

EDUCATIONAL *Microscopes*
































- | | |
|--|---------|
| <input type="radio"/> ECOVISION SERIES - Entry-level biological microscopes for students | page 9 |
| <input type="radio"/> B-150 SERIES - Biological microscopes for students | page 17 |
| <input checked="" type="radio"/> B-150R SERIES - Biological microscopes with rechargeable battery | page 23 |
| <input checked="" type="radio"/> B-150ALC SERIES - Biological microscopes with automatic light control | page 27 |
| <input type="radio"/> B-190 SERIES - Biological microscopes for the next teaching generation | page 31 |
| <input checked="" type="radio"/> B-290 SERIES - Routine laboratory microscopes | page 35 |
| <input checked="" type="radio"/> B-380 SERIES - Advanced biological microscopes for teachers | page 39 |
| <input type="radio"/> STEREO SERIES - Stereomicroscopes for students | page 47 |
| <input type="radio"/> LAB SERIES - Stereomicroscopes for teachers | page 55 |
| <input type="radio"/> SZM SERIES - Advanced stereomicroscopes for teachers | page 59 |



Icons

| | | | | | |
|---|--------------------|---|---------------------|---|--------------------------------|
|  | Monocular |  | Magnification 400X |  | X-LED ² illuminator |
|  | Binocular |  | Magnification 1000X |  | X-LED ³ illuminator |
|  | Trinocular |  | Incident light |  | X-LED ⁸ illuminator |
|  | Field number 16 |  | Transmitted light |  | 1W LED illuminator |
|  | Field number 18 |  | Polarized light |  | LED illuminator |
|  | Field number 20 |  | Halogen lamp |  | Automatic light control |
|  | Field number 22 |  | Incandescent lamp |  | Infinity-corrected optics |
|  | Field number 24 |  | Dichroic lamp |  | Rechargeable battery |
|  | Rotating head 360° |  | USB connection |  | Anti-fungus treatment |

ECOVISION Series

Entry-level biological microscopes for students



ECOVISION Series

Monocular biological microscopes designed especially for students attending primary and secondary schools. The metal structure combines sturdiness and ease of use.

The wide selection of available models allows you to choose the most suitable microscope according to the application required.

| | |
|-------------------|---|
| B-20 | Monocular microscope 400x, LED. |
| B-20C | Monocular microscope 400x, with coaxial knobs, LED. |
| B-20R | Monocular microscope 400x, LED with rechargeable batteries. |
| B-20 Solar | Monocular microscope 400x, LED with solar panel. |
| B-50 | Monocular microscope 400x, with coaxial knobs, LED. |
| M-100FL | Monocular microscope, 400x, tungsten lamp. |
| M-100FL-H | Monocular microscope 400x, halogen lamp. |
| M-100FLed | Monocular microscope 400x, LED. |

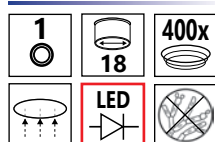


ECOVISION Series - B-50

B-50

This microscope is the perfect choice for students who want an innovative and easy-to-use product.

B-50



Observation mode: Brightfield.

Focusing: Coaxial coarse and fine focusing mechanism.

Stage: Fixed stage, 120 mm x 110 mm, with sample clips.

Nosepiece: Triple revolving nosepiece, rotation on ball bearings.

Head: Monocular, 45° inclined and rotatable 360°.

Eyepiece: WF10x/18 widefield eyepiece with field number 18mm.

Objectives: Achromatic objectives with mechanical tube length 160 mm, 0,17mm cover glass:

- Achromatic 4X/0,10
- Achromatic 10X/0,25
- Achromatic 40X/0,65

All objectives are treated with an anti-fungus treatment.

Condenser: N.A. 0,65 pre-centered, **with built-in illuminator.**

Dimensions: Height: 350 mm - Width: 132 mm - Depth: 220 mm.

Illumination: Special condenser with built-in illuminator.

