

OPTIKA[®]
MICROSCOPES
I T A L Y

NEW

B-820



X-OEF

Advanced Routine Upright Microscopes with revolutionary **X-OEF** (Optika EasyFocus System)

B-820 - Brightfield & Phase Contrast Microscopes

Optika is proud to introduce the first routine microscope with fully electronically controlled triple focus adjustment: Macro, Semi-Micro and Micro. The new **X-OEF** system (Optika EasyFocus system) replaces the classic mechanical focusing system with an innovative solution that allows more functions. EasyFocus allows the selection of three different resolutions (shift for each step): **Macro (250 μm); Semi-Micro (8 μm); Micro (1 μm)**. The single knob allows the focus movement and the selection of the resolution is easily controlled by pressing it. Each focus resolution (Macro, Semi-Micro and Micro) is clearly displayed to the user by three dedicated blue LEDs.

The presence of a Semi-Micro adjustment with 8 μm resolution makes finding the focus point with medium-low magnification objectives (10x, 20x) exceptionally convenient and quick.

The **X-OEF** system includes a stage retraction function that facilitates and speeds up immersion oil laying and slide changing operations. B-820 is the result of OPTIKA Microscopes' long experience in the field of optical microscopy, offering an extremely valuable product for routine and research applications in brightfield and phase contrast.

Personal requirements are met in terms of application as well as ergonomics thanks to the microscope's extensive modularity. The innovative B-820 model is a particularly high-performance and robust solution, offering 22mm field of view, the unique **X-LED³** illumination source (3.6 W) and a sturdy dye-cast structure for high stability, combined with a wide choice of heads, objectives and condensers.

Two different stands and mechanical stages are available for both right and left-handed users.

X-OEF
System

22



X-LED³



IOS
 ∞

W-PLAN

PH

DF

IVD
AVAILABLE



X-OEF

B-820 - X-OEF System: real benefits

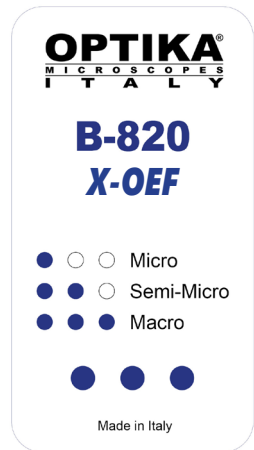
DIGITAL FOCUSING CONTROL

B-820 in all its configurations features a revolutionary focusing system based on unique digital control unit. There is a single adjustment knob that can be used indiscriminately (by means of a magnetic fastening system) on the right side of the microscope, on the left side and also mounted on a specific table stand for desktop use. The knob controls the focus, which has three different resolutions:

- **Macro, 250µm per step (7500µm each knob revolution)**
- **Semi-Micro, 8µm per step (240µm each knob revolution)**
- **Micro, 1µm per step (30µm each knob revolution)**

The selection of the three resolutions is done simply by pressing the knob itself. Repeated operations cyclically switch the type of focus in following order: Macro → Semi-Micro → Micro, then back to Macro and so on.

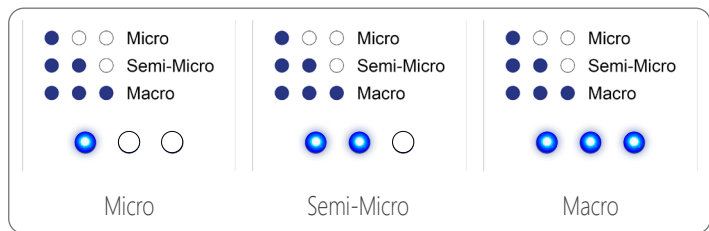
On the basis of chosen resolution, three specific LEDs located on the instrument's control panel illuminate:



FREE FOCUSING KNOB POSITION

The focusing knob can be freely used in three ways:

- positioned on the left side of the body;
- positioned on the right side of the body;
- positioned on the table



STAGE RETRACTION SYSTEM - ONE TOUCH MEMORY FUNCTIONS

This revolutionary system stores the last focus point to facilitate and speed up routine operations that normally cost the operator time and effort:

1. Easy immersion oil laying operation

The last focusing point (height of stage) is automatically stored by the digital processor unit. This feature is really useful in case of oil immersion objectives use.

The procedure is very simple and it permits to switch from 40x to 100 objective with an ease never achieved before:

- focus the 40x objective. Its focusing point is automatically stored by the system;
- push the dedicated button located on the microscope body; the stage reaches its lower position, allowing you to easily put a drop of oil on the sample;
- put a drop of oil on the sample and switch from 40x to 100x objective;
- push once again the dedicated button; the stage rises reaching the stored focus position;
- adjust the micrometric focus.

2. Ergonomic slide changing operation

By following above mentioned procedure, it is possible to significantly save time when you change slides:

- focus the objective. Its focusing point is automatically stored by the system;
- push the dedicated button located on the microscope body; the stage reaches its lower position, allowing you to easily change the sample;
- change slide;
- push once again the dedicated button; the stage rises reaching the stored focus position;
- adjust the micrometric focus.



