

POL Series

Laboratory & research polarizing microscopes



POL Series

Polarized light microscopy provides all the benefits of brightfield microscopy and offers a wealth of information, which is simply not available with any other optical microscopy technique, such as refractive indices, birefringence, retardation, extinction angle, pleochroism. Polarized light microscopy is best known for its geological applications – primarily for the study of minerals in rock thin sections, but it can also be used to study many other materials.

OPTIKA polarizing microscopes offer a complete system for your laboratory analysis, including polarizer and analyzer filters, Bertrand lens for conoscopic observation, compensator plates, and high-precision rotatable stages. Also available the X-LED illumination system, an high-intensity light source which delivers bright and clear images.

The extraordinary characteristics of this series are now accessible to all laboratories, meeting the needs of those who are looking for a prime quality instrument.

B-383POL

Trinocular polarizing microscope, E-PLAN IOS objectives.

B-500POL

Polarizing laboratory microscope, X-LED illumination.

B-500POL-I

Polarizing laboratory microscope, X-Led incident & transmitted illumination.

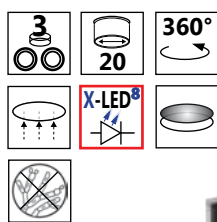
B-1000POL

Trinocular microscope, advanced transmitted polarization.

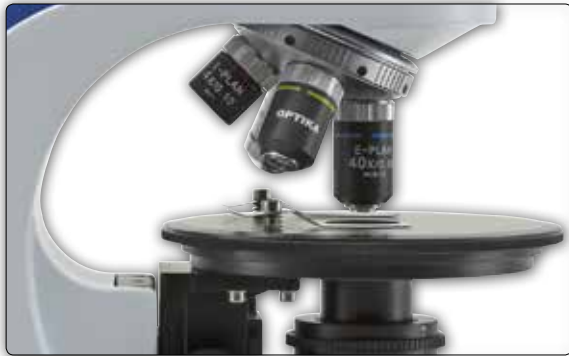
B-1000POL-I

Trinocular microscope, advanced transmitted and incident polarization.

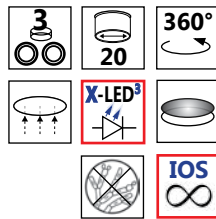
B-1000POL



B-383POL Series - Technical specifications



B-383POL



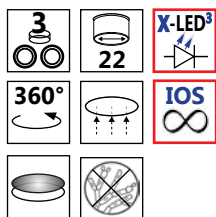
Technical specifications

Part	Description
Head	Trinocular, 30° inclined, 360° rotating.
Eyepieces	WF10X/20mm, one eyepiece with cross hair.
Bertrand lens	Swing-out type; centrable.
Polarizing attachment	0°-90° rotating analyzer filter. Tint plates included: 1° order red (λ), $\lambda/4$, quartz wedge.
Nosepiece	4-positions with centering mechanism for all objectives.
Objectives	E-PLAN IOS POL (Strain-free) 4x/0.10, 10x/0.25, 40x/0.65, 60x/0.80.
Focusing system	Coaxial coarse and fine.
Stage	160mm dia.; 360° rotating with stop knob and 0.1° Vernier.
Condenser	N.A. 1.25, with iris diaphragm, focusable and centrable. With rotating polarizer filter.
Illumination	X-LED ³ , with manual brightness control.
Power supply	External power supply: Input 100-240Vac 50-60Hz / Output 6Vdc 1A

B-500POL Model



B-500POL

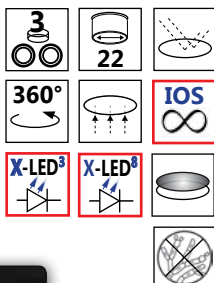


Technical specifications

Part	Description
Head	Trinocular, 30° inclined, 360° rotating.
Eyepieces	WF10X/22mm, one eyepiece with cross hair.
Bertrand lens	Swing-out type; centrable (for Conoscopy/Orthoscopy)
Polarizing attachment	0°-90° rotating analyzer filter. Tint plates included: 1° order red (λ), $\lambda/4$, quartz wedge.
Nosepiece	4-positions with centering mechanism for all objectives
Objectives	PLAN IOS POL (strain-free) 4x/0.10, 10x/0.25, 40x/0.65, 60x/0.85
Focusing system	Coaxial coarse and fine
Stage	160mm diameter; 360° rotating with stop knob and 0.1° Vernier
Condenser	0,9 N.A., with iris diaphragm, focusable and centrable. With rotating polarizing filter (swing-out type)
Illumination	X-LED ³ illumination system with brightness control

