

B-1000 Series

Modular research microscopes



B-1000 Series

OPTIKA Microscopes, thanks to the long experience achieved in microscopy development, has conceived the new B-1000: a major leap in our technological offer. As a flagship instrument, the B-1000 originates, from customer most demanding feedback and needs. Its modularity and versatility will allow to find the perfect place in any clinical or basic research laboratory. All controls are easily accessible and comfortable also for extended periods of observation. Highest category of optical equipment among our product range guarantees a sharp and clear view in any situation, while top level mechanical design offers sturdiness and long lifetime.

The B-1000 product-line is built on IOS Infinity Corrected optical system, which gives both a top-notch optical performances, and the possibility to extend your instrument with the broad range of accessories and modules. X-LED illumination is the best solution to have pure white light and very intense, even at higher magnification, and optimum power efficiency given by solid state source.

If you search for our best solution to your present and future professional needs, B-1000 is the answer.

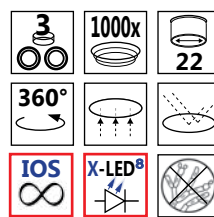
B-1000BF	Brightfield trinocular microscope.
B-1000PH	Phase contrast trinocular microscope.
B-1000FL-LED	Trinocular microscope, LED fluorescence. (Information in FLUO SERIES)
B-1000FL-HBO	Trinocular microscope, HBO fluorescence. (Information in FLUO SERIES)
B-1000POL	Trinocular microscope, transmitted polarization. (Information in POL SERIES)
B-1000POL-I	Trinocular microscope, incident polarization. (Information in POL SERIES)
B-1000MET	Trinocular microscope, metallography. (Information in INDUSTRY SERIES)
B-1000TI-2	Trinocular discussion microscope, 2 heads.
B-1000TI-3	Trinocular discussion microscope, 3 heads.
B-1000TI-5	Trinocular discussion microscope, 5 heads.
B-1000TI-10	Trinocular discussion microscope, 10 heads.



