



OPTIKA®
MICROSCOPES
ITALY

B-810

OPTIKA B-810 helps you work in a comfortable way during extended periods of use and let you perform reliable, accurate and rapid diagnosis benefiting from modularity, which gives the chance to create customized configurations tailored on customer needs. Versatile, robust, durable and sturdy, B-810 offers premium quality optics, the state-of-the-art, exclusive X-LED³ illumination system, designed by OPTIKA, for true colors, and the Köhler diaphragm. Ready for digital imaging, B-810 will be the perfect assistant for your routine applications requiring brightfield and phase contrast techniques.

B-810

Several **eyepieces** available

Binocular and trinocular **heads** available, also ergonomic ones, with fixed or settable light distribution

Sturdy, stable and wide-dimensioned **body**

5-pos. or 6-pos. revolving **nosepiece** for RMS objectives

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

Several **condensers** available for brightfield, darkfield and phase contrast

High-efficiency **X-LED³** as transmitted light for brightfield, darkfield and phase contrast observation

Exclusive, state-of-the-art illumination system

X-LED³

(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.

Several **objectives** available for brightfield and phase contrast, ensuring field flatness up to F.N. 22.

Several rackless mechanical **stages** available with double Vernier scale and anti-scratch surface

Right-handed, X/Y controls in ergonomic position

Full Köhler illumination system



Eyepieces

Ergonomic Eyepieces

Plan wide field eyepieces PL 10x with F.N. of 22 mm (M-1001), high eyepoint and with rubber cups, retractable protections to ensure an extreme comfort during use, reducing fatigue for smooth operations.

Other options are:

PL10x/22 eyepiece, high eyepoint, with micrometric scale & rubber cup (M-781)

PL15x/16 eyepieces (pair), high eyepoint (M-1003)

12.5x/18 eyepieces (pair, focusable, one with W&B reticle for Asbestos) (AA-01)



M-1001



M-1012



Heads

Tilting Head For Optimal Posture

Only simple adjustments are necessary to tailor the microscope to your appropriate posture and match different heights: several options are available to ensure long lasting observations with no pain, in addition to the standard heads.

Options are:

Binocular ERGO head (M-1012)

Trinocular head, single position (50/50) (M-1188)

Trinocular head, two positions (100/0, 50/50) (M-1010)

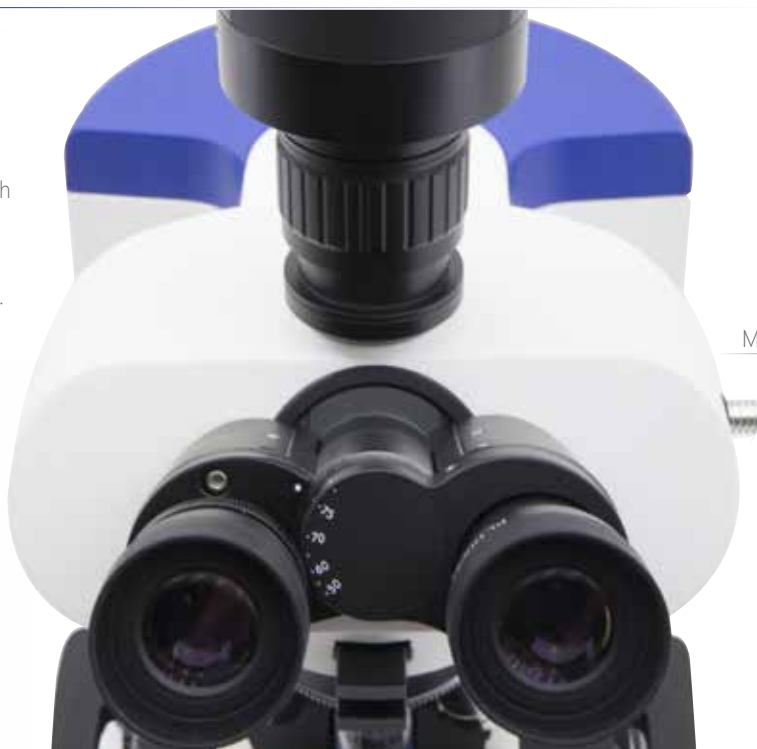
Trinocular ERGO head, two positions (100/0, 50/50) (M-1013)

Easy Yet Professional Image Capturing Solution - More Power Behind Every Pixel

Cameras have become indispensable nowadays and OPTIKA is offering a line of remarkable solutions for digital imaging for the most demanding users and professional use.