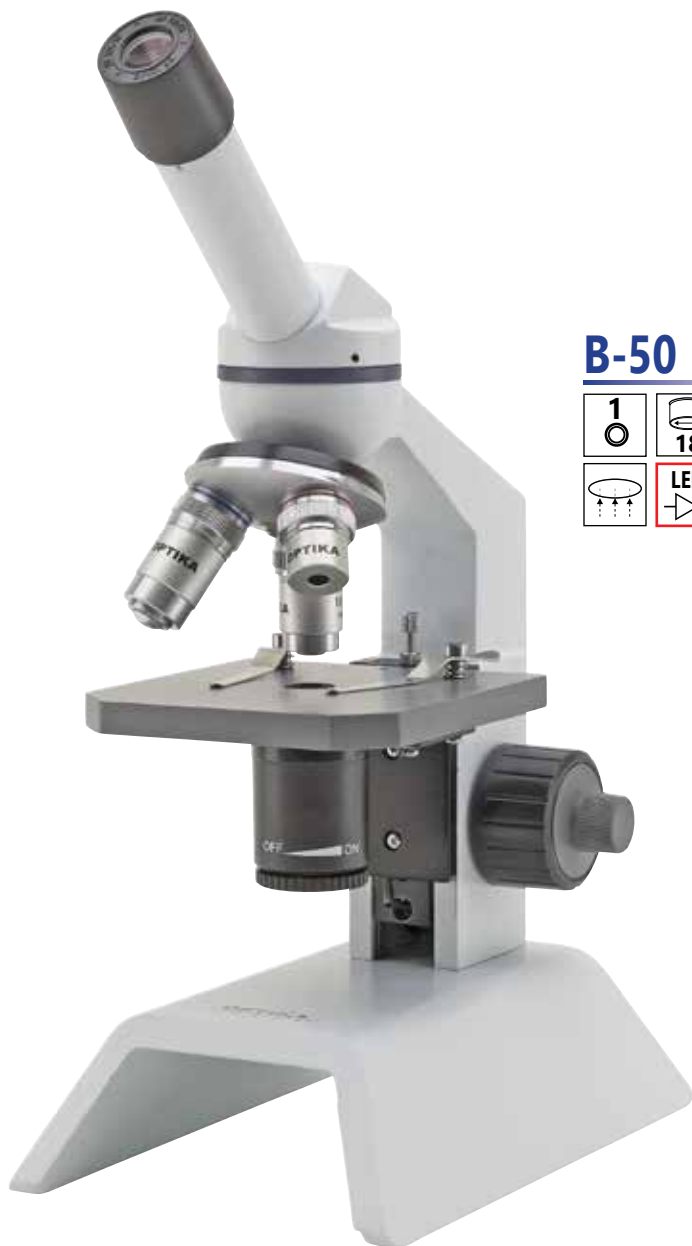
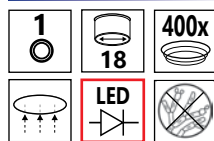
Light source: high intensity cold white LED, with adjustment knob.

Input voltage: 110/230Vac, 50/60Hz. Max required power: 1W



ECOVISION Series - B-50

B-50



Revolutionary illumination system built in the condenser: ultra-bright light and great contrast ensured.
Ergonomic light control position: the knob is located under the condenser body.



ECOVISION Series - Models

B-20

Monocular biological microscope with **400x magnification**. 360° rotating head, with 45° inclined eyepiece tube. Wide Field 10x/16mm eyepiece. Triple nosepiece rotating in both directions with objective click locking system.

Achromatic objectives: 4x, 10x and telescopic 40x.

Separate coarse and fine focusing knobs on different axis, with focus tension adjustment. Movable round stage, 90 mm diameter, 5 mm moving range, slide clips. **White LED, with brightness control.**

B-20C

Monocular biological microscope, with **400x magnification**.

Achromatic objectives 4x, 10x and 40x, wide field 10x/18mm eyepiece.

Coaxial coarse and fine focus knobs located on both sides of the stand.

Double layer mechanical stage, size 105x95mm, with specimen holder.

White LED, with brightness control.

Fixed condenser.

B-20C

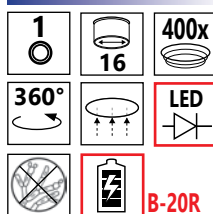


B-20R

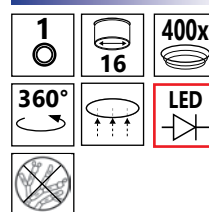
Monocular biological microscope with **400x magnification**. 360° rotating head, with 45° inclined eyepiece tube. Wide Field 10x/16mm eyepiece. Triple nosepiece rotating in both directions with objective click locking system. Achromatic objectives: 4x, 10x and telescopic 40x.

