

# B-510BF / B-510ERGO - Brightfield Microscope

Advanced routine laboratory microscope for brightfield observations with IOS W-PLAN objectives and rackless stage. The high-efficiency **X-LED<sup>3</sup>** makes it reliable for all transmitted light observations for great-looking, rich and high-quality view.



## B-510BF



## B-510ERGO

Part	Description
<b>Observation mode:</b>	Brightfield.
<b>Head:</b>	<b>B-510BF:</b> Trinocular (fixed 50/50), 30° inclined, 360° rotating. <b>B-510ERGO:</b> Binocular ergonomic head, 30°- 60° inclined, 360° rotating.
<b>Interpupillary distance:</b>	Adjustable between 50 and 75 mm.
<b>Dioptric adjustment:</b>	On the left eyepiece tube.
<b>Eyepieces:</b>	WF10x/22 mm, high eye-point and with rubber cups.
<b>Nosepiece:</b>	Quintuple revolving nosepiece, rotation on ball bearings.
<b>Objectives:</b>	IOS W-PLAN 4x/0.10 IOS W-PLAN 10x/0.25 IOS W-PLAN 40x/0.65 IOS W-PLAN 100x/1.25 (Oil) All with anti-fungus treatment.

Part	Description
<b>Specimen stage:</b>	Double layer rackless mechanical stage, 233x147 mm, 78x54 mm X-Y range.
<b>Focusing:</b>	Coaxial coarse (adjustable tension) and fine focusing mechanism with limit stop to prevent the contact between objective and specimen.
<b>Condenser:</b>	Swing-out N.A. 0.2/0.9, with iris diaphragm, focusable and centerable.
<b>Transmitted illumination (Full Koehler type):</b>	X-LED <sup>3</sup> with white 3.6 W LED (6,300K) with brightness control. Multi-plug 100-240Vac/6Vdc external power supply.

# B-510PH - Phase Contrast Microscope

Advanced routine laboratory microscope for brightfield, darkfield and phase contrast observations with IOS W-PLAN PH objectives and rackless stage. Especially dedicated to phase contrast observation, the microscope ensures a high image sharpness even with complex specimens. The high-efficiency **X-LED<sup>3</sup>** makes it reliable for all transmitted light observations.



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X-LED<sup>3</sup>



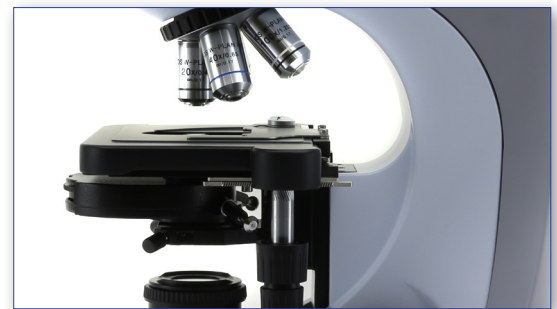
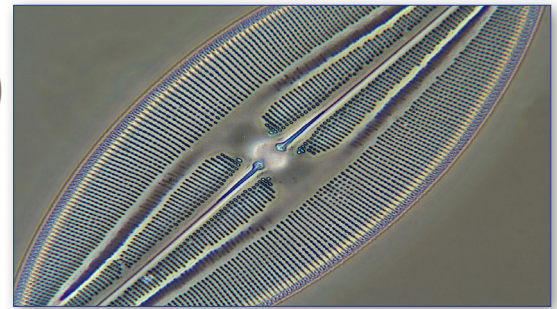
IOS  
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PH

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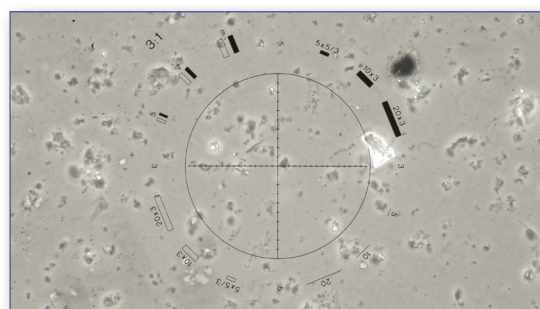


Part	Description
<b>Observation mode:</b>	Brightfield, phase contrast and darkfield (dry).
<b>Head:</b>	Trinocular (fixed 50/50), 30° inclined, 360° rotating.
<b>Interpupillary distance:</b>	Adjustable between 50 and 75 mm.
<b>Dioptric adjustment:</b>	On the left eyepiece tube.
<b>Eyepieces:</b>	WF10x/22 mm, high eye-point and with rubber cups.
<b>Nosepiece:</b>	Quintuple revolving nosepiece, rotation on ball bearings.
<b>Objectives:</b>	IOS W-PLAN PH 10x/0.25 IOS W-PLAN PH 20x/0.40 IOS W-PLAN PH 40x/0.65 IOS W-PLAN PH 100x/1.25 (Oil) All with anti-fungus treatment.

