

# OSMS Series Translation Motorized Stages

## - 5 Phase Stepping Motor

# OSMS33-800

# W9071

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

The 800 mm travel range allows it to be moved over a wide area.



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

### Guide

- ▶ Contact our International Sales Division if you desire to change motors, etc. [WEB Reference](#) [Catalog Code](#) W9500
- ▶ Grease change is optionally available. [WEB Reference](#) [Catalog Code](#) W9006
- ▶ When used as an XY-axis, a support mechanism to minimize deflection of the upper axis is separately required. Please contact our sales department.
- ▶ When used as a Z-axis, a dedicated bracket is separately required. Please contact our sales department.

### Attention

- ▶ Please note that the OSMS33-800 series is a heavy and lengthy cargo, so packing fee will be charged separately. (See the table on the right).
- ▶ Please contact our sales department for more information about the intended use, unbalanced load, and load capacity.

Packing and transportation costs (About the case in Japan)	Destinations
	Hokkaido
Kyusyu, Shikoku, Chugoku, Tohoku	
Hokuriku, Tyubu, Kansai	
Kanto	

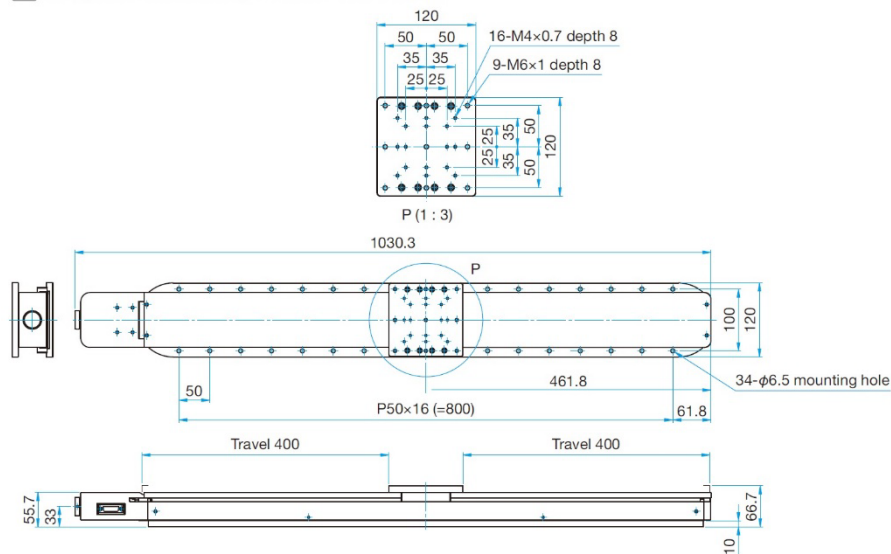
Specifications			
Part Number		<b>OSMS33-800(X)</b>	
Part Number (-M6)		<b>OSMS33-800(X)-M6</b>	
Part Number (-INCH)		<b>OSMS33-800(X)-INCH</b>	
Mechanical Specifications	Travel [mm]	800	
	Table Size [mm]	120×120	
	Feed Screw	Ball screw diameter φ10mm, 10mm lead	
	Positioning Slide	Outer rail structure	
	Stage Material	Aluminum	
	Finish	Black anodized	
	Weight [kg]	15.80	
Accuracy Specifications	Resolution	(Full) [μm/pulse]	20
		(Half) [μm/pulse]	10
	Max speed [mm/sec]	120	
	Positioning Accuracy [μm]	30	
	Positional Repeatability [μm]	8	
	Load Capacity [N]	196N (20.0kgf)	
	Moment Stiffness	Pitch [°/N·cm]	0.12
		Yaw [°/N·cm]	0.08
		Roll [°/N·cm]	0.1
	Lost Motion [μm]	5	
	Backlash [μm]	3	
	Parallelism [μm]	50	
	Running Parallelism [μm]	30	
Pitch [°]/Yaw [°]	45/30		
Sensor	Sensor Part Number	Micro photo sensor : GP1S092HCPIF(Sharp Corporation)	
	Limit Sensor	Equipped (NORMAL CLOSE)	
	Proximity Origin Sensor	Equipped (NORMAL CLOSE)	
	Origin Sensor	Equipped (NORMAL CLOSE)	

