

## TSAx-C series slim motorized linear stages



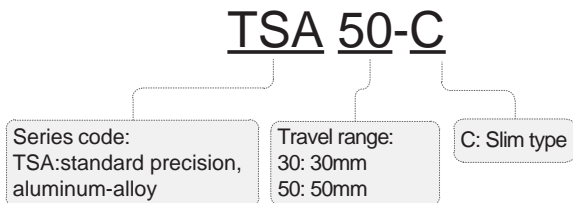
### Description:

The key parts of TSA-C series slim motorized linear stages include grinding ball screws, cross-roller guides and high-quality shaft coupling. This configuration ensure that high performance of this series products is available for customers. A pair of mechanical position-limit switch and origin-point sensor are all necessary parts to guarantee stages working well. It is easy for signal communications due to standard electrical and mechanical interfaces being used. Customers can operate the stages manually by using a handwheel attached to the motor. This series of products offers standard installation holes which ensure the easy setup for multi-axis stages system. It also makes the combination with Zolix other products much easier. Height of table surface is 30mm and highest of point of stages is just over 44mm from installation surface. These specifications provide enough possibility to use this series product in those high-precision and high-resolution motion required but limited-height-space scenarios. The characteristic of self-lock of grinding screws benefits the usage of this kind of products as Z-axis.

### Main characteristics:

- Grinding screws (1mm lead pitch) and standard two-phase stepping motors offer higher performance-to-cost ratio
- Higher loading capability contributed by cross-roller guides used
- Compact design offers slim table surface and other small mechanical dimensions
- Mechanical position-limit switch and sensor benefit operation safety and easy maintenance

### Naming rules:



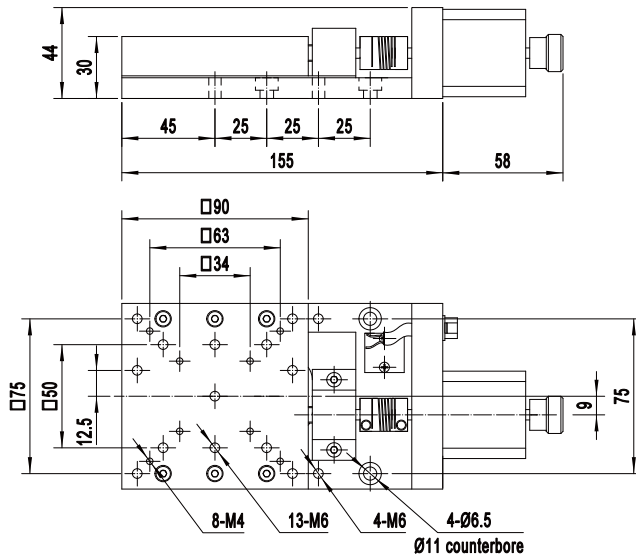
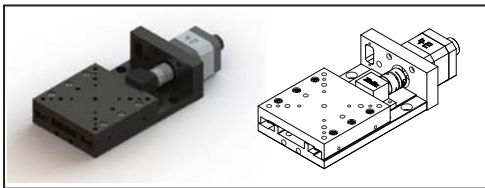
## Selection chart:

Model number		TSA30-C	TSA50-C
<b>Mechanical specifications</b>	Travel range(mm)	30	50
	Table dimensions(mm)	90×90	90×110
	Transmission mechanism	Grinding screws $\Phi 8 \times 1$	
	Guides (guiding mechanism)	Cross-roller guides	
	Main body materials and surface treatments	Black anodic-oxidation aluminum-alloy	
	Weight (Kg)	1.3	1.4
<b>Accuracy specifications</b>	Resolution (step/half-step) ( $\mu\text{m}$ )	5/2.5	
	8-fine-subdivision resolution ( $\mu\text{m}$ )	0.625	
	Highest speed (mm/s) *	10	
	Repositioning accuracy ( $\mu\text{m}$ )	$\leq \pm 5$	
	Backlash clearance ( $\mu\text{m}$ )	$\leq 7$	
<b>Electrical specifications</b>	Motor and its stepping angle ( $^{\circ}$ )	Two-phase 42 stepping motor, 1.8	
	Working current (A)	1.7	
	Torque of motor (N·m)	0.42	
	Position-limit sensors (built-in)	2*KX-EE-SX672	
	Origin-point sensors (built-in)	1*PI-ITR8104	
<b>Operating load</b>	Horizontal direction (Kg)	10	
	Vertical direction (Kg)	5	
	Invert direction (Kg)	3	

\* Highest speed is measured with the conditions of zero-load and motors being worked at 600rpm

## Dimensions:

TSA30-C



TSA50-C

