

Motorized Goniometers - 5 Phase Stepping Motor

MG-B Stage size □60mm

RoHS

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Piezo Stage

Precision Linear MS

High Speed MS

Motorized Goniometer

Motorized Rotation

Multi-axis Motorized

Industrial Robot

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Custom-Built MS

Stepping motor driven motorized goniometer stages fitted with crossed roller guide.



- Combination of two axes of excellent abrasion-resistant z stages enables flexible alignment.
- Rotation center height from the table face is selectable according to the usage from 75mm or 100mm.

Attention

- ▶ Assembly was adjusted for precision of both α and β axis stages. Note that if you disassemble the two axes, they might not work normally and may require assembly readjustment by us.

Specifications				
Part Number			MG-60B75	MG-60B100
Mechanical Specifications	Angle Range [°]	(Upper)	β axis: ± 7	β axis: ± 5
		(Lower)	α axis: ± 5	α axis: ± 4
	Table Size [mm]		60×60	60×60
	Positioning Slide		Crossed roller	Crossed roller
	Travel Mechanism		Worm and worm wheel	Worm and worm wheel
	Stage Material		Aluminum	Aluminum
	Finish		Black anodized	Black anodized
Weight [kg]		1.10 (2 axes)	1.20 (2 axes)	
Size Tolerance	Stage Height [mm]		55	65
	Rotation Center Height [mm]		75	100
	Rotation Center Deflection Accuracy [mm]		—	—
Accuracy Specifications	Resolution	(Full) [°/pulse]	α axis: about 0.001, β axis: about 0.002	α axis: about 0.001, β axis: about 0.001
		(Half) [°/pulse]	α axis: about 0.0005, β axis: about 0.001	α axis: about 0.0005, β axis: about 0.0005
	MAX Speed [°/sec]		6	6
	Positional Repeatability [°]		Within ± 0.004	Within ± 0.004
	Load Capacity [N]		19.1 (1.9kgf)	19.1 (1.9kgf)
	Moment Stiffness [°/N·cm]		—	—
Lost Motion [°]		—	—	
Sensor	Sensor Part Number	GP1S092HCPI (Sharp Corporation)		
	Limit Sensor		Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)
	Origin Sensor		None	None
	Proximity Origin Sensor		None	None

Motor / Sensor Specifications		
Motor	Type	5-phase stepping motor 0.75A/phase (Oriental Motor Co., Ltd.)
	Motor Part Number	C9863-90215P
	Step Angle	0.72°
Sensor	Power Voltage	DC5 – 24V
	Current Consumption	40mA or lower (20mA per sensor)
	Control Output	NPN open collector output 50mA
	Output Logic	When shaded: Output transistor OFF (no conduction)

Configuration		
Part Number	MG-60B75	MG-60B100
(Upper) β axis	MG-60A75	MG-60A100
(Lower) α axis	MG-60A100	MG-60A130

(Reference) Precision Specifications of Single Axis Stage				
Part Number	MG-60A75	MG-60A100	MG-60A130	
Accuracy Specifications	Positional Repeatability [°]	± 0.004	± 0.004	± 0.004
	Moment Stiffness [°/N·cm]	1	1	1
	Lost Motion [°]	0.02	0.02	0.02

Compatible Driver / Controller		
Control System	Compatible Driver	SD-5M, SD-55M, SD-514MSC, SD-5151, SD-525M
	Compatible Controller	ASC-PS, ASC-01, ASC-102, ASC-02, ASC-702, ASC-302GS, ASC-304GS, ESC-M/ESC-S

