



# MTK-1VM Four-axis Hanging Joystick Oil Hydraulic Micromanipulator

## Micromanipulator with revolutionary one step micropipette positioning system, designed for handling suspension cells

The Takanome MTK-1VM micromanipulator has a revoluntionary one step micropipette positioning system, allowing for micropipette angle adjustment.

Once having been set, the innovative fan-shaped driver never fails to return to where the pipette tip is supposed to be. The newly installed lever allows a pipette to move along its axis by using a traditional and smooth oil hydraulic joystick.

This manipulator will spare the laborious work of a pipette alignment with the optical axis, providing more time for objective operation.

Installation is quick, with adjustments possible for a wide variety of different user preferences.

The simple motorless microscope operation helps ensure an uncluttered environment.

- Quick and easy pipette attachment
- Adjustable pipette angle whilst still in view
- Simple retraction for dish change
- One touch return to working position
- Compatible with multiple microscope models

This product is sold in the set of both handed manipulators and a dedicated adaptor.





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#### Easy attachment of a pipette

The injection holder is provided with an anchor (special clasp) that fits in the driver body, which enables a distance from a pipette tip to the anchor to be in a length. This function can be used for memorising a regular position so that the time for a pipette exchange will be reduced and repeated pipette location is precise and stable.

#### Pipette angle adjustment centered at the tip to stay in view

The pipette tip is designed for staying at the optical axis against any angles. So angle adjustment is hard to miss the tip in the field of view.





Simple and reliable motion from Home to Working position

50mm retracting margin enables easy exchange of a pipette. Breakage of pipettes is greatly reduced during the replacement.





Home position

Working position

MICROSCOPE COMPATIBILITY TABLE			
Supplier	Microscope	Micromanipulator order code	
Olympus	IX70	FNHMKT-1VM-O1	
	IX71	FNHMKT-1VM-O2	
	IX73, IX83	FNHMKT-1VM-O3	
Nikon	ECLIPSE TE2000	FNHMKT-1VM-N1	
	ECLIPSE Ti	FNHMKT-1VM-N2	
	ECLIPSE Ts2R	FNHMKT-1VM-N3	
	ECLIPSE Ti2	FNHMKT-1VM-N4	
Carl Zeiss	Axiovert 200, Axio Observer 3/5/7	FNHMKT-1VM-Z1	
	Axio Vert.A1	FNHMKT-1VM-Z2	
Leica	DMi8	FNHMKT-1VM-L2	

Specification				
Accessories included		Dedicated mounting adaptor, IP iron plate × 2 units, Positioning gauge, Anchor × 2 units, Hex wrench, Pipette scale × 2 sheets		
Movement range	X/Y/Z-axis	Oil hydraulic control 10 mm, Full rotation of knob 250 μm, Minimum graduation 5 μm		
	T-axis (for holder)	Oil hydraulic control 10 mm, Full rotation of knob 1,000 µm, Minimum graduation 20 µm		
		Manual (Return and Home position) 50 mm		
		Incident angle 15 ~ 40°		
Dimensions/Weight	Control unit	85.6 mm (W) x225 - 235 mm (D) x 151 - 171 mm / Approx 1.9 kg		
	Control unit	108 - 138 mm (W) x 145 - 155 (D) x 100 - 150 mm (H) / Approx 820 g		
Hydraulic tube length		0.6 m		

Ni188/V1

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