

OSMS Series Translation Motorized Stages - 5 Phase Stepping Motor | OSMS26-(XY) Stage Size 100 x 100 mm



Stepping motor driven stages, ideal for positioning of measuring instruments or inspection tools for which high stiffness and high precision are required.



- U-shaped rail offers light weight, and minimized deflection to achieve high stiffness.

Guide

- ▶ Contact our Sales Division if you desire to change motors, etc.
[Reference](#) G017, G123 (Motorized Stage System Question Sheet)
[WEB Reference](#) [Catalog Code](#) W9500
- ▶ Grease change is optionally available.
[Reference](#) G122 [WEB Reference](#) [Catalog Code](#) W9006
- ▶ We will assemble your X axis stage with a newly purchased X axis stage at a separate cost.

Specifications			OSMS26-50(XY)	OSMS26-100(XY)	OSMS26-200(XY)	OSMS26-300(XY)
Part Number			OSMS26-50(XY)	OSMS26-100(XY)	OSMS26-200(XY)	OSMS26-300(XY)
Part Number (-M6)			OSMS26-50(XY)-M6	OSMS26-100(XY)-M6	OSMS26-200(XY)-M6	OSMS26-300(XY)-M6
Part Number (-INCH)			OSMS26-50(XY)-INCH	OSMS26-100(XY)-INCH	OSMS26-200(XY)-INCH	OSMS26-300(XY)-INCH
Mechanical Specifications	Travel [mm]		50	100	200	300
	Stage Size [mm] (M6, INCH)		100x100 (120x120)	100x100 (120x120)	100x100 (120x120)	100x100 (120x120)
	Feed Screw		Ball screw diameter ϕ 8mm, 2mm lead	Ball screw diameter ϕ 8mm, 2mm lead	Ball screw diameter ϕ 8mm, 2mm lead	Ball screw diameter ϕ 8mm, 2mm lead
	Positioning Slide		Outer rail structure	Outer rail structure	Outer rail structure	Outer rail structure
	Stage Material		Aluminum	Aluminum	Aluminum	Aluminum
	Finish		Black anodized	Black anodized	Black anodized	Black anodized
	Weight [kg]		4.4	5.4	7.6	8.0
Accuracy Specifications	Resolution	(Full) [μ m/pulse]	4	4	4	4
		(Half) [μ m/pulse]	2	2	2	2
	MAX Speed [mm/sec]		40	40	40	40
	Load Capacity [N]		98 (10.0kgf)	98 (10.0kgf)	98 (10.0kgf)	98 (10.0kgf)
	Backlash [μ m]		3	3	3	3
	Orthogonality of Motion [μ m]		5	5	10	5
Sensor	Sensor Part Number	Micro photo sensor: GP1S092HCPIF (Sharp Corporation)				
	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		Equipped (NORMAL OPEN)	Equipped (NORMAL OPEN)	Equipped (NORMAL OPEN)	Equipped (NORMAL OPEN)

Motor / Sensor Specifications		
Motor	Type	5-phase stepping motor 0.75A/phase (Oriental Motor Co., Ltd.)
	Motor Part Number	PK525HPB-C4 (□28mm)
	Step Angle	0.72°
Sensor	Power Voltage	DC5 - 24V±10%
	Current Consumption	160mA 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

(Reference) Precision Specifications of Single Axis Stage						
Part Number		OSMS26-50(X)	OSMS26-100(X)	OSMS26-200(X)	OSMS26-300(X)	
Accuracy Specifications	Positioning Accuracy [μ m]	5	10	15	15	
	Positional Repeatability [μ m]	3	3	6	6	
	Moment Stiffness	Pitch [$^{\circ}$ /N·cm]	0.23	0.23	0.23	0.23
		Yaw [$^{\circ}$ /N·cm]	0.12	0.12	0.12	0.12
		Roll [$^{\circ}$ /N·cm]	0.2	0.2	0.2	0.2
	Lost Motion [μ m]	3	3	5	5	
	Parallelism [μ m]	50	50	50	50	
Running Parallelism [μ m]	10	10	10	10		

Compatible Driver / Controller		
Control System	Compatible Driver	SG-5M, SG-5MA, MC-S0514ZU, SG-514MSC, MC-7514PCL
	Compatible Controller	GSC-02, SHOT-702, HSC-103, SHOT-302GS, SHOT-304GS, HIT-M-HIT-S, PGC-04-U

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40 x 40 mm

60 x 60 mm

80 x 80 mm

85 x 85 mm

100 x 100 mm

120 x 120 mm

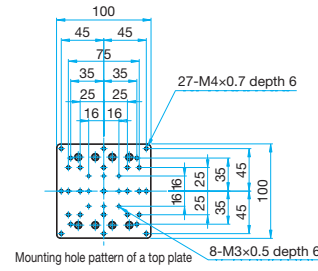
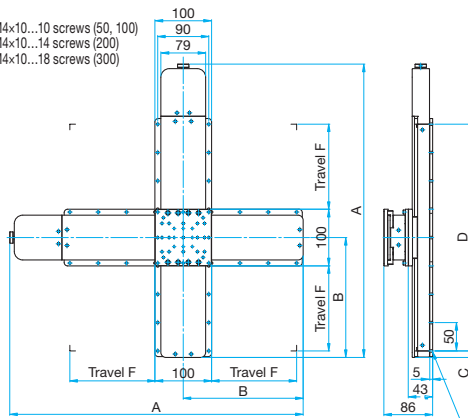
Others



Outline Drawing

OSMS26-*(XY)