B-1000 Series



B-1000FL-HBO

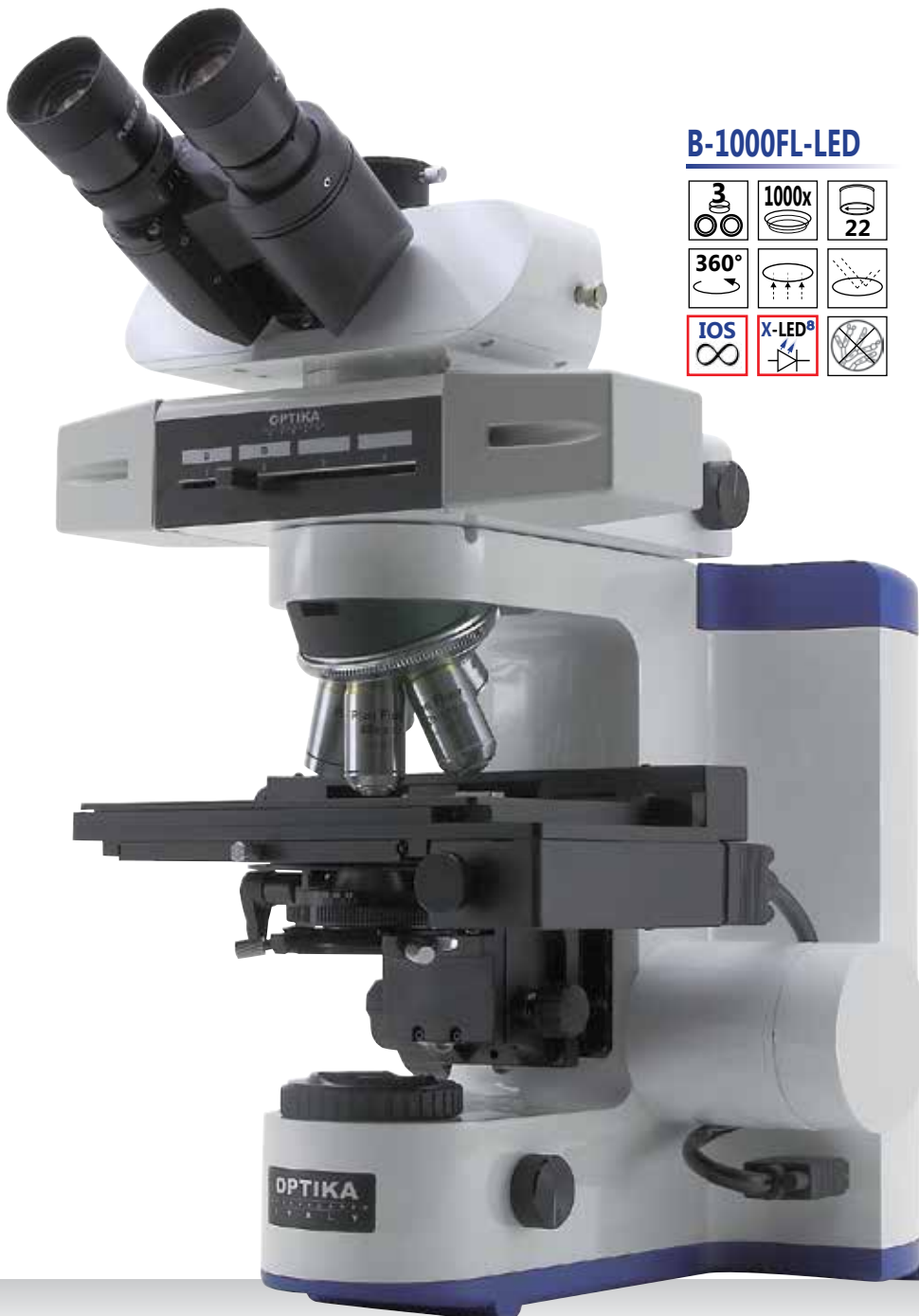


B-1000 Series - General information

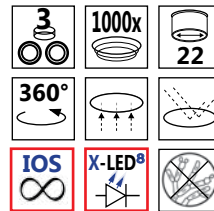
Solid Stand – Extra Stability

Completely new design and a die-cast aluminium stand offer solidity and durability, even for the most demanding laboratory use.

This new microscope can seamlessly be upgraded with many attachments that extend its field of use.



B-1000FL-LED



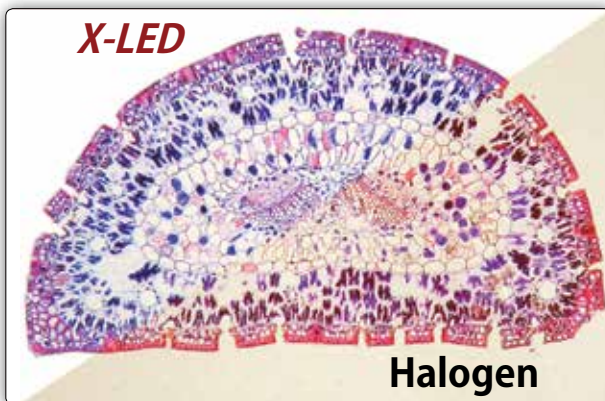
Modularity – Build your own solution

Many worlds in one instrument. Modularity allows to build the desired solution (brightfield, darkfield, phase contrast, material science, fluorescence, motorized automation and so on).

B-1000 has the flexibility to help your work the best way.



B-1000 Series - General information



X-LED White Illumination

X-LED illumination system is based on a pure white high-efficiency LED and a special optics. It guarantees constant color temperature, no heat, and an extreme electrical consumption efficiency.

The whole system is pre-aligned and boasts a lifetime of 50.000 hours.



Light under control

Intelligent control of the microscope illumination: the "AUTO-OFF" function automatically switches the light off after a user-selectable time period. "BOOST" gives an extra high level of illumination for light-demanding applications.

"AUTO" allows to store an illumination level, and to maintain it throughout the inspection.



Ergonomy

Low position focus and stage controls allow a fast and comfortable operation. Frequently used controls as light intensity adjustment and diaphragm are also placed in the lower part of the stand and enable operation without having to take the eyes off the specimen.

All optical heads are equipped with high-point eyepieces and dioptic adjustment, for the best viewing experience.



Comfortable Stage

Refined ceramic stage, with a wide working surface and a highly precise XY movement.

B-1000 Series - General information

High Quality IOS Optical System

Infinity corrected optical system, based on planachromatic, fluorite, and semi-apochromatic objectives, designed to give sharp and clear images, both for the user and the digital camera. Quintuple and sextuple nosepieces give the flexibility to build the optics set that best suits your needs.

The system is complete with wide field, high-point eyepieces, with a field number of 24mm.



Ready for Digital Imaging

Range of adapters can accommodate for C-mount digital cameras, as well as reflex cameras. Focus adjustment gives perfectly clear digital images.

Our cameras include specific software for capturing, measuring, marking and storing your pictures. Optika Vision Pro software allows to perform image acquisition, post-processing, measurements and storage of your images. User can save a preset for later work, or even create a multi-focus composition.



B-1000 Series - General information

Remote-controlled microscope

The stage can be remote-controlled through a dedicated software: X, Y, Z axes, as well as nosepiece can be moved with a single click. Communication protocol is available for interfacing with custom software, such as automated analysis or autofocus.

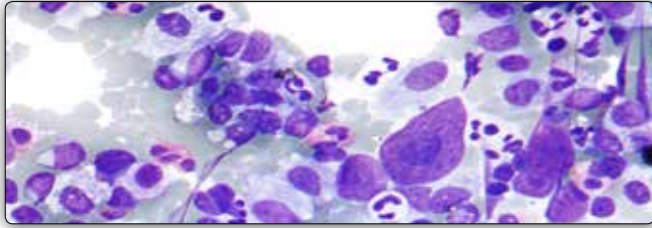
X-Y-Z MOTORIZED STAGE MOTORIZED NOSEPIECE



X-LED benefits

Powerful pure white LED illumination, ideal for brightfield, darkfield and phase contrast applications. Color temperature constant through all the intensity levels. No heat generation, that could damage the specimen. Factory pre-centering assures uniform illumination over the field of view, yet providing perfect Koehler alignment. Very long lifetime and high power efficiency.

