

RH-FRH SCARA ROBOT

Product Overview



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. The RH-FRH Series horizontally articulated SCARA robot provides new, intelligent solutions, offering a simple approach to advanced and flexible production.

KEY BENEFITS:

- **Robot Diamond Assurance™** – Protect your robot investment with Robot Diamond Assurance, our extended preventive maintenance program. With regular, proper maintenance from Mitsubishi Electric factory trained technicians, obtain increased uptime and fewer repair costs.
- **Internal pneumatic and electrical connections** – Easily connect to a large range of peripheral devices like vision systems.
- **Next generation intelligent functions** – Carry out more complex tasks with intelligent technology.
- **Safe, collaborative work applications** – Allow robots and people to work together in a secure environment with safety add-ons such as area scanners and the MELFA Safe Plus module.
- **RT ToolBox3 programming environment and simulation software** – Use a powerful, accessible robot operative system that does not require costly software adders.
- **Additional axis interface** – Eliminate the need for additional motion controllers by directly controlling up to two external 3-axis coordinated servo systems, with up to 8 total servo axes.
- **Remote access capable** – Conveniently monitor and control robot operation remotely.
- **Convenient ports, features, and add-ons** – USB 2.0 port for quick PC connection, SD memory card slot for data logging, and battery free controller provides a worry-free solution to program storage to eliminate waste.



RV-FR Vertical Six-Axis Product Overview

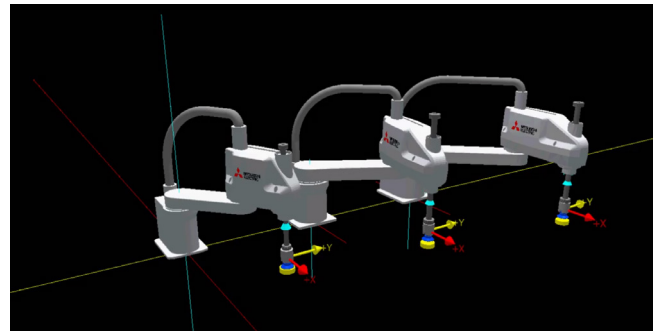
BROAD SIZE LINEUP

RH-FRH robots are available in load capacities from 3kg to 20kg, with maximum load radii from 350mm to 1000mm.

| Type | RH-3FRH | RH-6FRH | RH-12FRH | RH-20FRH |
|---|---------------------------------------|---------|---|----------|
| Maximum Load Capacity | 3kg | 6kg | 12kg | 20kg |
| Maximum Load Radius | 350mm | 350mm | 550mm | 850mm |
| | 450mm | 450mm | 700mm | 1000mm |
| | 550mm | 550mm | 850mm | |
| J3(Z) Operating Range ※Clean : 120mm | 150mm | 200mm | 350mm | 350mm |
| | | 340mm | 450mm | 450mm |
| Environmental Specifications | Standard(IP20) Clean (ISO class 3) | | Standard (IP20), Oil mist (IP65), Clean (ISO class 3) | |

RT TOOLBOX3 PRO: ADVANCED 3D ROBOT SIMULATOR

The PRO version of the RT ToolBox3 3D simulation software includes a plug-in that allows robot simulations to be run in SolidWorks® 3D CAD software. Programs can be created to match today's era of high-mix, low-volume production, such as for layout considerations prior to introducing robots, desktop program debugging, and generation of complex motion paths.



SPECIFICATIONS

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 | | | |

MITSUBISHI ELECTRIC AUTOMATION, INC.

500 Corporate Woods Parkway, Vernon Hills, IL 60061
Ph 847.478.2100 • Fx 847.478.2253

us.MitsubishiElectric.com/fa/en

October, 20121 • ©2021, Mitsubishi Electric Automation, Inc. • Specifications subject to change without notice. • All rights reserved