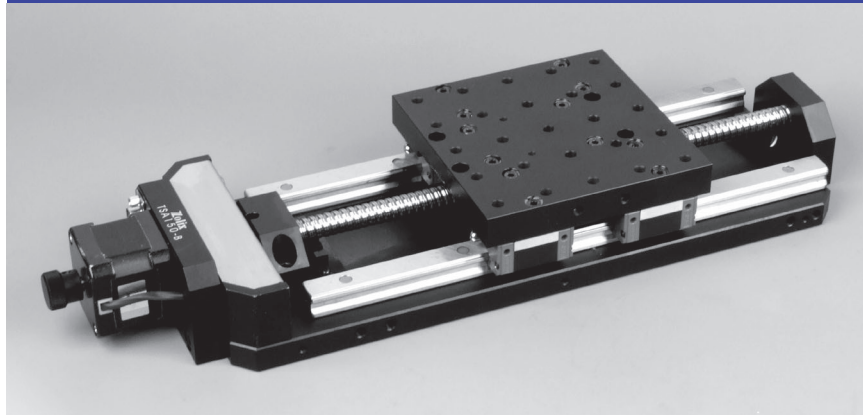


## TSAxx-B Series Square Guide Motorized Linear Stage



### Description:

TSA-B series motorized linear stages employ linear slider guide, industrial-grade ball screw and high-quality shaft coupling unit contributes to high performance. 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 hand wheel 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 series is most applicable of heavy-loading and stable-running scenarios.

### Features:

- Industrial-grade 4mm-lead-pitch ball screws with two-phase stepping motor to offer high performance and durability .
- Linear-slider guides provides heavy-load capabilities for different applications.

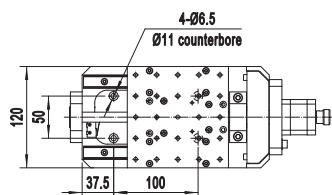
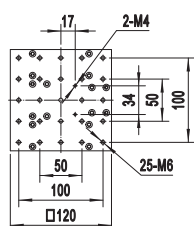
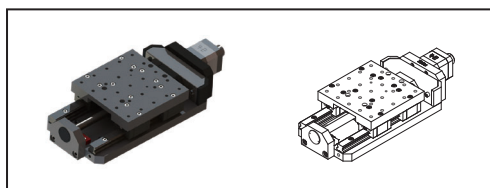
### Selection chart:

| Model                     |                                       | TSA50-B                          | TSA100-B | TSA150-B | TSA200-B                         | TSA300-B |
|---------------------------|---------------------------------------|----------------------------------|----------|----------|----------------------------------|----------|
| Mechanical specifications | Travel range(mm)                      | 50                               | 100      | 150      | 200                              | 300      |
|                           | Stage surface size(mm)                | 120×120                          |          |          |                                  |          |
|                           | Transmission mechanism                | precision ball screw, Φ12×4      |          |          |                                  |          |
|                           | Guide mechanism                       | linear-slider guides             |          |          |                                  |          |
|                           | Main body material, surface treatment | Black anodized 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(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                              |          |          |                                  |          |
|                           | 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)         | 30       |          |                                  |          |
| Vertical direction(Kg)    |                                       | 3                                |          |          |                                  |          |
| Inverted direction(Kg)    |                                       | 5                                |          |          |                                  |          |

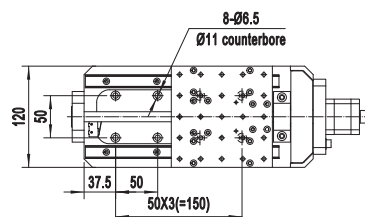
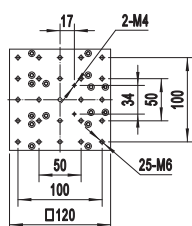
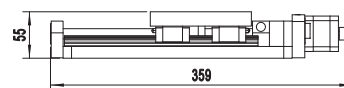
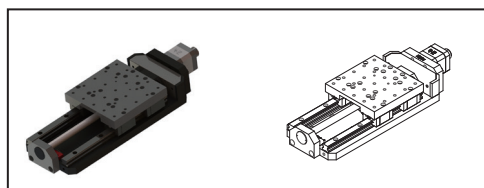
\*Note: Highest speed is measured under zero-load conditions with the motor running at 600 RPM.

## Dimensions:

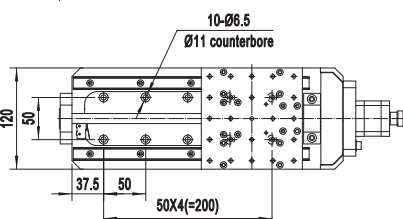
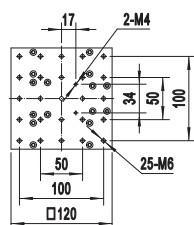
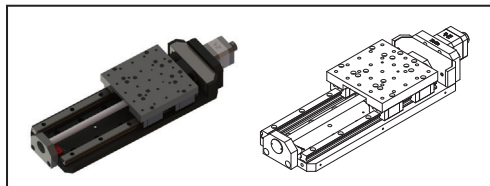
TSA50-B



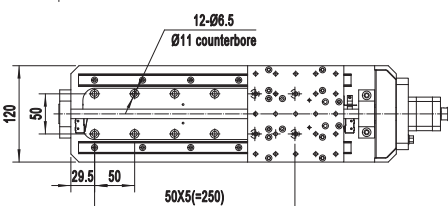
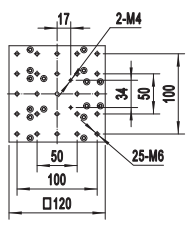
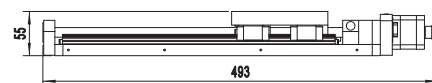
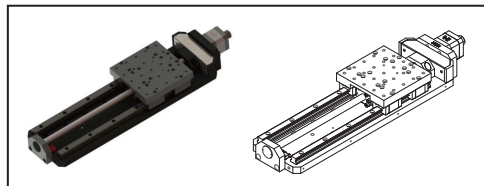
TSA100-B



TSA150-B



TSA200-B



TSA300-B