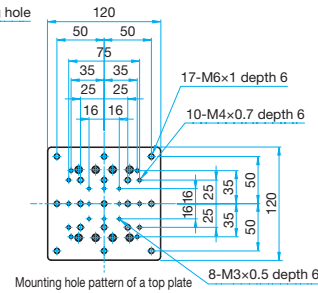
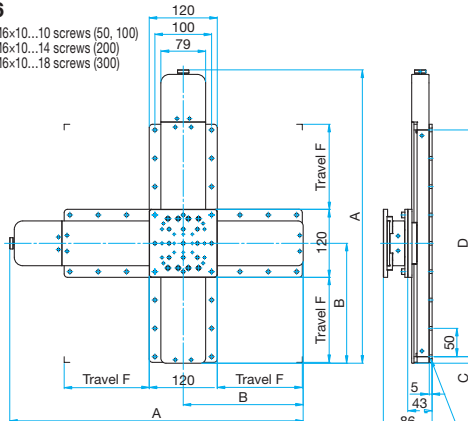
- Hexagon socket head cap screw M4x10...10 screws (50, 100)
- Hexagon socket head cap screw M4x10...14 screws (200)
- Hexagon socket head cap screw M4x10...18 screws (300)



Part Number	A	B	C	D	E	F
OSMS26-50(XY)	267.5	86.5	11.5	150 (25, 50x2, 25)	10-φ4.5	25
OSMS26-100(XY)	317.5	111.5	11.5	200 (50x4)	10-φ4.5	50
OSMS26-200(XY)	417.5	161.5	11.5	300 (50x6)	14-φ4.5	100
OSMS26-300(XY)	517.5	211.5	11.5	400 (50x8)	18-φ4.5	150

OSMS26-*(XY)-M6

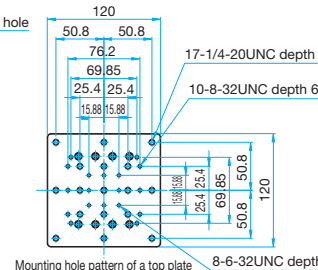
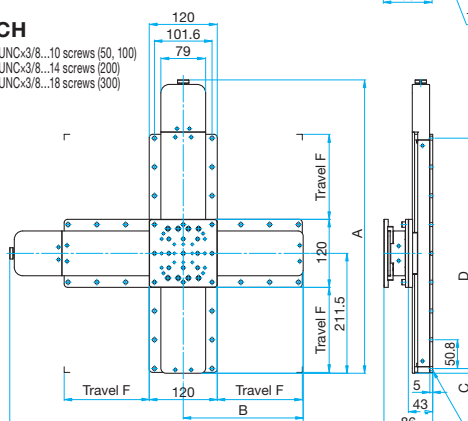
- Hexagon socket head cap screw M6x10...10 screws (50, 100)
- Hexagon socket head cap screw M6x10...14 screws (200)
- Hexagon socket head cap screw M6x10...18 screws (300)



Part Number	A	B	C	D	E	F
OSMS26-50(XY)-M6	267.5	86.5	11.5	150 (25, 50x2, 25)	10-φ6.5	25
OSMS26-100(XY)-M6	317.5	111.5	11.5	200 (50x4)	10-φ6.5	50
OSMS26-200(XY)-M6	417.5	161.5	11.5	300 (50x6)	14-φ6.5	100
OSMS26-300(XY)-M6	517.5	211.5	11.5	400 (50x8)	18-φ6.5	150

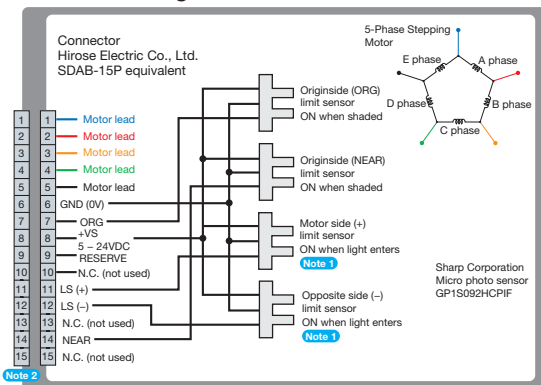
OSMS26-*(XY)-INCH

- Hexagon socket head cap screw 1/4-20UNCx3/8...10 screws (50, 100)
- Hexagon socket head cap screw 1/4-20UNCx3/8...14 screws (200)
- Hexagon socket head cap screw 1/4-20UNCx3/8...18 screws (300)

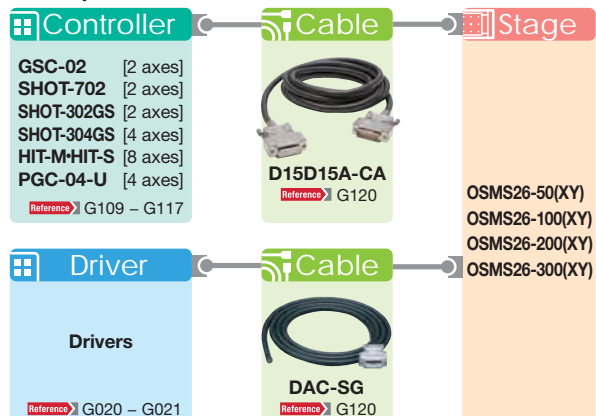


Part Number	A	B	C	D	E	F
OSMS26-50(XY)-INCH	267.5	86.5	10.3	152.4 (25.4, 50.8x2, 25.4)	10-φ7	25
OSMS26-100(XY)-INCH	317.5	111.5	9.9	203.2 (50.8x4)	10-φ7	50
OSMS26-200(XY)-INCH	417.5	161.5	9.1	304.8 (50.8x6)	14-φ7	100
OSMS26-300(XY)-INCH	517.5	211.5	8.3	406.4 (50.8x8)	18-φ7	150

Connection Diagram



Compatible Controllers / Drivers and Cables



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