Motor / Sensor Specifications		
Motor	Type	5-phase stepping motor 0.75A/phase (Tamagawa Seiki Co., Ltd.)
	Motor Part Number	TS3667N43E967 (□42mm)
	Step Angle	0.72°
Sensor	Power Voltage	DC5 - 24V±10%
	Current Consumption	80mA or lower (20mA or lower per 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	MC-S0514ZU, SG-514MSC, MC-7514PCL
	Compatible Controller	SHOT-702, SHOT-702H, SHOT-302GS, SHOT-304GS, HIT-MV·HIT-SA, PGC-04-U, HSC-103

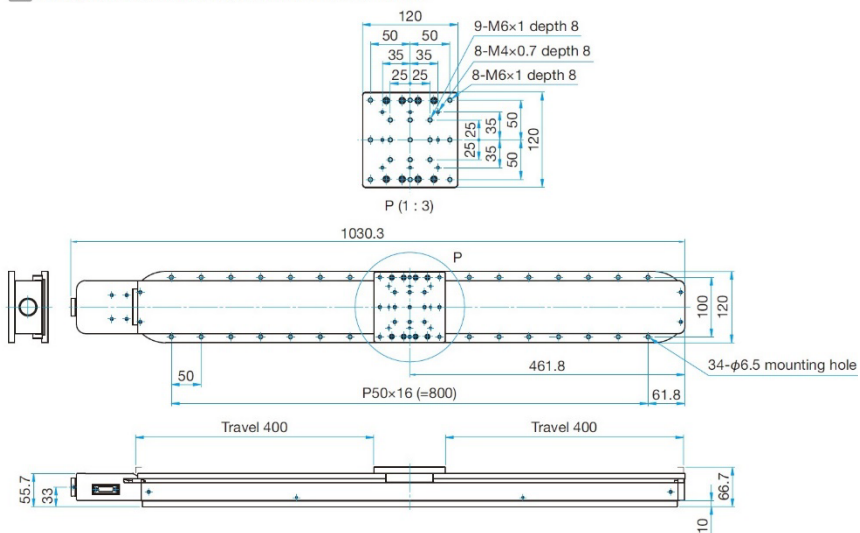
**OSMS33-800(X)**

Hexagonal socket head cap screw M6x18...34 screws



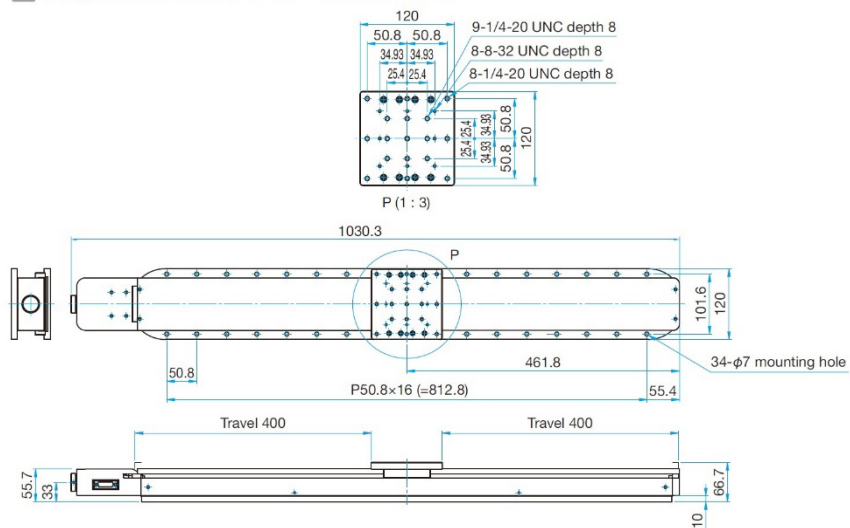
**OSMS33-800(X)-M6**

Hexagonal socket head cap screw M6x18...34 screws

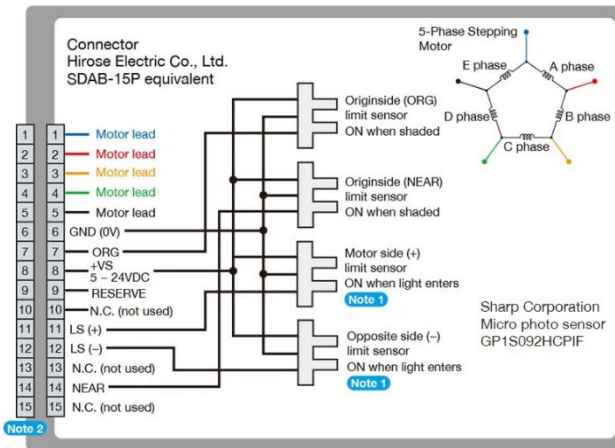


**OSMS33-800(X)-INCH**

Hexagonal socket head cap screw 1/4-20UNCx3/4...34 screws



