

A detailed view of the OPTIKA B-510DK microscope. The main body is white, with black accents on the eyepiece, objective lenses, stage, and base. The eyepiece is labeled 'PL 10X/22 65'. The objective lenses are labeled 'APRIAN 40x/0.65', 'OPTIKA', and 'IOS W-100x/1.25'. The stage has a slide with a specimen. The base has a large black knob on the left and a smaller one on the right. The OPTIKA logo is visible on the base.

**OPTIKA**<sup>®</sup>  
M I C R O S C O P E S  
I T A L Y

## **B-510DK**

**OPTIKA B-510DK** is an ultra-modern, advanced routine microscope for transmitted light applications and dedicated to fresh blood testing especially, featuring a special darkfield condenser with integrated state-of-the-art, exclusive X-LED<sup>3</sup> illumination to be matched with 100x oil iris objective. The system achieves high numerical aperture for superb resolution delivering ultra-contrasted and sharp images through the impressive optics and the Köhler diaphragm.

# B-510DK

Rubber cups, retractable protections for a higher comfort

Exclusive, state-of-the-art illumination system

## X-LED<sup>3</sup>

(3.6 W) as transmitted light

Achieve unmatched colour fidelity and brightness with daylight white colour temperature (6,300 K) and cut electricity bills by 90%, saving money and energy.

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

Trinocular port for a camera, with 50/50 light distribution

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

Carrying handle

Sturdy, stable and wide-dimensioned body

High contrast and resolution IOS W-PLAN (4x, 10x, 40x, 100x with iris) for brightfield and fresh blood observation

Dedicated condenser for darkfield, sliding-in, with 1.36 N.A., integrated X-LED<sup>3</sup> and centering system

Brightfield condenser, swing-out, sliding-in, with 0.2/0.9 N.A. and centering system (also included)

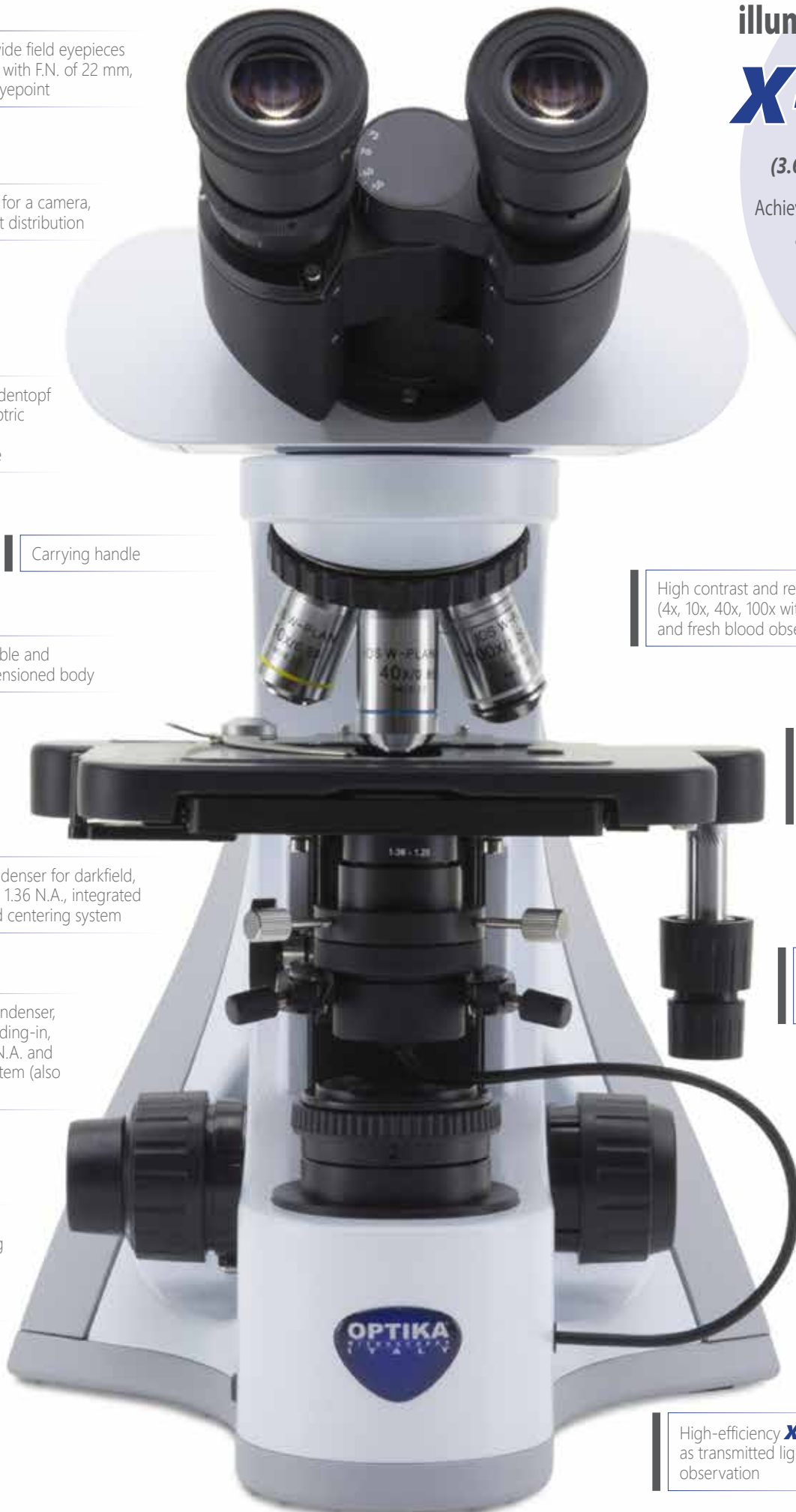
Coaxial coarse and fine focusing mechanism (graduated, 0.002 mm)