Part	Description
<b>Specimen stage:</b>	Double layer rackless mechanical stage, 233x147 mm, 78x54 mm X-Y range.
<b>Focusing:</b>	Coaxial coarse (adjustable tension) and fine focusing mechanism with limit stop to prevent the contact between objective and specimen.
<b>Condenser:</b>	Phase condenser (10x/20x, 40x, 100x) with darkfield (dry) and brightfield.
<b>Transmitted illumination (Full Koehler type):</b>	X-LED <sup>3</sup> with white 3.6 W LED (6,300K) with brightness control. Multi-plug 100-240Vac/6Vdc external power supply.

# B-510ASB - Asbestos Analysis Microscope

Advanced routine laboratory microscope for brightfield and phase contrast observations with IOS W-PLAN objectives and rackless stage. Ideal for Asbestos analysis in accordance to international rules with 12.5x eyepieces and Walton & Becket graticule to perform perfect asbestos fibers analysis at a glance. The high-efficiency **X-LED<sup>3</sup>** makes it reliable for all transmitted light observations.

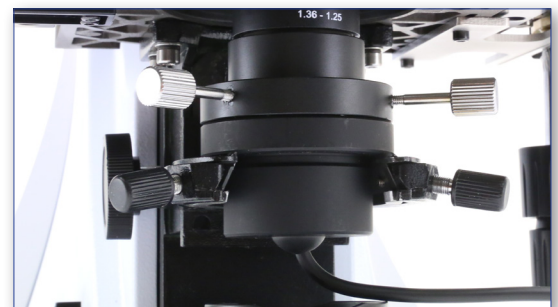
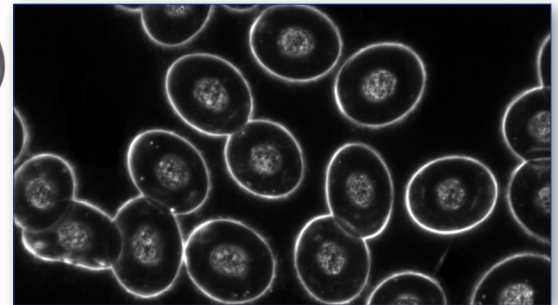


Part	Description
<b>Observation mode:</b>	Brightfield, phase contrast.
<b>Head:</b>	Trinocular (fixed 50/50), 30° inclined, 360° rotating.
<b>Interpupillary distance:</b>	Adjustable between 50 and 75 mm.
<b>Dioptric adjustment:</b>	On the left eyepiece tube.
<b>Eyepieces:</b>	WF10x/22 mm, high eye-point and WF12.5x/15 mm with dioptric adjustment, one with Walton & Beckett graticule.
<b>Nosepiece:</b>	Quintuple revolving nosepiece, rotation on ball bearings.
<b>Objectives:</b>	IOS W-PLAN 4x/0.10    IOS W-PLAN 10x/0.25 IOS W-PLAN PH 40x/0.65    IOS W-PLAN 100x/1.25 (Oil) All with anti-fungus treatment.

Part	Description
<b>Specimen stage:</b>	Double layer rackless mechanical stage, 233x147 mm, 78x54 mm X-Y range.
<b>Focusing:</b>	Coaxial coarse (adjustable tension) and fine focusing mechanism with limit stop to prevent the contact between objective and specimen.
<b>Condenser:</b>	Abbe N.A. 1.25, with objective-coded iris diaphragm, focusable and centerable. With 40x phase contrast slider.
<b>Transmitted illumination (Full Koehler type):</b>	X-LED <sup>3</sup> with white 3.6 W LED (6,300K) with brightness control. Multi-plug 100-240Vac/6Vdc external power supply.

