

## ATMS Series Translation Motorized Stages - 5 Phase Stepping Motor | ATMS33-(Z)



Application Systems

Machine Vision

Manual Positions

Motion Control Products

Optical & Mirror Holder

FA Parts

Measurement & Control

FA Electrical Parts

Tool & Measure

Cleanroom & AntiStatic

Index

Piezo Stage

Precision Linear MS

High Speed MS

Motorized Goniometer

Motorized Rotation

Multiaxis Motorized

Industrial Robot

Controller & Driver & Cable

Custom-Built MS

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



- 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. [Reference](#) I019, I085 (Question Sheet)
- ▶ Dust-proof cover reel and grease change are optionally available. [Reference](#) I017, I018

### Attention

- ▶ After purchasing an X axis stage, to combine it with a Z axis stage, assembly adjustment cost and performance inspection cost will be charged separately.

Specifications					
Part Number		ATMS33-50(Z)	ATMS33-100(Z)	ATMS33-200(Z)	
Mechanical Specifications	Travel [mm]	50	100	200	
	Table Size [mm]	98×80	98×80	98×80	
	Feed Screw [mm]	Ball screw diameter φ10mm, 6mm lead	Ball screw diameter φ10mm, 6mm lead	Ball screw diameter φ10mm, 6mm lead	
	Positioning Slide	Outer rail structure	Outer rail structure	Outer rail structure	
	Stage Top Material	Aluminum	Aluminum	Aluminum	
	Finish	Black anodized	Black anodized	Black anodized	
	Weight [kg]	4.8	5.2	6.0	
Accuracy Specifications	Resolution	(Full) [μm/pulse]	12	12	12
		(Half) [μm/pulse]	6	6	6
	MAX Speed [mm/sec]	80	80	80	
	Positioning Accuracy [μm]	30	40	40	
	Positional Repeatability [μm]	6	6	6	
	Load Capacity [N]	68.6 (7.0kgf)	68.6 (7.0kgf)	68.6 (7.0kgf)	
	Moment Stiffness	Pitch [°/N·cm]	0.2	0.2	0.3
		Yaw [°/N·cm]	0.15	0.15	0.15
		Roll [°/N·cm]	0.15	0.15	0.15
	Lost Motion [μm]	5	5	5	
	Backlash [μm]	3	3	3	
	Perpendicularity of Motion [μm]	30	35	50	
Pitch [°] / Yaw [°]	50/20	55/20	55/20		
Sensor Part Number	Micro photo sensor: PM-L24 (SUNX Co., Ltd.)				
Limit Sensor	Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)		
Origin Sensor	None	None	None		
Proximity Origin Sensor	None	None	None		

Motor / Sensor Specifications		
Motor	Type	5-phase stepping motor 0.75A/phase (Tamagawa Seiki Co., Ltd.)
	Motor Part Number	TS3667N43E7 (□42mm)
	Step Angle	0.72°
Sensor	Power Voltage	DC5 - 24V ±10%
	Current Consumption	30mA or lower (15mA 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)

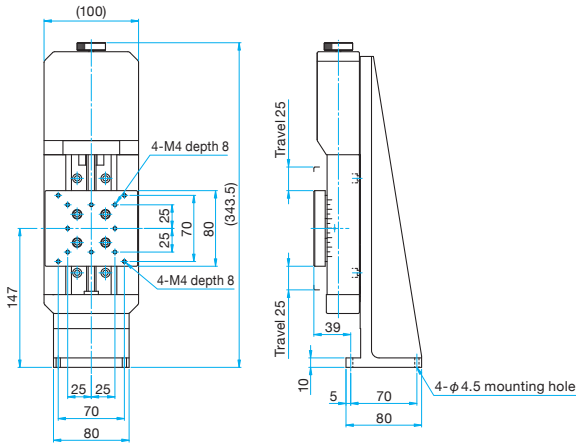
Compatible Driver / Controller		
Control System	Compatible Driver	SD-5M, SD-5MA, SD-55M, SD-55MA, SD-514MSC, SD-5151, SD-525M
	Compatible Controller	ASC-702, ASC-302GS, ASC-304GS, ESC-M/ESC-S

ATMS Series Translation Motorized Stages - 5 Phase Stepping Motor | **ATMS33-(Z)**

