

Motorized Crossed Roller Goniometers

Stage Size 60 × 60 mm

SGSP-A

RoHS

Aluminum body motorized goniometer with crossed roller bearings.



- Light weight with compact footprint.
- Rotation center heights available: 75mm, 100mm or 130mm.

Guide

- After purchasing two α axis stages, to assemble them into an $\alpha\beta$ axis stage, assembly adjustment cost and performance inspection cost will be charged separately.

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Options

40 × 40 mm

60 × 60 mm

80 × 80 mm

85 × 85 mm

100 × 100 mm

120 × 120 mm

Others

Specifications

Part Number		SGSP-60A75	SGSP-60A100	SGSP-60A130	
Mechanical Specifications	Angle Range [°]	±7	±5	±4	
	Stage Size [mm]	60×60	60×60	60×60	
	Positioning Slide	Crossed roller guide	Crossed roller guide	Crossed roller guide	
	Travel Mechanism	Worm and worm wheel	Worm and worm wheel	Worm and worm wheel	
	Stage Material	Aluminum	Aluminum	Aluminum	
	Finish	Black anodized	Black anodized	Black anodized	
	Weight [kg]	0.65	0.55	0.65	
Size Tolerance	Stage Height [mm]	35	30	35	
	Rotation Center Height [mm]	75	100	130	
	Rotation Center Deflection Accuracy [mm]	φ0.05	φ0.05	φ0.05	
Accuracy Specifications	Resolution	(Full) [°/pulse]	about 0.002	about 0.001	about 0.001
		(Half) [°/pulse]	about 0.001	about 0.0005	about 0.0005
	MAX Speed [°/sec]	6	6	6	
	Positional Repeatability [°]	±0.004	±0.004	±0.004	
	Load Capacity [N]	24.5 (2.5kgf)	24.5 (2.5kgf)	24.5 (2.5kgf)	
	Moment Stiffness [°/N·cm]	1	1	1	
	Lost Motion [°]	0.02	0.02	0.02	
Sensor	Sensor Part Number	Micro photo sensor: GP1S092HCP(I)(Sharp Corporation)			
	Limit Sensor	Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)	
	Origin Sensor	None	None	None	
	Proximity Origin Sensor	None	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	40mA or lower (20mA per sensor)
	Control Output	NPN open collector output DC30V or lower, 50mA or lower
	Output Logic	When shaded: Output transistor OFF (no conduction)

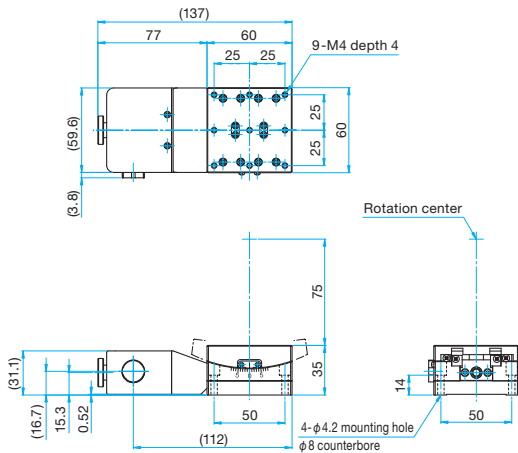
Compatible Driver / Controller

Control System	Compatible Driver	SG-5M, SG-55M, SG-514MSC
	Compatible Controller	GSC-01, GSC-02, SHOT-702, HSC-103, GIP-101, SHOT-302GS, SHOT-304GS, HIT-M-HIT-S, PGC-04-U

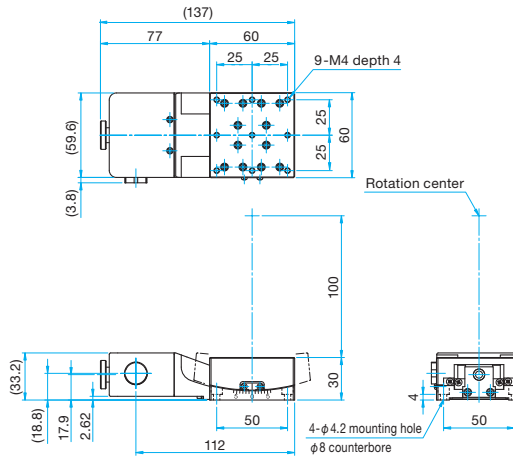


Outline Drawing

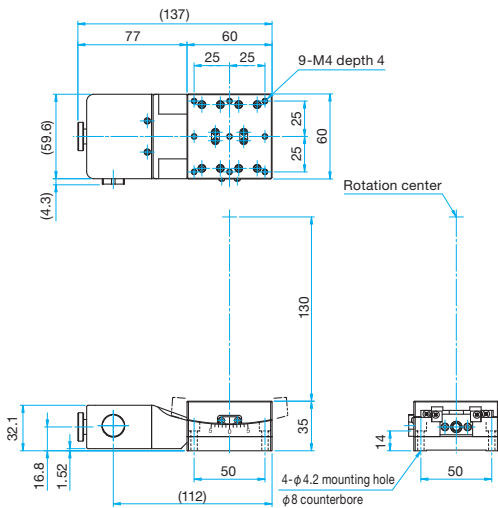
SGSP-60A75 Hexagonal socket head cap screw M4x18...4 screws



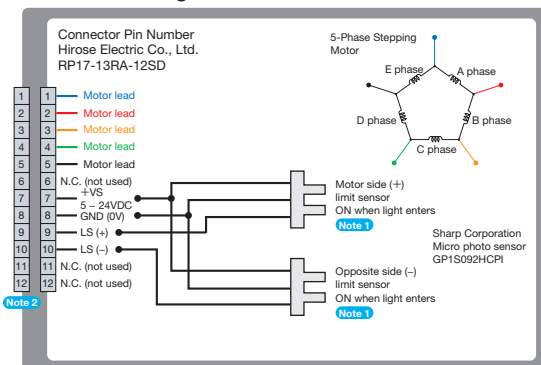
SGSP-60A100 Hexagonal socket head cap screw M4x8...4 screws



SGSP-60A130 Hexagonal socket head cap screw M4x18...4 screws

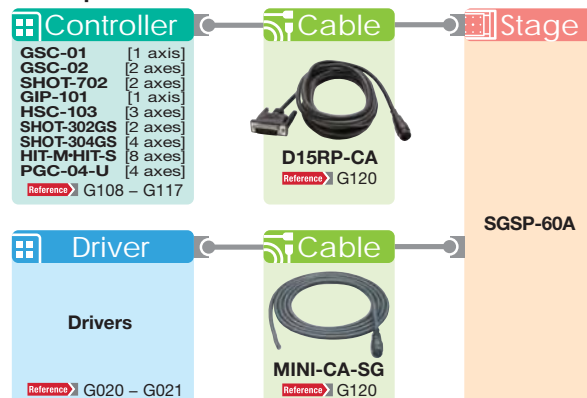


Connection Diagram



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



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