

300mm Travel, Motorized Linear Stage, Integrated Controller, Encoder

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



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1 AS\$6,056⁰⁰

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Volume Pricing

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Product Downloads

General

Type:
Universal (Metric & English)

Encoder:
Yes

Manual Control/ LED Indicators:
Yes

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.

Type of Motor:
2-Phase Stepper

Encoder Type:
Rotary Quadrature Encoder

Physical & Mechanical Properties

Type of Movement:
Linear (X)

Guide System:
Recirculating Ball Linear Guide

Stage Size (mm):
65 x 511.2

Travel (mm):
300

Accuracy (µm):
50 (unidirectional)

Backlash (µm):
<18

Height (mm):
43.1

Load Capacity (kg):
50

Repeatability (µm):
<3

Speed (mm/s):
0.0003 to 280

Thrust (N):
<75

Weight (kg):
1.8

Encoder Resolution:
500 CPR

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

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.

