

Two Axis Motorized Extended Guide Goniometer

Stage Size 40 × 40 mm / 60 × 60 mm

OSMS-B

RoHS

High precision motorized goniometers with integrated bearing ways for superior stiffness, accuracy and durability. Their smooth motion makes them ideal for frequent angle adjustment.



- Extended Contact bearing ways are machined directly into the main body reduce the number of parts and assembly time, making these very durable and cost effective.
- Attachment pins (accessories) are ideal for positioning when assembling into $\alpha\beta$ axis or mounting on various instruments or devices.

Guide

- Contact our Sales Division if you desire to assemble into an $\alpha\beta$ axis stage.
- Manual type $\alpha\beta$ axis (GOHT-40,60) is also available.

Reference E176 – E179

WEB Reference Catalog Code W7104, W7105

GOHT- $\alpha\beta$ *B

Specifications						
Part Number			OSMS-40B60	OSMS-60B60	OSMS-60B85	
(Opposite Model)			OSMS-40B60R	OSMS-60B60R	OSMS-60B85R	
Mechanical Specifications	Travel [°]	Upper β axis	±5	±14	±9	
		Lower α axis	±4	±9	±7	
	Stage Size [mm]		40×40	60×60	60×60	
	Travel Mechanism (reduction ratio)	Upper β axis	Worm gear (1: 332)	Worm gear (1: 246)	Worm gear (1: 314)	
		Lower α axis	Worm gear (1: 406)	Worm gear (1: 314)	Worm gear (1: 380)	
	Positioning Slide		Extended Contact Ball Guide	Extended Contact Ball Guide	Extended Contact Ball Guide	
	Stage Material		SUS440C quench hardened	SUS440C quench hardened	SUS440C quench hardened	
	Finish		Super black chrome	Super black chrome	Super black chrome	
Size Tolerance	Weight [kg]		0.8	1.6	1.5	
	Stage Height [mm]		30	45	40	
	Rotation Center Height [mm]		60±0.2	60±0.2	85±0.2	
	Rotation Center Deflection Accuracy [mm]		Within ϕ 0.01	Within ϕ 0.01	Within ϕ 0.01	
Accuracy Specifications	Resolution	(Full) [°/pulse]	Upper β axis	about 0.00217	about 0.00293	about 0.00229
			Lower α axis	about 0.00177	about 0.00229	about 0.00198
		(Half) [°/pulse]	Upper β axis	about 0.00108	about 0.00146	about 0.00115
			Lower α axis	about 0.00089	about 0.00115	about 0.00095
	MAX Speed [°/sec]		8	8	6	
	Load Capacity [N]		14.7 (1.5kgf)	19.6 (2.0kgf)	19.6 (2.0kgf)	
Sensor	Sensor Part Number		Micro photo sensor: GP1S092HCPIF (Sharp Corporation)	Micro photo sensor: GP1S097HCZ (Sharp Corporation)		
	Limit Sensor		Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)	
	Origin Sensor		None	Equipped (NORMAL OPEN)	Equipped (NORMAL OPEN)	
	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	PK523HPB-C12 (□28mm)	
	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)	120mA or lower (60mA 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): Limit sensor When shaded: Output transistor ON (conduction): Origin sensor	

Compatible Cable		
Cable	Driver Cable	D15RP-CA (Controller), MINI-SG-CA (Driver)

Compatible Driver / Controller		
Control System	Compatible Driver	SG-5M, MC-S0514ZU, SG-514MSC, MC-7514PCL
	Compatible Controller	GSC-02, HSC-103, SHOT-702, 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

