

Microscopy Stage Kits and Accessories

Thorlabs offers several microscopy stages and accessories for use with select Olympus, Nikon, and Zeiss microscopes. We offer Microscopy Stage Kits that bundle the stage, controller, and (if required) adapters for each microscope model. The table to the right can provide assistance in choosing the optimal stage for your application.

For high-precision XYZ positioning, also consider our MicroScan piezo-driven stage, which is compatible with our entire MAX series of stages (see page 1424 for details).

Motorized XY Stage Item Number	Microscope Slide / Petri Dish Sample Plate Available	Magnetic Steel Sample Plate Available	Multi-purpose Sample Plate with an Array of Tapped Holes Available	Well Plate Compatible	Compatible with SCXYZ100 Piezo Positioning Sample Stage	Compatible with Olympus IX Microscopes	Compatible with Nikon TE2000 Microscopes using the MAX200A1 Adapter	Compatible with Zeiss Axiovert 200 Microscopes
MAX200	✓	✓	✓	✓	✓	✓		
MAX201	✓	✓	✓	✓	✓	✓		
MAX202	✓			✓	✓	✓	✓	
MAX203	✓			✓	✓	✓	✓	

XY Microscopy Stage Kits (Page 1 of 2)

SPECIFICATIONS	MAX200 (OPEN-LOOP)	MAX201 (CLOSED-LOOP)
Travel	75 mm x 50 mm (3" x 2")	
Maximum Speed	10 mm/s	
Accuracy	5 μm	1 μm
Repeatability (Unidirectional)	1 μm	
Resolution (Microstep Size)	40 nm	
Load Capacity (Max)	5 kg	
Cable Included	PAA613	PAA628
Compatible with Olympus IX	Yes	
Compatible with Zeiss Axiovert 200*	No	
Compatible with Nikon TE2000**	Yes	

* The Zeiss Axiovert 200 is not compatible with either the MAX200 or MAX201. However, it is directly compatible with MAX202 and MAX203 (see following pages).

** The Nikon Stage Kits include the necessary MAX200A1 adapter mount any of the MAX200 Series stages to the Nikon TE2000 microscope.

The XY Microscopy Stage Kits include our MAX200 or MAX201 motorized two-axis sample stage and associated controller. For specific types of samples, we offer a variety of sample holders that fit into these stages (see following page). The MAX201 differs from the MAX200 because a precision glass scale linear encoder has been added to each stepper motor. The encoder improves the accuracy with which the sample can be positioned from 5 μm to 1 μm. The stepper motors in all MAX series microscopy stages have 200 steps per revolution.

The BSC102 high-precision two-channel stepper motor controller (see next page) is included in each kit. It is capable of taking 128 microsteps for every full step, resulting in 25,600 microsteps per revolution, which leads to a linear microstep size of 40 μm. For even greater positioning resolution, both the MAX200 and MAX201 can be fitted with the modular SCXYZ100 closed-loop piezo stage insert for a resolution of 25 nm over the travel range of the piezo stage (see page 1424 for more information).



- Compact, Low-Profile Design
- 75 mm x 50 mm of XY Travel
- Kits Available for Olympus IX and Nikon TE2000 Series Microscopes
- Includes Stage, Controller, and Adapter (for Nikon TE2000 Microscopes)
- Compatible with SCXYZ100 High-Speed Piezo Stage
- Encoded and Non-Encoded Versions Available

MAX200 Stage with SCXYZ100 Piezo Module Mounted on an Olympus IX71 Microscope



XY Microscopy Stage Kits (Page 2 of 2)

MAX200 Series Controller



BSC102
(Included with
Microscopy Stage Kits)

Specifications

- **Input/Output:**
 - Motor Drive Channel (15-Pin D-Type Female)
 - 2-Phase Bipolar Motor Drive Output
 - Differential Quadrature-Encoder Interface
 - Forward/Reverse Limit Switch Inputs
 - Motor Control (15-Pin D-Type Female)
 - Jog Forward/Back
 - Enable/Disable Interlock
 - User Logic Outputs/Inputs
 - Single-Ended Analog Input (0-10 V)
 - Trigger In/Out
- **Motor Power:** up to 48 V/50 W (peak)
- **Resolution:**
 - 128 Microsteps per Full Step
 - 200 Step Motor: 25,600 Microsteps/Revolution
- **Input Power Requirements:**
 - Voltage: 85-264 VAC
 - Power: 200 W
 - Fuse: 3.15 A
- **Motor Speeds:** up to 600 RPM (for 200 Full Step Motor)
- **Encoder Feedback Bandwidth:** 500,000 counts/sec
- **Housing Dimensions (W x D x H):** 240 mm x 360 mm x 133 mm (9.5" x 14.2" x 5.2")

Olympus IX Series-Compatible XY Stage Kits with Controller

ITEM#	\$	£	€	RMB	DESCRIPTION
MAX200B	\$ 5,320.00	£ 3,688.00	€ 4,724.00	¥ 44,923.00	XY Stage and Controller, 5 µm Accuracy
MAX201B	\$ 8,228.00	£ 5,704.00	€ 7,305.00	¥ 69,478.00	XY Stage and Controller, 1 µm Accuracy

Nikon TE2000 Series-Compatible XY Stage Kits with Controller and Nikon TE2000 Adapter

ITEM#	\$	£	€	RMB	DESCRIPTION
MAX200B-NIK	\$ 5,320.00	£ 3,688.00	€ 4,724.00	¥ 44,923.00	XY Stage, Controller, and Nikon TE2000 Adapter, 5 µm Accuracy
MAX201B-NIK	\$ 8,228.00	£ 5,704.00	€ 7,305.00	¥ 69,478.00	XY Stage, Controller, and Nikon TE2000 Adapter, 1 µm Accuracy

Sample Holders for XY Stage Kits

Microscope Slide and Petri Dish Holder: MAX200P1

- Sample Secured with a Clip
- Compatible with Standard Microscope Slides and Ø35 mm Petri Dishes
- Dimensions: 128 mm x 136 mm x 2 mm (5.04" x 5.35" x 0.08")



MAX200P1

Tapped Multipurpose Sample Holder: MAX200P2(/M)

- Multipurpose Sample Holder with Array of Tapped Mounting Holes
- Compatible with Standard Microscope Slides and Ø35 mm Petri Dishes
- 63 1/4"-20 (M6 x 1.0) Holes and 86 #4-40 (M3 x 0.5) Holes
- Dimensions: 129 mm x 137 mm x 4 mm (5.08" x 5.39" x 0.16")



MAX200P2



SCXYZ100B

Microscan Piezo XYZ Slide Holder and Controller: SCXYZ100B

- Piezo-Driven Sample Holder Compatible with All MAX Series Stages
- 25 nm Positioning Resolution
- X- and Y-Axis Travel: 100 µm
- Z-Axis Travel: 80 µm
- Includes BPC203 3-Axis Piezo Controller (See Page 568)

ITEM#	\$	£	€	RMB	DESCRIPTION
MAX200P1	\$ 190.00	£ 131.80	€ 168.70	¥ 1,604.40	Microscope Slide/Petri Dish Sampler Holder
MAX200P2	\$ 119.00	£ 82.50	€ 105.70	¥ 1,004.90	Tapped Sample Holder with 1/4"-20 and #4-40 Holes
MAX200P2/M	\$ 119.00	£ 82.50	€ 105.70	¥ 1,004.90	Tapped Sample Holder with M3 and M6 Holes
SCXYZ100B	\$ 9,990.00	£ 6,926.00	€ 8,870.00	¥ 84,356.00	Piezo XYZ Slide Holder and Controller, 25 nm Accuracy