B-500POL-I Model

B-500POL-I

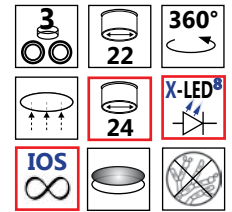


Technical specifications

Part	Description
Head	Trinocular, 30° inclined, 360° rotating
Eyepieces	WF10X/22mm, one eyepiece with cross hair.
Bertrand lens	Swing-out type; centrable (for Conoscopy/Orthoscopy)
Polarizing attachment	0°-90° rotating analyzer filter. Tint plates included: 1° order red (λ), $\lambda/4$, quartz wedge.
Nosepiece	4-positions with centering mechanism for all objectives
Objectives	LWD PLAN IOS POL (strain-free) for transmitted and incident polarized light 5x/0.15, 10x/0.3, 20x/0.45, 50x/0.55
Focusing system	Coaxial coarse and fine
Stage	160mm diameter; 360° rotating with stop knob and 0.1° Vernier
Condenser	0,9 N.A., with iris diaphragm, focusable and centrable. With rotating polarizing filter (swing-out type)
Illumination	Transmitted light: X-LED ³ system. Incident light: X-LED ⁸ system polarizing attachment with built-in polarizer filter, aperture diaphragm and field diaphragm.

B-1000POL Model - Transmitted polarization

B-1000POL



B-1000POL

Type:

TRANSMITTED POLARIZING RESEARCH MICROSCOPE

Description:

Laboratory microscope for routine and research applications.

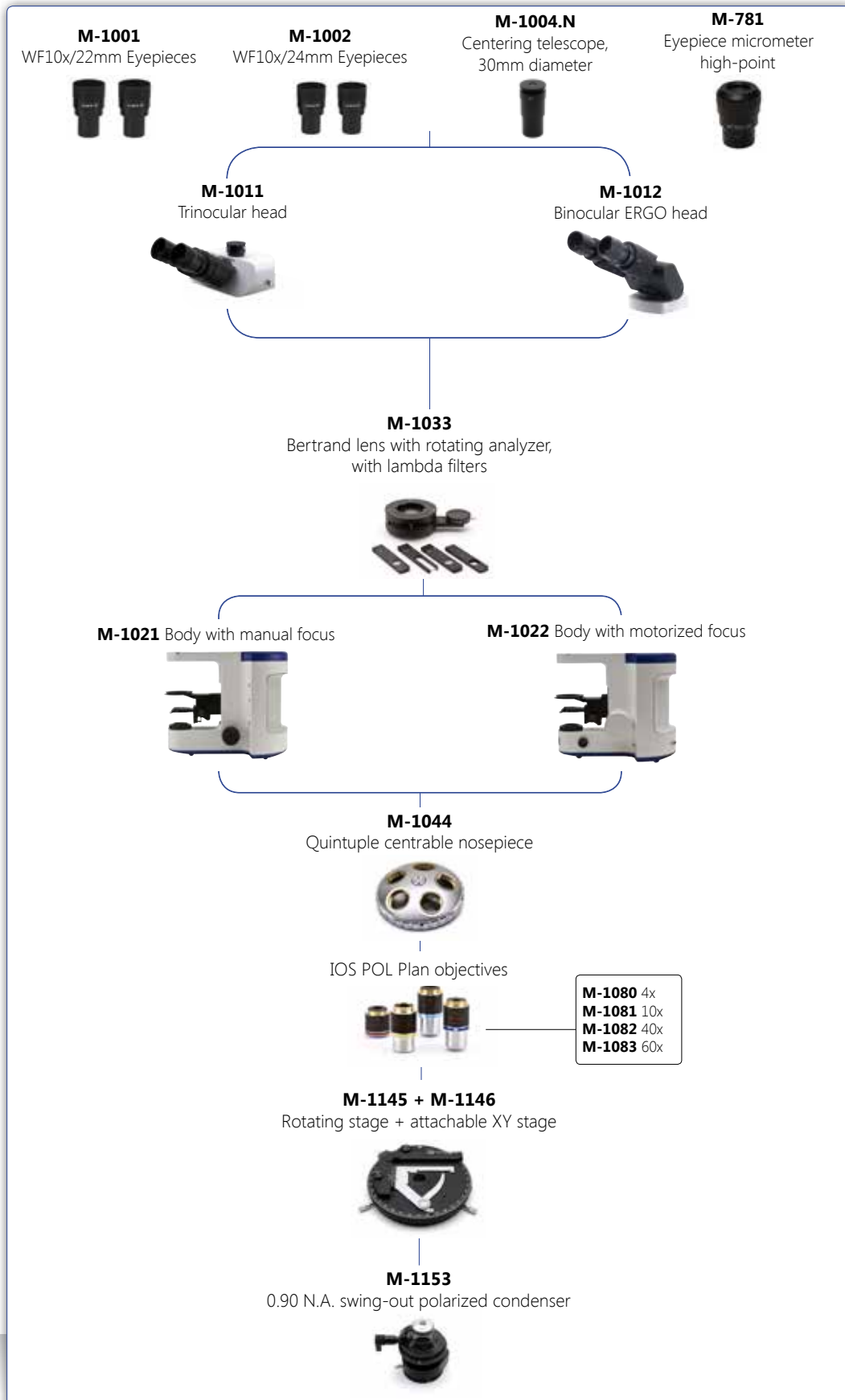
Dye-cast frame, with high stability and ergonomomy, for transmitted light observation.



