclass3			
Controller	CR800-R, CR800-D				

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