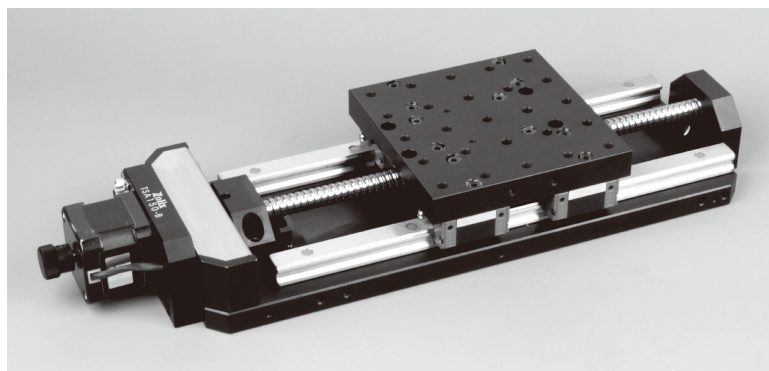


TSA-B series square guide motorized linear stages



Description:

TSA-B series motorized linear stages employ square guide as their core parts of guiding system. A set of industrial-grade ball screw and high-quality elastic shaft coupling contributes to high performance of this family of stages. A pair of mechanical position-limit switches (one at right end and the other at left end) and an origin-point sensor are all necessary parts to protect 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. TSA-B family is most applicable of heavy-loading and stable-running scenarios.

Main characteristics:

- 4mm-lead-pitch industrial-grade ball screws with two-phase stepping motor to offer high performance-to-cost ratio
- Linear-slider guides provides heavy-load capabilities for different applications

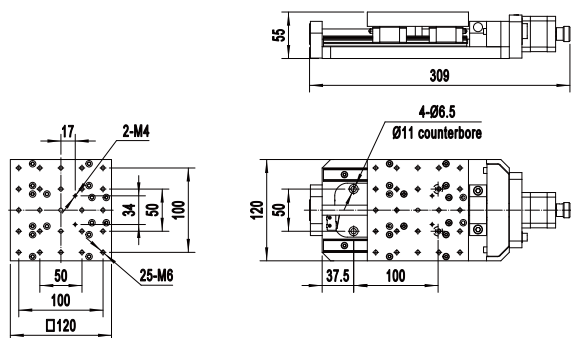
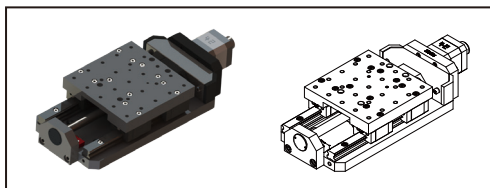
Selection chart:

| Model number | | TSA50-B | TSA100-B | TSA150-B | TSA200-B | TSA300-B |
|---------------------------|--|---------------------------------------|----------|----------|----------------------------------|----------|
| Mechanical specifications | Travel range(mm) | 50 | 100 | 150 | 200 | 300 |
| | Table dimensions(mm) | 120×120 | | | | |
| | Transmission mechanism | precise ball screws, Φ 12×4 | | | | |
| | Guides (guiding mechanism) | linear-slider guides | | | | |
| | Main body materials and surface treatments | Black anodic-oxidation aluminum-alloy | | | | |
| | Weight (Kg) | 3.4 | 3.7 | 4.1 | 4.6 | 5.3 |
| Accuracy specifications | Resolution (step/half-step) (μm) | 10/5 | | | 20/10 | |
| | 8-fine-subdivision resolution (μm) | 1.25 | | | 2.5 | |
| | Highest speed (mm/s) * | 40 | | | | |
| | Repositioning accuracy (μm) | ≤±5 | | | | |
| | Backlash clearance (μm) | ≤7 | | | | |
| Electrical specifications | Motor and its stepping angle (°) | Two-phase 42 stepping motor, 0.9 | | | 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 | | | | |
| Operating load | Horizontal direction (Kg) | 30 | | | | |
| | Vertical direction (Kg) | 3 | | | | |
| | Invert direction (Kg) | 5 | | | | |

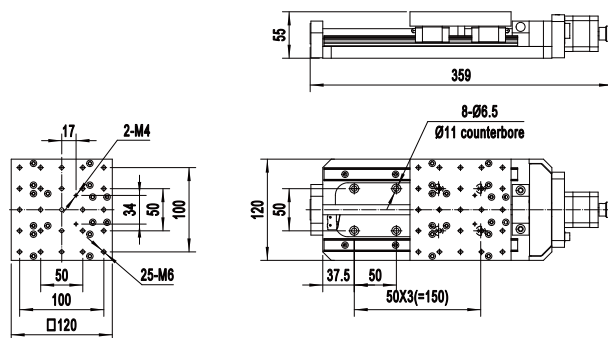
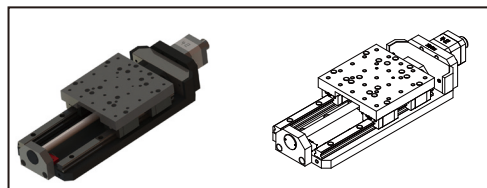
* Highest speed is measured with the conditions of zero-load and motors being worked at 600rpm

Dimensions:

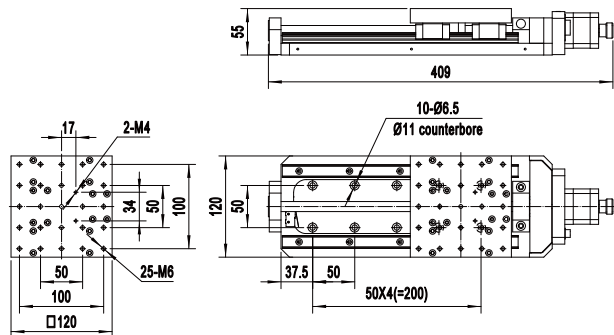
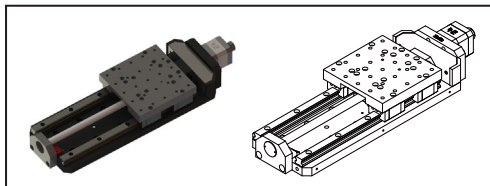
TSA50-B



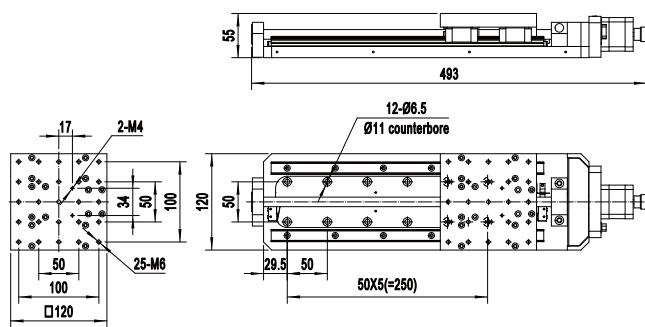
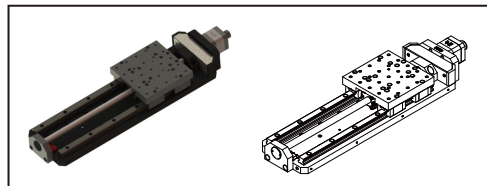
TSA100-B



TSA150-B



TSA200-B



TSA300-B