Version for transmitted polarization analysis.
Illumination: X-LED⁸ (8W power).

B-1000POL Model - Configuration chart

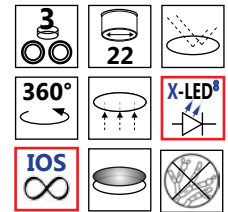
BUILD THE MICROSCOPE THAT SUITES YOUR NEEDS BY CHOOSING AMONG THE COMPONENTS OF CONFIGURATION CHART:



B-1000POL-I Model - Transmitted and incident polarization



B-1000POL-I



B-1000POL-I

Type:

**TRANSMITTED AND INCIDENT POLARIZING
RESEARCH MICROSCOPE**

Description:

Laboratory microscope for routine and research applications.

Dye-cast frame, with high stability and ergonomomy, for transmitted and incident light observation.



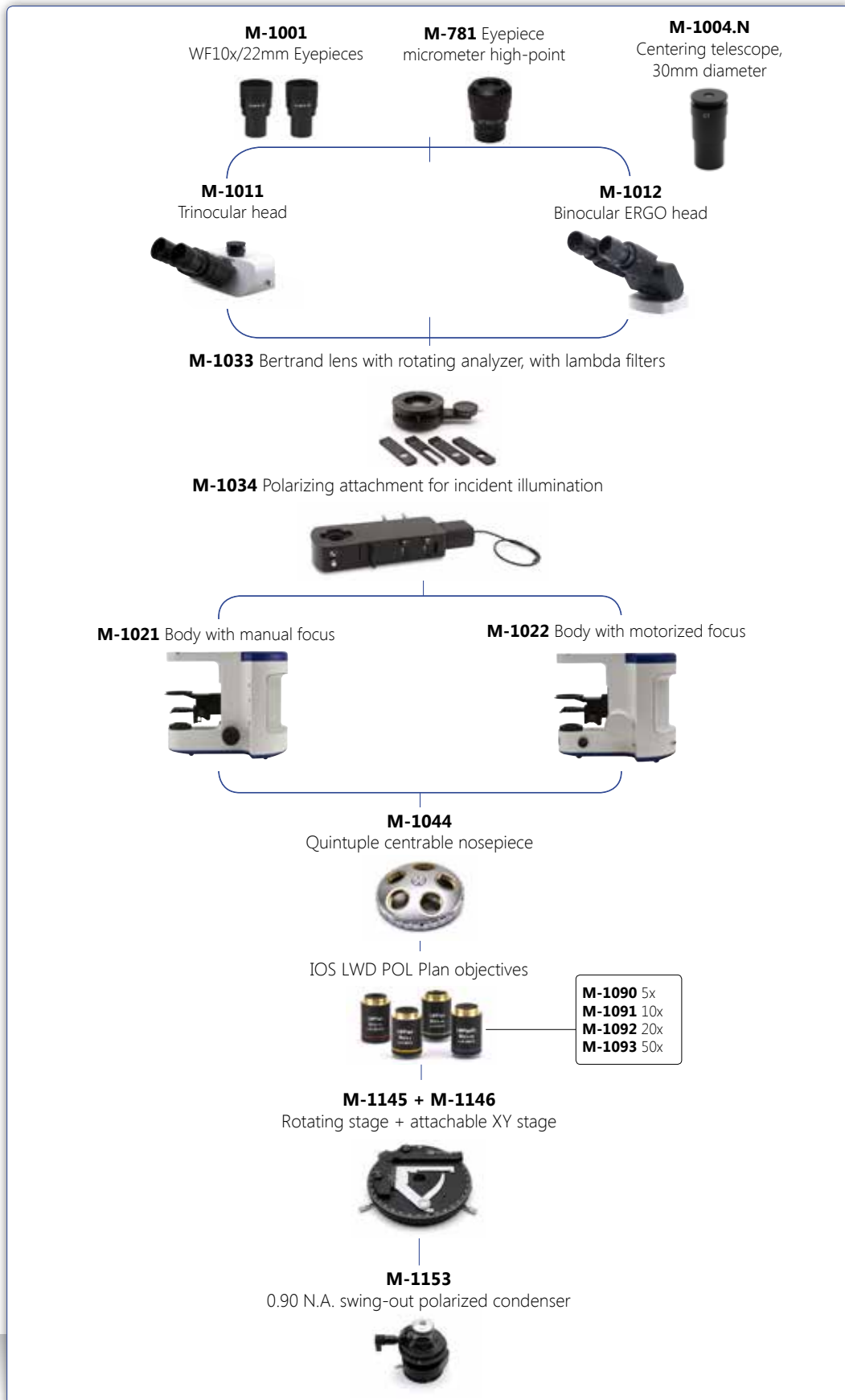
Version for transmitted and incident polarization analysis.

Transmitted illumination: X-LED⁸ (8W power).

Epi-illumination: special attachment with built-in high-power white LED.

B-1000POL-I Model - Configuration chart

BUILD THE MICROSCOPE THAT SUITES YOUR NEEDS BY CHOOSING AMONG THE COMPONENTS OF CONFIGURATION CHART:



POL Series - Accessories

Accessories for B-383POL

M-160	Eyepiece WF10x/20mm.
M-161	Eyepiece EW15x/16mm.
M-162	Eyepiece WF20x/10mm.
M-163	Eyepiece micrometer WF10x/20mm.
M-005	Micrometric slide 26x76 mm, range 1 mm, div. 0,01 mm.
M-144P	Objective E-PLAN IOS POL 4x/0,10.
