



OPTIKA[®]
MICROSCOPES
I T A L Y

B-510POL B-510POL-I

OPTIKA B-510 polarized light microscopes include special components exclusive to this class, such as a strain-free objectives, Bertrand lens, filters, condenser, and 360° rotating graduated stage combined with the state-of-the-art, exclusive X-LED illumination system (with transmitted light only or reflected and transmitted). Polarized light technique enhances the contrast and quality of the image obtained with birefringent materials, ensuring a high sensitivity in qualitative and quantitative studies on a wide range of specimens, especially in crystallography, geology, mineralogy and earth science but also in biology.

B-510POL

Exclusive,
state-of-the-art
illumination system

X-LED³

*X-LED³ (3.6 W)
as transmitted light*

Achieve unmatched colour
fidelity and brightness of your
specimen with daylight white
colour temperature
(6,300 K).

Rubber cups, retractable protections
for a higher comfort

Plan wide field eyepieces PL 10x with F.N. of 22 mm,
high eyepoint. One with cross-hair reticle for centering

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

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

Carrying handle

Quadruple nosepiece, reversed, with
centering system for each objectives

Sturdy, stable and
wide-dimensioned body

Swing-out condenser, sliding-in, with
0.2/0.9 N.A., centering system and
360° rotating polarizer

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

Swing-out, centerable
Bertrand lens for conoscopy/
orthoscopy with graduated
0-90° analyzer and tint plates
(λ , $\lambda/4$, quartz wedge)

Strain-free IOS W-PLAN POL (4x, 10x, 20x, 40x)
with high contrast and resolution, for top-class
performance when used with polarized light

360° rotating stage (\varnothing 145 mm), lockable
and centrable, with Vernier scale, anti-
scratch surface

Full Köhler illumination system

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



X-LED⁸ X-LED³

X-LED⁸ (8 W) & X-LED³ (3.6 W)
as reflected & transmitted light

Cut electricity bills by 90%
saving money and energy with
low power consumptions
and long lifetime.

Rubber cups, retractable protections
for a higher comfort

B-510POL-I

Plan wide field eyepieces
PL 10x with F.N. of 22 mm, high eyepoint.
One with cross-hair reticle for centering

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

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

Swing-out, centerable Bertrand
lens for conoscopy/othoscopy with
graduated 0-90° analyzer and tint
plates (λ , $\lambda/4$, quartz wedge)

High-efficiency white X-LED⁸
as reflected light.

Carrying handle

Quadruple nosepiece,
reversed, with centering
system for each objectives

Strain-free IOS LWD W-PLAN POL
(5x, 10x, 20x, 50x) with high contrast and
resolution, for top-class performance when
used with polarized light (also reflected one)

Sturdy, stable and
wide-dimensioned body

360° rotating stage (Ø 145 mm), lock-
able and centerable, with Vernier scale,
anti-scratch surface

Swing-out condenser, sliding-in, with
0.2/0.9 N.A., centering system and
360° rotating polarizer

Full Köhler illumination system

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

High-efficiency X-LED³
as transmitted light





B-510POL - Technical Datasheet

B-510POL-I - Technical Datasheet

Observation Methods	Brightfield, polarized light (transmitted only)	Brightfield, polarized light (transmitted & reflected)
Head	Trinocular, 30° inclined, splitting ratio eyepieces/photo tube: 50% - 50%	
Bertrand Lens	Swing-out, centerable for conoscopy/othoscopy with graduated 0-90° analyzer and tint plates (λ , $\lambda/4$, quartz wedge)	
Eyepieces	Plan wide field, PL 10x/22, high eyepoint, with dioptric adjustment on left eyepiece. One with cross-hair reticle for centering	
Nosepiece	Quadruple, reversed, with centering system for each objective	
Objectives	IOS W-PLAN POL 4x, 10x, 20x, 40x	IOS LWD W-PLAN POL 5x, 10x, 20x, 50x
Stage	360° rotating stage (\varnothing 145 mm), lockable and centrable, with Vernier scale, anti-scratch surface	
Focusing	Coaxial coarse & fine (200 μ m/turn), upper stop, adjustable tension	
Transmitted Illumination & Diaphragms	High-efficiency X-LED ³ (3.6 W), manual brightness control. Köhler illumination system with field diaphragm	
Incident Illumination & Diaphragms		High-efficiency white X-LED ⁸ (8 W), manual brightness control. Köhler illumination system with field and aperture diaphragms, both centrable
Condenser	N.A. 0.2/0.9, swing-out, sliding-in, with centering system and 0-360° rotating polarizer	

Accessories

B-510POL

B-510POL-I

		B-510POL	B-510POL-I
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/100 μ m) & rubber cup (retractable)	■	■
M-690	Eyecups (pair)	□	□
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-1136	IOS LWD W-PLAN POL objective 5x/0.12		■
M-1137	IOS LWD W-PLAN POL objective 10x/0.25		■
M-1138	IOS LWD W-PLAN POL objective 20x/0.40		■
M-1139	IOS LWD W-PLAN POL objective 50x/0.75		■
M-185	Darkfield condenser for dry objectives	□	□
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-173	Photo adapter for APS-C and Full Frame Reflex cameras	□	□
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-699	Universal adapter for M-173	□	□
15104	Cleaning kit	□	□
M-005	Micrometric slide, 26x76mm, with 2 X scales (1mm/100div. for biological / 10mm/100div. for stereo)	□	□
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	■	■