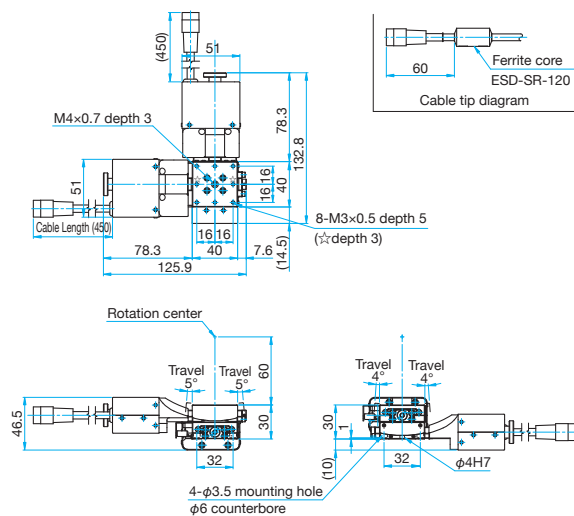
Others



Outline Drawing

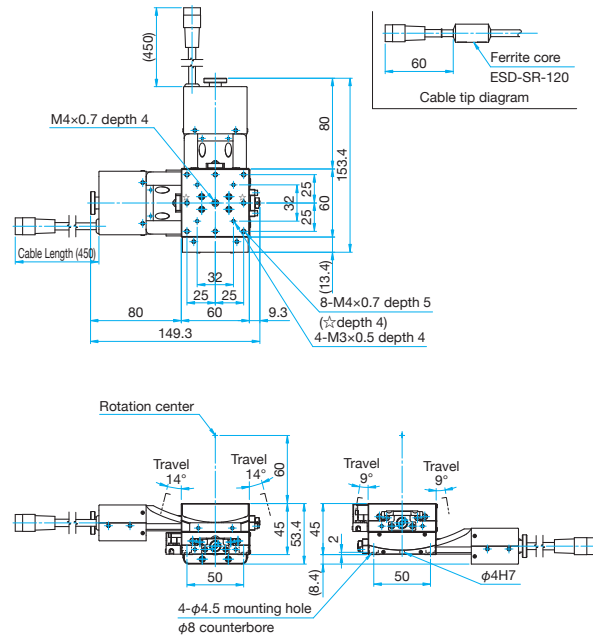
OSMS-40B60

 Hexagon socket head cap screw M3x6...4 screws,
Attachment pins

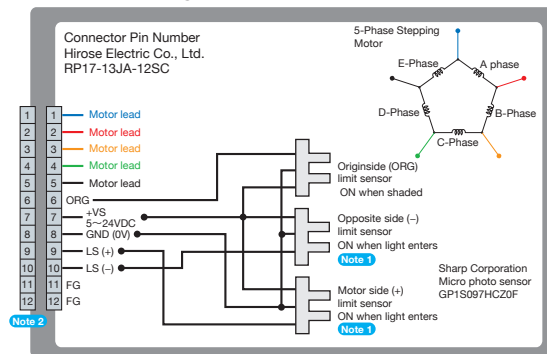


OSMS-60B60

 Hexagon socket head cap screw M4×8...4 screws,
Attachment pins



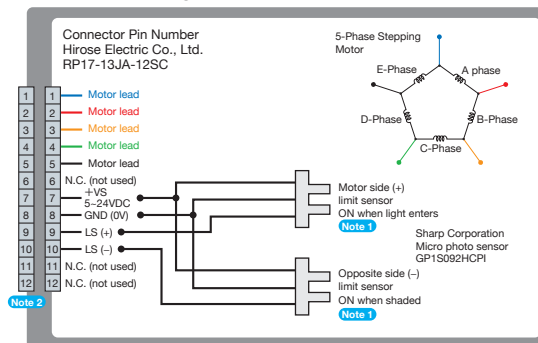
■ Connection Diagram



Note 1 The motor side limit sensor is the + direction limit sensor.
Motorized stages are not fitted with proximity origin sensors.

Note 2 Compatible cable connector:
Hirose Electric Co., Ltd. RP17-13PA-12PC/RP17-PC-122

■ Connection Diagram

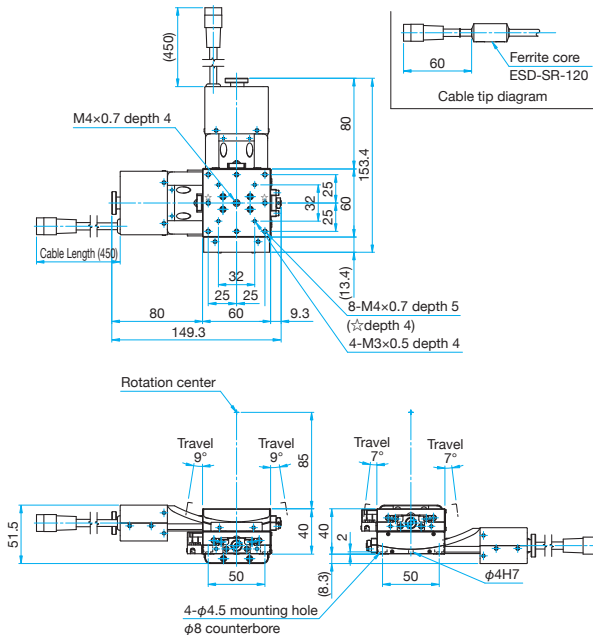


Note 1 The motor side limit sensor is the + direction limit sensor.
Motorized stages are not fitted with origin and proximity origin sensors.
Limit sensors are used as origin detection sensors.

Note 2 Compatible cable connector:
Hirose Electric Co., Ltd. RP17-13PA-12PC/RP17-PC-122

OSMS-60B85

 Hexagon socket head cap screw M4x8...4 screws,
Attachment pins



■ Compatible Controllers / Drivers and Cables

