

Simple Motion Modules

Compatible with
CC-Link IE Field network

RD77GF4

Up to 4-axis control

RD77GF8

Up to 8-axis control

RD77GF16

Up to 16-axis control

RD77GF32

Up to 32-axis control

Compatible with
SSCNET III/H

RD77MS2

Up to 2-axis control

RD77MS4

Up to 4-axis control

RD77MS8

Up to 8-axis control

RD77MS16

Up to 16-axis control

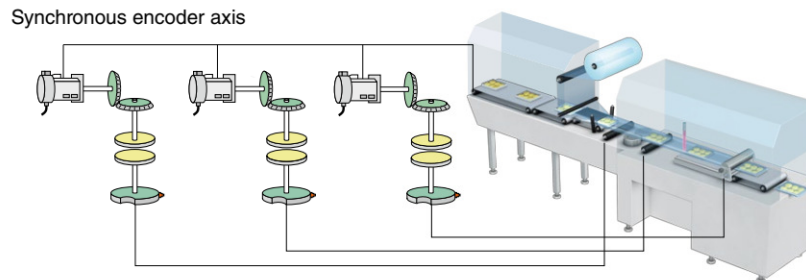
Similar to positioning modules, simple motion modules are capable of a wide range of high-precision control such as positional control, advanced synchronous control, cam control, and speed-torque control. The module line-up includes 2-, 4-, 8-, 16-, and 32-axis models, with setup being done easily by parameters and programming.

Advanced synchronous control

Software-based synchronous control can be used as an alternative to mechanical control, such as gear, shaft, transmission and cam. In addition, cam control is even easier with cam auto-generation. Synchronous control can be simply operated (start/stop) for each axis, allowing synchronous and positional control axes within the same program.

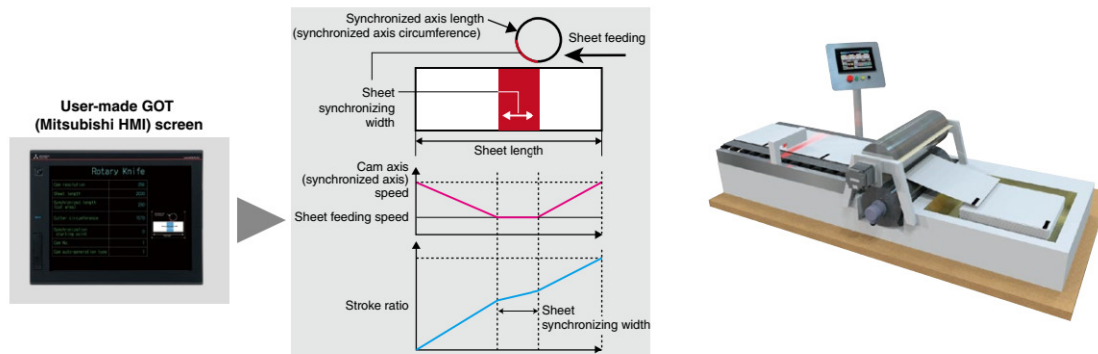
■ Synchronous control

All axes are synchronized using a synchronous encoder or servo input axes. Up to 32 control axes can be synchronized when using the synchronous encoder, such as that used for packaging machines, for example.



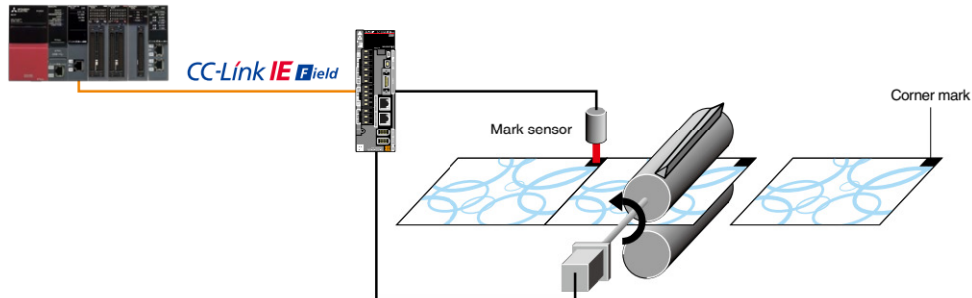
■ Cam auto-generation

Cam data for a rotary cutter can be generated automatically simply by registering the sheet length, synchronization width, rotary cutter axis dimensions, etc.