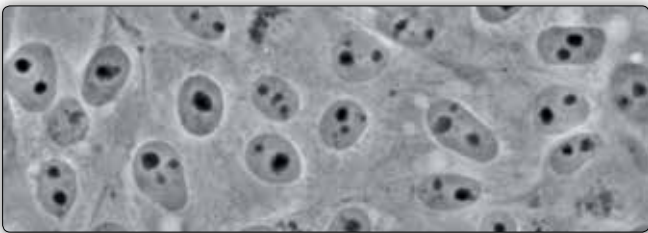
B-1000 Series - Fields of application



Pathology / Cytology

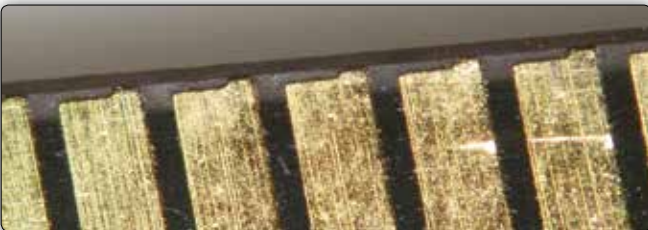
Since B-800 / B-1000 use white LED illumination, they can maintain the same color temperature even if the brightness is changed. "AUTO" function automatically adjusts the light intensity when the objective is changed or the aperture diaphragm is set to a different value.

These features, along with motorized stage and ergonomic controls, make your workflow easier.



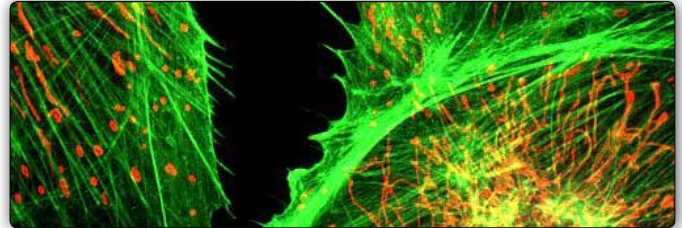
Phase Contrast Microscopy

The bright LED illuminator brings a comfortable view in phase contrast with all magnifications. Universal wheel condenser allows to quickly switch between brightfield, darkfield and phase contrast. Ideal for clinical laboratories or fibers (e.g. asbestos) analysis.



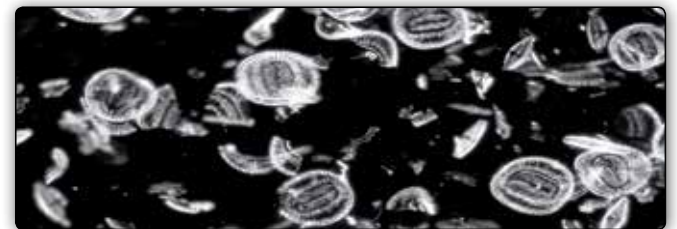
Material Science

A new attachment designed specifically for metallographic inspection, with dedicated objectives set, for the most complete epi-illumination analysis: brightfield, darkfield and polarizing view.



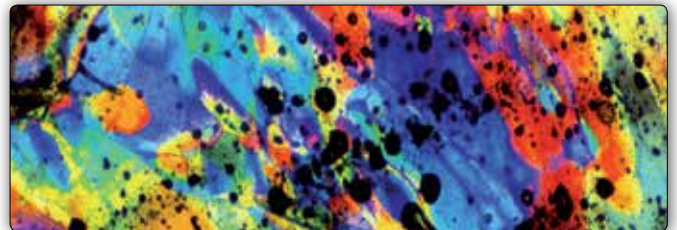
Fluorescence Microscopy

A new attachment for epi-fluorescence provides the ultimate solution in the field of fluorescence diagnostic. Vibration-free six positions filter wheel with shutter, field and aperture diaphragms, it offers all you need for a complete analysis. Custom filtersets are available and mounted on request. For application where efficiency, rapidity and ease of use are crucial, this model offers also a LED epi-fluorescence attachment, with very high power standard illuminators.



