M48 Metallurgical Microscope
Semiconductor Inspection

M48 Metallurgical Microscope Features

1 5° to 35° adjustable ergonomic trinocular head, erect image, interpupillary distance: 50-76mm, beam split ratio: 100:0 or 0:100

2 High eyepoint widefield plan eyepiece PL10x/22mm. Eyepieces accept 26mm diameter reticle.

3 10W BD reflected arm illuminator with center adjustable iris aperture and field diaphragms with lever to switch between brightfield and darkfield.

4 360° rotatable analyzer & polarizer.

5 Ergonomically low positioned coaxial focusing controls allow the operator to work with their forearms relaxed on the working surface. Coarse range of travel is 33mm. Rotation of fine focus is 0.001mm per revolution.

M48 Metallurgical Microscope Features

6 Brightfield / darkfield quintuple nosepiece with DIC slot.

7 Metallurgical objective lenses:

- LWD Brightfield Plan Achromat
- High Resolution Brightfield Semi Apo
- LWD Brightfield / Darkfield Plan Achromat
- High Resolution Brightfield / Darkfield Semi Apo

8 Stable three layer long travel mechanical stage with low position coaxial adjustment. Glass plate included for transmitted light only. 8″ stage size with moving range of 210mm x 210mm.

M48 Metallurgical Microscope Objectives

LWD Brightfield Plan Achromat Objectives

- FMPLN5, Plan Achromat LWD 5x Objective, NA 0.15, WD 10.8mm
- FMPLN10, Plan Achromat LWD 10x Objective, NA 0.30, WD 12.2mm
- FMPLN20, Plan Achromat LWD 20x Objective, NA 0.45, WD 4mm
- FMPLN50, Plan Achromat LWD 50x Objective, NA 0.55, WD 7.9mm
- FMPLN100, Plan Achromat LWD 100x Objective, NA 0.80, WD 2.1mm

High Resolution Brightfield Semi Apo Objectives

- BF-SAPO-M5, Semi Apo Metallurgical 5x objective; NA 0.15; WD 19.5mm
- BF-SAPO-M10, Semi Apo Metallurgical 10x objective; NA 0.30; WD 10.9mm
- BF-SAPO-M20, Semi Apo Metallurgical 20x objective; NA 0.50; WD 3.2mm
- BF-SAPO-M50, Semi Apo Metallurgical 50x objective; NA 0.80; WD 1.2mm
- BF-SAPO-M100, Semi Apo Metallurgical 100x objective; NA 0.90; WD 1.0mm

LWD Brightfield / Darkfield Plan Achromat Objectives

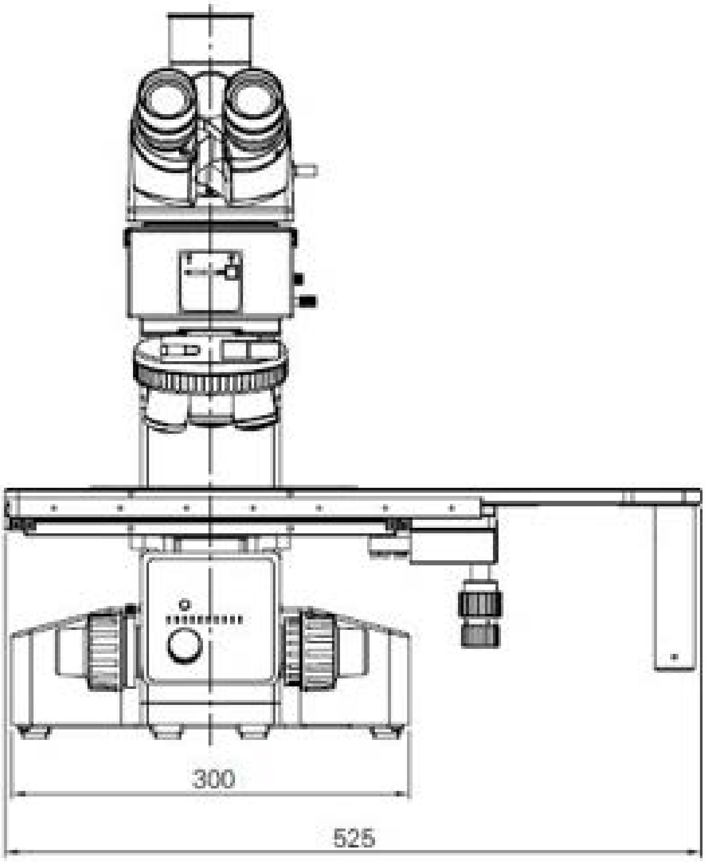
- LWD-BD-M5, Plan Achromat LWD 5X objective, NA 0.14, WD 20.5mm
- LWD-BD-M10, Plan Achromat LWD 10X objective, NA 0.25, WD 16mm
- LWD-BD-M20, Plan Achromat LWD 20X objective, NA 0.40, WD 7.8mm
- LWD-BD-M50, Plan Achromat LWD 50X objective, NA 0.55, WD 7.9mm
- LWD-BD-M100, Plan Achromat LWD 100X objective, NA 0.80, WD 2.1mm