# B-510DK - Immersion Darkfield Microscope

Advanced routine laboratory microscope for brightfield and darkfield observations with IOS W-PLAN objectives (including 100x with iris) and rackless stage for biology and especially darkfield fresh blood analysis and the exclusive **X-LED<sup>3</sup>** illumination system. The special condenser with integrated, exclusive X-LED<sup>3</sup> illuminator replaces any other external and expensive lighting source required for these applications and is ideal for great-looking, rich and high-quality specimen view. Our immersion darkfield system provides the same result achieved by 150W external illuminators in combination with traditional cardioid darkfield condenser.

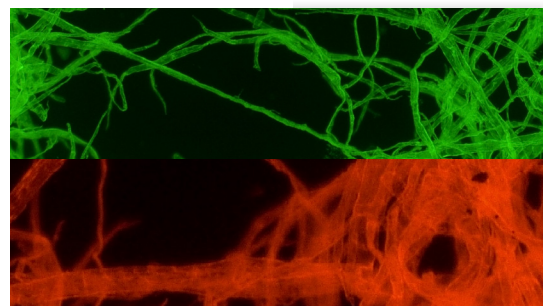


Part	Description
<b>Observation mode:</b>	Brightfield, oil immersion darkfield.
<b>Head:</b>	Trinocular (fixed 50/50), 30° inclined, 360° rotating.
<b>Interpupillary distance:</b>	Adjustable between 50 and 75 mm.
<b>Dioptric adjustment:</b>	On the left eyepiece tube.
<b>Eyepieces:</b>	WF10x/22 mm, high eye-point and with rubber cups.
<b>Nosepiece:</b>	Quintuple revolving nosepiece, rotation on ball bearings.
<b>Objectives:</b>	IOS W-PLAN 4x/0.10 IOS W-PLAN 10x/0.25 IOS W-PLAN 40x/0.65 IOS W-PLAN 100x/1.25 (oil) with iris All with anti-fungus treatment.

Part	Description
<b>Specimen stage:</b>	Double layer rackless mechanical stage, 233x147 mm, 78x54 mm X-Y range.
<b>Focusing:</b>	Coaxial coarse (adjustable tension) and fine focusing mechanism with limit stop to prevent the contact between objective and specimen.
<b>Brightfield condenser:</b>	Darkfield N.A. 1.36 (oil immersion) with built-in X-LED <sup>3</sup> .
<b>Transmitted illumination (Full Koehler type):</b>	X-LED <sup>3</sup> with white 3.6 W LED (6,300K) with brightness control. Multi-plug 100-240Vac/6Vdc external power supply.

# B-510FL - HBO Fluorescence Microscope

Advanced routine laboratory microscope for brightfield and fluorescence observations with Semi-Apo IOS W-PLAN F objectives to enhance the visibility of the sample and increase the overall contrast. The **HBO fluorescence** illuminator provides an outstanding flexibility of use, standing the blue and green filter sets (supplied as standard) for Auramine, FITC, GFP and YFP (with blue filter set) plus Rhodamine, Texas Red and TRITC (with the green one), yet giving the possibility to combine any other specific filter sets for future upgrade. Transmitted light through the exclusive **X-LED<sup>3</sup>** to ensure great-looking, rich and high-quality specimen view.



Standard filterset

Name	Excitation filter (nm)	Dichroic mirror cut-off (nm)	Emission filter (nm)
B Blue	460 - 490	505	515LP
G Green	510 - 550	570	575LP



Additional filterset (optional)

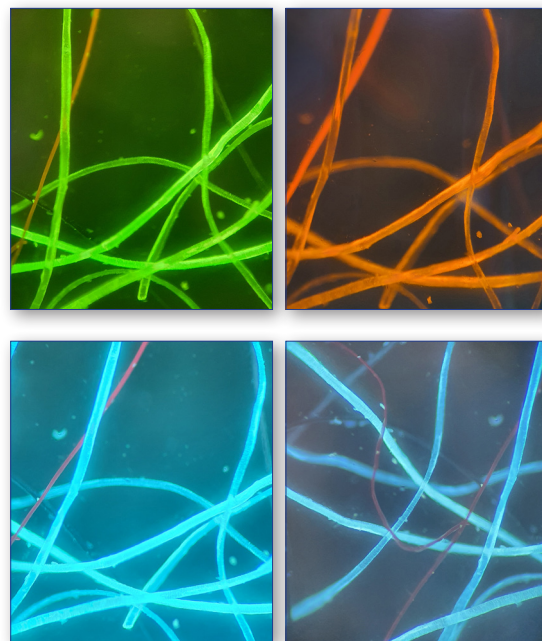
Name	Excitation filter (nm)	Dichroic mirror cut-off (nm)	Emission filter (nm)
V (Violet)	390 - 420	440	455LP
UV	325 - 375	415	435LP

