

75mm Travel, Motorized Linear Stage, Integrated Controller

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150mm Travel, Motorized Linear Stage, #15-289



Stock **#22-221** 1 In Stock

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+

C\$3,717⁰⁰

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General	
Universal (Metric & English)	Type:
No	Encoder:
Yes	Manual Control/ LED Indicators:
	Manufacturer:

Zaber Technologies Inc.	
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.	
Type of Motor: 2-Phase Stepper	
Physical & Mechanical Properties	
Type of Movement: Linear (X)	
Guide System: Recirculating Ball Linear Guide	
Stage Size (mm): 65 x 270.5	
Travel (mm): 75	
Accuracy (µm): 45 (unidirectional)	
Backlash (µm): <18	
Height (mm): 35.8	
Load Capacity (kg): 50	
Repeatability (µm): <3	
Speed (mm/s): 0.0003 to 280	
Thrust (N): <75	
Weight (kg): 1.2	
Optical Properties	
Resolution (µm): 0.49609375	
Electrical	
Maximum Operating Current (mA): <1450	
Hardware & Interface Connectivity	
Type of Drive: Precision Lead Screw	
Power Supply: Power Supply Required and Sold Separately: USA: #15-294 Europe: #15-294 Japan: #23-662 Korea: #33-773 China: #15-294	
Computer Interface: USB with #15-295 RS-232 with #15-297	
Environmental & Durability Factors	
Operating Temperature (°C): 0 - 50	
Regulatory Compliance	
RoHS 2015: Compliant	
Certificate of Conformance: View	
Reach 247: Compliant	

Product Details

- High Speed, 75mm, 150mm, 300mm, 450mm, and 600mm Travel Options
- Controlled Manually or via RS-232 Serial Interface
- Available with Integrated, 500 Counts per Revolution (CPR) Motor Mounted Encoder
- No Adapter Required for X-Y-Z Configurations

Zaber™ Long Travel Motorized Stages are computer-controlled stages capable of translation speeds of up to 280mm/s with 0.5µm resolution. Zaber™ Long Travel Motorized Stages can also be controlled using the [Zaber™ Programmable Joystick Controller](#) (sold separately), a computer using an optional RS-232 or USB data cable, or manually with the knob integrated into the motor unit. X-Y-Z configurations are easily assembled without the use of additional adapters. Encoder versions are available for all travel lengths, with 500 Counts per Revolution (CPR) rotary quadrature encoders integrated into the stepper motor. The integrated rotary encoder provides closed-loop control

and slip/stall detection and recovery.

Note: 24-48 VDC universal power supply, data cables for daisy chaining, and computer interface cables (USB or RS-232) are sold separately as accessories. Dust Cover Kits for all travel lengths can be found in the accessories tab, and are ideal for preventing dust particles from reaching the lead screw drive mechanism.

Technical Information

Device Overview / Connectors

Images are shown looking into the device.

Power

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Pin	Description
1	24 - 48 V
2	GND (Note: power supplies ground this pin to AC Earth)

Note: To prevent damage to the device due to static buildup, the device should be properly grounded. The power supplies for X-Series devices are non-isolated and thus ground the device chassis to Earth via the negative terminal of the power supply. If for any reason you are using an isolated power supply, please ensure your device is grounded by connecting the negative terminal of the power connector to AC Earth.

The diagram consists of three views of the device with various dimensions and labels:

- Top View:** Shows the top of the device with dimensions: 41.8 (height), 12.7 Spacing (for #8-32 screws), 12.5 Spacing (for M6 x 1.0 screws), 25 (width), 2.5 at Home, 3.5, 20, 6.5, 50, 6, 44, and 12 (total length).
- Side View:** Shows the side of the device with labels: LEDs, Power In, Data Cables, and a dimension of 7.3.
- Front View:** Shows the front of the device with dimensions: 14, 99, 6, and 12 (total length).
- Mounting Holes:** A detailed view of the mounting holes with dimensions: 64, 25, 65, 38.8 to Top of Carriage, 15.6, and 45.3.

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