OPTIKA PRO Series includes a wide range of cameras, to virtually fulfill each application demand: from routine up to high-end cooled monochrome or color cameras, with CMOS or CCD sensors. Top-class SONY sensors, worldwide recognized, ensure you to capture your specimen in beautiful true-to-life color, delivering incredibly accurate colors just as you see them.

All the main operating systems like Windows, IOS, Linux are supported.



M-1010



Body

Remain Comfortable During Use

The main body is equipped with low-positioned precise coaxial focus knob (graduated 0.002 mm) with upper stop to prevent the contact between objective and specimen, adjustable tension of coarse focusing knob and the "flat-type" right hand knob, for ultra-comfortable fingertip use.

Sturdy, Stable & Wide-Dimensioned Body

The die-cast aluminum frame offers stability, solidity and durability on the bench. Designed to match the needs of the most demanding laboratory technicians, this microscope is very appreciated for its robustness, which is a must in professional laboratories.

M-1041



Nosepieces

Effortless Magnification Change

The revolving nosepiece, reversed, is designed ensuring great flexibility and considering customer expectations (minimal movement, quick and efficient rotation with click stops) reducing fatigue and allowing the arms to rest on the bench-top when changing objectives.

Choose between the 5-pos. (M-1040) and the 6-pos. (M-1041) nosepieces for RMS objectives.





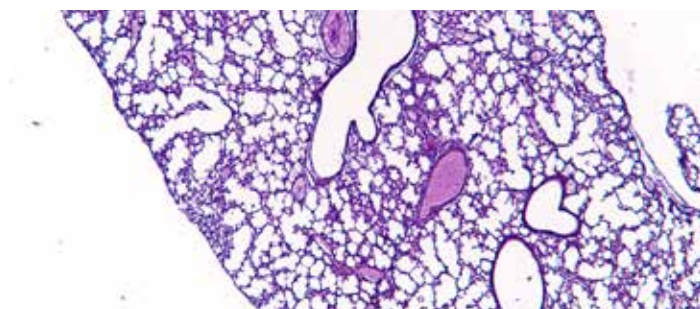
Objectives

Premium Optics For Top Quality Images

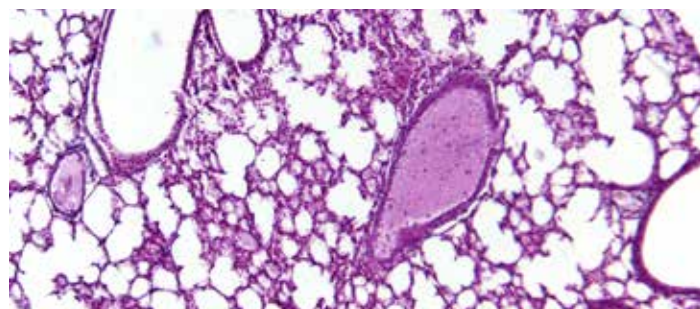
Achieve clear, brilliant and resolved images with a wide field of view by choosing from the extended range of infinity-corrected IOS objectives, which can be added at any time for an extreme versatility of use and future upgradability.

B-810 is freely configurable in terms of objectives, by choosing among:

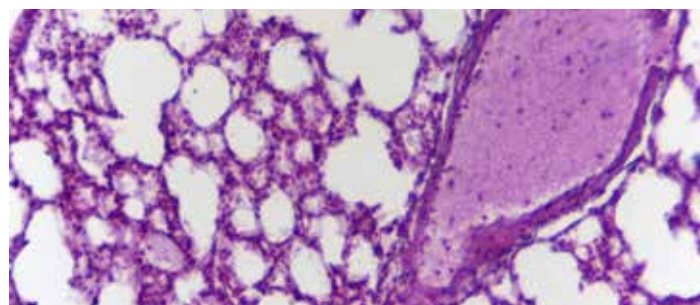
Plan Objectives - IOS W-PLAN Series



Mouse lung, Brightfield, 4x



Mouse lung, Brightfield, 10x



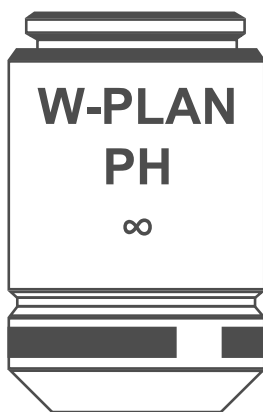
Mouse lung, Brightfield, 20x

The IOS W-PLAN Plan-Achromatic objectives ensure high contrast and resolution, matching all the requirements of labs requiring good quality routinary optics.

