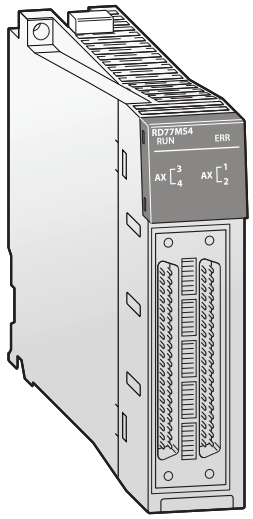
■ Simple Motion modules



The MELSEC iQ-R series lineup includes Simple Motion modules in addition to the regular positioning modules. Various control functions previously only possible with Motion Controllers, such as speed control, torque control, synchronous control and cam control, are now available with the Simple Motion modules.

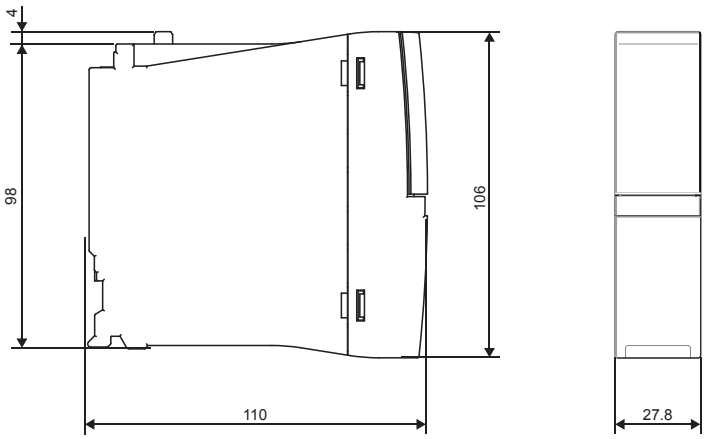
These functions can be realized with simple parameter adjustments and via the PLC program.

Special features:

- Various position control modes
- Home position return control
- Advanced synchronous control
- Mark detection
- Speed-torque control (press-fit control)
- Manual control (JOG, inching, or manual pulse generator operation)
- Connection to CC-Link IE Field reduces wiring for RD77GF

Specifications			RD77GF4	RD77GF8	RD77GF16	RD77GF32	RD77MS2	RD77MS4	RD77MS8	RD77MS16
Number of controllable axes			4	8	16	32	2	4	8	16
Interpolation functions			Linear interpolation for up to 4 axes, circular interpolation for 2 axes, helical interpolation for 3 axes				2 axes linear and circular interpolation	Linear interpolation for up to 4 axes, circular interpolation for 2 axes		
Servo amplifier network			CC-Link IE Field	CC-Link IE Field	CC-Link IE Field	CC-Link IE Field	SSCNETIII/H	SSCNETIII/H	SSCNETIII/H	SSCNETIII/H
Servo amplifier			MR-J4-GF(-RJ)				MR-JE-B/MR-J4(W2/W3)-B over SSCNETIII/H			
Operation cycle		ms	0.5, 1.0, 2.0, 4.0			0.5, 1.0, 2.0, 4.0	0.444, 0.888, 1.777, 3.555			
Positioning	Method		PTP (Point To Point) control, path control (linear and arc), speed control, speed-position switching control, position-speed switching control, speed-torque control, advanced synchronous control							
	Acceleration/deceleration control		Trapezoidal acceleration/deceleration, S-curve acceleration/deceleration							
	Compensation		Backlash compensation, electronic gear, near pass function							
Number of positioning points			600 data/axis (All the data points can be set with the buffer memory.)				600 per axis (can be set with GX Works3 or PLC program)			
External input signals			External devices, like encoder or remote I/O are connected via CC-Link IE Field				1 encoder, A/B phase; 4 digital inputs [DI1–DI4]			
Cam function	Storage area cam data		3 MBytes, max. 1024 (depends on resolution)				256 kBytes, max. 256 (depends on resolution)			
Occupied I/O points			32	32	32	64	32	32	32	32
Connection terminal			RJ45 connector	RJ45 connector	RJ45 connector	RJ45 connector	40-pin connector	40-pin connector	40-pin connector	40-pin connector
Applicable wire size		mm^2	0.088–0.3 (A6CON1/4) 0.088–0.24 (A6CON2)	0.088–0.3 (A6CON1/4) 0.088–0.24 (A6CON2)	0.088–0.3 (A6CON1/4) 0.088–0.24 (A6CON2)	0.088–0.3 (A6CON1/4) 0.088–0.24 (A6CON2)	0.088–0.3 (A6CON1/4) 0.088–0.24 (A6CON2)	0.088–0.3 (A6CON1/4) 0.088–0.24 (A6CON2)	0.088–0.3 (A6CON1/4) 0.088–0.24 (A6CON2)	0.088–0.3 (A6CON1/4) 0.088–0.24 (A6CON2)
No. of Simple Motion modules in one system			8	8	8	8	8	8	8	8
Internal power consumption (5 V DC)		A	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0
Weight		kg	0.23	0.23	0.23	0.23	0.22	0.23	0.23	0.23
Dimensions (WxHxD)		mm	27.8x106x110	27.8x106x110	27.8x106x110	27.8x106x110	27.8x106x110	27.8x106x110	27.8x106x110	27.8x106x110
Order information		Art. no.	295077	295078	295079	304200	280229	280230	280231	280232

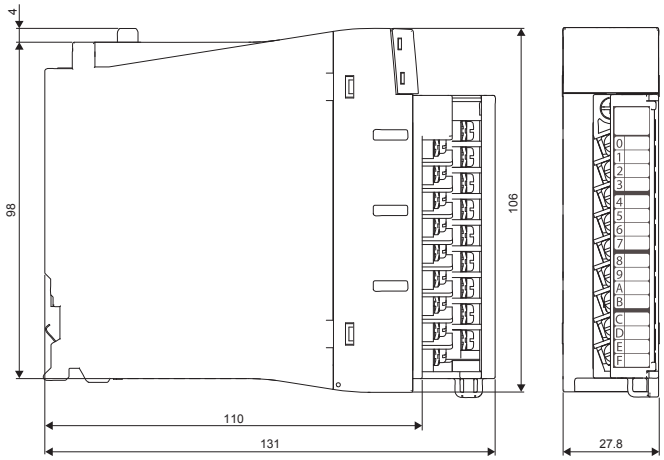
■ Safety function module and safety CPU



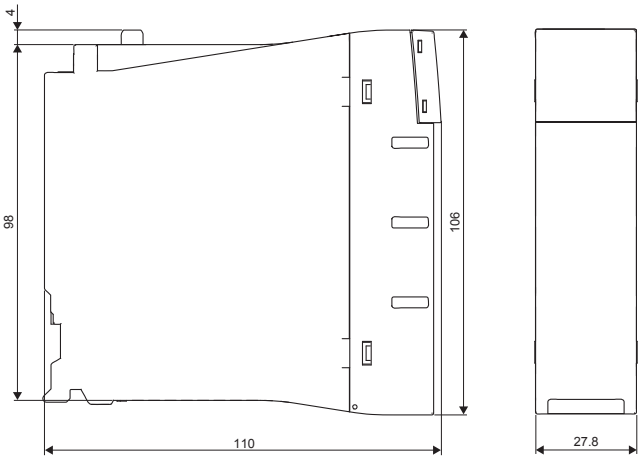
Unit: mm

■ I/O modules, blank cover module special function modules

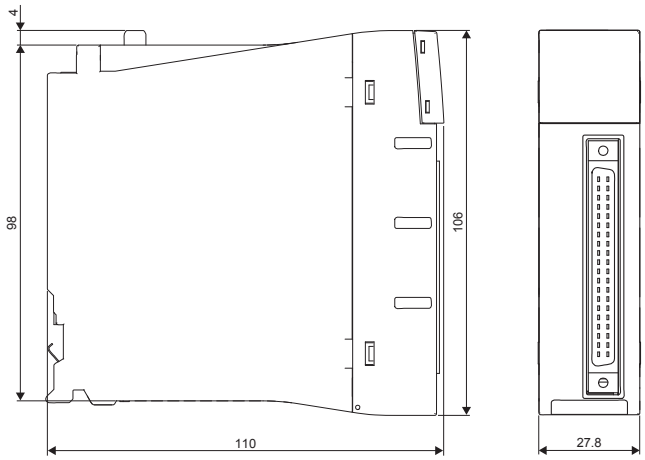
18-point screw terminal block



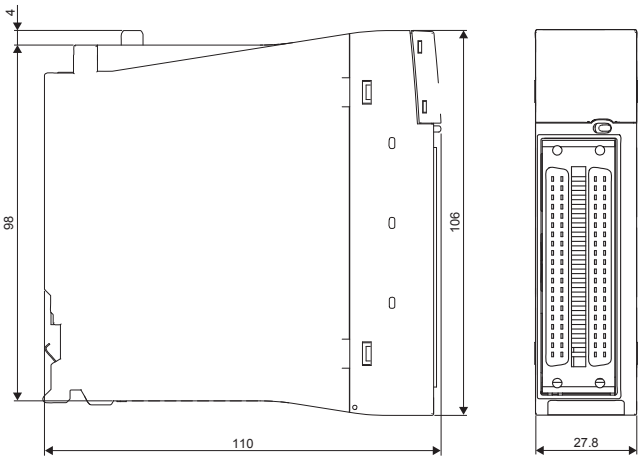
Blank cover module



40-pin connector, 32 points module



40-pin connector, 64 points module



Unit: mm