

For current pricing, please see our website.

CHAPTERS

Manual Stages

Motorized Stages

Multi-Axis Platforms

Actuators

Controllers

SECTIONS

Linear Translation

Rotation

Goniometers

# TravelMax™ 2" Travel, Cross Roller Bearing Stage (Page 1 of 2)

## TravelMax™ Cross Roller Bearing Stage

When stability, long travel, and high load capacity are crucial, the TravelMax™ series of stages provide an ideal solution. The precision-ground bearing rails provide excellent straight line accuracy, and the alternately crossed rollers can handle force in any direction. The performance is further enhanced by utilizing thermally matched materials that ensure stability, even in less-than-ideal conditions. The rigidity of the all-stainless-steel construction, along with the heavy-duty cross roller bearings, provides uniform performance over the entire 2" (50 mm) range of motion.

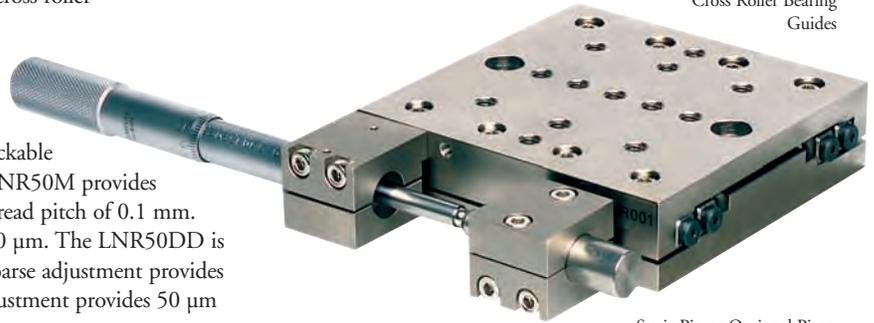
Two drive options are available to suit an array of application requirements. The lockable standard micrometer supplied with the LNR50M provides a 2" (50 mm) translation range with a thread pitch of 0.1 mm. The vernier provides graduations every 10 μm. The LNR50DD is equipped with a differential drive. The coarse adjustment provides 0.5 mm per revolution while the fine adjustment provides 50 μm per revolution.

## Features

- Heavy-Duty Cross Roller Bearings
- Thermally Matched All Steel Construction
- Right- or Left-Handed XYZ Configurable
- Micrometer or Differential Drives
- Optional Piezo Actuators (See Page 605)
- 1/4"-20 (M6 x 1.0) Mounting Holes

**NEW**  
versions

**LNR50M**  
All-Stainless Steel  
2" (50 mm) Travel  
Translation Stage with  
Cross Roller Bearing  
Guides



Static Pin or Optional Piezo (See Next Page)

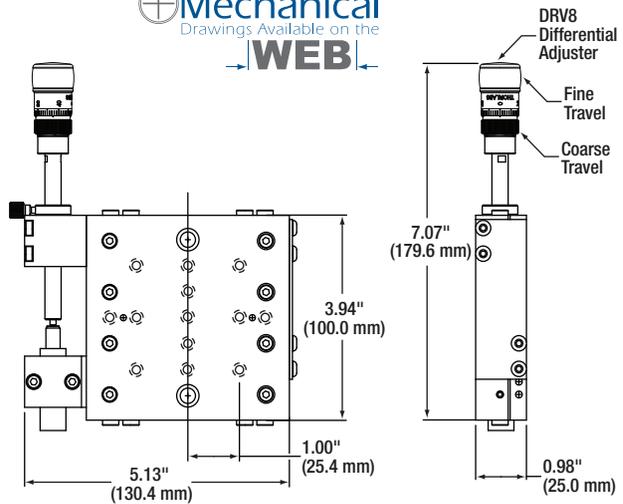
### Stage Specifications

- **Travel:** 2"
- **Horizontal Load Capacity:** 66 lbs (30 kg)
- **Vertical Load Capacity:** 22 lbs (10 kg)
- **Weight with Drive:** 4.2 lbs (1.9 kg)
- **Angular Deviation:** ±10 μm
- **Repeatability:** 0.8 μm

While the LNR series was designed to provide the stability and rigidity required for motorized operation, many customers have requested that the LNR series be made available with manual adjusters. The motorized counterparts can be found on pages 514 – 516.

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, making it possible to upgrade your manually controlled LNR series stage at some future point if your needs change. 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 base plate and LNR50P2 angle bracket allow the LNR series to be configured in left- or right-handed XY or XYZ systems – see next page for ordering information on the base plate and angle bracket.

