

Precision Motorized Stages - 5 Phase Stepping Motor

PMS-XY

RoHS

CE

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Piezo Stage

Precision Linear MS

High Speed MS

Motorized Goniometer

Motorized Rotation

Multiaxis Motorized

Industrial Robot

Controller & Driver & Cable

Custom-Built MS

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



- Steel body offers excellent stiffness and high load capacity.

Guide

- ▶ Contact our International Sales Division if you desire to change motors, etc. Or, use the motorized stage system question sheet. [Reference](#) I085
- ▶ We will assemble your X axis stage with a newly purchased X axis stage at a separate cost.

Specifications			PMS-50XY	PMS-100XY	PMS-200XY
Mechanical Specifications	Part Number				
	Travel [mm]		50	100	200
	Table Size [mm]		165x165	165x200	165x360
	Feed Screw [mm]		Ball screw diameter ϕ 8mm, 1mm lead	Ball screw diameter ϕ 8mm, 1mm lead	Ball screw diameter ϕ 14mm, 2mm lead
	Positioning Slide		Crossed roller	Crossed roller	Crossed roller
	Stage Material		Steel (S50C)	Steel (S50C)	Steel (S50C)
Weight [kg]		17.2	20.4	40.0	
Accuracy Specifications	Resolution	(Full) [μ m/pulse]	2	2	4
		(Half) [μ m/pulse]	1	1	2
	MAX Speed [mm/sec]		10	10	20
	Positioning Accuracy [μ m]		10	12	15
	Positional Repeatability [μ m]		2	2	2
	Load Capacity [N]		196 (20.0kgf)	196 (20.0kgf)	196 (20.0kgf)
	Lost Motion [μ m]		1	1	1
	Backlash [μ m]		1	1	1
Orthogonality of Motion [μ m]		5	5	10	
Sensor	Sensor Part Number		Micro photo sensor: PM-L24 (SUNX Co., Ltd.): Limit sensor, origin sensor		
	Limit Sensor		Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)
	Origin Sensor		Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)
	Proximity Origin Sensor		None	None	None

Motor / Sensor Specifications		
Motor	Type	5-phase stepping motor 1.4A/phase (Oriental Motor Co., Ltd.)
	Motor Part Number	PK564-NBW (\square 60mm) PK566-NBW (\square 60mm) PK569-NBW (\square 60mm)
	Step Angle	0.72°
Sensor	Power Voltage	DC5 - 24V \pm 10%
	Current Consumption	45mA or lower (15mA or lower per sensor)
	Control Output	NPN open collector output DC30V or lower, 50mA
	Output Logic	When shaded: Output transistor OFF (no conduction)

(Reference) Precision Specifications of Single Axis Stage					
Part Number			PMS-50X	PMS-100X	PMS-200X
Accuracy Specifications	Moment Stiffness	Pitch [$^{\circ}$ /N·cm]	0.01	0.01	0.01
		Yaw [$^{\circ}$ /N·cm]	0.01	0.01	0.01
		Roll [$^{\circ}$ /N·cm]	0.005	0.005	0.005
	Parallelism [μ m]		50	70	100
	Running Parallelism [μ m]		10	10	20

Compatible Driver / Controller		
Control System	Compatible Driver	SD-5M, SD-55M, SD-514MSC, SD-5151, SD-525M
	Compatible Controller	ASC-302GS, ASC-304GS

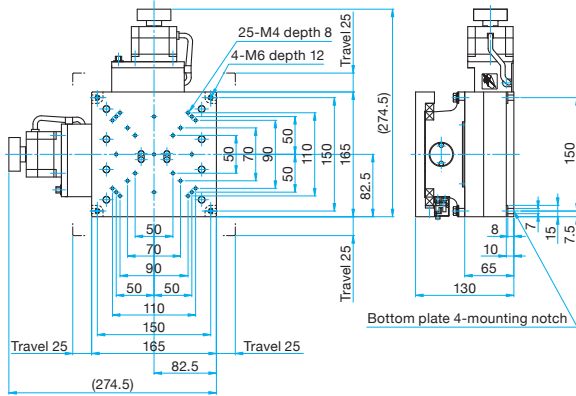
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PMS-XY **RoHS** **CE**

