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Manual Stages

Motorized Stages

Multi-Axis
Platforms

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Linear Translation

Microscopy Stages

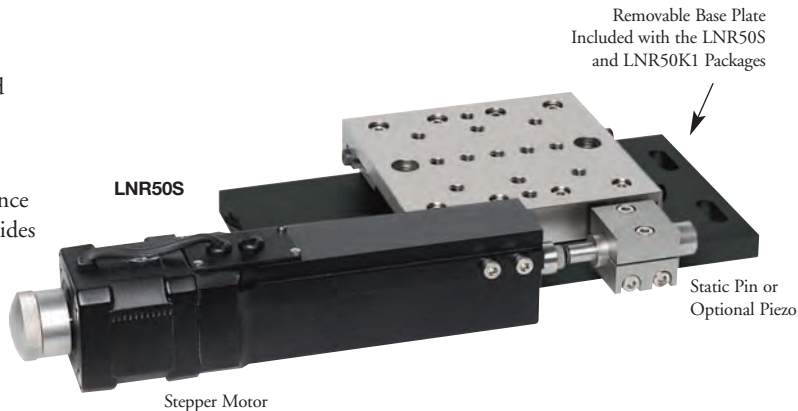
Rotation

Goniometers

2" TravelMax™ Stage with Stepper Motor

Features

- Solid Steel Stage Construction
- Stepper Motor Drive with Precision Ground Trapezoidal Leadscrew
- Heavy-Duty Cross Roller Bearings
- Thermally-Matched Steel Construction
- Offers Excellent Dynamic-Torque Performance
- High-Precision, Home-Position Sensor Provides Excellent Repeatability
- Optional Piezo Actuators (See Page 605)



Motorized TravelMax Cross-Roller-Bearing Stage

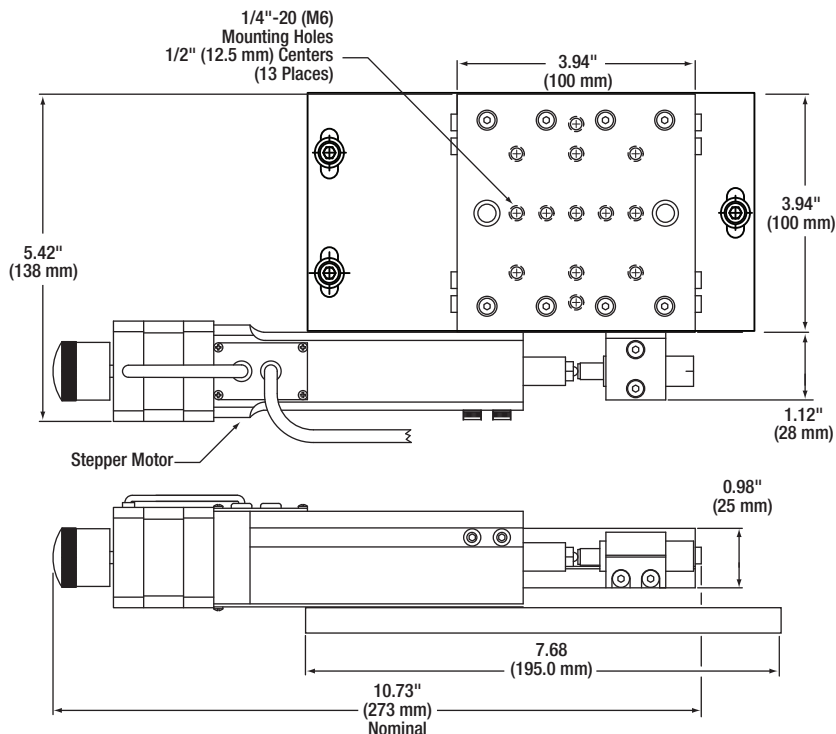
Combining the TravelMax stage with our DRV014 high-performance stepper motor based actuator provides true nanopositioning capability. The stepper motor actuator uses a trapezoidal-shaped 1 mm/rev pitch leadscrew that provides a high load carrying capability. When used with the BSC101 stepper motor driver a step size of 50 nm is achievable.

The exceptional performance of the LNR50S is a result of the rigid all steel construction of the stage combined with the sophisticated design of the DRV014 actuator. The high-quality, cross-roller-bearing rails can carry loads up to 10 times larger than equivalent-sized ball slides. The precision-ground shafts provide excellent straight line accuracy and the alternately crossed rollers can handle force in any direction. The performance is further enhanced by using thermally matched materials that ensure stability and uniform performance over the entire 2" (50 mm) range of motion.

The modular design of the LNR50 family of stages allows optional elements (such as piezo actuators – see page 605) to be added to the platform within minutes. The top and bottom surfaces of the LNR series stages are equipped with an array of 1/4"-20 (M6 x 1.0) tapped holes to maximize the mounting flexibility of components. The LNR50P1 baseplate and LNR50P2 angle bracket allow the LNR series of stages to be configured in left- or right-handed orientations in XY, XZ, or XYZ systems – see page 493.

LNR50S (LNR50S/M) Specifications

- **Travel Range:** 2" (50 mm)
- **Recommended Controller:** BSC101
- **Max Velocity:** 8 mm/sec
- **Stage/Bearing Construction:** Steel/Crossed Roller Bearing
- **Bidirectional Repeatability:** 0.5 μ m
- **Backlash:** <6 μ m
- **Min Achievable Incremental Movement:** 50 nm
- **Max On-Axis Load Capacity (Vertical):** 22 lbs (10 kg)
- **Max On-Axis Load Capacity (Horizontal):** 66 lbs (30 kg)
- **Absolute On-Axis Accuracy:** 10 μ m
- **Max Percentage Accuracy:** 0.02%
- **Home Location Accuracy:** <2 μ m
- **Pitch:** 0.03°
- **Yaw:** 0.015°
- **Weight:** 6.2 lbs (2.82 kg)



2" (50 mm) TravelMax Stage with Stepper Motor Actuator

ITEM #	METRIC ITEM #	\$	£	€	RMB	DESCRIPTION
LNR50S	LNR50S/M	\$ 1,820.00	£ 1,310.40	€ 1,583.40	¥ 14,505.40	2" (50 mm) TravelMax, Stepper Motor Drive