



MSU-400 Series Compound Microscopes

- Binocular and trinocular models
- Integrated rackless X-Y mechanical stage
- Versatile and advanced
- 5-year warranty



Cole-Parmer® MSU-400 Series Compound Microscopes

Eyepiece(s)

- High wide field HWF 10x/20 mm secured eyepiece(s) with 20 mm field of view (Ø 23.2 mm tube)

Head

- Available with binocular or trinocular heads
- Equipped with a Siedentopf type head, 360° rotatable and equipped with 30° inclined Ø 23.2 mm tubes.
- Binocular and trinocular models have a diopter ±5 adjustment on the left eyepiece. The interpupillary distance is adjustable between 48 to 76 mm.
- Models equipped with plan infinity corrected Plan IOS (PLi) objectives have a unique swiveling system of the eyepiece tubes for ergonomic positioning of the eyepieces in a high and in a low position.
- Trinocular head comes with a Ø 23.2 mm tube, ensuring maximum flexibility.
- Prisms inside the heads are designed to minimize the light absorption for perfect digital imaging.
- Unique rotating system allows the ergonomic positioning of both tubes in a high (431 mm) and in a low position (377 mm).

Objectives

- The latest production techniques and multi-layer coatings used for the manufacturing of the MSU-400 objectives enable the MSU-400 to be used for high-demand applications. World class spherical aberration correction and modern CNC and assembly technology ensure the perfect centering of the objectives.
- Brightfield models: E-plan IOS infinity corrected, plan IOS infinity corrected 4x/0.10, 10x/0.25, 20x/0.40, S40x/0.65, S60x/0.85, and S100x/1.25 oil immersion objectives.
- Phase contrast models: Plan phase IOS infinity corrected 10x/0.25, 20x/0.40, S40x/0.65 and S100x/1.25 oil immersion objectives.
- All S40x, S60x and S100x oil immersion objectives are spring loaded. All optics are anti-fungus treated and anti-reflection coated for maximum light throughput.

Nosepiece

Revolving and reversed ball-bearing quadruple or quintuple nosepiece.

Focusing

Double coaxial, low-positioned coarse and fine adjustments with 180 graduations. Precision 1.1 µm, 200 µm per rotation, total travel range approximately 19 mm. Supplied with an adjustable rack stop to prevent damage to samples and objectives. The coarse adjustment is equipped with friction control.

Stage

All units are equipped with a scratch-resistant 152/197 x 131 mm stage with integrated 75 x 36 mm X-Y rackless mechanical stage, Vernier scale and soft-close removable specimen holder. The rackless stage has no protruding parts, enables smooth movements and is safer in use. Low positioned X-Y control knobs prevent fatigue during long working sessions.

The MSU-400 can be equipped with a heating stage which can be set up to 50 °C by a PID temperature controller — only available with newly purchased microscopes.

Condenser For Brightfield

The standard height-adjustable Abbe N.A. 1.25 condenser for brightfield comes with an iris diaphragm and swing-out filter holder.

Polarization

The Cole-Parmer MSU-400 has an integrated slot above the nosepiece for an optional polarization filter.

NeoLED Illumination

The 3 W adjustable Köhler NeoLED diascope illumination is powered by an internal 100–240 V power supply making it suitable for worldwide use. The innovative NeoLED design offers larger apertures, allowing the optical system of the MSU-400 microscope to produce images at higher resolutions, very close to the theoretical diffraction limit of the optics. Other benefits of the NeoLED is low energy consumption, no heating and a long operating lifetime.

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Köhler Illumination

A Köhler illumination ensures for all infinity corrected IOS models the highest possible contrast and the maximum achievable resolving power. It generates a uniform illumination of the sample and eliminates all interference from dust on lenses and side glare of the light source.

Cordless Use

The optional rechargeable batteries turn the Cole-Parmer MSU-400 into a cordless system.

Cable Storage System

Allows users to easily stow away excess cable length into the back of the instrument during operation and to roll up the power cable for easy storage.

Carrying Grip

The integrated carrying grip at the back of the microscope ensures safe transportation.

What's Included

Microscope, dust cover, white filter, tools, spare fuse, 5-mL immersion oil, and power cord. Phase contrast model is supplied with green filter and alignment telescope. Smart foam packaging ensures a low environmental footprint while maintaining a maximum of safety during transport. Fluorescence LED model includes a fluorescence attachment with four 5 W LEDs for fluorescence excitation and a UV protection shield.

Description	Objectives	Objective type	Power	Dimensions	Weight	Item number
Binocular compound microscope	4/10/S40/S100x E-Plan IOS	Brightfield semi-plan	100 to 240 V, 50/60 Hz	16.1 x 7.6 x 9.2" (409 x 195 x 235 mm)	14.3 lb (6.5 kg)	78904-02
Trinocular compound microscope	4/10/S40/S100x E-Plan IOS	Brightfield semi-plan	100 to 240 V, 50/60 Hz	18.1 x 7.6 x 9.2" (459 x 195 x 235 mm)	14.5 lb (6.6 kg)	78904-04
Trinocular compound microscope	4/10/S40/S100x Plan IOS	Brightfield plan	100 to 240 V, 50/60 Hz	18.1 x 7.6 x 9.2" (459 x 195 x 235 mm)	14.5 lb (6.6 kg)	78904-07
Trinocular compound microscope	10/20/S40/S100x Plan Phase IOS	Phase contrast	100 to 240 V, 50/60 Hz	18.1 x 7.6 x 9.2" (459 x 195 x 235 mm)	14.5 lb (6.6 kg)	78904-10
Trinocular compound microscope	4/10/S40/S100x Plan Fluarex PLFi	Fluorescence-LED	100 to 240 V, 50/60 Hz	18.1 x 7.6 x 9.2" (459 x 195 x 235 mm)	14.5 lb (6.6 kg)	78904-13

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