MOTORIZED ROTATION STAGES WORM GEAR [Motorized] Rotary Stages - Worm Gear



Features: Suitable for large angle-positioning with high accuracy or being rotated 360° repeatedly.



Part Number			Mechanical Standards			Accuracy Standards	
Туре	No.	Cable	Stage Surface (mm)	Travel Distance (°)	Weight (kg)	Positioning Accuracy	Moment Rigidity ("/N•cm)
RMPG	40W	N (Cable not included (separately sold)) For cables separately sold, see MSCB_ option on P. 2014-3	Ø39	360°	0.4	0.05° or Less	0.74
	60WC		Ø59		0.6		0.84
	60ZC				0.7		



40W

≈0.006°(Full)

30°/sec[5khz]

0.1° or Less

Worm Gear (1/120)

Common Specifications

No.

Feed Screw

Guide

Resolution (Pulse)

Max. Speed

Positioning repeatability

Load Capacity

Lost Motion

Backlash

Parallelism

Eccentricity Surface Runout



60ZC

9.8N

60WC

Deep Groove Ball Bearing

Within ±0.01°

0.05° or Less

50µm or less 5µm or less / Full Stroke

30µm or less

29.4N

Worm Gear (1/180)

≈0.004°(Full)

20°/sec[5khz]

0.05° or Less

	Elect	rical Specif	ications		
		Туре	5-Phase Stepping Motor 0.75A/Phase (Oriental Motor Co., Ltd.		
	Motor	Part Number	C005C-90215P-1		
		Step Angle	0.72°		
	Connector	Part Number	HR10A-10J-12P (73) (Hirose Electric Co., LTD.)		
		Compatible Receptacle Connector	HR10A-10P-12S (73) (Hirose Electric Co., LTD.)		
		Limit Sensor	Not Provided		
		Home Sensor (ORG1)	Provided		
	Sensor	Slit Home Origin Sensor (ORG2)	Not Provided		
		Part Number	Photomicrosensor: EE-SX4320 (OMRON Corp.)		
		Power Supply Voltage	DC5~24V ±10%		
_		Current Consumption	35mA or less		
		Control Output	NPN Open Collector Output DC5~24V, 8mA or less Residual Voltage 0.3V or less (when load current is 2mA		
		Output Logic	Detecting (Dark): Output Transistor OFF (Non-Conducting)		

Sensors with Part Number EE-SX4134 will be discontinued and replaced by next-generation products with Part Number EE-SX4320 from November 2018.

Connector Pin Configuration





Timing Chart

Twhen MSCTL102/112 Series controller is used and when the Homing Routine Type 4 is executed, the home position is detected with Division 0 [°] (with light blocked).

	Graduated Scale Home Position [°]
RMPG40W	0 (Home Position Edge: CCW Side Edge of Light Shielding Plate) 11 (Reverse Side Edge: CW Side Edge of Light Shielding Plate)
RMPG60WC	0 (Home Position Edge: CCW Side Edge of Light Shielding Plate) 9 (Reverse Side Edge: CW Side Edge of Light Shielding Plate)

The CW/CCW direction on the timing chart indicates the rotational direction of motor. When the motor is rotated CW (clockwise), the top plate is also rotated CW. For details about Homing, see P. 1 -1735-97