Darkfield Microscopy

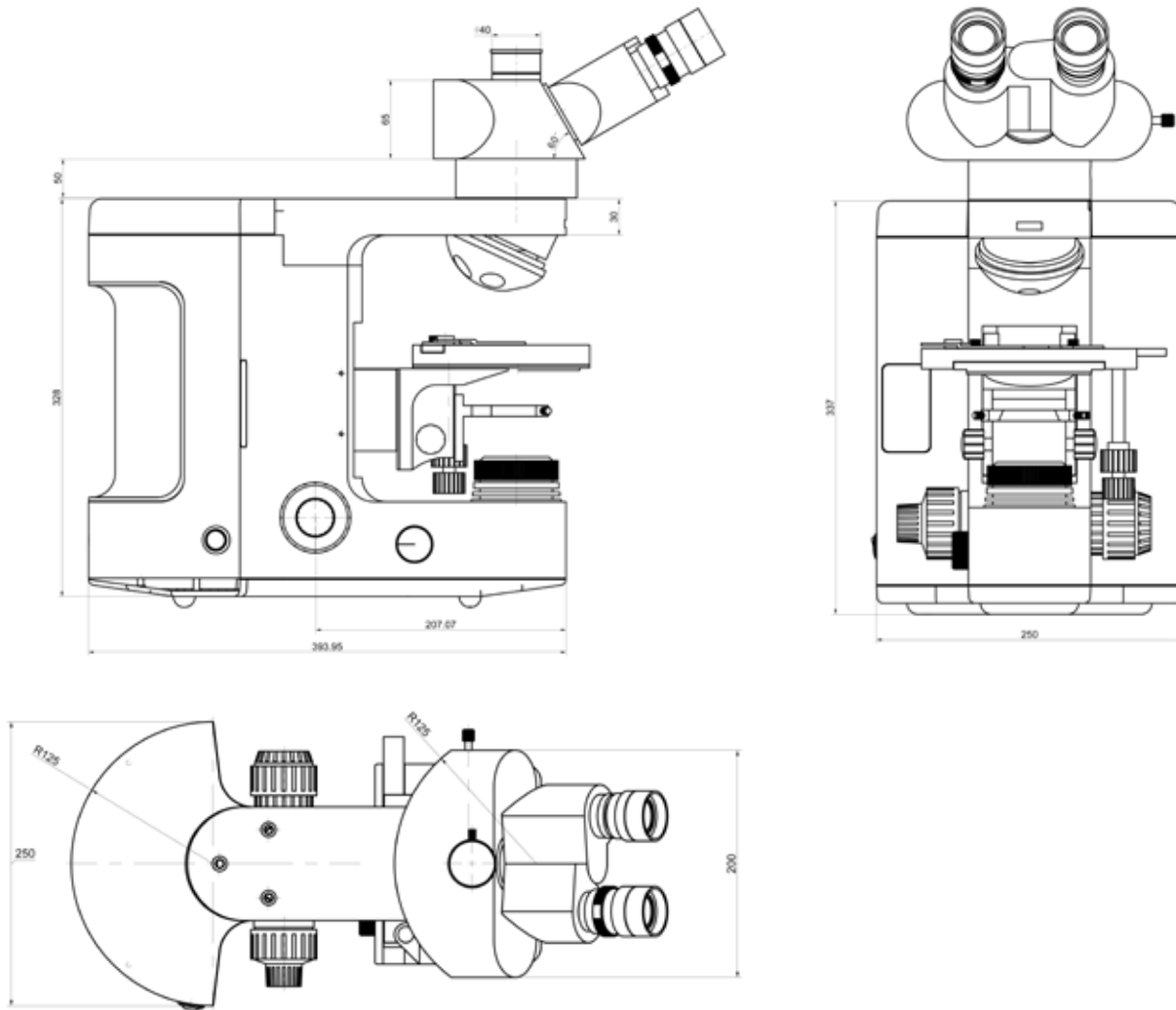
Ideal for observing blood cells, diatoms, small insects, bone, fibers, unstained bacteria, yeast, protozoa, mineral and chemical crystals, colloidal particles, dust-count specimens, and thin sections of polymers and ceramics.



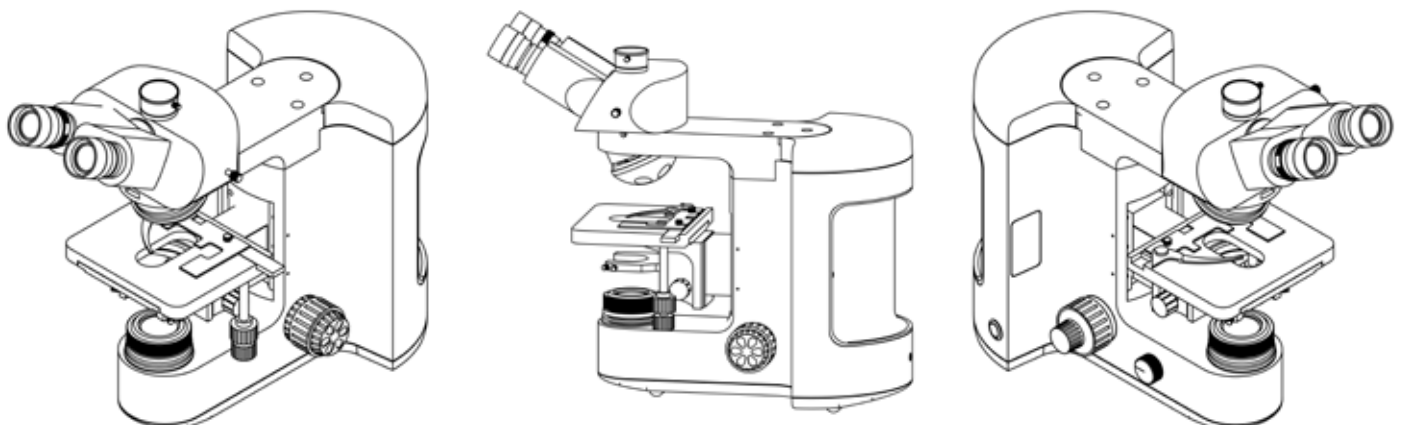
Polarizing Microscopy

Polarized light microscopy is used in geological applications or also for both natural and industrial minerals, composites such as concretes, ceramics, mineral fibers and polymers, and crystalline or biological molecules such as DNA, starch, wood and urea. Attachments for a full polarization analysis are available (both for transmitted and incident light), so it's possible to look at color fringes right away.