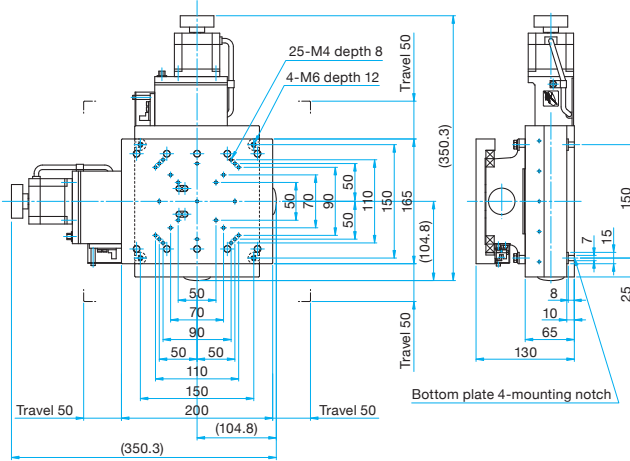


Outline Drawing

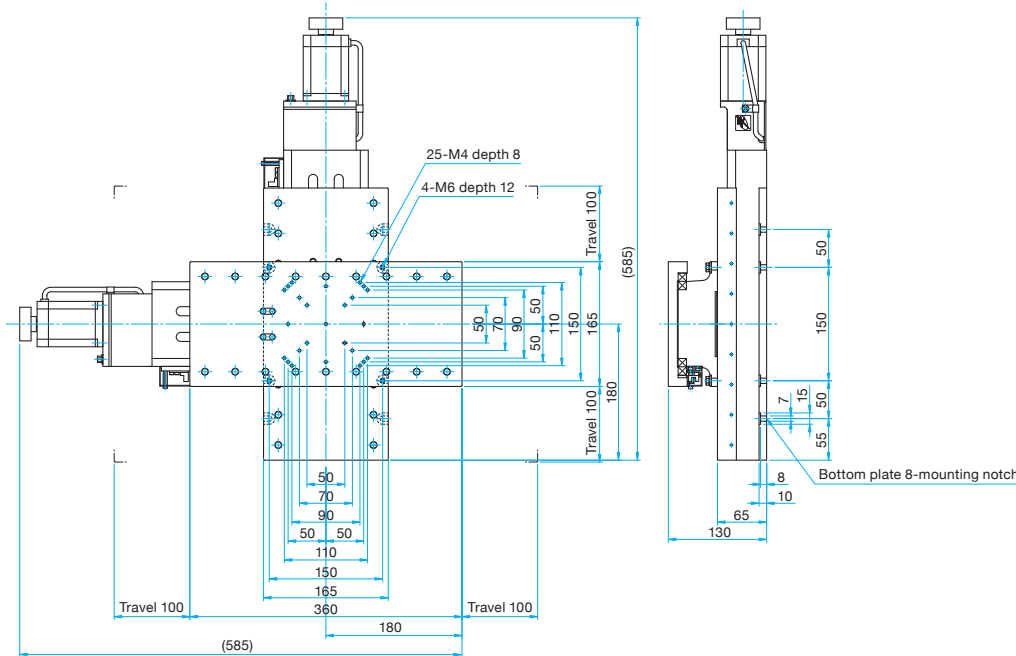
PMS-50XY Hexagon socket head cap screw M6x15...4 screws



PMS-100XY Hexagon socket head cap screw M6x15...4 screws



PMS-200XY Hexagon socket head cap screw M6x15...8 screws



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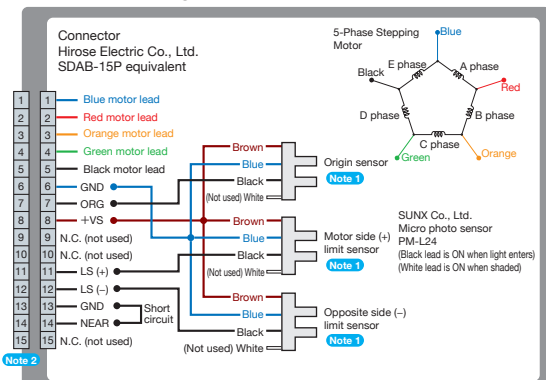
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Connection Diagram



Note 1 The motor side limit sensor is the + direction limit sensor. KST-50/100/200 is fitted with an origin sensor.

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

Compatible Controllers / Drivers and Cables

