

Two Axis Motorized Crossed Roller Goniometers

Stage Size 60 × 60 mm

SGSP-B

RoHS

Two axis aluminum body motorized goniometer with crossed roller bearings.



- Light weight with compact footprint.
- Rotation center heights available: 75mm or 100mm.

Attention

- Preassembled for best perpendicularity of α and β axis stages.
Note that if you disassemble the two axes, the optimized alignment will be lost.

Specifications

Part Number			SGSP-60B75	SGSP-60B100
Mechanical Specifications	Angle Range [°]	(Upper)	β axis: ± 7	β axis: ± 5
		(Lower)	α axis: ± 5	α axis: ± 4
	Stage 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
Size Tolerance	Weight [kg]		1.10 (2 axes)	1.20 (2 axes)
	Stage Height [mm]		55	65
	Rotation Center Height [mm]		75	100
Accuracy Specifications	Rotation Center Deflection Accuracy [mm]		—	—
	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
	Load Capacity [N]		19.1 (1.9kgf)	19.1 (1.9kgf)
Sensor	Moment Stiffness [°/N·cm]		—	—
	Lost Motion [°]		—	—
	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±10%
	Current Consumption	80mA or lower (40mA or lower a per axis 20mA or lower per a sensor)
	Control Output	NPN open collector output DC30V or lower, 50mA or lower
	Output Logic	When shaded: Output transistor OFF (no conduction)

Configuration

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

(Reference) Precision Specifications of Single Axis Stage

Part Number	SGSP-60A75	SGSP-60A100	SGSP-60A130
Accuracy Specifications	Positional Repeatability [°]	±0.004	±0.004
	Moment Stiffness [°/N·cm]	1	1
	Lost Motion [°]	0.02	0.02

Compatible Driver / Controller

Control System	Compatible Driver	SG-5M, MC-S0514ZU, SG-514MSC
	Compatible Controller	GSC-02, SHOT-702, HSC-103, SHOT-302GS, SHOT-304GS, HIT-M·HIT-S, PGC-04-U

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Options

40 × 40 mm

60 × 60 mm

80 × 80 mm

85 × 85 mm

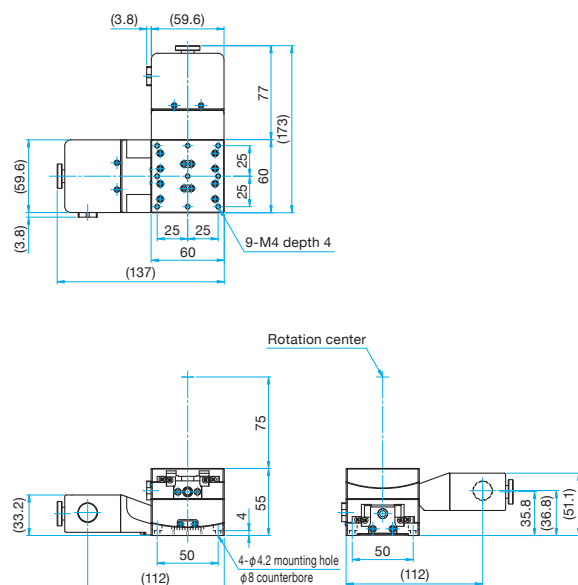
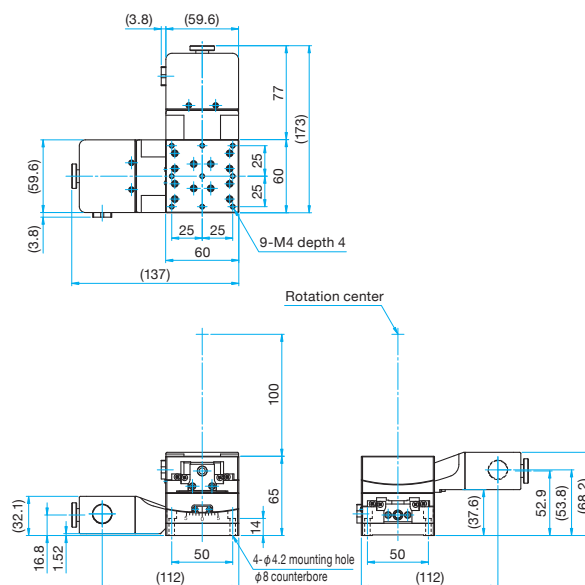
100 × 100 mm

120 × 120 mm

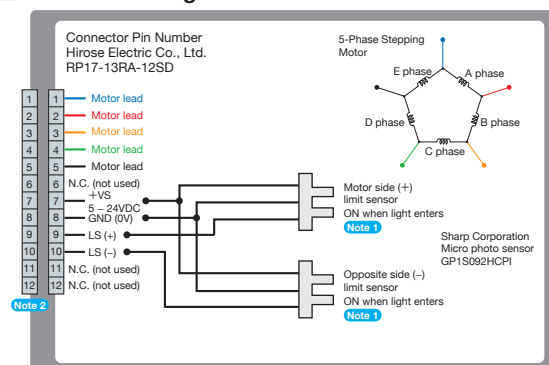
Others



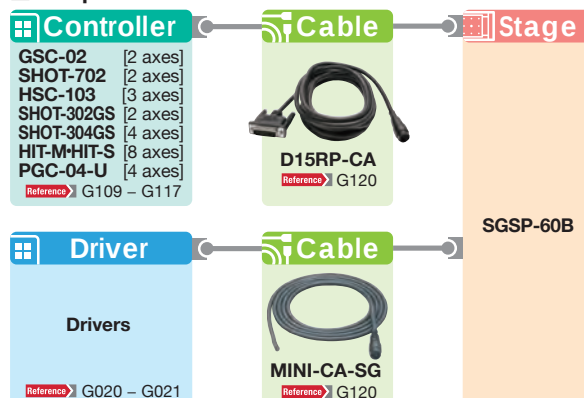
Outline Drawing

SGSP-60B75 Hexagonal socket head cap screw M4x8...4 screws

SGSP-60B100 Hexagonal socket head cap screw M4x18...4 screws


Connection Diagram



Compatible Controllers / Drivers and Cables



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