B-1000 Series - Dimension drawing



B-1000 Series - Concept art



B-1000 Series - Components

Eyepieces



WF10x/22mm Eyepieces, high-point type



WF10x/24mm Eyepieces, high-point type

Heads



Trinocular Head 100/0 - 50/50 - 0/100 type



Binocular Ergonomic Head



Binocular Ergonomic Head with side Video/Photo Tube

Nosepieces



Sextuple revolving Nosepiece, for RMS objectives; with DIC slot



Sextuple motorized revolving Nosepiece, for RMS objectives; with DIC slot



Quintuple revolving Nosepiece, with centrable positions for polarizing objectives



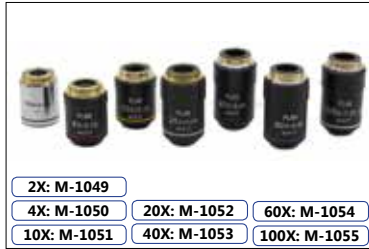
Quintuple revolving Nosepiece for darkfield metallurgical objectives; with 3 ring adapters for brightfield objectives



Quintuple motorized revolving Nosepiece for darkfield metallurgical objectives; with 3 ring adapters for brightfield objectives motorized

B-1000 Series - Components

Objectives



IOS (infinity corrected) Plan Objectives



IOS (infinity corrected) Semi-APO FLUO E-Plan objectives



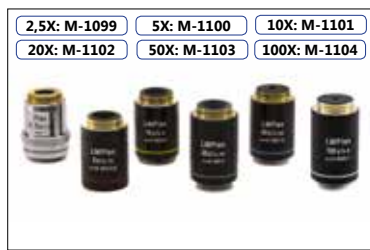
IOS (infinity corrected) Semi-APO FLUO High-Grade Plan objectives



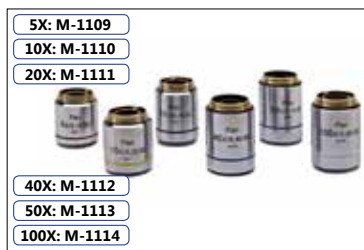
IOS (infinity corrected) POL Plan objectives, for transmitted polarized light



IOS (infinity corrected) LWD POL Plan objectives, for transmitted and incident polarized light



IOS LWD (infinity corrected) MET Plan objectives, for brightfield



IOS LWD (infinity corrected) MET Plan objectives, for darkfield



IOS (infinity corrected) Phase Contrast Plan Objectives

Stages



Standard Mechanical Stage



Belt drive Mechanical Stage; movement knobs with friction adjustment control



MPC (mineral solid surface) Belt drive Mechanical Stage; movement knobs with friction adjustment control



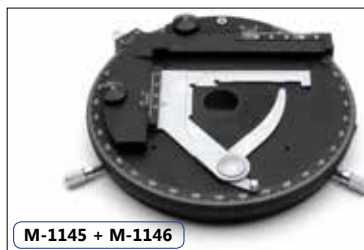
Motorized stage



Metallographic stage for B-1000 MET



Heating Stage



Rotating Stage + attachable XY stage

B-1000 Series - Components

Condensers



M-1150
0.90 N.A. swing-out Condenser



M-1151
1.20 N.A. swing-out Condenser



M-1153
0.90 N.A. swing-out Polarizing Condenser



M-1154
0.70 N.A. swing-out Condenser



M-1155
0.90/0.25 N.A. Swing-Out Condenser.



M-618
Darkfield Condenser (dry).



M-1152.N
Phase contrast condenser 10x, 20x, 40x, 100x, BF, DF.



M-1124
Phase contrast condenser with insert slide 10x-40x.

Fluorescence attachments



M-1031
4-position LED Fluorescence Attachment



M-1032
6-position HBO Fluorescence attachment

Polarizing attachments



M-1033
Bertrand Lens with analyzer and Lambda slides slot



M-1034
Incident Polarizing Light attachment, with field and aperture diaphragms

Discussion heads



M-1160 - 2-Head attachment
M-1161 - 3-Head Attachment

M-1162 - 5-Head Attachment
M-1163 - 10-Head attachment

Metallurgical attachment



M-1035

Metallurgical Brightfield/Darkfield attachment, with field and aperture diaphragms, neutral density filter, and polarizer/analyzer filters.