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

Right-handed, X/Y controls in ergonomic position

Full Köhler illumination system

High-efficiency X-LED<sup>3</sup> as transmitted light for brightfield observation





Perform a proper setting of the Köhler illumination, through the field and aperture diaphragms to have the specimen perfectly illuminated, enhancing the contrast and resolution of your image when using brightfield mode.

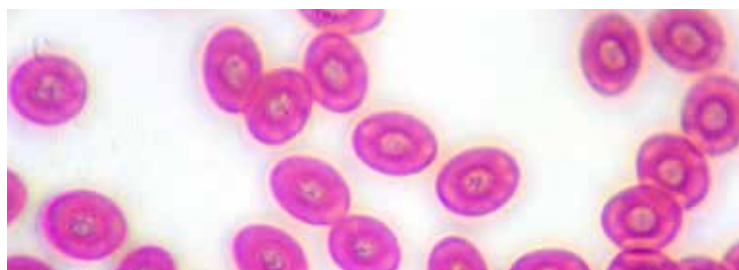


#### IOS W-PLAN Objectives

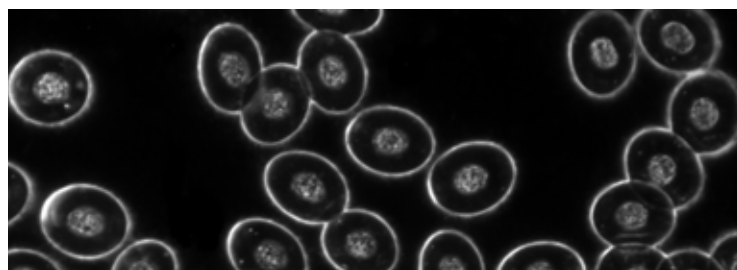
Infinity Corrected Optics (IOS) providing the best cost-effective choice for high contrast and resolution, matching all the requirements of labs requiring good quality routine optics.

