

Thin Long Travel Stage

Stage Size 80 × 80 mm / 120 × 120 mm

KLSA/KLSS

RoHS

Designed for high stiffness while minimizing the height of the stage.



- Four linear guide blocks are located at optimal positions to improve positional repeatability.
- For lower cost, the KLSA has an aluminum body. For maximum rigidity, the KLSS has a steel body.

Guide

- Please contact us when assembled into XYZ axis or use in reversion on the ceiling or vertical direction.
- Opposite model or various motor changes are optionally available.

[Reference](#) G030

Specifications

Part Number		KLSA-100X-0B	KLSS-100X-0B	KLSA-200X-0B	KLSS-200X-0B
Mechanical Specifications	Travel [mm]	100	100	200	200
	Stage Size [mm]	80×80	80×80	120×120	120×120
	Feed Screw	Ball screw diameter φ8mm, 2mm lead	Ball screw diameter φ8mm, 2mm lead	Ball screw diameter φ10mm, 5mm lead	Ball screw diameter φ10mm, 5mm lead
	Positioning Slide	Liner guide	Liner guide	Liner guide	Liner guide
	Stage Material	Aluminum	Steel	Aluminum	Steel
	Finish	Black anodized	Black chromium oxide	Black anodized	Black chromium oxide
	Weight [kg]	2.2	3.5	5.1	7.7
Accuracy Specifications	Resolution	(Full) [μm/pulse]	4	10	10
		(Half) [μm/pulse]	2	5	5
	MAX Speed [mm/sec]	30	30	50	50
	Positioning Accuracy [μm]	15	15	20	20
	Positional Repeatability [μm]	±1	±1	±1	±1
	Load Capacity [N]	147 (15kgf)	147 (15kgf)	294 (30kgf)	294 (30kgf)
	Moment Stiffness	Pitch [°/N·cm]	0.05	0.02	0.02
		Yaw [°/N·cm]	0.05	0.02	0.02
		Roll [°/N·cm]	0.1	0.02	0.02
	Lost Motion [μm]	4	4	4	4
	Backlash [μm]	1	1	1	1
	Parallelism [μm]	50	50	50	50
	Orthogonality of Motion [μm]	10	10	10	10
	Pitch [°] / Yaw [°]	20/15	20/15	40/20	40/20
Sensor	Sensor Part Number	Micro photo sensor: PM-L25 (SUNX Co.,Ltd.): Limit sensor, origin sensor			
	Limit Sensor	Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)
	Origin Sensor	Equipped (NORMAL OPEN)	Equipped (NORMAL OPEN)	Equipped (NORMAL OPEN)	Equipped (NORMAL OPEN)
	Proximity Origin Sensor	None	None	None	None

Motor / Sensor Specifications

Motor	Type	5-phase stepping motor 0.75A/phase (Oriental Motor Co., Ltd.)
	Motor Part Number	PK545-NBW (□42mm)
	Step Angle	0.72°
Sensor	Power Voltage	DC5 – 24V±10%
	Current Consumption	45mA or lower (15mA or lower per sensor)
	Control Output	NPN open collector output DC30V or lower, 50mA or lower
	Output Logic	In the case of light shielded ,output transistor OFF (No conduction): Limit sensor In the case of light shielded ,output transistor ON (Conduction): Origin sensor

Compatible Driver / Controller

Control System	Compatible Driver	MC-S0514ZU, SG-514MSC, MC-7514PCL
	Compatible Controller	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