They are designed to ensure field flatness up to F.N. 22, based on infinity-corrected optical system.

- IOS W-PLAN objective 4x/0.10 (M-1125)
- IOS W-PLAN objective 10x/0.25 (M-1126)
- IOS W-PLAN objective 20x/0.40 (M-1127)
- IOS W-PLAN objective 40x/0.65 (M-1128)
- IOS W-PLAN objective 60x/0.80 (M-1129)
- IOS W-PLAN objective 100x/1.25 (oil) (M-1130)

Plan Objectives - IOS W-PLAN PH Series



The IOS W-PLAN PH Plan-Achromatic series is specifically designed for phase contrast observation.

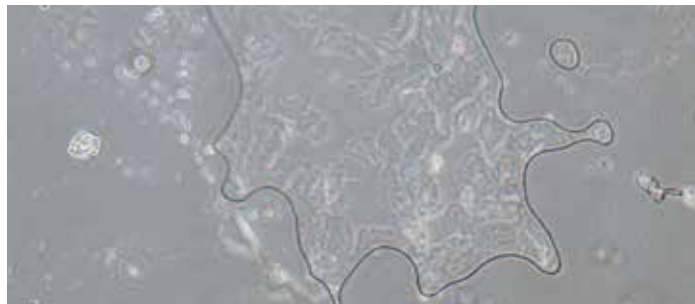
These phase contrast objectives are designed to ensure field flatness up to F.N. 22, based on infinity-corrected optical system.

IOS W-PLAN PH objective 10x/0.25 (M-1120.N)

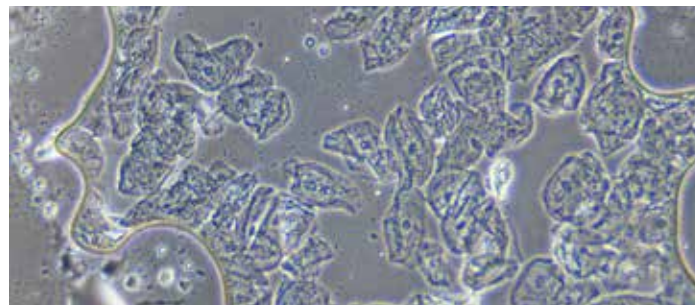
IOS W-PLAN PH objective 20x/0.40 (M-1121.N)

IOS W-PLAN PH objective 40x/0.65 (M-1122.N)

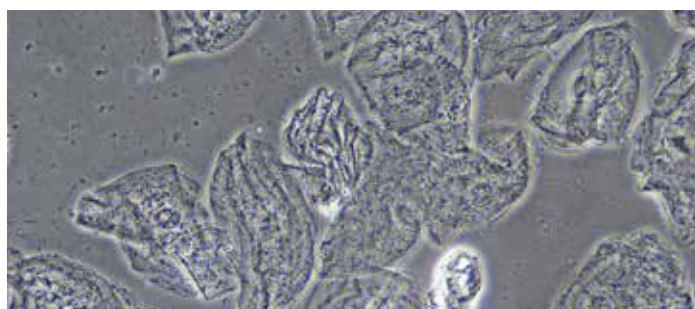
IOS W-PLAN PH objective 100x/1.25 (oil) (M-1123.N)



Epithelial cells, Phase Contrast, 10x



Epithelial cells, Phase Contrast, 20x



Epithelial cells, Phase Contrast, 40x

Plan Semi-APO Objectives - IOS W-PLAN F Series



The IOS W-PLAN F Semi-Apochromatic (Plan-Fluorite) objectives produce superior performance with enhanced contrast, being designed to achieve additional spherical aberration correction for higher resolution and greater numerical apertures.

