

MP-225 MOTORIZED MICROMANIPULATOR

MP-225 电动显微操作器



The **MP-225** is one of the newer products in the Sutter Instrument micromanipulator line. Production and design changes have allowed us to produce a motorized manipulator that is a more affordable alternative to the industry standard **MP-285**. While the **MP-225** feature set is less comprehensive than the **MP-285**, it includes the most popular features with a simpler user interface. The mechanical design utilizes a miniature stepper motor and integral anti-backlash gear head. Pre-loaded ball bearing slides provide smooth movement throughout the 25mm of travel. The controller uses low-noise, linear-drive output circuitry identical to that found in the **MP-285**. The methodology for mounting pipette holders and headstages used with the **MP-285** has been maintained in the **MP-225** to allow for cross compatibility.

The **MP-225** is designed primarily for positioning patch and intracellular recording pipettes. We have retained and refined the features most desired for this type of work. An extended version of the popular rotary optical encoder (ROE) is the sole input device available with the **MP-225**. Like the **MP-285**, the manipulator has a synthetic 4th axis for diagonal advancement of the pipette; 16 different angles are selectable via DIP switches. Speed and resolution of movement are easily selected with a multiple position thumbwheel, allowing fast/coarse movement and slow/ultra-fine movement in 10 increments. Two commonly used robotic movements have been incorporated for user convenience. A single button press can initiate a move to a Home position for pipette exchange or to a user defined Work position for quick location of the pipette.

马普科学仪器有限公司

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near the recording location. A display on the ROE gives position location. As all controls are located on the ROE, the controller can be moved to a less accessible area of your setup and does not need to occupy prime space in an equipment rack.

As always, our technical support team is available to address your particular needs and answer all questions before and after your purchase.

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FEATURES > MP-225	SPECIFICATIONS > MP-225
<p>Highly stable for experiments intolerant of pipette drift</p> <p>Submicron (62.5nm) minimal resolution for fine movement</p> <p>Convenient thumbwheel selects resolution/speed of movement</p> <p>25mm of motorized travel on all three axes</p> <p>4th axis for coaxial movement of pipette, angle selected by DIP switches on ROE</p> <p>ROE button press actuates move to Home position for pipette exchange</p> <p>ROE button press actuates move to Work position near recording location</p> <p>Continuous display (in microns) of axes positions located on ROE</p> <p>DIP switches on ROE select direction of movement produced by turn of ROE knob</p> <p>Modularized, compact design easily adaptable to your setup</p> <p>Universal mounting system for headstage or pipette holder</p> <p>Mounting adapters included with manipulator</p>	<p>Travel 25mm on all three axes</p> <p>Resolution Six microstep sizes selectable ($\mu\text{m}/\text{ustep}$): 0.0625, 0.125, 0.25, 0.5, 1.0 and 2.0</p> <p>Finer movement settings use the 62.5nm microstep size but fewer microsteps are commanded per encoder knob turn</p> <p>Maximum Speed 2.0mm/sec</p> <p>Long Term Stability 1-2 $\mu\text{m}/\text{hour}$ maximum</p> <p>Drive Mechanism Integral miniature stepper motor anti-backlash gearhead</p> <p>Dimensions Mechanical: 4in x 5.5in x 6in 10cm x 15cm x 15.5cm</p> <p>Controller: 4in x 16in x 12.25in 10cm x 40.5cm x 31cm</p> <p>Weight Manipulator: 2.95lbs /1.3kg Controller: 10lb 11oz/4.5kg</p> <p>Electrical 115/230 Volts 50/60 Hertz power line</p>



US PRICES
► **MP-225**

*International prices are 5% higher.
Prices subject to change without notice.*

Motorized Micromanipulator

MP-225 Includes manipulator, table top controller unit, extended ROE, hinged headstage mount, cables, rod holder, 4in dovetail extension, mounting adapter plate, screws, hex wrench, power cord and manual*

For detailed information on mounting our micromanipulators, refer to the Translators, Stages, & Mounting section or phone for assistance.

** Indicate right- or left-handed set-up when ordering.*

ACCESSORIES

X285204	4 inch dovetail extension
X285210*	Mounting adapter plate
225RBI	Rotating base for MP-225
X285300	Right angle adapter
X285305	Z-axis vertical extension
X285310	Z-axis horizontal extension

** For use with MT and MD stands and platforms, or any surface with one inch centered holes.*

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