Part	Description
<b>Observation mode:</b>	Brightfield, HBO fluorescence.
<b>Epi-illumination and filter:</b>	HBO 100 W high pressure mercury lamp. 4-position filter holder; blue & green included.
<b>Head:</b>	Trinocular (3-position 100/0, 50/50, 0/100), 30° inclined, 360° rotating.
<b>Interpupillary distance:</b>	Adjustable between 50 and 75 mm.
<b>Dioptric adjustment:</b>	On the left eyepiece tube.
<b>Eyepieces:</b>	WF10x/22 mm, high eye-point and with rubber cups.
<b>Nosepiece:</b>	Quintuple revolving nosepiece, rotation on ball bearings.
<b>Objectives:</b>	IOS W-PLAN F 4x/0.13      IOS W-PLAN F 10x/0.30 IOS W-PLAN F 20x/0.50    IOS W-PLAN F 40x/0.75 All with anti-fungus treatment.

Part	Description
<b>Specimen stage:</b>	Double layer rackless mechanical stage, 233x147 mm, 78x54 mm X-Y range.
<b>Focusing:</b>	Coaxial coarse (adjustable tension) and fine focusing mechanism with limit stop to prevent the contact between objective and specimen.
<b>Condenser:</b>	Swing-out N.A. 0.2/0.9, with iris diaphragm, focusable and centerable.
<b>Transmitted illumination (Full Koehler type):</b>	X-LED <sup>3</sup> with white 3.6 W LED (6,300K) with brightness control. Multi-plug 100-240Vac/6Vdc external power supply.
<b>Order code:</b>	<b>B-510FL-EU</b> With EU plug <b>B-510FL-UK</b> With UK plug <b>B-510FL-US</b> With US plug

# B-510LD4 - LED Fluorescence Microscope

Advanced routine fluorescence microscope for transmitted brightfield and fluorescence observations with IOS W-PLAN objectives. The extremely powerful LED Fluorescence Illuminators are combined with corresponding excitation filter sets for the visualization of most fluorochromes. LED fluorescence ensures unparalleled convenience eliminating warm-up/cool-down times and all the inconveniences related lamp replacement and adjustment. Transmitted light through the exclusive **X-LED<sup>3</sup>** to ensure great-looking, rich and high-quality specimen view.



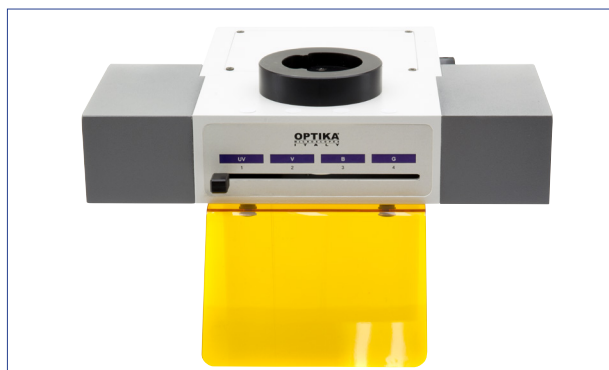
## A new milestone achieved in Fluorescence Microscopy

- » Full-modular Fluorescence System
- » Interchangeable LED-Filtersets
- » 4 LED-Filtersets slots
- » 10% higher light intensity than HBO
- » 35% higher light intensity than Metal-Halide
- » Adjustable light intensity
- » The selection of filtersets automatically involves the switching on of the corresponding LEDs
- » Cost-effective, money saving technology
- » Ready for immediate operation
- » Eliminate warm-up/cool-down times
- » Forget lamp replacement & centering

Part	Description
<b>Observation mode:</b>	Brightfield, LED fluorescence.
<b>Epi-illumination and filter:</b>	High-power LED with brightness control. 4-position filter holder; none included.
<b>Head:</b>	Trinocular (3-position 100/0, 50/50, 0/100), 30° inclined, 360° rotating.
<b>Interpupillary distance:</b>	Adjustable between 50 and 75 mm.
<b>Dioptric adjustment:</b>	On the left eyepiece tube.
<b>Eyepieces:</b>	WF10x/22 mm, high eye-point and with rubber cups.
<b>Nosepiece:</b>	Quintuple revolving nosepiece, rotation on ball bearings.
<b>Object.: B-510LD4:</b>	IOS W-PLAN 4x/0.10      IOS W-PLAN 10x/0.25 IOS W-PLAN 40x/0.65    IOS W-PLAN 100x/1.25 (Oil)
<b>B-510LD4-SA:</b>	IOS W-PLAN F 4x/0.13    IOS W-PLAN F 10x/0.30 IOS W-PLAN F 40x/0.75   IOS W-PLAN F 100x/1.3 (Oil)
	All with anti-fungus treatment.

Part	Description
<b>Specimen stage:</b>	Double layer rackless mechanical stage, 233x147 mm, 78x54 mm X-Y range.
<b>Focusing:</b>	Coaxial coarse (adjustable tension) and fine focusing mechanism with limit stop to prevent the contact between objective and specimen.
<b>Condenser:</b>	Swing-out N.A. 0.2/0.9, with iris diaphragm, focusable and centerable.
<b>Transmitted illumination (Full Koehler type):</b>	X-LED <sup>3</sup> with white 3.6 W LED (6,300K) with brightness control. Multi-plug 100-240Vac/6Vdc external power supply.

# B-510LD4 - LED Fluorescence Microscope



OPTIKA LED Fluorescence attachment is a revolutionary solution.

It consists of a 4-position selector for the use of 4 fluorescent illuminators, called LED Fluorescence Cubes.

Each Cube is composed of a filterset mounted on a filterblock and a high power LED with emission corresponding to the filters installed. In this way the selection of each filter controls the lighting up of the corresponding LED.

The microscope is supplied without any LED Fluorescence Cube. A selection of 9 types is available, as shown in the table below.

## B-510LD4

Trinocular brightfield microscope, 1000x,  
IOS W-PLAN objectives



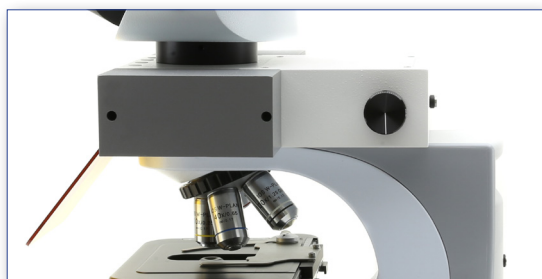
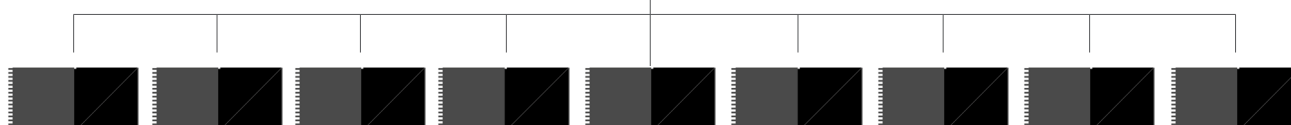
## B-510LD4-SA

Trinocular brightfield microscope, 1000x,  
IOS W-PLAN F (Semi-Apo) objectives. **For UV Fluorescence**



## M-1220 ... M-1228

LED Fluorescence Cubes (LED + Filterset)



## LED Fluorescence Cubes available (LED + Filterset)

Name	LED emission (nm)	Excitation filter (nm)	Dichroic mirror cut-off (nm)	Emission filter (nm)
M-1220 - Blue	460	455 - 495	500	510LP
M-1221 - Green	523	510 - 550	570	575LP
M-1222 - Violet	405	390 - 420	440	450LP
M-1223 - UV	365	325 - 375	415	435LP
M-1224 - Red 1	623	590 - 650	660	665LP
M-1225 - Red 2	623	595 - 645	655	665 - 715
M-1226 - Deep Red	660	623 - 678	685	690 - 750
M-1227 - Far Red	740	720 - 760	770	780LP
M-1228 - Amber	590	582 - 603	610	615 - 645



# WolfLabs

**Pricing on any accessories shown can be found by keying the part number into the search box on our website.**

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.