



OPTIKA[®]
M I C R O S C O P E S
I T A L Y

B-510FL
B-510LD1
B-510LD2

OPTIKA B-510 fluorescence microscopes are designed to provide premium performance in the observation of the fluorophores with compact and efficient epi-fluorescence attachments, powered by HBO (B-510FL) or LED (B-510LD1 & B-510LD2) and ensuring easy switching of fluorescence filters. Equipped with the state-of-the-art, exclusive X-LED³ transmitted illumination system, this series offers user-friendly operations, robustness, durability and superb resolution, delivering contrasted and sharp images through the impressive optics and the Köhler diaphragm. Suitable for routine and research applications, depending on the model.

B-510FL

Rubber cups, retractable protections for a higher comfort

30° inclined Siedentopf tube, +/- 5 dioptic compensation, on left eyepiece

Plan wide field eyepieces PL 10x with F.N. of 22 mm, high eyepoint

100 W HBO high pressure mercury lamp, centrable and with 300 hours lifetime

Trinocular port for a camera, with 100/0, 50/50 and 0/100 light distribution

Additional Filters for more applications (on request)

Carrying handle

Four-position slider for filter sets

Rackless mechanical stage (233 x 147 mm) with double Vernier scale, anti-scratch surface

Sturdy, stable and wide-dimensioned body

Semi-Apochromatic IOS W-PLAN F (4x, 10x, 20x, 40x) with superior resolution and greater numerical apertures for enhanced contrast. Great to detect fluorescence also when using UV filter

Right-handed, X/Y controls in ergonomic position

Swing-out condenser, sliding-in, with 0.2/0.9 N.A. and centering system

Coaxial coarse and fine focusing mechanism (graduated, 0.002 mm)

High-efficiency **X-LED³** as transmitted light

Full Köhler illumination system

The most used and diffused method, worldwide, for research applications with fluorescence, capable of supporting additional and custom filters (as optional), such as V and UV for ANS, Fluorescamine, Catecholamine, AMCA, AutoFluorescence, BAO, BFP, Blu Cascade, DANS, DAPI, Hoechst, Indo-1, SITA, and many others.

Filters Information (Included)

	Excitation filter (nm)	Dichroic mirror cut-off (nm)	Emission filter (nm)
B (Blue)	460 - 490	505	515LP
G (Green)	510 - 550	570	590LP





Rubber cups, retractable protections for a higher comfort

B-510LD1 B-510LD2

Plan wide field eyepieces
PL 10x with F.N. of 22 mm,
high eyepoint

Trinocular port for a camera,
with 100/0, 50/50 and 0/100
light distribution

30° inclined Siedentopf tube,
+/- 5 dioptic compensation,
on left eyepiece

Three-position slider
for filter sets

3.6 W high efficiency blue
(LD1) or white (LD2) LED,
pre-centered and with
>65.000 hours lifetime

Carrying handle

Sturdy, stable and
wide-dimensioned body

High contrast and resolution IOS W-PLAN
(4x, 10x, 40x, 100x). Good to operate in
fluorescence when using blue and green filters

Rackless mechanical stage
(233 x 147 mm)
with double Vernier scale,
anti-scratch surface

Swing-out condenser, sliding-in, with
0.2/0.9 N.A. and centering system

Right-handed, X/Y controls
in ergonomic position

Coaxial coarse and fine
focusing mechanism
(graduated, 0.002 mm)

Full Köhler illumination system

High-efficiency **X-LED³**
as transmitted light

The most convenient and user-friendly method for routine applications, eliminating warm-up/cool-down times, lamp centering and replacing. B-510LD1 is ideal for efficient and fast detection of tuberculosis & malaria.

Filters Information (Included)

	Excitation filter (nm)	Dichroic mirror cut-off (nm)	Emission filter (nm)	Supplied with
B (Blue)	460 - 490	505	515LP	B-510LD1 / LD2
G (Green)	510 - 550	570	590LP	B-510LD2 only

B-510FL - Technical Datasheet**B-510LD1 - Technical Datasheet****B-510LD2 - Technical Datasheet**