B-820 - Features



X-OEF control knob

Standard 50/50 Trinocular Head, 30° inclined, 360° rotating. More types as option.



X-OEF control panel

OPTIKA
B-820
X-OEF
Micro
Semi-Micro
Macro
Made in Italy

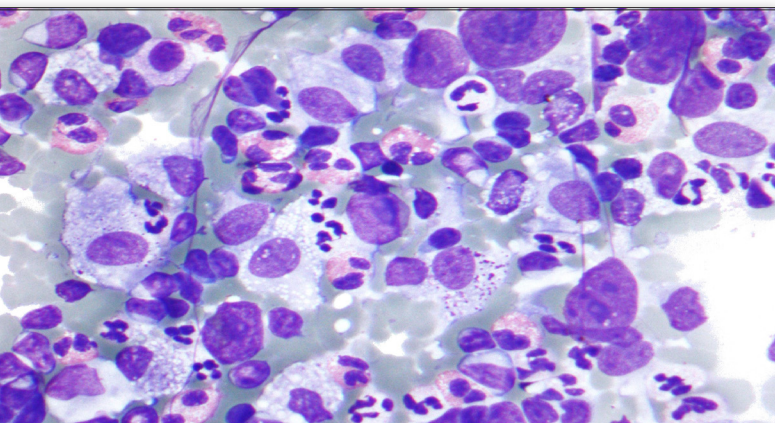
X-OEF control knob

X-OEF side knob holder

Brightness control knob

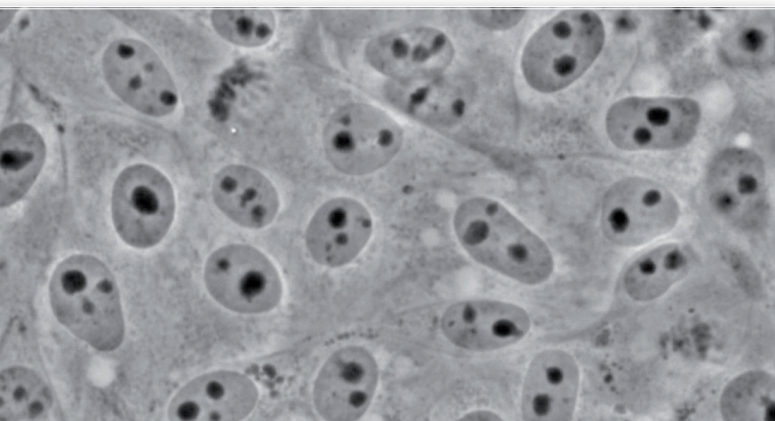
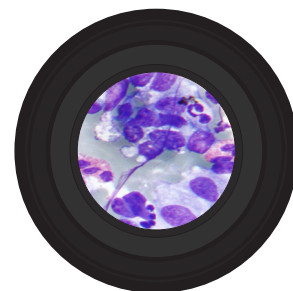
B-820 - Features





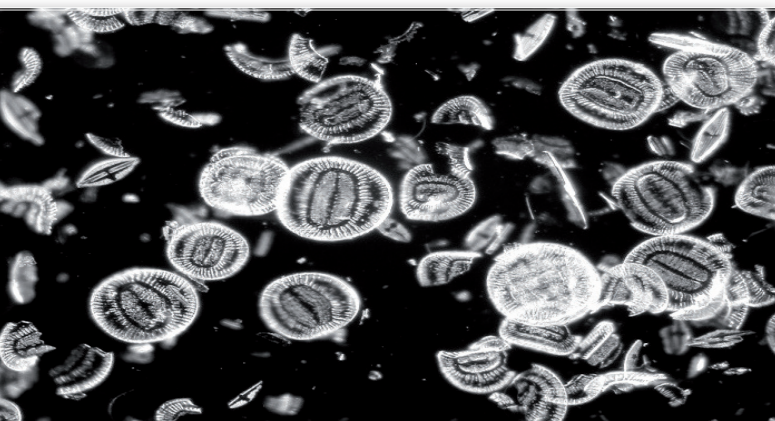
Brightfield

Since B-820 uses white LED illumination, it can maintain the same color temperature even if the brightness is changed.



Phase Contrast Microscopy

The bright LED illuminator brings a comfortable observation in phase contrast with all magnifications. Universal turret condenser allows to quickly switch between brightfield, darkfield and phase contrast. Ideal for clinical laboratories.



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.



B-820 - Components Chart

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



2 B-820 - Bundles

B-820BF-R

Brightfield trinocular microscope with W-PLAN objectives, rackless stage for right-handed users and the exclusive **X-LED³** illumination system. **X-OEF** (Optika EasyFocus) system included.

Observation mode: Brightfield.

Head: 50/50 Trinocular, 30° inclined, 360° rotating

Interpupillary distance: Adjustable between 48 and 75 mm.

Dioptric adjustment: On the left eyepiece tube.

Eyepieces: WF10x/22 mm, high eye-point type.

Nosepiece: Sextuple revolving nosepiece, rotation on ball bearings.