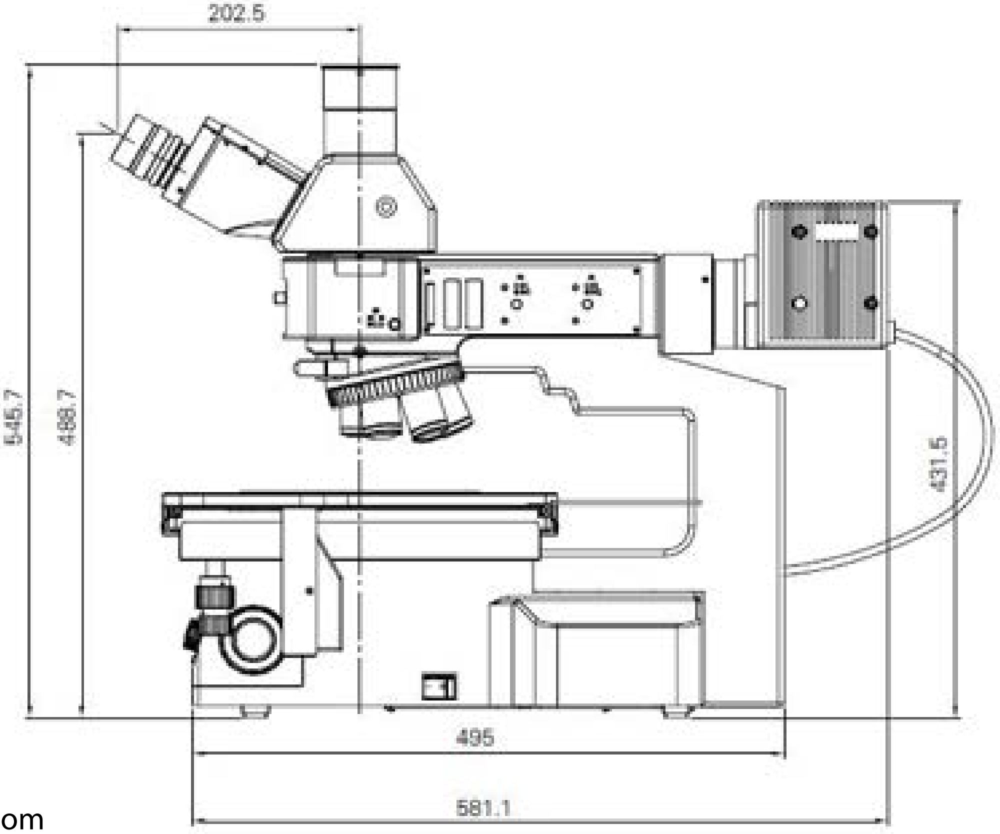
High Resolution Brightfield / Darkfield Semi Apo Objectives

- BD-SAPO-M5, Brightfield / Darkfield Semi Apo 5x objective; NA 0.15; WD 19.5mm
- BD-SAPO-M10, Brightfield / Darkfield Semi Apo 10x objective; NA 0.30; WD 10.9mm
- BD-SAPO-M20, Brightfield / Darkfield Semi Apo 20x objective; NA 0.45; WD 3.2mm
- BD-SAPO-M50, Brightfield / Darkfield Semi Apo 50x objective; NA 0.80; WD 1.3mm
- BD-SAPO-M100, Brightfield / Darkfield Semi Apo 100x objective; NA 0.90; WD 1.0mm

M48 Metallurgical Microscope Specifications

Optical System	Infinity Color Corrected Optical System
Observation	Brightfield / Darkfield / Polarization / DIC
Viewing Head	5° to 35° adjustable ergonomic trinocular head, erect image, interpupillary distance: 50-76mm, beam split ratio: 100:0 or 0:100.
Eyepieces	High eye point widefield plan eyepiece PL10x/22mm, with adjustable diopter. Accepts 26mm diameter reticle.
Objective Lenses	Infinity Corrected LWD Brightfield Plan Achromat Objectives: 5x, 10x, 20x, 50x, 100x.
	Infinity Corrected High Resolution Brightfield Semi Apo Objectives: 5x, 10x, 20x, 50x, 100x.
	Infinity Corrected LWD BD Plan Achromat Objectives: 5x, 10x, 20x, 50x, 100x.
	Infinity Corrected High Resolution BD Semi Apo Objectives: 5x, 10x, 20x, 50x, 100x.
Nosepiece	Brightfield / Darkfield quintuple nosepiece with DIC slot.
Focus Adjustment	Low position coaxial focus mechanism, coarse range: 33mm, fine precision: 0.001mm. Upper limit and tension adjustment.
Body	Power supply 100~240V wide voltage system.
Stage	8" three layer mechanical stage with low position coaxial adjustment. Moving range: 210mm x 210mm. Clutch handle for quick movement. Glass plate included with transmitted light option.
Illumination	10W LED BD reflected and transmitted (if transmitted frame is selected) illuminator with electronic variable aperture and field diaphragm, center adjustable with switch for changing from brightfield to darkfield. Slots for filters and polarizing kit.
Polarization	Analyzer with rotatable polarizer.
C-Mount Adapters	0.5x, 0.65x, 1x c-mount adapter.





info@feinoptic.com
www.feinoptic.com