



for a greener tomorrow

MR-J4-A-RJ Servo

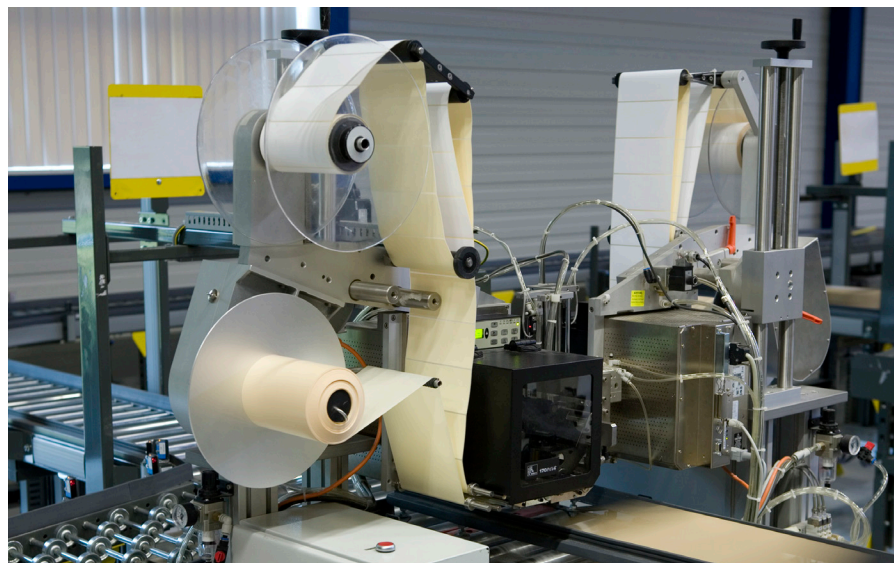
Product Overview



The MR-J4 feature packed servo family provides a well-rounded solution to address key customer and machine builder challenges. The MR-J4 delivers top performance with high speed frequency response, superior synchronization, and vibration suppression. Traditionally difficult programming and setup is also simple with built-in positioning, simple cam function, and advanced One-touch Auto-tuning that really works. Ease of use, high functionality, and quality make the MR-J4 a great fit for any application.

KEY BENEFITS:

1. **Advanced One-Touch Auto-Tuning™** – For peak performance that really works
2. **Built-in positioning function** – Easy to use programming interfaces (point table/program/indexing modes available)
3. **22 bit high resolution encoder** – Enables accurate positioning
4. **Industry leading 2.5 kHz speed frequency response** – High servo performance yields faster throughput speeds and increased cycle times
5. **Simplified torque control with the master-slave operation function** – Simplifies programming
6. **Parameter setting is easier than ever** – Quickly set parameters using list or visual format and drop downs
7. **Machine diagnosis function** – Avoid unnecessary downtime due to mechanical component wear and tear



MR-J4-A-RJ – Product Overview

OUTSTANDING PERFORMANCE

- 1. Simple to understand and setup** – Built-in positioning function allows positioning systems to be configured without a positioning module to simplify system cost and bill of material. Users can select the preferred style of programming from 3 easy to use methods; point table (31 points), program (Up to 480 Steps, 256 programs) and indexing (up to 255 stations).
- 2. Reduces downtime** – Vibration tough drive feature automatically readjusts when a change in machine resonance frequency is detected reducing wear and tear on mechanical components. As mechanical components wear the machine diagnosis function will detect changes in machine parts (ball screw, guide, bearing, belts) and changes in the vibration of the system. The MR Configurator2 software analyzes the data to aid in scheduling preventative maintenance.
- 3. Improves machine efficiency** – Mitsubishi Electric provides powerful first-class advanced One-touch Auto-tuning that sets gains and filters in real-time. Over the life cycle of the machine continuous tuning optimizes gains to minimize settling time and eliminate cumulative errors. As the machine ages, system longevity and machine efficiency are improved.

Applications requiring camming will benefit from the simple cam function, which makes it easy to enable synchronous control with 3 different cam control modes. Control via software rather than mechanical components reduces maintenance and commissioning time, and increases machine flexibility.

Example of a setting display (point table)

No.	Target position -99999.9-99999.9 mm	Rotation speed 0-65535 r/min	Accel. time const. 0-20000 ms	Decel. time const. 0-20000 ms	Dwell time 0-20000 ms
1	0.0	0	0	0	0
2	4.5	300	10	10	1
3	0.0	0	0	0	0
4	27.0	1800	10	10	1
5	28.0	1000	10	10	1
6	1.5	1300	10	10	1
7	1.0	600	10	10	1
8	1.5	1300	10	10	1

Easily set positioning data MR Configurator2

MR-J4-A-RJ

Built-in positioning function
Positioning module is not required.¹

- Point table method
- Program method
- Indexer (turret) method

Fully closed loop control is also available with point table and program methods.

HG Series

Rotary, linear, and direct drive motors are compatible.

1. Use servo amplifiers with software version B3 or later when using the positioning function.

Programming is made simple with the built-in positioning function

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