M-145P	Objective E-PLAN IOS POL 10x/0,25.
M-146P	Objective E-PLAN IOS POL 20x/0,40.
M-147P	Objective E-PLAN IOS POL 40x/0,65.
M-149P	Objective E-PLAN IOS POL 60x/0,80.
M-148P	Objective E-PLAN IOS POL 100x/1,25 (Oil).
M-185	Darkfield condenser for dry objectives.
M-173	Photo adapter for APS-C and Full Frame Reflex cameras.
M-114	C-Mount adapter for 1/2" sensor.
M-116	C-Mount adapter for 2/3" sensor.
M-069	Solar battery pack.

Accessories for B-1000POL / B-1000POL-I

M-1004.N	Centering telescope, 30mm diameter.
M-781	WF10x/22mm micrometer eyepiece (10mm, 0.1mm div.).
M-005	Micrometric slide, 26x76mm, range 1mm, div. 0,01mm.
ST-036	Eyecup (pair).
M-619	Photo adapter for REFLEX camera with FULL FRAME sensor.
M-173	Photo adapter for APS-C and Full Frame Reflex cameras.
M-699	Universal adapter for M-114, M-116, M-173 and eyepiece cameras.
M-620	Focusable C-Mount adapter for 1/3" sensor.
M-620.1	Focusable C-Mount adapter for 1/2" sensor.
M-620.2	Focusable C-Mount adapter for 2/3" sensor.
M-114	C-Mount adapter for 1/2" sensor.
M-116	C-Mount adapter for 2/3" sensor.
M-113.1	Ring adapter, 30mm (for monocular and binocular microscopes).
M-617.1N	Phase contrast set with IOS PLAN objective 40x.

