

ATMS Series Translation Motorized Stages - 5 Phase Stepping Motor

ATMS33-(X)

RoHS

CE

Application Systems

Machine Vision

Manual Positions

Motion Control Products

Optical & Mirror Holder

FA Parts

Measurement & Control

FA Electrical Parts

Tool & Measure

Cleanroom & AntiStatic

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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

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
- ▶ We will assemble your X axis stage with a newly purchased X axis stage at a separate cost.

Attention

- ▶ Two X axis stages cannot be assembled into an XY axis stage. A special mounting plate is required. [Reference](#) I014

Specifications			ATMS33-50(X)	ATMS33-100(X)	ATMS33-200(X)
Part Number					
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]		3	3.4	4.2
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]		15	20	20
	Positional Repeatability [μm]		6	6	6
	Load Capacity [N]		196 (20.0kgf)	196 (20.0kgf)	196 (20.0kgf)
	Moment Stiffness	Pitch [°/N·cm]	0.12	0.12	0.12
		Yaw [°/N·cm]	0.08	0.08	0.08
		Roll [°/N·cm]	0.08	0.08	0.08
	Lost Motion [μm]		5	5	5
	Backlash [μm]		3	3	3
	Parallelism [μm]		50	50	50
	Running Parallelism [μm]		10	10	10
Pitch [°] / Yaw [°]		25/20	30/25	30/25	
Sensor	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)

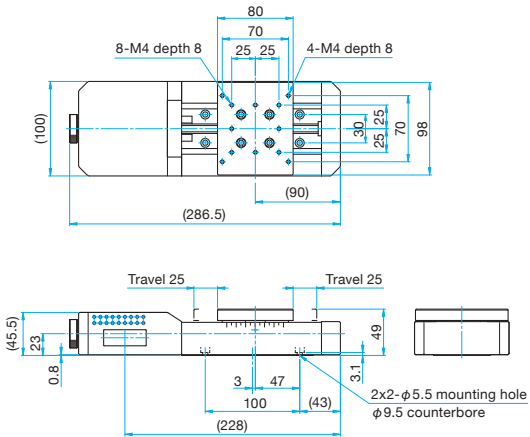
Compatible Driver / Controller		
Control System	Compatible Driver	SD-5M, SD-5MA, SD-55M, SD-55MA, SD-514MSC, SD-5151, SD-525M
	Compatible Controller	ASC-702, ASC-302GS, ASC-304GS, ESC-M/ESC-S

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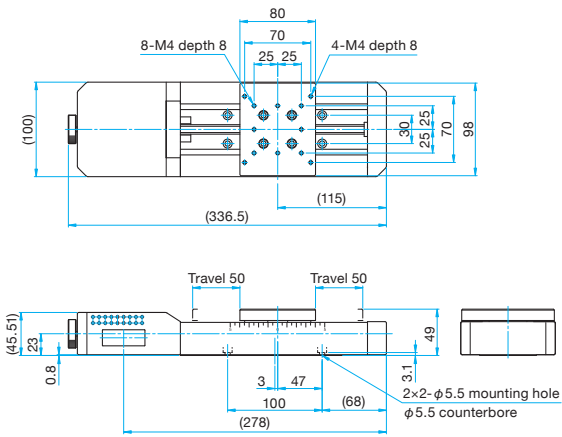


Outline Drawing

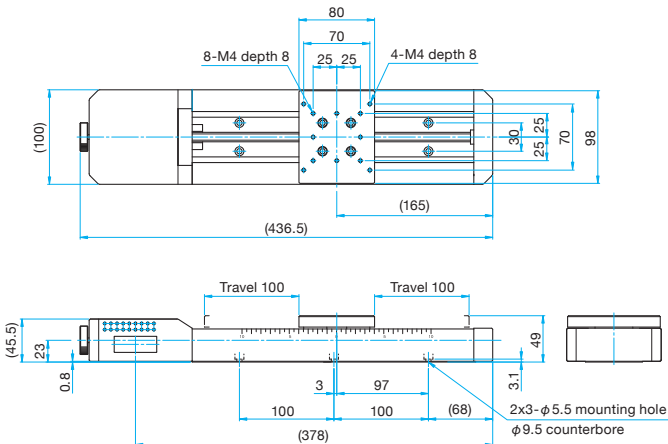
ATMS33-50(X) Hexagonal socket head cap screw M5x10...4 screws



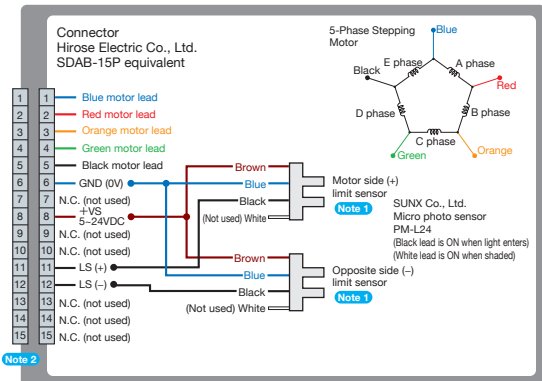
ATMS33-100(X) Hexagonal socket head cap screw M5x10...4 screws



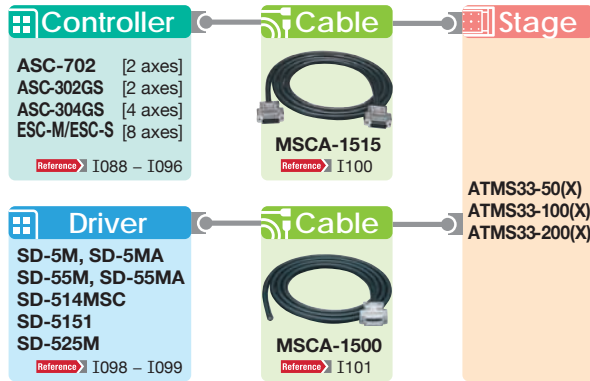
ATMS33-200(X) Hexagonal socket head cap screw M5x10...6 screws



Connection Diagram



Compatible Controllers / Drivers and Cables



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