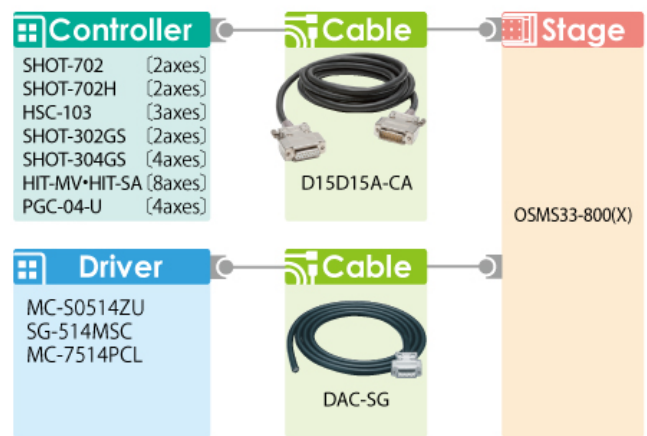
## ■ Connection Diagram



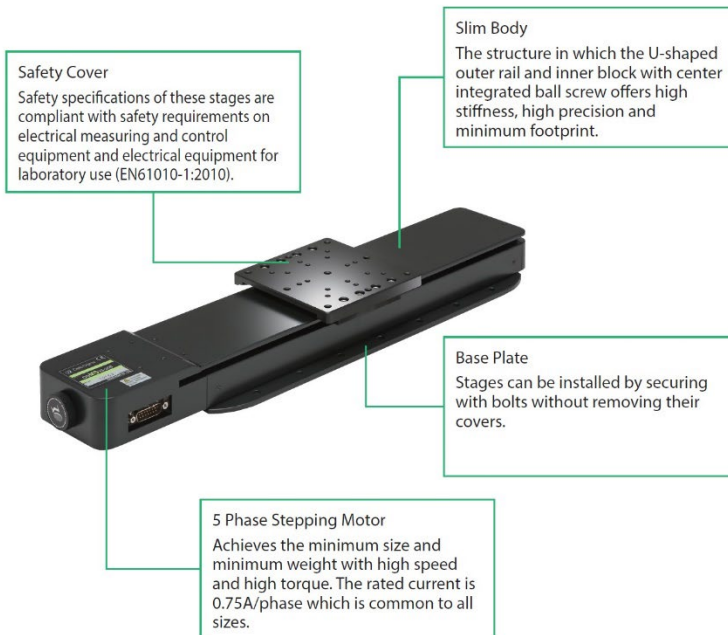
**Note 1** The motor side limit sensor is the + direction limit sensor.

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

## ■ Compatible Driver / Controller



## OSMS Series Features and X-axis Lineup



Part Number	Table Size [mm]	Width [mm]	Height [mm]	Travel [mm]	Load Capacity [N]
OSMS20-35(X)	85x85	85	35.7	35	78.4
OSMS20-85(X)	85x85	85	35.7	85	78.4
OSMS26-50(X)	100x100	100	43	50	117
OSMS26-100(X)	100x100	100	43	100	117
OSMS26-200(X)	100x100	100	43	200	117
OSMS26-300(X)	100x100	100	43	300	117
OSMS33-300(X)	120x120	120	56.7	300	196
OSMS33-500(X)	120x120	120	56.7	500	196
<b>OSMS33-800(X)</b>	<b>120x120</b>	<b>120</b>	<b>66.7</b>	<b>800</b>	<b>196</b>