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# 500mm Travel, High Load Capacity, Motorized Linear Stage, Integrated Controller with Encoder

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Zaber™ High Load Capacity Motorized Linear Stage

Stock **#25-174** **1 In Stock**

⊖ 1 ⊕ **\$7,056<sup>00</sup>**

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## Product Downloads

### General

Metric **Type:**

Yes **Encoder:**

Yes **Manual Control/ LED Indicators:**

Zaber Technologies Inc. **Manufacturer:**

**Note:**  
Requires a 24-48 VDC power supply and either [#15-295](#) for USB connectivity or [#15-297](#) for RS-232 connectivity. A data cable ([#15-296](#) or [#15-299](#)) can be used to daisy chain multiple stages together to control simultaneously.

Stepper (2 Phase) **Type of Motor:**

Rotary Quadrature Encoder **Encoder Type:**

## Physical & Mechanical Properties

Linear (X) **Type of Movement:**

Recirculating Ball Linear **Guide System:**

817.6 x 131.0 **Stage Size (mm):**

500mm **Travel (mm):**

225 (unidirectional) **Accuracy ( $\mu\text{m}$ ):**

<25 **Backlash ( $\mu\text{m}$ ):**

57.2 **Height (mm):**

510 **Load Capacity (kg):**

<4 **Repeatability ( $\mu\text{m}$ ):**

0.0002 to 240 **Speed (mm/s):**

1200 **Thrust (N):**

5.758 **Weight (kg):**

400 CPR **Encoder Resolution:**

120 **Cantilevered Load Capacity (N·m):**

## Optical Properties

0.390625 **Resolution ( $\mu\text{m}$ ):**

## Electrical

3600 **Maximum Operating Current (mA):**

## Hardware & Interface Connectivity

Precision Ball Screw **Type of Drive:**

24-48 VDC **Power Supply:**

RS-232 with [#15-297](#) **Computer Interface:**

## Environmental & Durability Factors

0 - 50 **Operating Temperature ( $^{\circ}\text{C}$ ):**

## Regulatory Compliance

[Compliant](#) **RoHS 2015:**

[View](#) **Certificate of Conformance:**

[Compliant](#) **Reach 247:**

## Product Details

- High Load Capacity of 510kg
  - 500 and 1000mm Travel Options
  - Integrated Controller and Encoder with 400 Counts per Revolution (CPR)
- Zaber™ High Load Capacity Motorized Linear Stages feature a load capacity of 510kg (5003N) making them ideal for factory automation applications where precise linear adjustments of heavy components are necessary. These

stages include a rotary quadrature encoder integrated into the stepper motor with 400 Counts per Revolution (CPR), as well as closed-loop control and slip/stall detection and recovery. Zaber™ High Load Capacity Motorized Linear Stages have an indexed knob providing versatility of analog control in the absence of digital input, as well as a flexible stainless steel dust cover to prevent the ingress of small particulates.

**Note:** A 24-48 VDC universal power supply (required), data cables for daisy chaining, and computer interface cables (USB or RS-232) are sold separately.

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