Designed to ensure field flatness up to F.N. 22.

The 100x objective is with iris for darkfield applications.



Frog blood smear, Brightfield, 100x



Frog blood smear, Darkfield, 100x



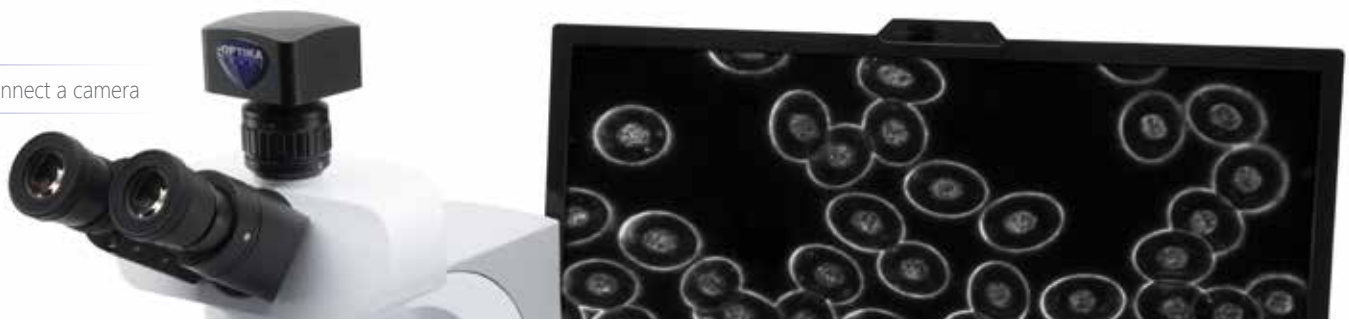
Brightfield: N.A. 0.2/0.9, swing-out, sliding-in and with centering system



Darkfield: N.A. 1.36 with built-in X-LED<sup>3</sup>, sliding-in and with centering 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. OPTIKA immersion darkfield system provides the same result achieved by 150W external illuminators in combination with traditional cardioid darkfield condenser.

Possibility to connect a camera



## B-510DK - Technical Datasheet

Observation Methods	Brightfield, darkfield
Head	Trinocular, 30° inclined, splitting ratio eyepieces/photo tube: 50% - 50%
Eyepieces	Plan wide field, PL 10x/22, high eyepoint, with dioptic adjustment on left eyepiece
Nosepiece	Quintuple, reversed
Objectives	IOS W-PLAN 4x, 10x, 40x, 100x (with iris, oil)
Stage	Rackless, mechanical, 233x147 mm, 78x54 mm movement range
Focusing	Coaxial coarse & fine (200µm/turn), upper stop, adjustable tension
Transmitted Illumination & Diaphragms	Brightfield: high-efficiency X-LED <sup>3</sup> (3.6 W), manual brightness control. Köhler illumination system with field diaphragm. Darkfield: high-efficiency X-LED <sup>3</sup> (3.6 W)
Condenser	Brightfield: N.A. 0.2/0.9, swing-out, sliding-in and with centering system. Darkfield: N.A. 1.36 with built-in X-LED <sup>3</sup> , sliding-in and with centering system
Accessories Included	Centering telescope

### Accessories

Included ■ Optional □

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-1049	IOS W-PLAN objective 2x/0.08	□
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-1130.1	IOS W-PLAN objective 100x/1.25OI - (oil) with iris for DF	■
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-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-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	Universal adapter for M-173	□
M-1004.N	Centering telescope, 30mm diameter	■
M-005	Micrometric slide, 26x76mm, with 2 X scales (1mm/100div. for biological / 10mm/100div. for stereo)	□
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-690	Eyecups (pair)	□
15104	Cleaning kit	□
15008	Immersion oil, 10ml	□
VP-510	IQ/OQ/PQ Manual for B-510 series	□
DC-003	TNT dust cover, medium 600(l)x550(h) mm	■

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