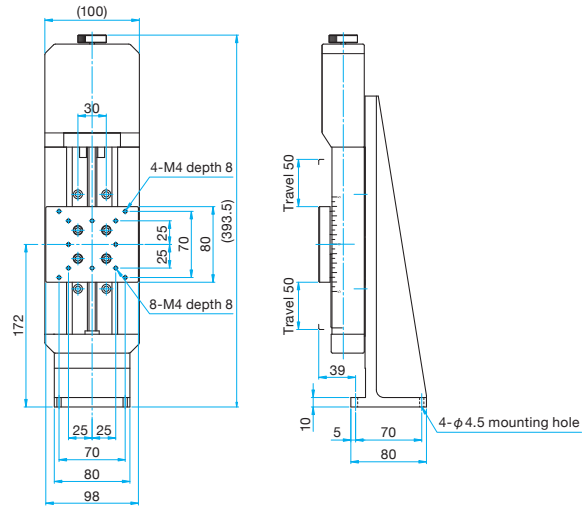


Outline Drawing

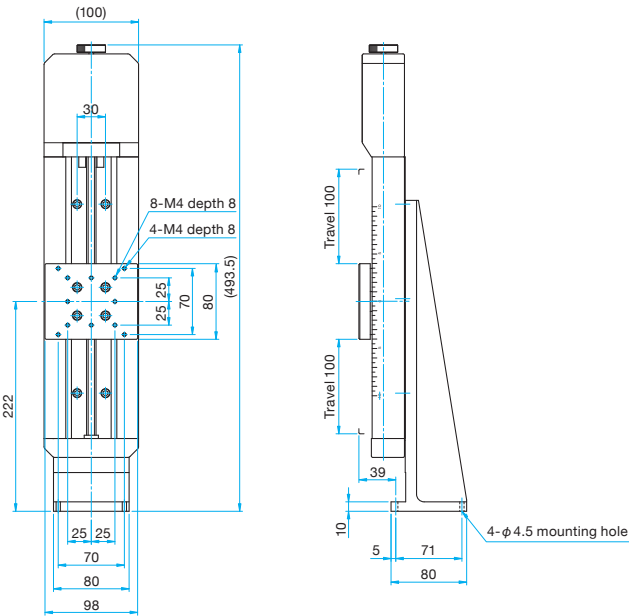
**ATMS33-50(Z)** Hexagonal socket head cap screw M4x15...4 screws



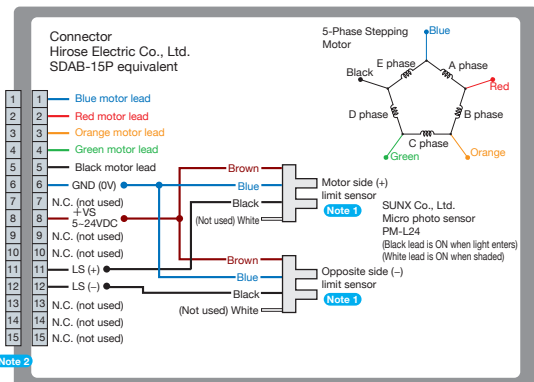
**ATMS33-100(Z)** Hexagonal socket head cap screw M4x15...4 screws



**ATMS33-200(Z)** Hexagonal socket head cap screw M4x15...4 screws



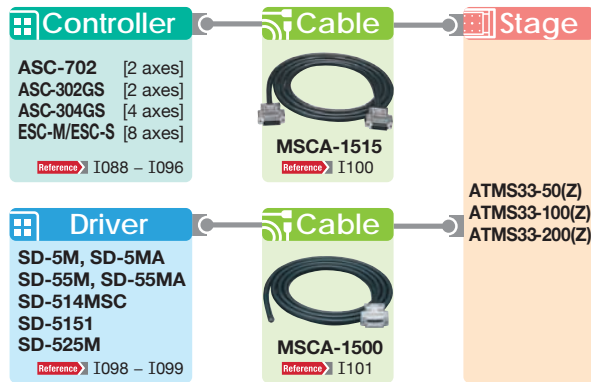
Connection Diagram



**Note 1** The motor side limit sensor is the + direction limit sensor. Motorized stages are not fitted with origin and proximity origin sensors. Limit sensors are used as origin detection sensors.

**Note 2** Compatible cable connector: DDK Ltd. 17JE-1350

Compatible Controllers / Drivers and Cables



Application Systems

Machine Vision

Manual Positions

Motion Control Products

Optical & Mirror Holder

F A Parts

Measurement & Control

FA Electrical Parts

Tool & Measure

Cleanroom & AntiStatic

Index

Piezo Stage

Precision Linear MS

High Speed MS

Motorized Goniometer

Motorized Rotation

Multiaxis Motorized

Industrial Robot

Controller & Driver & Cable

Custom-Built MS