



Extreme stability and accuracy miniaturized

Triple and quad axis manipulators:
20 mm range with 5 nm resolution

ZERO DRIFT piezo drives provide
extreme stability

One controller - control up to 65536
manipulators in synchrony

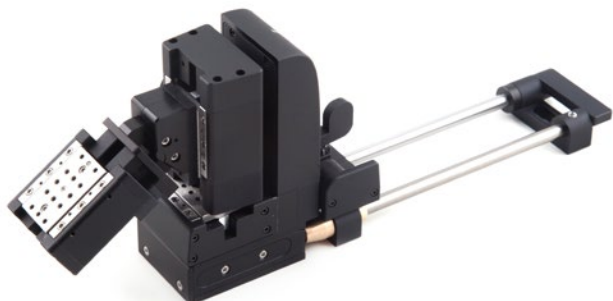
Free graphical user interface and
open source SDK for PC control

www.sensapex.com

“A good micromanipulator is solidly constructed and compact, so that the moment arm from the tip of the electrode, through the body of the manipulator, to the cell in the chamber, is as short as possible. Ideally, the micromanipulator should be attached close to the chamber; preferably bolted directly to the microscope stage.”

“Importantly, approaching a cell at the lower speeds is smooth with minimal tip vibration thus minimizing tissue and cell disruption during patch formation. Once a recording is established in cell-attached or whole-cell modes the manipulators are extremely stable allowing for prolonged monitoring of neuronal activity.”

Dr. Kenneth Pelkey, McBain lab, NIH.



Micromanipulator (uMp-3 | 4)

Positioning range:	20x20x20 mm ³ (XYZ)
Resolution / repeatability:	5 nm / 100 nm
Max. speed:	5 mm/s
Load:	0 - 150 g
True approach angle:	0 - 45 90* degrees
4th axis:	virtual physical (optional)
Table mounting:	Bolt
Electrode exchange**:	Slide + flip rotate
Dimensions:	39x93x101 mm

*Requires 4th physical axis

**Handedness, mounting and electrode exchange options are customer exchangeable



Touch Screen Controller (uM-TSC)

- Intuitive user interface with touch screen display
- Easy speed adjustment and manipulator selection
- Programmable memory positions
- Two RWs per controller; max. 65536 manipulators*
- Simultaneous lift / lowering feature
- Fast computer interface through Ethernet
- Graphical user interface for PC and open source SDK

Batteries: Li-ion (rechargeable), full working day usage time

AC charger: 90-264 V, 50-60 Hz

Dimensions: 120x95x123 mm

*Connecting more than two manipulators requires hub

Rotary Wheel remote interface (uM-RW3 | 4)

- Four knob version available for 4th virtual or physical axis
- Quick buttons for speed and manipulator selections
- USB connector to Touch Screen Controller

Dimensions: 170x53x170 mm



Plug and play systems starting from* \$8150 | 7150 €

*Delivery costs not included - local pricing may vary