B-1000 Series - Discussion microscope

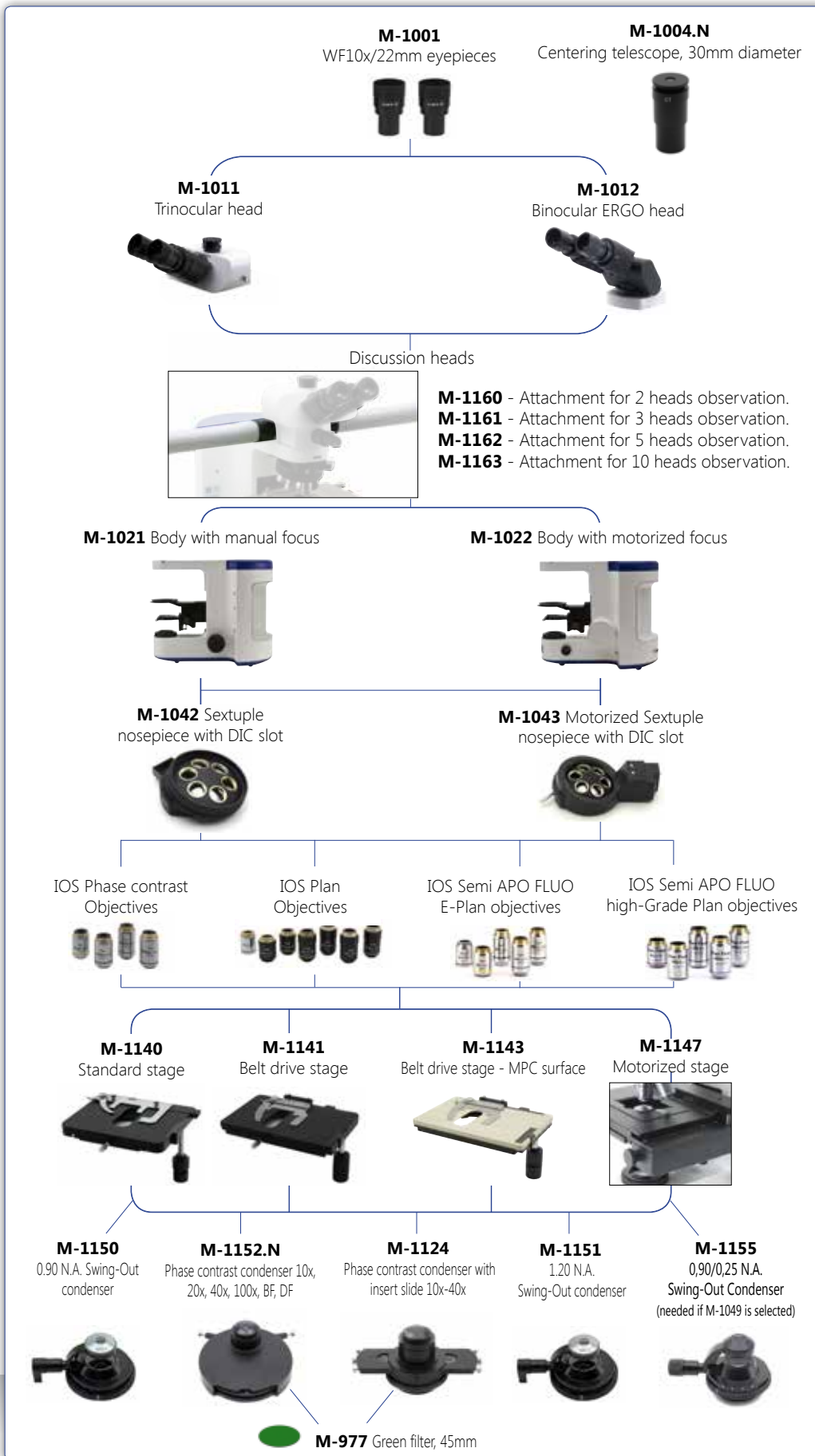
Share your view with up to 10 persons. With built-in movable pointer, it helps any teaching or discussion experience.

- B-1000Ti-2**
- B-1000Ti-3**
- B-1000Ti-5**
- B-1000Ti-10**

B-1000Ti-5



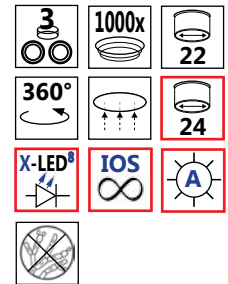
B-1000Ti-10



B-1000BF Model - Brightfield version



B-1000BF



B-1000BF

Type:

BRIGHTFIELD RESEARCH MICROSCOPE

Description:

Laboratory microscope for routine and research applications.