Separate coarse and fine focusing knobs on different axis, with focus tension adjustment. Movable round stage, 90 mm diameter, 5 mm moving range, slide clips. **White LED, with brightness control and rechargeable battery.**

B-20/B-20R



B-20 Solar



B-20Solar

Monocular biological microscope with **400x magnification**. 360° rotating head, with 45° inclined eyepiece tube. Wide Field 10x/16mm eyepiece.

Triple nosepiece rotating in both directions with objective click locking system.

Achromatic objectives: 4x, 10x and telescopic 40x.

Separate coarse and fine focusing knobs on different axis, with focus tension adjustment. Movable round stage, 90 mm diameter, 5 mm moving range, slide clips.

White LED, powered by a solar panel, for field use.

ECOVISION Series - Models

M-100FL

Monocular biological microscope with **400x magnification which can be increased to 1600x** through an additional 16x eyepiece and 100x objective. 360° rotating head, with 45° inclined eyepiece tube.

Wide Field 10x/18mm eyepiece.

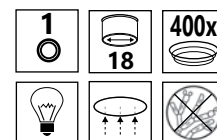
Triple nosepiece rotating in both directions with objectives click locking system. DIN achromatic objectives: 4x, 10x and telescopic 40x.

Coarse and fine focusing knobs located on both sides of the stand.

The fine focusing knobs are graduated. Fixed stage with slide clips; 0.65 N.A. condenser, iris diaphragm and filter holder.

Built-in illuminator with 230V/20W tungsten bulb and condensing lens.

M-100FL



M-100FL-H

Monocular biological microscope with **400x magnification which can be increased to 1600x** through an additional 16x eyepiece and 100x objective. 360° rotating head, with 45° inclined eyepiece tube.

Wide Field 10x/18mm eyepiece.

Triple nosepiece revolver rotating in both directions with objectives click locking system. DIN achromatic objectives: 4x, 10x and telescopic 40x.

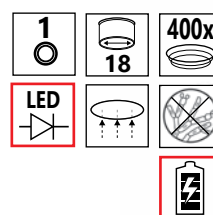
Coarse and fine focusing knobs located on both sides of the stand.

The fine focusing knobs are graduated. Fixed stage complete with slide clips; 0.65 N.A. condenser, iris diaphragm and filter holder.

Built-in 12V/10W halogen illuminator with dichroic bulb.

External transformer included.

M-100FLed



M-100FLed

Monocular biological microscope with **400x magnification which can be increased to 1600x** through an additional 16x eyepiece and 100x objective. 360° rotating head, with 45° inclined eyepiece tube.

Wide Field 10x/18mm eyepiece.

Triple nosepiece rotating in both directions with objectives click locking system. DIN achromatic objectives: 4x, 10x and telescopic 40x. Coarse and fine focusing knobs located on both sides of the stand. The fine focusing knobs are graduated. Fixed stage with slide clips; 0.65 N.A. condenser, iris diaphragm and filter holder.

Built-in LED illuminator with 3 rechargeable batteries.

The illuminator can be used for 24 hours continuously without any recharge. External recharger included. Battery pack: 3 x AA, 1.2V NiMH, 1000 mAh, replaceable by the user. Time required for a full recharge: 10 hours.

Battery runtime with LED at maximum power: 12 hours. Battery charging enabled while using the microscope.

(Performances estimated with batteries at their maximum efficiency).

ECOVISION Series - Technical specifications

| Model | Head | Eyepiece | Objectives | Stage | Focusing | Illuminator |
|-------------------|---|------------|--------------------------------|---|---|---|
| B-20 | Monocular 360° rotating, 45° inclined. | WF10x/16mm | Achromatic 4x, 10x, 40x | Movable, 360° rotating, 90mm diameter, with sample clips | Separate coarse and fine control knobs | LED |
| B-20C | Monocular 360° rotating, 45° inclined. | WF10X/18mm | Achromatic 4x, 10x, 40x | Mechanical stage, 105x95mm with specimen holder | Coaxial coarse and fine control knobs | LED |
| B-20R | Monocular 360° rotating, 45° inclined. | WF10x/16mm | