




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 filter cubes. 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)

Four-position slider for filter cubes

Carrying handle

Sturdy, stable and wide-dimensioned body

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

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)

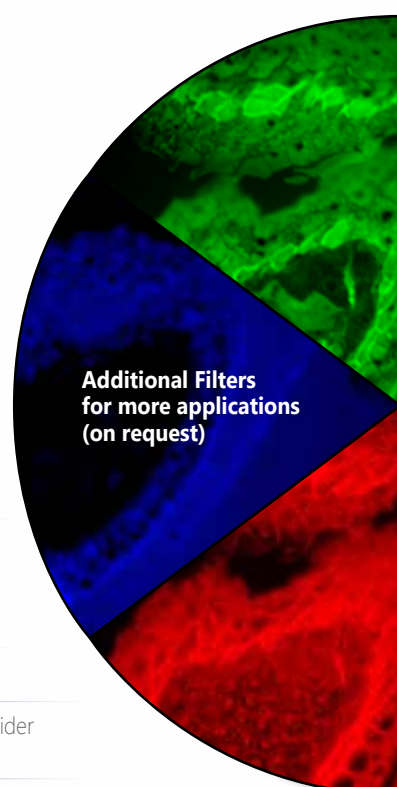
High-efficiency **X-LED³** as transmitted light

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 cubes

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 | ■ | ■ | ■ |