They are designed to ensure field flatness up to F.N. 22, based on infinity-corrected optical system.

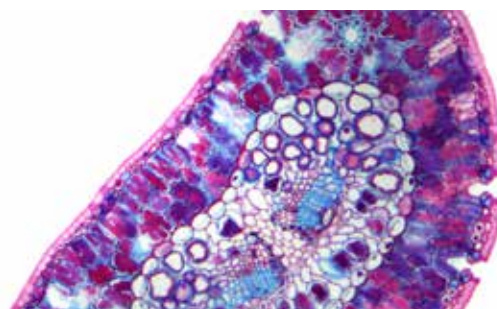
IOS W-PLAN F objective 4x/0.13 (M-1060)

IOS W-PLAN F objective 10x/0.30 (M-1061)

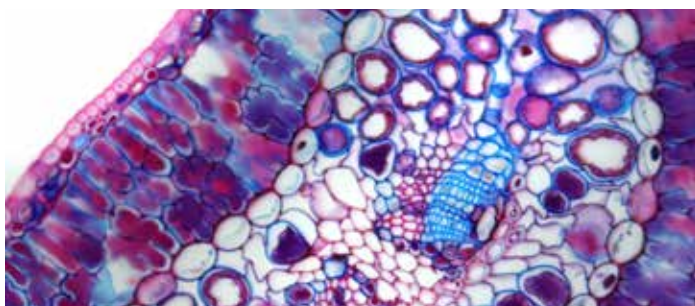
IOS W-PLAN F objective 20x/0.50 (M-1062)

IOS W-PLAN F objective 40x/0.75 (M-1063)

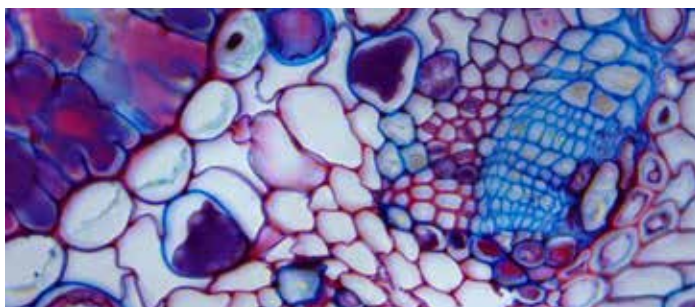
IOS W-PLAN F objective 100x/1.30 (oil) (M-1064)



Pine leaf, Brightfield, 10x



Pine leaf, Brightfield, 20x



Pine leaf, Brightfield, 40x

M-1190



Stages

Convenient, Safe & Friendly Specimen Movement (M-1190)

Discover the unique pleasure of working with a double-layer X/Y stage controlled via a low-positioned, ergonomic knob and allowing two-finger operation to reduce fatigue. Easily position and remove your specimen with a single hand: the holder clamps up to two glass slides firmly and simultaneously, to save time during multiple observations. The large, rackless stage represents a resistant and comfortable solution to smoothly set and observe your specimen. Completely eliminate the possibility of accidental scratches during operations since there are no protruding parts during movement!

Ultra-Resistant MPC Stage - No Way To Scratch It! (M-1143.1)

Differently from conventional ceramic-coated stages, this stage is made of a single piece of innovative mineral/plastic material (no coatings sprayed), which grants an incredibly level of resistance and durability against scratches and corrosion, also when dealing with "aggressive" specimens.

M-1143.1



M-1190H



Heating Stage For Extremely Accurate Temperature Control (M-1190H)

Combining the above mentioned features with exact temperature control, high accuracy and uniform temperature distribution, this solution represents the ideal choice for multiple applications in reproductive biology, medicine, chemistry and other areas.



Condensers

Still Looking For Your Preferred Working Conditions?

Easily set your best light conditions to reach a good and uniform result with the built-in Köhler illumination for transmitted light. The exclusive X-LED³ illumination system will do the most, but through the field and aperture diaphragms you can achieve your (preferred) level of contrast. The field diaphragm determines the illuminated range on the field of view; the aperture diaphragm adjusts the numerical aperture of the light resulting in greater contrast and resolution power.