Observation Methods	Brightfield, fluorescence (B & G filters)	Brightfield, fluorescence (B filter)	Brightfield, fluorescence (B & G filters)
Head	Trinocular, 30° inclined, splitting ratio eyepieces/photo tube: 0% - 100% / 50% - 50% / 100% - 0%		
Eyepieces	Plan wide field, PL 10x/22, high eyepoint, with dioptic adjustment on left eyepiece		
Nosepiece	Quintuple, reversed		
Objectives	IOS W-PLAN F 4x, 10x, 20x, 40x	IOS W-PLAN 4x, 10x, 40x, 100x (oil)	
Stage	Rackless, mechanical, 233x147 mm, 78x54 mm movement range		
Focusing	Coaxial coarse & fine (200µm/turn), upper stop, adjustable tension		
Transmitted Light & Diaphragms	High-efficiency X-LED ³ (3.6 W), manual brightness control. Köhler illumination system with field diaphragm		
Incident Light & Diaphragms	High-pressure mercury lamp (100 W)	High-efficiency LED (3.6 W, blue LED on LD1; white LED on LD2), manual brightness control	
Condenser	N.A. 0.2/0.9, swing-out, sliding-in and with centering system		

Accessories**B-510FL****B-510LD1****B-510LD2**

M-1001	PL10x/22 eyepieces (pair), high eyepoint, with rubber cup (retractable)	■	■	■
M-1003	PL15x/16 eyepieces (pair), high eyepoint	□	□	□
M-781	PL10x/22 eyepiece, high eyepoint, with micrometric scale (10mm/100µm) & rubber cup (retractable)	□	□	□
M-690	Eyecups (pair)	□	□	□
M-1049	IOS W-PLAN objective 2x/0.08 (only on newly purchased microscopes)	□	□	□
M-1060	IOS W-PLAN F objective 4x/0.13	■	□	□
M-1061	IOS W-PLAN F objective 10x/0.30	■	□	□
M-1062	IOS W-PLAN F objective 20x/0.50	■	□	□
M-1063	IOS W-PLAN F objective 40x/0.75	■	□	□
M-1064	IOS W-PLAN F objective 100x/1.30 (oil)	□	□	□
M-1104	IOS LWD U-PLAN MET objective 100x/0.80	□	□	□
M-1125	IOS W-PLAN objective 4x/0.10		■	■
M-1126	IOS W-PLAN objective 10x/0.25		■	■
M-1127	IOS W-PLAN objective 20x/0.40		□	□
M-1128	IOS W-PLAN objective 40x/0.65		■	■
M-1129	IOS W-PLAN objective 60x/0.80		□	□
M-1130	IOS W-PLAN objective 100x/1.25 (oil)		■	■
M-1131	IOS W-PLAN POL objective 4x/0.10	□	□	□
M-1132	IOS W-PLAN POL objective 10x/0.25	□	□	□
M-1133	IOS W-PLAN POL objective 20x/0.45	□	□	□
M-1134	IOS W-PLAN POL objective 40x/0.65	□	□	□
M-1135	IOS W-PLAN POL objective 60x/0.80	□	□	□
M-336	IOS W-PLAN MET objective 5x/0.12	□	□	□
M-339	IOS W-PLAN MET objective 20x/0.40	□	□	□
M-175	Rotating table for polarising set	□	□	□
M-635	Heating stage, with digital temperature controller (only on newly purchased microscopes)	□	□	□
M-181	Complete Phase Contrast Set with IOS W-PLAN obj. 10x, 20x, 40x, 100x and BF/DF/PH condenser	□	□	□
M-185	Darkfield condenser for dry objectives	□	□	□
M-637	Fluorescence filterset V (filterblock not needed)	□		
M-638	Fluorescence filterset UV (filterblock not needed)	□		
M-636	Polarising set (filters only) for B-510 series	□	□	□
M-977	Green filter, 45 mm diameter	□	□	□
M-979	Yellow filter, 45 mm diameter	□	□	□
M-989	Frosted glass filter, 45 mm diameter	□	□	□
M-113.1	Ring adapter, 30mm (for monocular and binocular microscopes)	□	□	□
M-620	0.35x focusable C-Mount adapter (biological microscopes)	□	□	□
M-620.1	0.5x focusable C-Mount adapter (biological microscopes)	□	□	□
M-620.2	0.65x focusable C-Mount adapter (biological microscopes)	□	□	□
M-620.3	1x focusable C-Mount adapter (biological microscopes)	□	□	□
M-173	Photo adapter for APS-C and Full Frame Reflex cameras (M-699 is needed)	□	□	□
M-699	Universal adapter for M-173	□	□	□
M-151	HBO100W high-pressure mercury bulb for fluorescence	□		
15008	Immersion oil, 10ml	□	■	■
15104	Cleaning kit	□	□	□
M-005	Micrometric slide, 26x76mm, with 2 X scales (1mm/100div. for biological / 10mm/100div. for stereo)	□	□	□
M-1004.N	Centering telescope, 30mm diameter	□	□	□
VP-510	IQ/OQ/PQ Manual for B-510 series	□	□	□
DC-003	TNT dust cover, medium (B-190/290TB & B-380 & B-510) 600(l)x550(h) mm	■	■	■