Objectives (all with anti-fungus treatment):

W-PLAN 4x/0.10

W-PLAN 10x/0.25

W-PLAN 20x/0.40

W-PLAN 40x/0.65

Specimen stage: Double layer rackless mechanical stage, 220x149 mm, 75x33 mm X-Y range. **For right-handed users**

Focusing: **X-OEF** system, 3 resolutions (Micro, Semi-Micro and Macro). One Touch memory functions.

Condenser: Abbe N.A. 0.9, with iris diaphragm, focusable and centerable.

Illumination (Fixed Koehler type): X-LED³ with white 3.6 W LED (6,300K) and brightness control. Multi-plug 100-240Vac/12Vdc external power supply.

B-820PH-R

Brightfield and phase contrast trinocular microscope with W-PLAN objectives, rackless stage for right-handed users and the exclusive **X-LED³** illumination system. **X-OEF** (Optika EasyFocus) system included.

Observation mode: Brightfield, phase contrast and darkfield (dry)

Head: 50/50 Trinocular, 30° inclined, 360° rotating

Interpupillary distance: Adjustable between 48 and 75 mm.

Dioptric adjustment: On the left eyepiece tube.

Eyepieces: WF10x/22 mm, high eye-point type.

Nosepiece: Sextuple revolving nosepiece, rotation on ball bearings.

Objectives (all with anti-fungus treatment):

W-PLAN PH 10x/0.25

W-PLAN PH 20x/0.40

W-PLAN PH 40x/0.65

W-PLAN PH 100x/1.25

Specimen stage: Double layer rackless mechanical stage, 220x149 mm, 75x33 mm X-Y range. **For right-handed users**

Focusing: **X-OEF** system, 3 resolutions (Micro, Semi-Micro and Macro). One Touch memory functions.

Condenser: Turret type for brightfield (N.A. 1.25) with iris diaphragm, phase contrast objectives (10x, 20x, 40x, 100x) and for darkfield (dry objectives). Focusable and centerable. Centering telescope and Green filter included.

Illumination (Fixed Koehler type): X-LED³ with white 3.6 W LED (6,300K) and brightness control. Multi-plug 100-240Vac/12Vdc external power supply.

B-820BF-L

Brightfield trinocular microscope with W-PLAN objectives, rackless stage for left-handed users and the exclusive **X-LED³** illumination system. **X-OEF** (Optika EasyFocus) system included.

Observation mode: Brightfield.

Head: 50/50 Trinocular, 30° inclined, 360° rotating

Interpupillary distance: Adjustable between 48 and 75 mm.

Dioptric adjustment: On the left eyepiece tube.

Eyepieces: WF10x/22 mm, high eye-point type.

Nosepiece: Sextuple revolving nosepiece, rotation on ball bearings.

Objectives (all with anti-fungus treatment):

W-PLAN 4x/0.10

W-PLAN 10x/0.25

W-PLAN 20x/0.40

W-PLAN 40x/0.65

Specimen stage: Double layer rackless mechanical stage, 220x149 mm, 75x33 mm X-Y range. **For left-handed users**

Focusing: **X-OEF** system, 3 resolutions (Micro, Semi-Micro and Macro). One Touch memory functions.

Condenser: Abbe N.A. 0.9, with iris diaphragm, focusable and centerable.

Illumination (Fixed Koehler type): X-LED³ with white 3.6 W LED (6,300K) and brightness control. Multi-plug 100-240Vac/12Vdc external power supply.

B-820PH-L

Brightfield and phase contrast trinocular microscope with W-PLAN objectives, rackless stage for right-handed users and the exclusive **X-LED³** illumination system. **X-OEF** (Optika EasyFocus) system included.

Observation mode: Brightfield, phase contrast and darkfield (dry)

Head: 50/50 Trinocular, 30° inclined, 360° rotating

Interpupillary distance: Adjustable between 48 and 75 mm.

Dioptric adjustment: On the left eyepiece tube.

Eyepieces: WF10x/22 mm, high eye-point type.

Nosepiece: Sextuple revolving nosepiece, rotation on ball bearings.

Objectives (all with anti-fungus treatment):

W-PLAN PH 10x/0.25

W-PLAN PH 20x/0.40

W-PLAN PH 40x/0.65

W-PLAN PH 100x/1.25

Specimen stage: Double layer rackless mechanical stage, 220x149 mm, 75x33 mm X-Y range. **For left-handed users**

Focusing: **X-OEF** system, 3 resolutions (Micro, Semi-Micro and Macro). One Touch memory functions.

Condenser: Turret type for brightfield (N.A. 1.25) with iris diaphragm, phase contrast objectives (10x, 20x, 40x, 100x) and for darkfield (dry objectives). Focusable and centerable. Centering telescope and Green filter included.

Illumination (Fixed Koehler type): X-LED³ with white 3.6 W LED (6,300K) and brightness control. Multi-plug 100-240Vac/12Vdc external power supply.

v 6.6.0 - OPTIKA reserves the right to make corrections, modifications, enhancements, improvements and other changes to its products at any time without notice.

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