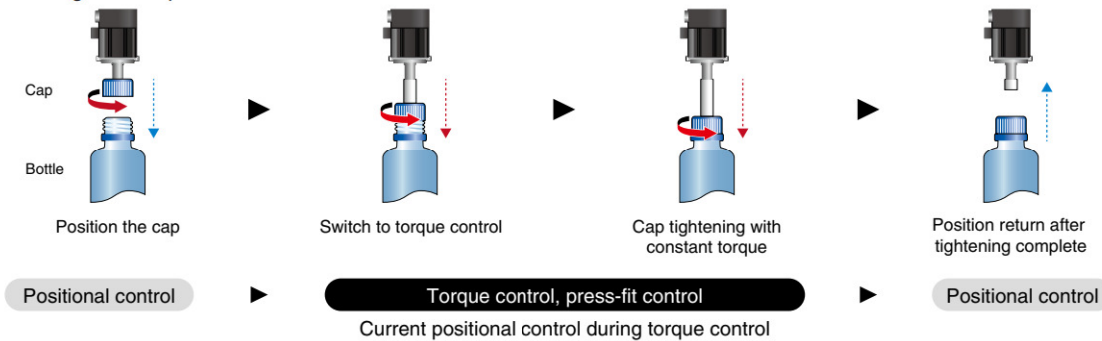
Mark detection

The actual position of the servo motor can be obtained based on the registration mark printed on the high-speed moving film. Compensation of the cutter axis position, based on the registration marks, keeps the constant cutting position.



Speed-torque control (press-fit control)

The motor can be switched to torque control (press-fit mode) without stopping it during positioning. The current position is controlled during the speed/torque control. Therefore the positioning can be done smoothly even after switching back to position control.



Simple motion module specifications

Item	RD77GF4	RD77GF8	RD77GF16	RD77GF32	RD77MS2	RD77MS4	RD77MS8	RD77MS16
Number of control axes (axis)	4	8	16	32	2	4	8	16
Operation cycle (ms)	0.5, 1.0, 2.0, 4.0	0.5, 1.0, 2.0, 4.0	0.5, 1.0, 2.0, 4.0	0.5, 1.0, 2.0, 4.0	0.444, 0.888, 1.777, 3.555	0.444, 0.888, 1.777, 3.555	0.444, 0.888, 1.777, 3.555	0.444, 0.888, 1.777, 3.555
Control unit	mm, inch, degree, pulse	mm, inch, degree, pulse	mm, inch, degree, pulse	mm, inch, degree, pulse	mm, inch, degree, pulse	mm, inch, degree, pulse	mm, inch, degree, pulse	mm, inch, degree, pulse
Positioning data (data/axis)	600	600	600	600	600	600	600	600
Servo amplifier	MR-J4-GF	MR-J4-GF	MR-J4-GF	MR-J4-GF	MR-J4-B	MR-J4-B	MR-J4-B	MR-J4-B
Max. distance between stations (m)	100	100	100	100	100	100	100	100
Servo amplifier connection system								
CC-Link IE Field	●	●	●	●	-	-	-	-
SSCNET III/H	-	-	-	-	●	●	●	●
External interface*1								
40-pin connector	-	-	-	-	●	● (2x)	● (2x)	● (2x)
Interpolation function								
Linear interpolation (axis)	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2	2, 3, 4	2, 3, 4	2, 3, 4
Circular interpolation (axis)	2	2	2	2	2	2	2	2
Control system								
PTP (Point To Point) control	●	●	●	●	●	●	●	●
Trajectory control (linear, arc)	●	●	●	●	●	●	●	●
Speed control	●	●	●	●	●	●	●	●
Speed-position switching control	●	●	●	●	●	●	●	●
Speed-torque control	●	●	●	●	●	●	●	●
Pressure control	-	-	-	-	●	●	●	●
Advanced synchronous control	●	●	●	●	●	●	●	●
Acceleration/deceleration process								
Trapezoidal acceleration/deceleration	●	●	●	●	●	●	●	●
S-curve acceleration/deceleration	●	●	●	●	●	●	●	●
Function								
Absolute positioning system*2	●	●	●	●	●	●	●	●
Mark detection function	●	●	●	●	●	●	●	●

*1. For more information about external interface (for applicable options, please refer to the relevant product manual), refer to the options list on page 115.

*2. A battery needs to be installed in the servo amplifier for home position backup.

System configuration

CPU

I/O

Analog

Motion, Positioning, High-speed Counter, Channel isolated pulse input

Network

Advanced information

Technology

Software