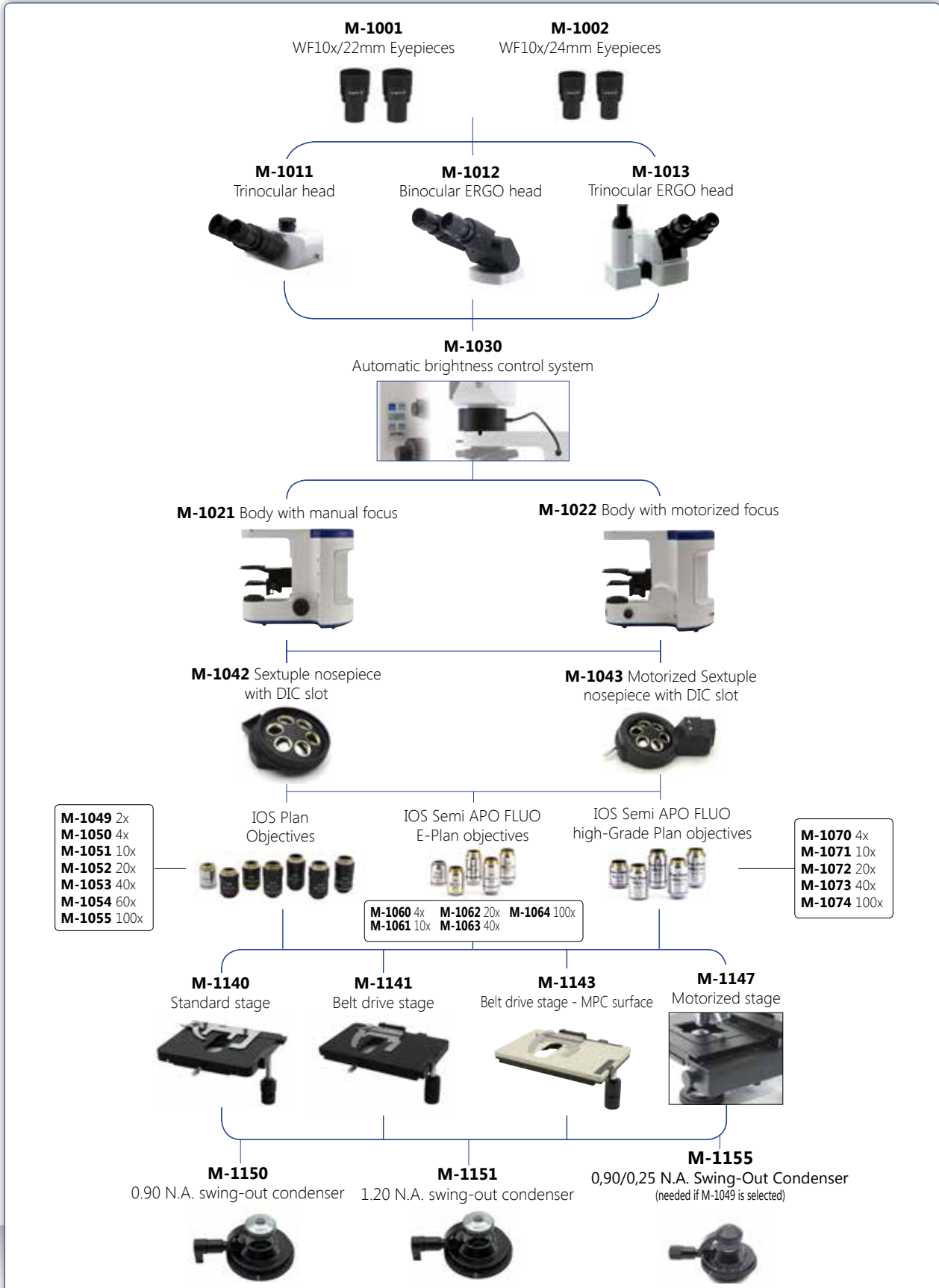
Dye-cast frame, with high stability and ergonomomy, for transmitted light observation.



Version for standard brightfield view.
Illumination: X-LED⁸ (8W power)

B-1000BF Model - Configuration chart

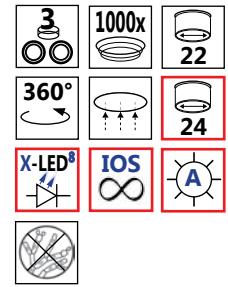
BUILD THE MICROSCOPE THAT SUITES YOUR NEEDS BY CHOOSING AMONG THE COMPONENTS OF CONFIGURATION CHART:



B-1000PH Model - Phase contrast version



B-1000PH



B-1000PH

Type:

PHASE CONTRAST RESEARCH MICROSCOPE

Description:

Laboratory microscope for routine and research applications.

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



Version for phase contrast analysis.
Illumination: X-LED⁸ (8W power).

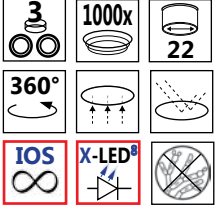
B-1000PH Model - Configuration chart

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



B-1000 Series -Additional models

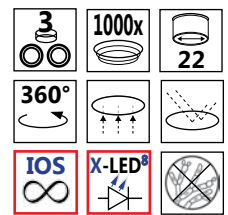
B-1000FL-LED



More information in
FLUO SERIES



B-1000FL-HBO



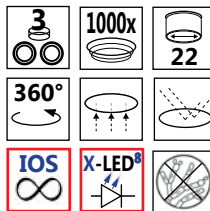
More information in
FLUO SERIES



B-1000 Series - Additional models

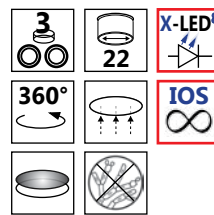


B-1000MET



More information in
INDUSTRY SERIES

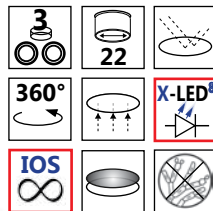
B-1000POL



More information in
POL SERIES



B-1000POL-I



More information in
POL SERIES



B-1000 Series - Accessories

EYEPIECES

M-1001	Eyepiece (pair) WF10x/22mm.
M-781	Micrometer Eyepiece WF10x/22mm (10mm, 0.1mm div.).
M-1002	Eyepiece (pair) WF10x/24mm.
M-1003	Eyepiece WF15X/16mm.

HEADS

M-1011	Trinocular Head (3 positions).
M-1012	Binocular ERGO head.
M-1013	Trinocular ERGO head.

ATTACHMENTS

M-1030	Automatic Brightness Control System.
M-1031	4-Position LED Fluorescence attachment, with standard Blue and Green filtersets (FITC & TRITC).
M-1032	6-Position HBO Fluorescence attachment, with standard Blue and Green filtersets (FITC & TRITC).
M-1033	Bertrand Lens with Analyzer and slot for slides (with Lambda, 1/4 Lambda and Quartz Edge).
M-1034	Incident Polarizing Attachment.
M-1035	Metallurgical Attachment.

