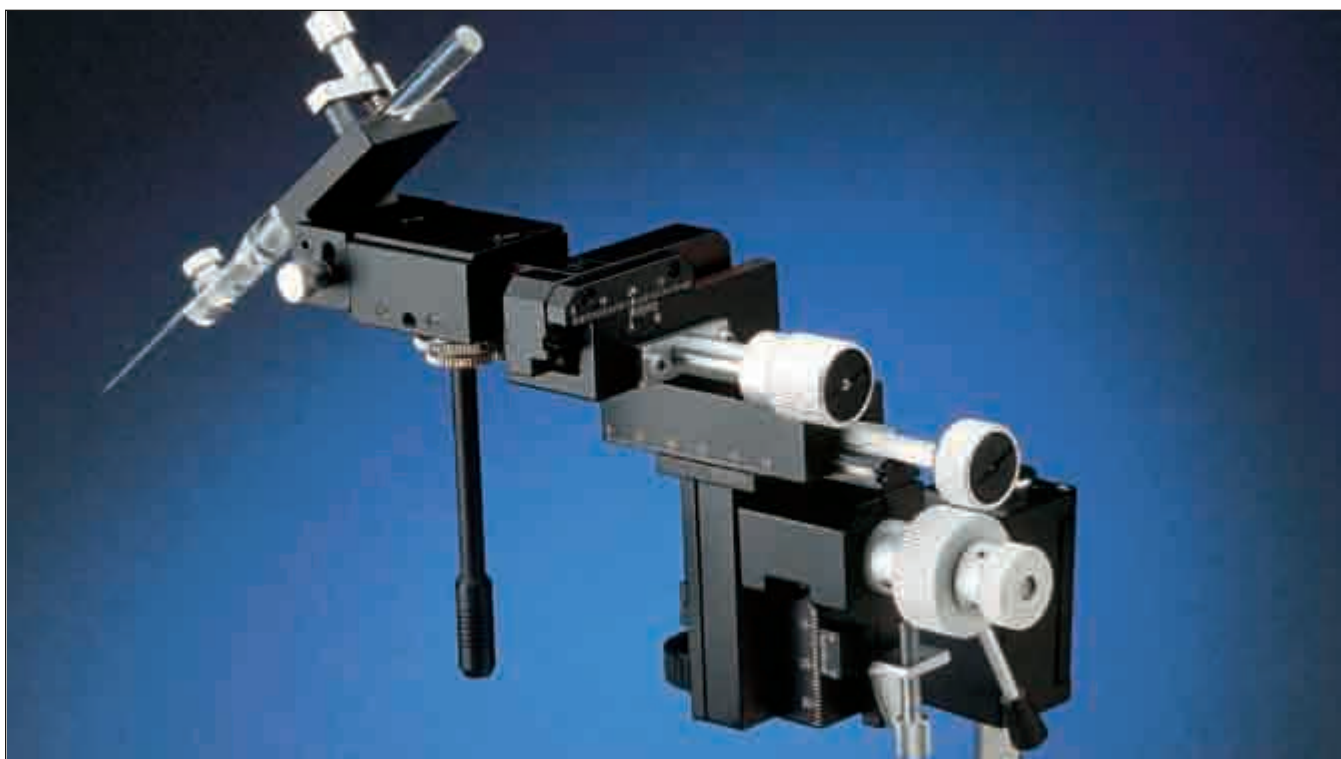


Joystick

micromanipulators

Micromanipulator Joystick

Simple, multi-dimensional control



micromanipulators

Cell Biology

- Joystick reduction gear ratio from 1:15 to 1:150
- Fine positioning on Z-axis (vertical) gives 3 mm (0.12 in) of movement per revolution
- Lever tips the tool quickly for such actions as hanging a petri dish and the preset stop returns tool tip to focus plane
- Stop screw prevents damaging probe tip
- Probe holder tilts to 90°
- Available for right- or left-handed use

With this very sensitive mechanical joystick micromanipulator, motion, even in the micron range, is possible. This micromanipulator is so stable and strong that it can accommodate even piezo-steppers. Joystick micromanipulators provide movement of probes that are direct reductions of the speed and direction of the hand movement. Under the microscope, the probe appears to move directly with the hand.

Typical applications for the Joystick micromanipulator are positioning of holding pipettes, to grab and hold freely mobile cells, or the manipulation of larger cells. The joystick drives the probe in the X (probe) and Y (horizontal) directions. The reduction of the joystick travel relative to the hand may be adjusted from 1:15 to 1:150. The travel of the joystick ranges from 0.35 to 4 mm (0.014 to 0.16 in) depending on the reduction gear ratio being employed.

The Z-axis also has a fine movement with a reduction gear ratio of 1:10 relative to the coarse movement. This fine movement is operated by a further knob on the Z-axis providing 3 mm (0.12 in) of movement per

revolution. The Z-axis has a lever on the coarse adjust which enables the operator to lift the tool tip quickly for such operations as changing a petri dish. A preset stop ensures that the tool tip will return to the previous focusing plane when again lowered. The stop screw prevents the probe from being inadvertently broken by being driven into the slide or dish. The stop screw also prevents downward drift of the micromanipulator so that the pipette or electrode may be left in a stable position over a long period of time. The probe holder may be tilted up to 90°.

This joystick micromanipulator is offered in right- or left-handed versions. It is also offered with a mounting clamp for a 13 mm (½ in) OD vertical rod or with a wide table clamp, when particularly stable mounting is required.

Joystick Micromanipulator Coarse Positioning

Axis	Travel
X (probe)	37 mm (1.45 in)
Y (horizontal)	20 mm (0.79 in)
Z (vertical)	25 mm (1 in)

Order # Product

W4 60-0582	Right-Handed Joystick Micromanipulator with Mounting Clamp for 13 mm (0.5 in) Rod
W4 60-0583	Left-Handed Joystick Micromanipulator with Mounting Clamp for 13 mm (0.5 in) Rod
W4 60-0604	Tool Holder, pkg. of 3
W4 69-1066	10 mm Rod Clamp, for use with Magnetic Bases
W4 69-1067	12 mm Rod Clamp, for use with Magnetic Bases