Options available:

0.90 N.A. swing-out condenser (M-1189)

1.2 N.A. swing-out condenser (M-1191)

Phase contrast condenser with insert slide 10x-40x (M-1124.NO)

Darkfield condenser for dry objectives (M-185)

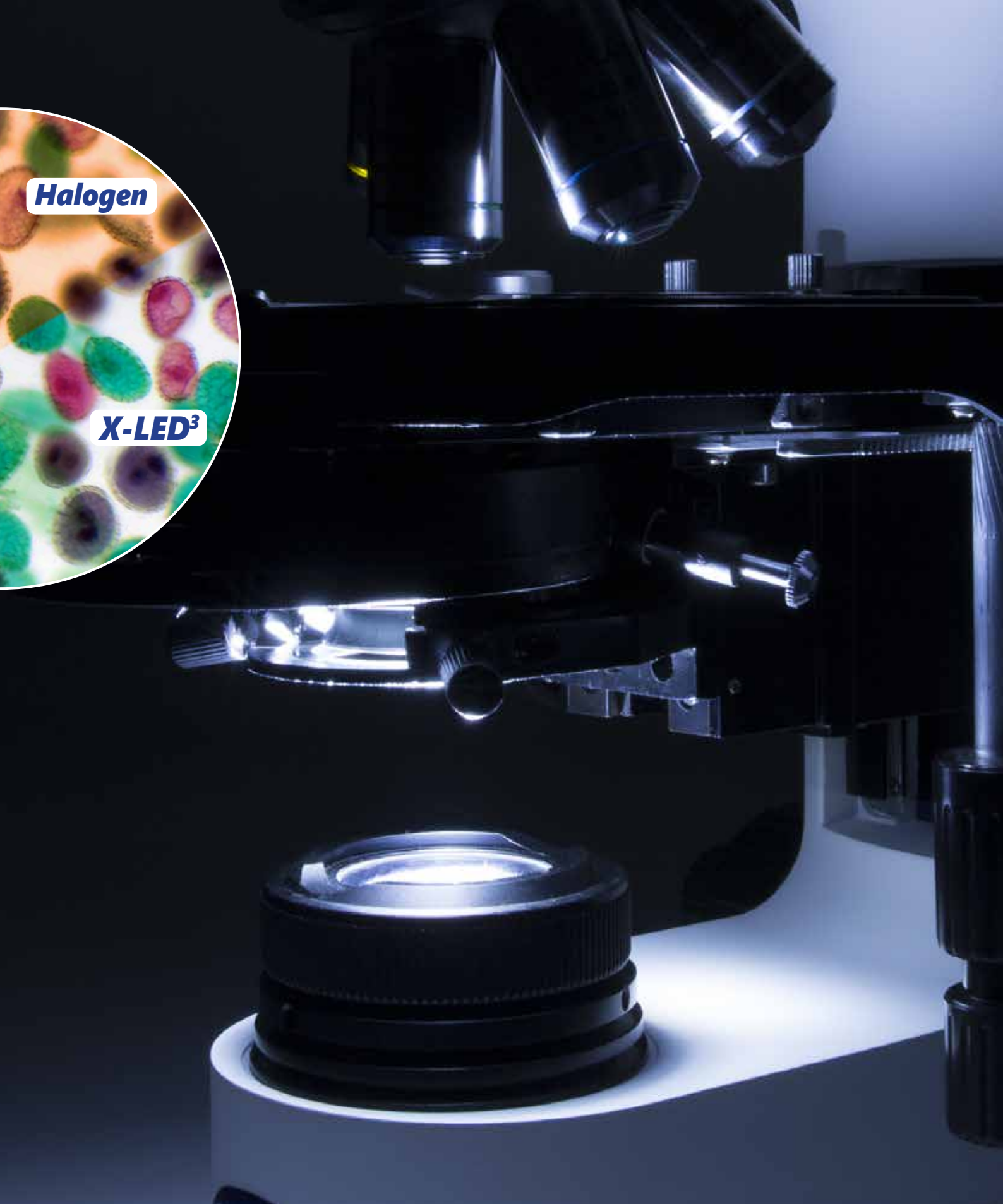
Phase contrast condenser 10x, 20x, 40x, 100x, BF, DF (M-1152.NO)

M-1152.NO

Universal Solution for Brightfield, Darkfield & Phase (M-1152.NO)

For different observation methods, the 5-position centrable rotating condenser for brightfield (standard use), phase contrast (10x/20x, 40x and 100x phase diaphragms), and a darkfield position for dry objectives represents a valuable solution, even for future upgradability: one answer for multiple needs!





