

Mi50 Inverted Metallurgical Brightfield / Darkfield / DIC Microscopes



Mi50 Inverted Microscope Features



- 1 Ergonomically inclined sidentopf trinocular head with eyetubes at 45° places user in the best working position, creating less tension and fatigue. Interpupillary distance is adjustable from 50~75mm. Lever below eyepieces engages beam splitter.
- 2 Field diaphragm and aperture diaphragm adjustment levers.
- 3 Polarizer and Analyzer.
- 4 Triple-layer rackless mechanical stage with movement range of 50mm x 50mm.
- 5 ECO setting for energy saving, magnification and rheostat LED readouts.
- 6 12v, 100w halogen illumination with intensity control.
- 7 Brightfield / darkfield selection.
- 8 DIC slider.



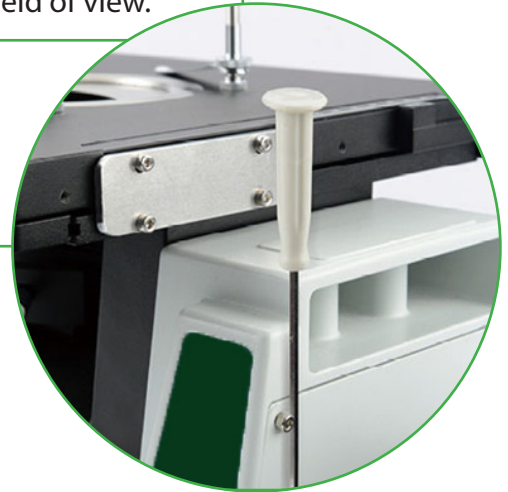
Mi50 Inverted Microscope Features



Widefield 10x/22 Eyepieces

High eyepoint, focusing widefield 10x eyepieces with a FN of 22 provide crisp, clear images with a wide field of view.

Metal frame with corrosion and wear resistance ensures long-lasting microscope life. Carrying handle and fixed plate for stage locking provide safe transport. Built-in magnet on back of microscope holds hex wrench.



Smart Design



Viewing head can be rotated 360° to raise the viewing head 34mm, which keeps user from having to change seated position. Direct light to camera with flip of a switch.



Comfortable and Eco Friendly

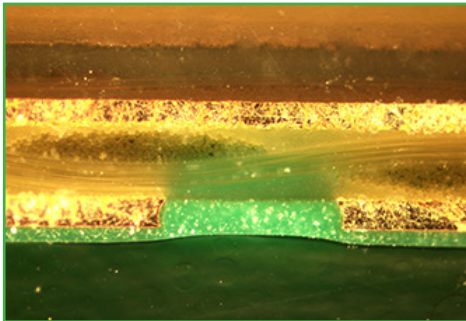
ECO setting saves energy and bulb life by shutting down the microscope within 30 minutes of when the user walks away. It will also turn microscope back on when user returns. Encoding in the nosepiece displays the magnification being used on the microscope front panel as well as light intensity.



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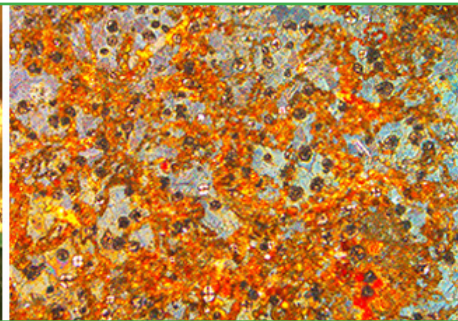
Brightfield, Darkfield, DIC Objective Lenses

Part #	Objective	N.A.	W.D.
LM Plan BD 5x	5x	0.15	9mm
LM Plan BD 10x	10x	0.30	9mm
LM Plan BD 20x	20x	0.45	3.4mm
LM Plan BD 50x	50x	0.55	7.5mm
LM Plan BD 100x	100x	0.80	2.1mm



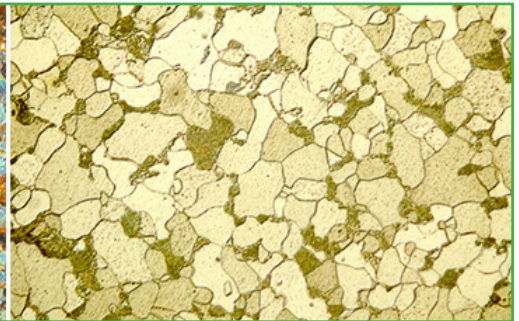
Darkfield

Darkfield is used to observe flaws in metallographic microstructures. Easily switch from brightfield to darkfield.



Polarization

Adjust polarized light without moving the sample. Use the 360° rotatable analyzer to obtain simple polarization.



DIC

Differential interference contrast is used to detect height difference on sample surface, such as metallurgical materials and wafers.