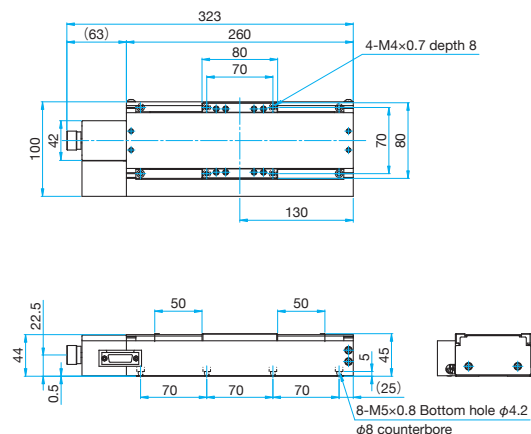
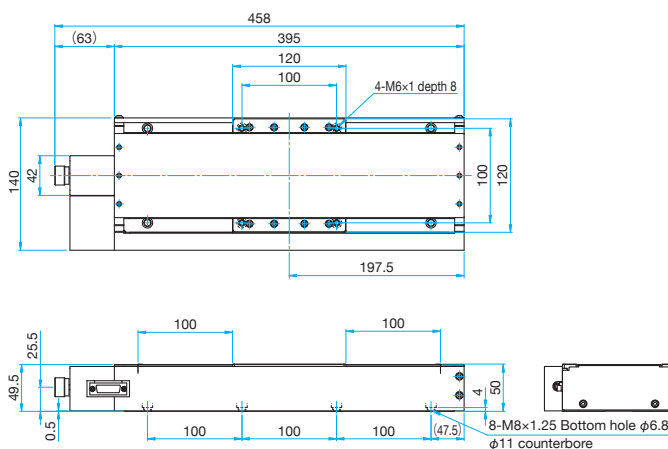
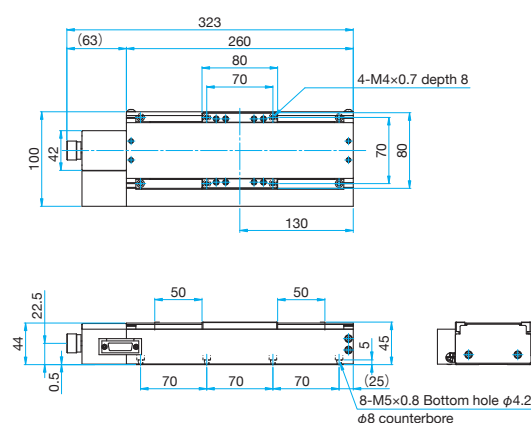
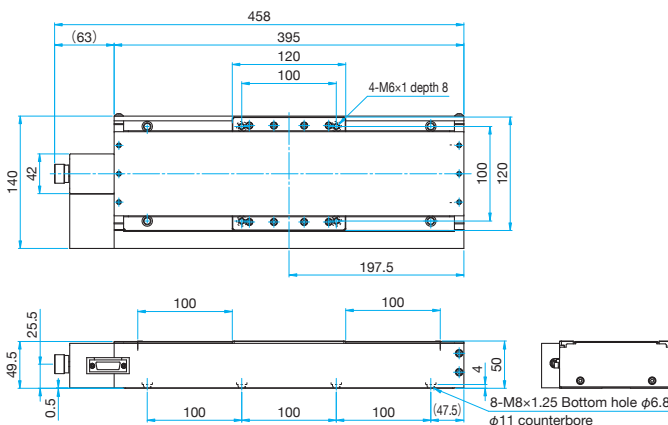
100 × 100 mm

120 × 120 mm

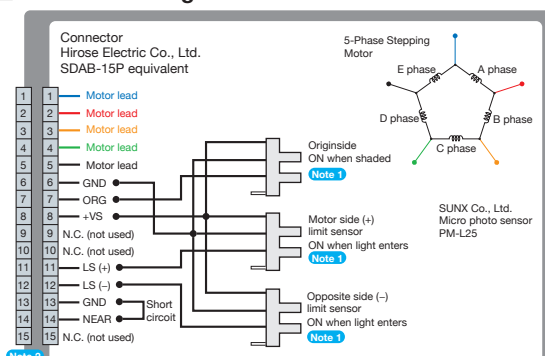
Others



Outline Drawing

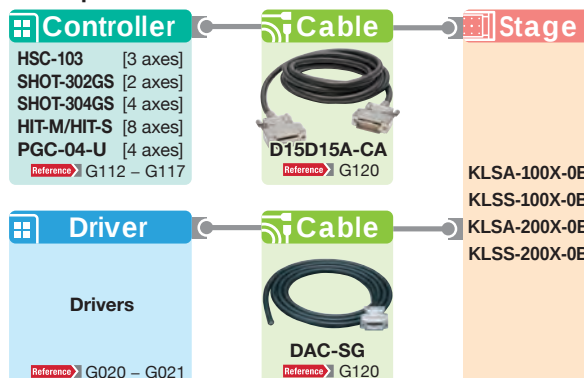
KLSS-100X-0B Hexagon socket head cap screw M4×10...8 screws

KLSS-200X-0B Hexagon socket head cap screw M6×12...8 screws

KLSS-100X-0B Hexagon socket head cap screw M4×10...8 screws

KLSS-200X-0B Hexagon socket head cap screw M6×12...8 screws


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.
- Note 2** Compatible cable connector: DDK Ltd. 17JE-13150

Compatible Controllers / Drivers and Cables



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