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MG-B

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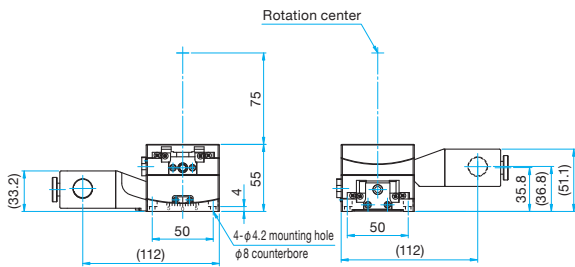
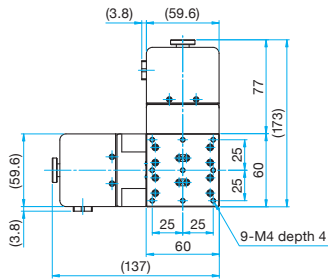
RoHS



Outline Drawing

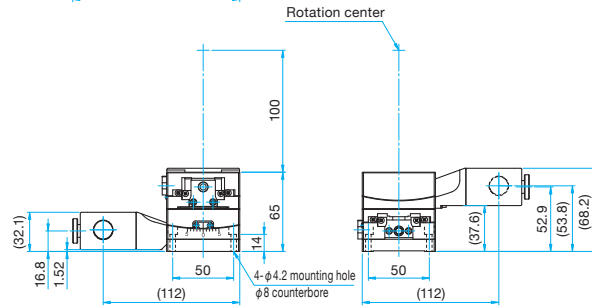
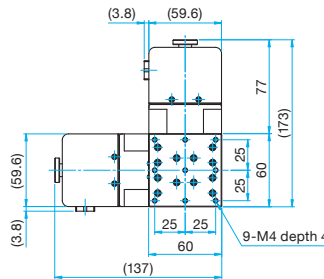
MG-60B75

Hexagonal socket head cap screw M4x8...4 screws

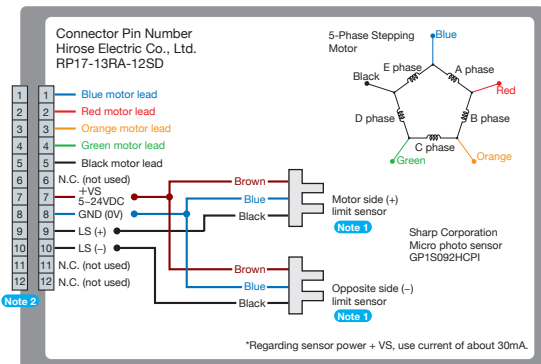


MG-60B100

Hexagonal socket head cap screw M4x18...4 screws

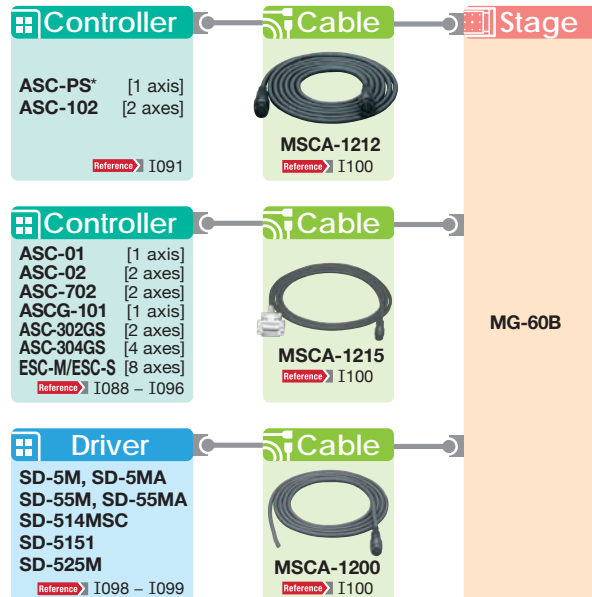


Connection Diagram



- Note 1 The motor side limit sensor is the + direction limit sensor.
- Note 2 Compatible cable connector:
Hirose Electric Co., Ltd. PR17-13PA-12PC/RP17-PC-122

Compatible Controllers / Drivers and Cables



* PASC-PS will be discontinued in September 2012, and will be replaced by ASC-01.

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