NOSEPIECES

M-1042	Sextuple nosepiece for RMS objectives with DIC slot.
M-1043	Sextuple motorized nosepiece for RMS objectives with DIC slot.
M-1044	Quintuple nosepiece with centrable positions for POL objectives.
M-1045	Quintuple nosepiece for Darkfield MET objectives, with 3 adater rings for RMS objectives
M-1046	Quintuple motorized nosepiece for Darkfield MET objectives, with 3 adater rings for RMS objectives

OBJECTIVES

M-1049	Objective 2x IOS PLAN.
M-1050	Objective 4x IOS PLAN.
M-1051	Objective 10x IOS PLAN.
M-1052	Objective 20x IOS PLAN.
M-1053	Objective 40x IOS PLAN.
M-1054	Objective 60x IOS PLAN.
M-1055	Objective 100x IOS PLAN.
M-1060	Objective 4x IOS Semi-APO E-PLAN.
M-1061	Objective 10x IOS Semi-APO E-PLAN.
M-1062	Objective 20x IOS Semi-APO E-PLAN.
M-1063	Objective 40x IOS Semi-APO E-PLAN.
M-1064	Objective 100x IOS Semi-APO E-PLAN.
M-1070	Objective 4x IOS Semi-APO High-Grade PLAN.
M-1071	Objective 10x IOS Semi-APO High-Grade PLAN.
M-1072	Objective 20x IOS Semi-APO High-Grade PLAN.
M-1073	Objective 40x IOS Semi-APO High-Grade PLAN.
M-1074	Objective 100x IOS Semi-APO High-Grade PLAN.
M-1080	Objective 4x IOS POL PLAN.
M-1081	Objective 10x IOS POL PLAN.
M-1082	Objective 40x IOS POL PLAN.
M-1083	Objective 60x IOS POL PLAN.
M-1090	Objective 5x IOS LWD POL PLAN.
M-1091	Objective 10x IOS LWD POL PLAN.
M-1092	Objective 20x IOS LWD POL PLAN.
M-1093	Objective 50x IOS LWD POL PLAN.
M-1099	Objective 2,5x IOS MET PLAN, for brightfield (with depolarizer).
M-1100	Objective 5x IOS MET PLAN, for brightfield.
M-1101	Objective 10x IOS MET PLAN, for brightfield.

M-1102	Objective 20x IOS MET PLAN, for brightfield.
M-1103	Objective 50x IOS MET PLAN, for brightfield.
M-1104	Objective 100x IOS MET PLAN, for brightfield.

M-1109	Objective 5x IOS MET PLAN, for darkfield.
M-1110	Objective 10x IOS MET PLAN, for darkfield.
M-1111	Objective 20x IOS MET PLAN, for darkfield.
M-1112	Objective 40x IOS MET PLAN, for darkfield.
M-1113	Objective 50x IOS MET PLAN, for darkfield.
M-1114	Objective 100x IOS MET PLAN, for darkfield.

M-1120.N	Objective 10x IOS PLAN, for Phase Contrast.
M-1121.N	Objective 20x IOS PLAN, for Phase Contrast.
M-1122.N	Objective 40x IOS PLAN, for Phase Contrast.
M-1123.N	Objective 100x IOS PLAN, for Phase Contrast.

STAGES

M-1140	Standard Mechanical Stage.
M-1141	Belt Drive Mechanical Stage.
M-1143	MPC (Mineral Solid Surface) Belt Drive Mechanical Stage.
M-1144	Heating Stage.
M-1145	Rotating Stage, centrable.
M-1146	Attachable mechanical stage for rotating Stage.
M-1147	Motorized mechanical Stage.
M-1148	Metallurgical Stage, with glass.

CONDENSERS

M-1150	0,90 N.A. Swing-Out Condenser.
M-1151	1,25 N.A. Swing-Out Condenser.
M-1152.N	Phase contrast condenser 10x, 20x, 40x, 100x, BF, DF.
M-1153	0,90 N.A. Swing-Out POL Condenser.
M-1154	0,70 N.A. Swing-Out MET Condenser.
M-1155	0.9/0.25 NA Swing-Out Condenser (to be used with objective M-1049).
M-618	Darkfield condenser for dry objectives.
M-1124	Phase contrast condenser with insert slide 10x-40x.

ACCESSORIES

M-1004.N	Centering telescope, 30mm diameter.
M-005	Micrometric slide, 26x76mm, range 1mm, div. 0,01mm.
M-613	Polarizing set (Polarizer and Analyzer filters)
M-615	Lambda filter for polarizing set.
M-617.1N	Phase contrast set with IOS PLAN objective 40x.
M-977	Green filter, 45mm diameter.
M-690	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-151	HBO 100W high-pressure mercurybulb for fluorescence.
M-1164	Empty fluorescence filterblock for B-1000 FL HBO.
M-1165	Fluorescence filterset V (filterblock included) for B-1000 FL HBO.
M-1166	Fluorescence filterset UV-DAPI (filterblock included) for B-1000 FL HBO.
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).
15008	OPTIKA immersion oil, 10ml.
15104	Lens cleaner, 50ml.



How to connect the cameras to our microscopes.

Please refer to the Adapter reference list on Digital section.

Headquarters and Manufacturing Facilities

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