Mechanical  
Drawings Available on the  
**WEB**



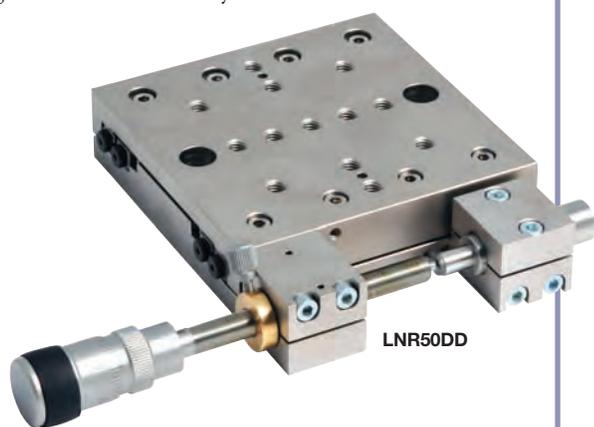
SPECIFICATIONS	GRADUATION SPACING	TRAVEL	BARREL	STAGES
Metric Micrometer Drive	10 μm	500 μm/rev	Ø1/2"	LNR50M, LNR50M/M
Differential Micrometer Drive	–	0.5 mm/rev	Ø1/2"	LNR50DD, LNR50DD/M
	1 μm	50 μm/rev		

\*Thumbscrew locking mechanism for coarse actuator.

# TravelMax™ 2" Travel, Cross Roller Bearing Stage (Page 2 of 2)

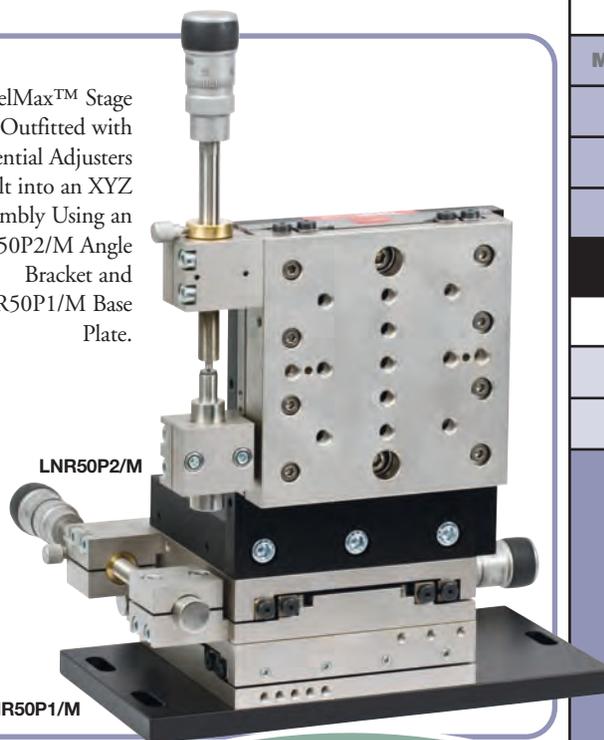
## Mounting Options and XYZ Configurability

The TravelMax™ was designed with flexibility and functionality in mind. The top and bottom surfaces of the LNR series of stages are equipped with a wide array of 1/4"-20 (M6 x 1.0) tapped holes to maximize the mounting flexibility of components. The LNR50P1 Base Plate and LNR50P2 Angle Bracket allow these stages to be configured in left- or right-handed XY or XYZ systems.



LNR50DD

TravelMax™ Stage  
Outfitted with  
Differential Adjusters  
and Built into an XYZ  
Assembly Using an  
LNR50P2/M Angle  
Bracket and  
LNR50P1/M Base  
Plate.



LNR50P2/M

LNR50P1/M

Manual Stages      See Our Motorized Stages Chapter for Details on these Specialized Products      Motorized Stages  
See Page 514

## Motorized Stages

The LNR Series stages are also offered with high-performance stepper or DC motors. Complete specifications for our TravelMax™ stages outfitted with stepper and DC motors can be found on pages 514 - 516.



## TravelMax™ Angle Bracket



LNR50P2/M

## TravelMax™ Base Plate



LNR50P1/M

## Micrometer Drive TravelMax™ Stage

ITEM #	METRIC ITEM #	\$	£	€	RMB	DESCRIPTION
LNR50M	LNR50M/M	\$ 920.00	£ 662.40	€ 800,40	¥ 7,332.40	2" TravelMax™ Stage with Micrometer Drive
LNR50DD	LNR50DD/M	\$ 950.00	£ 684.00	€ 826,50	¥ 7,571.50	2" TravelMax™ Stage with Differential Drive
LNR50P1	LNR50P1/M	\$ 68.00	£ 48.96	€ 59,16	¥ 541.96	0.8" (20 mm) Thick TravelMax™ Series Adapter Plate
LNR50P2	LNR50P2/M	\$ 98.00	£ 70.56	€ 85,26	¥ 781.06	TravelMax™ Series Angle Mounting Bracket

NEW



## Upgradeable to Piezoelectric-Assisted Drives

Referring to the photograph at the top, the LNR50M stage includes a "static pin" that provides a stop for the manual drive. This pin is easily removable and can be replaced with a piezoelectric transducer to complement the manual drive, as shown on the left. Details of compatible piezo actuators can be found on page 605.