

Precision Motorized Stages - 5 Phase Stepping Motor

Stage Size 165 × 165 mm / 165 × 220 mm

HST-XYZ

RoHS

High precision XYZ axis stages fitted with precision ball screws and precision crossed roller.



- The combination of HST Series and 3 axis Stage Controllers HSC-103 can perform low-noise and low-vibration operation, compared with conventional products.
- Steel body offers excellent stiffness and high load capacity.

Guide

- Contact our sales team for more information regarding customization.
[Reference](#) G123 [WEB Reference](#) [Catalog Code](#) W9500

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40 × 40 mm

60 × 60 mm

80 × 80 mm

85 × 85 mm

100 × 100 mm

120 × 120 mm

Others

Specifications

Part Number		HST-50XYZ	HST-100XYZ	
Mechanical Specifications	Travel [mm]	50	100	
	Stage Size [mm]	165×165	165×220	
	Feed Screw	Ball screw diameter ϕ 8mm, 2mm lead	Ball screw diameter ϕ 8mm, 2mm lead	
	Positioning Slide	Crossed roller	Crossed roller	
	Stage Material	Steel	Steel	
	Finish	Black anodized	Black anodized	
	Weight [kg]	30.4	36.1	
Accuracy Specifications	Resolution	(Full) [μ m/pulse]	4	4
		(Half) [μ m/pulse]	2	2
	MAX Speed [mm/sec]	10	10	
	Positional Repeatability [μ m]	2	2	
	Load Capacity [N]	39.2 (4.0kgf)	39.2 (4.0kgf)	
	Lost Motion [μ m]	1	1	
	Backlash [μ m]	1	1	
	Straightness of Motion [μ m]	10	15	
Sensor	Sensor Part Number	Micro photo sensor : GP1S092HCPIF (Sharp Corporation)		
	Limit Sensor	Equipped (NORMAL CLOSE)		
	Origin Sensor	Equipped (NORMAL OPEN)		
	Proximity Origin Sensor	Equipped (NORMAL OPEN)		

Motor / Sensor Specifications

Motor	Type	5-phase stepping motor 1.4A/phase (Oriental Motor Co., Ltd.)
	Motor Part Number	PK544N18B (□42mm)
	Step Angle	0.72°
Sensor	Power Voltage	DC5 - 24V \pm 10%
	Current Consumption	240mA or lower (80mA 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, Proximity Origin Sensor

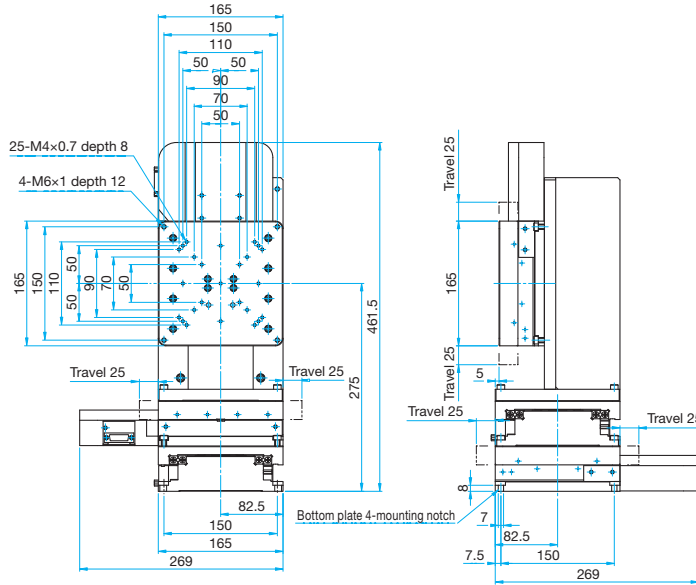
Compatible Driver / Controller

Control System	Compatible Driver	SG-5M, MC-S0514ZU, SG-514MSC, MC-7514PCL
	Compatible Controller	HSC-103, SHOT-304GS, HIT-M, HIT-SH, PGC-04-U

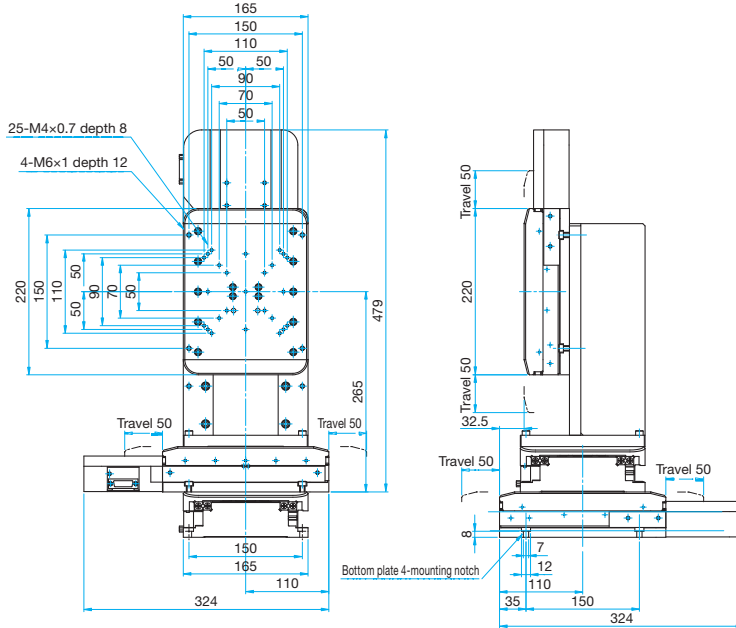


Outline Drawing

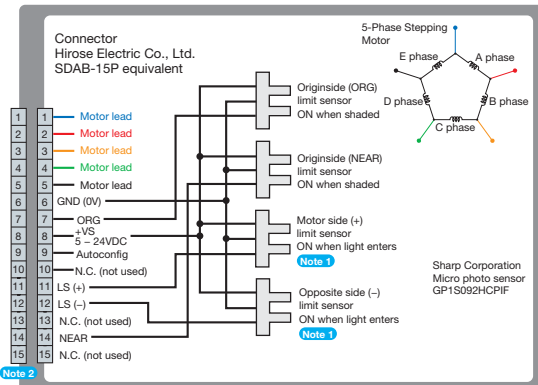
HST-50XYZ Hexagon socket head cap screw M6x15...4 screws



HST-100XYZ Hexagon socket head cap screw M6x15...4 screws

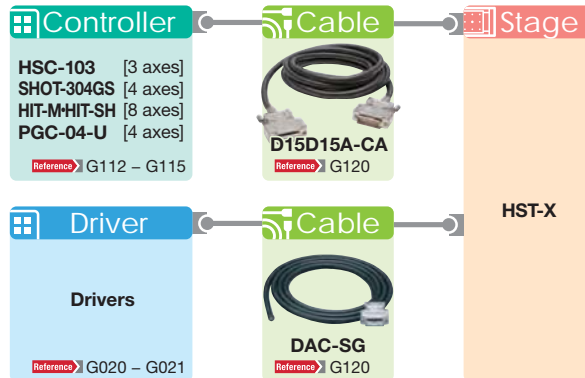


Connection Diagram



Note 1 The motor side limit sensor is the + direction limit sensor.
Note 2 Compatible cable connector: DDK Ltd. 17JE-13150

Compatible Controllers / Drivers and Cables



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- Others