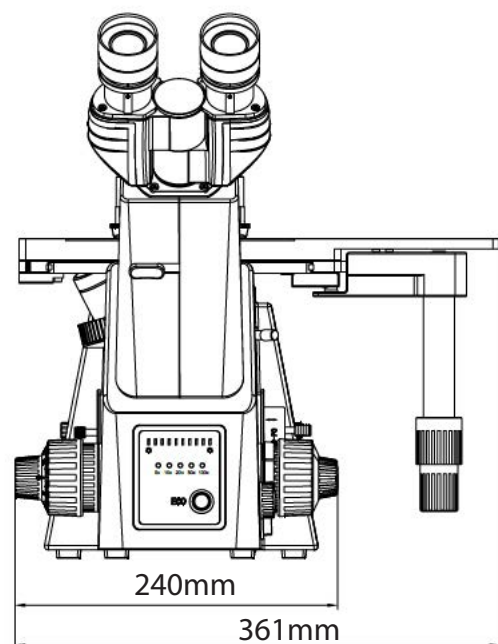
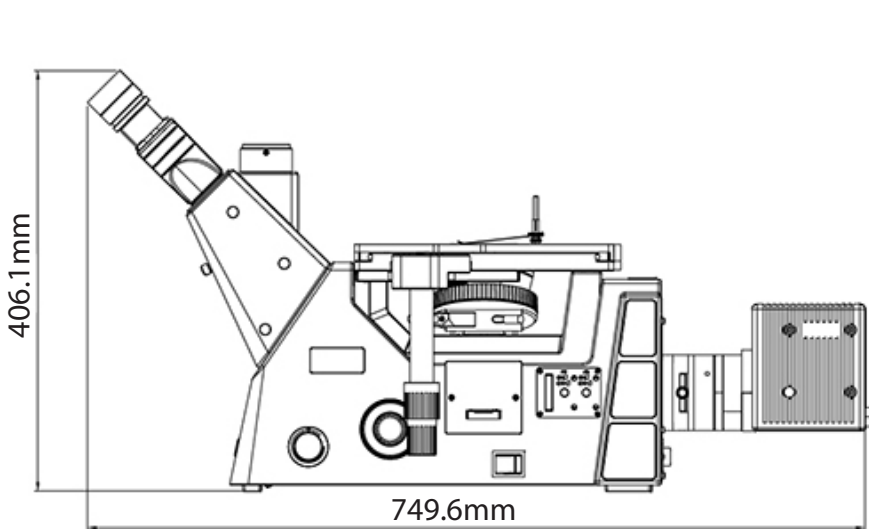


Rackless Mechanical Stage

240mm x 250mm triple-layer mechanical stage has a strong load-carrying capacity. Moving range of 50mm x 50mm X-Y. Low-position controls provide ergonomic and comfortable operation.

Mi50 Inverted Microscope Specifications

Optical System	Infinity Color Corrected Optical System
Viewing Head	45° inclined siedentopf trinocular head, 360° rotatable. Interpupillary distance adjustable 50~75mm, diopter adjustable. Beam splitter 100:0 or 0:100.
Eyepieces	High eyepoint widefield plan eyepiece PL10x/22mm, with adjustable diopter. Reticle retaining ring for 26mm diameter reticle.
Objective Lenses	Infinity Corrected LWD BF/DF MET Plan Achromat 5x, NA 0.15, WD = 9mm.
	Infinity Corrected LWD BF/DF MET Plan Achromat 10x, NA 0.30, WD = 9mm.
	Infinity Corrected LWD BF/DF MET Plan Achromat 20x, NA 0.45, WD = 3.4mm.
	Infinity Corrected LWD BF/DF MET Plan Achromat 50x, NA 0.55, WD = 7.5mm.
	Infinity Corrected LWD BF/DF MET Plan Achromat 100x, NA 0.80, WD = 2.1mm.
Nosepiece	Inward facing quintuple BF / DF nosepiece with DIC slot. M26 threaded nosepiece.
Frame	Reflected frame with brightfield / darkfield switch. Variable field diaphragm and aperture diaphragm, both center adjustable. Slots for filters and polarizing kit. Light intensity indicator.
Focus Adjustment	Low-position coaxial focusing system, coarse range 9mm (up 6.5mm, 2.5mm down), fine precision of 0.002mm. Upper limit and tension adjustment.
Stage	Triple-layer rackless stage 240mm W x 250mm L, moving range of 50mm x 50mm with low-position ergonomic X-Y knob. Metal stage plate with stage clips.
Illumination	External power adapter, input 100~240V, output 15V, 13.4A, light intensity adjustable. 12v, 100w halogen illuminator. CE, UL certified. Daylight balancing filter for illuminator.
Polarization, DIC, Filters	Polarizer, 360° rotatable analyzer, DIC slider, daylight balancing filter for illuminator.
C-Mount Adapters	Focusing 0.35x, 0.5x, 0.65x, 1x c-mount adapter.
Reticles	Cross-line, ruler, grid reticles available, 26mm diameter.



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