

ATMS Series Translation Motorized Stages - 5 Phase Stepping Motor | ATMS15-10 Stage size □40mm



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

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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.

Attention

- ▶ There is no bearing on the opposite motor side. If you desire to use this product exerting load in the shaft direction, contact our International Sales Division.
- ▶ The M4 mounting plate for ATMS15-10 (SG15-M4) is required when fixing the ATMS15-10(X)/(XY) on an optical breadboard. It can be purchased separately. [Reference](#) IO25
- ▶ After purchasing two X axis stages, to assemble them into an XY axis stage, assembly adjustment cost and performance inspection cost will be charged separately (10,000JP Yen).

Specifications					
Part Number		ATMS15-10(X)	ATMS15-10(XY)	ATMS15-10(Z)	
Mechanical Specifications	Travel [mm]	10	10	10	
	Table Size [mm]	40×40	40×40	40×40	
	Feed Screw [mm]	Ball screw diameter φ5mm, 1mm lead	Ball screw diameter φ5mm, 1mm lead	Ball screw diameter φ5mm, 1mm 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]	0.5	1.0	1.1	
Accuracy Specifications	Resolution	(Full) [μm/pulse]	2	2	2
		(Half) [μm/pulse]	1	1	1
	MAX Speed [mm/sec]	15	15	15	
	Positioning Accuracy [μm]	10	—	15	
	Positional Repeatability [μm]	5	—	5	
	Load Capacity [N]	29.4 (3.0kgf)	19.6 (2.0kgf)	4.9 (0.5kgf)	
	Moment Stiffness	Pitch [°/N·cm]	12	—	12
		Yaw [°/N·cm]	12	—	12
		Roll [°/N·cm]	10	—	10
	Lost Motion [μm]	5	—	5	
	Backlash [μm]	2	2	2	
	Parallelism [μm]	30	—	—	
	Running Parallelism [μm]	10	—	—	
	Orthogonality of Motion [μm]	—	5	—	
Perpendicularity of Motion [μm]	—	—	15		
Pitch [°] / Yaw [°]	35/25	—	50/25		
Sensor	Sensor Part Number	Micro photo sensor: PM-U24 (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 0.6A/phase (Tamagawa Seiki Co., Ltd.)
	Motor Part Number	TS3682N4 (□20mm)
	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-PS, ASC-01, ASC-102, ASC-02, ASC-702, ASCG-101, ASC-302GS, ASC-304GS, ESC-M/ESC-S

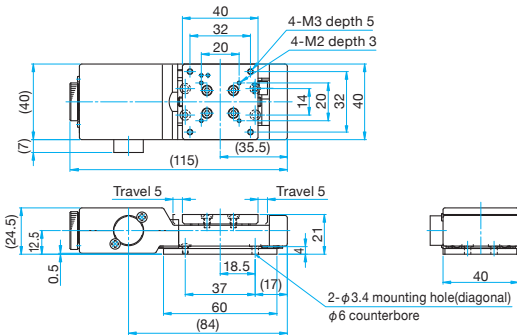
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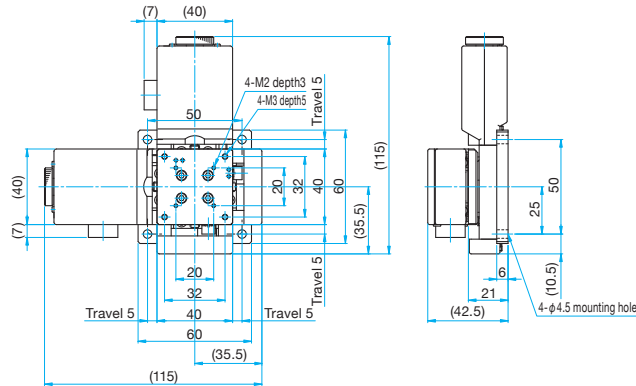


Outline Drawing

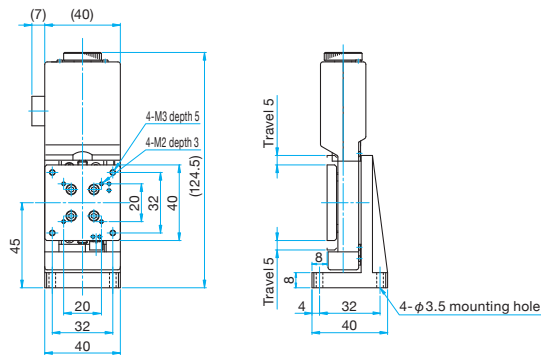
ATMS15-10(X) Hexagon socket head cap screw M3×8...2 screws



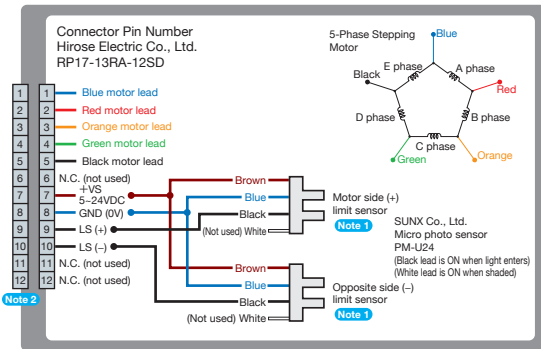
ATMS15-10(XY) Hexagonal socket head cap screw M4×12...4 screws



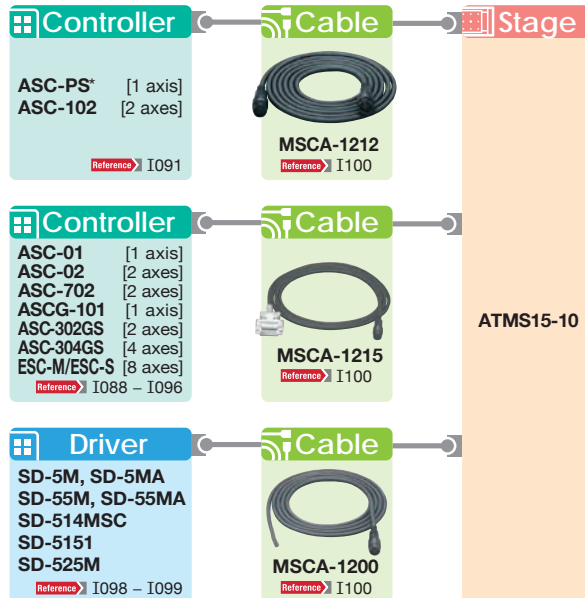
ATMS15-10(Z) Hexagon socket head cap screw M3×12...4 screws



Connection Diagram



Compatible Controllers / Drivers and Cables



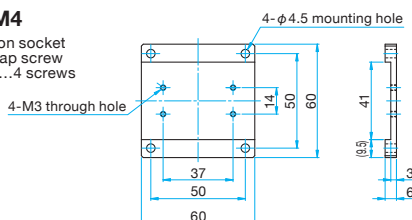
* PASC-PS will be discontinued in September 2012, and will be replaced by ASC-01.

M4 Mounting Plate for SGSP15-10 | SG15-M4

Outline Drawing

BS15-M4

Hexagon socket head cap screw M4×12...4 screws



Specifications

Part Number	BS15-M4
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