Transmitted Light

X-LED³ - Exclusive, State-Of-The-Art Illumination System For Homogeneous Light Conditions & True Colors

The state-of-the-art, exclusive X-LED³ illumination system generates pure white light to ensure bright images, improved colour fidelity and doubling the light intensity for incomparable performance.

Incredibly low energy consumptions and longer lifespan (> 65,000 hours) are also achieved, for relevant money and energy saving, allowing to cut the electricity bills by 90%!

Configuration Chart

Build the microscope that suites your needs by choosing among the components





B-810 - Technical Datasheet

Observation Methods Available	Brightfield, simple polarization, phase contrast, darkfield
Heads	Trinocular, 30° inclined, splitting ratio eyepieces/photo tube: 50% - 50% (M-1188) Trinocular, 30° inclined, splitting ratio eyepieces/photo tube: 100% - 0% / 50% - 50% (M-1010) Binocular, ergonomic, 30° - 60° inclined (M-1012) Trinocular, ergonomic, 5° - 35° inclined, splitting ratio eyepieces/photo tube: 100% - 0% / 50% - 50% (M-1013)
Eyepieces	Plan wide field, PL 10x/22 (pair), high eyepoint, with dioptic adjustment on left eyepiece (M-1001) Plan wide field, PL10x/22 (single), high eyepoint, with micrometric scale (10mm/100um) (M-781) Plan wide field, PL 15x/16 (pair), high eyepoint, with dioptic adjustment on left eyepiece (M-1003)
Nosepieces	Quintuple, reversed (M-1040) Sextuple, reversed (M-1041)
Objectives	IOS W-PLAN (Plan-Achromatic) 4x/0.10, 10x/0.25, 20x/0.40, 40x/0.65, 60x/0.80, 100x/1.25 (oil) (from M-1125 to M-1130) IOS W-PLAN PH (Plan-Achromatic) 10x/0.25, 20x/0.40, 40x/0.65, 100x/1.25 (oil) (from M-1120.N to M-1123.N) IOS W-PLAN F (Semi-Apochromatic) 4x/0.13, 10x/0.30, 20x/0.50, 40x/0.75, 100x/1.30 (oil) (from M-1060 to M-1064)
Stage	Rackless, mechanical, 220x150 mm, 80x50 mm movement range (M-1190) MPC, rackless, mechanical, 220x150 mm, 80x50 mm movement range (M-1143.1) Heating with controller, rackless, mechanical, 220x150 mm, 80x50 mm movement range (M-1190H)
Focusing	Coaxial coarse & fine (200µm/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
Condensers	N.A. 0.2/0.9, swing-out, sliding-in and with centering system (M-1189) N.A. 1.2, swing-out, sliding-in and with centering system (M-1191) N.A. 1.25, sliding-in, with centering system and insert slide 10x-40x (M-1124.NO) N.A. 1.25, universal for PH 10x, 20x, 40x, 100x, BF, DF (M-1152.NO) N.A. 0.7/0.9, sliding-in, with centering system for DF (dry) (M-185)

Accessories

Included ■ Optional □

AA-02	HSE-NPL Mark II Phase Contrast Test Slide, with Certification	□
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	□
M-1037	Gout analysis kit	□
M-113.1	Ring adapter, 30mm (for monocular and binocular microscopes)	□
M-173	Photo adapter for APS-C and Full Frame Reflex cameras	□
M-613	Polarizing set (filters only)	□
M-615	Lambda filter for polarizing set	□
M-617.1NO	Phase contrast set with IOS W-PLAN objective 40x for B-810	□
M-619	Photo adapter for REFLEX camera with FULL FRAME sensor	□
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-690	Eyecups (pair)	□
M-699	Universal adapter for M-173	□
M-977	Green filter, 45mm diameter	□
DC-005	TNT dust cover, extra large (IM-5, B-810 & B-1000 Series) 820(l)x550 (h) mm	■
VP-810	IQ/OQ/PQ Manual for B-810 series	□