15104 - Lens cleaner, 50ml

It cleans glass quickly and effectively, without leaving residue or odor.
Ideal for precision lens or prism cleaning.



M-069 - Solar battery pack

Included battery: rechargeable – Lithium-Poly. Capacity: 2600 mAh.
Output voltage: 5,5Vdc.
Dimensions: 120x73x10 mm.
Autonomy: over 6 hours at medium intensity (X-LED³).
Charging modes: with solar panel (12h),
with external USB power supply (not included)
or from PC USB port (5h).



Accessories for B-500POL

M-680	Ergo binocular head 30°-60°.
M-780	Eyepiece EWF10x/22mm.
M-601	Eyepiece WF15x/16mm.
M-781	Eyepiece micrometer EWF10x/22mm.
M-005	26x76 mm micrometric slide. Range 1 mm, div. 0,01 mm.
M-691	Objective IOS POL PLAN Achromatic 4x/0,10.
M-692	Objective IOS POL PLAN Achromatic 10x/0,25.
M-692.5	Objective IOS POL PLAN Achromatic 20x/0,45.
M-693	Objective IOS POL PLAN Achromatic 40x/0,65.
M-694	Objective IOS POL PLAN Achromatic 60x/0,85.
M-619	Photo adapter for REFLEX camera with FULL FRAME sensor.
M-699	Universal adapter for M-114, M-116, M-173 and eyepiece cameras
M-620	Focusable C-Mount adapter for 1/3" sensor.
M-620.1	Focusable C-Mount adapter for 1/2" sensor.
M-620.2	Focusable C-Mount adapter for 2/3" sensor.
M-034	Dust cover type 5.
M-975	Blue filter, 45 mm diameter.
M-977	Green filter, 45 mm diameter.
M-979	Yellow filter, 45 mm diameter.
M-989	Frosted glass filter, 45 mm diameter.
ST-036	Eyecup (pair).
M-173	Photo adapter for APS-C and Full Frame Reflex cameras
M-114	C-Mount adapter for 1/2" sensor.
M-116	C-Mount adapter for 2/3" sensor.

Accessories for B-500POL-I

M-680	Ergo binocular head 30°-60°.
M-780	Eyepiece EWF10x/22mm.
M-601	Eyepiece WF15x/16mm.
M-781	Eyepiece micrometer EWF10x/22mm.
M-005	26x76 mm micrometric slide. Range 1 mm, div. 0,01 mm.
M-695	Objective IOS POL LWD PLAN Achromatic 5x.
M-696	Objective IOS POL LWD PLAN Achromatic 10x.
M-697	Objective IOS POL LWD PLAN Achromatic 20x.
M-688	Objective IOS POL LWD PLAN Achromatic 50x.
M-619	Photo adapter for REFLEX camera with FULL FRAME sensor.
M-699	Universal adapter for M-114, M-116, M-173 and eyepiece cameras
M-620	Focusable C-Mount adapter for 1/3" sensor.
M-620.1	Focusable C-Mount adapter for 1/2" sensor.
M-620.2	Focusable C-Mount adapter for 2/3" sensor.
M-034	Dust cover type 5.
M-975	Blue filter, 45 mm diameter.
M-977	Green filter, 45 mm diameter.
M-979	Yellow filter, 45 mm diameter.
M-989	Frosted glass filter, 45 mm diameter.
ST-036	Eyecup (pair).
M-173	Photo adapter for APS-C and Full Frame Reflex cameras.
M-114	C-Mount adapter for 1/2" sensor.
M-116	C-Mount adapter for 2/3" sensor.



How to connect the cameras to our microscopes.
Please refer to the Adapter reference list on Digital section.

Headquarters and Manufacturing Facilities

OPTIKA® S.r.l. Via Rigla, 30 - 24010 Ponteranica (BG) - ITALIA - Tel.: +39 035.571.392 - Fax: +39 035.571.435 - info@optikamicroscopes.com

Optika Sales branches

OPTIKA® Spain spain@optikamicroscopes.com
OPTIKA® China china@optikamicroscopes.com

OPTIKA® USA usa@optikamicroscopes.com
OPTIKA® Hungary hungary@optikamicroscopes.com