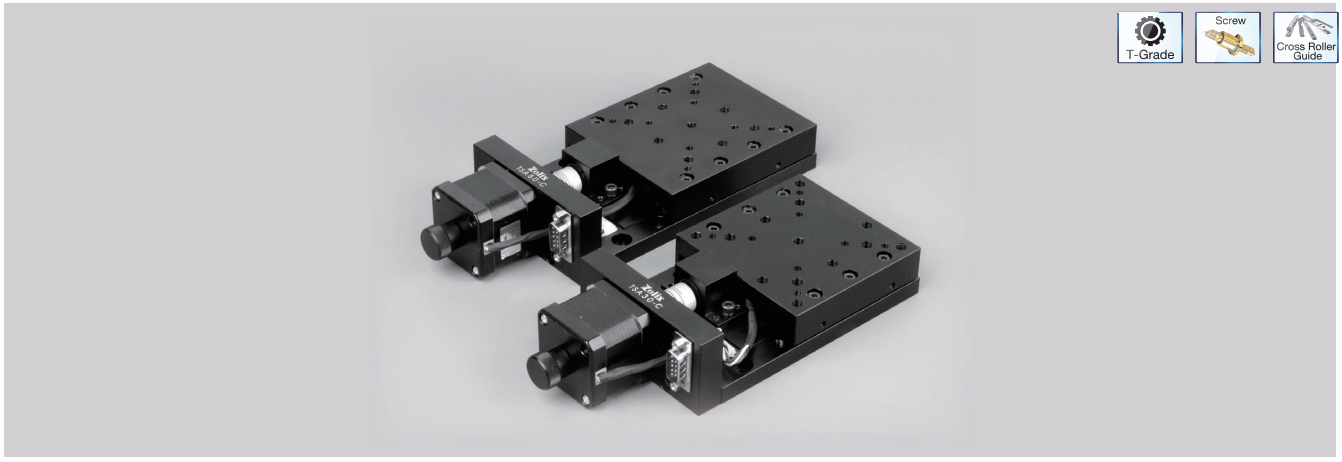
TSAxx-C Series Slim Motorized Linear Stages



Description:

The height of the table is 30mm, and the highest point of the stage is only 44mm. Grinding ball screws, crossed-roller guide and high-quality shaft coupling are equipped to ensure that high performance, is perfect for those high-precision and high-resolution motion required but limited-height-space scenarios. 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 hand wheel attached to the motor. This series 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. The characteristic of self-lock of grinding screws benefits the usage of this kind of products as Z-axis.

Features:

- Grinding screws(1mm lead pitch) and standard two-phase stepping motors offer higher performance and adaptability.
- Higher loading capability contributed by crossed-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:

TSA 50-C

TSA	50	C
Series code: TSA: standard precision, aluminum-alloy	Travel range: 30:30mm 50:50mm	C:Slim type

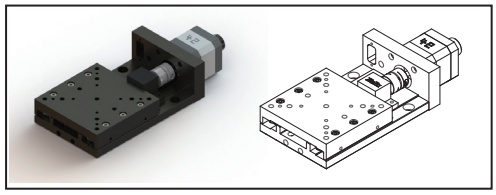
Selection chart:

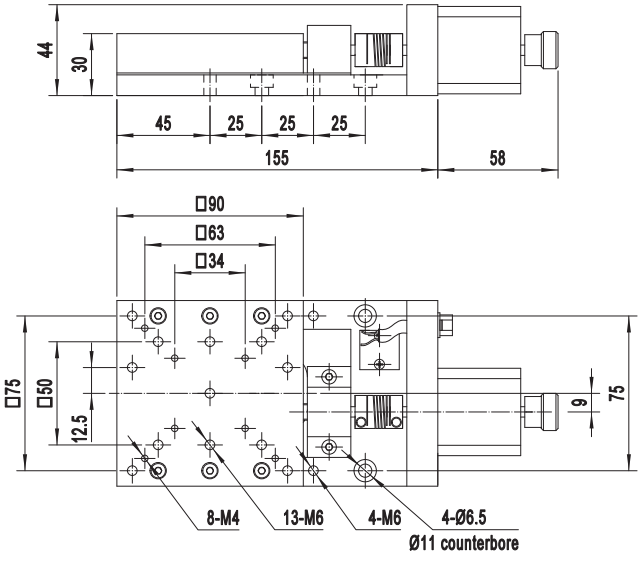
Model		TSA30-C	TSA50-C
Mechanical specifications	Travel range(mm)	30	50
	Stage surface size(mm)	90×90	90×110
	Transmission mechanism	Grinding screws Φ8×1	
	Guide mechanism	crossed-roller bearing guides	
	Main body material, surface treatment	Black anodized aluminum alloy	
	Weight(Kg)	1.3	1.4
Accuracy specifications	Resolution(step/half-step)(μm)	5/2.5	
	8-fine-subdivision resolution(μm)	0.625	
	Highest speed(mm/s)*	10	
	Repositioning accuracy(μm)	⩽±5	
	Backlash(μm)	⩽7	
Electrical specifications	Motor and its stepping angle(°)	Two phase 42 stepping motor, 1.8	
	Working current(A)	1.7	
	Holding torque of motor(N·m)	0.42	
	Position-limit sensors(built-in)	2×KX-EE-SX672	
	Origin-point sensors(built-in)	1×PI-ITR8104	
Maximum load capacity	Horizontal direction(Kg)	10	
	Vertical direction(Kg)	5	
	Inverted direction(Kg)	3	

*Note: Highest speed is measured under zero-load conditions with the motor running at 600 RPM.

Dimensions:

TSA30-C





TSA50-C

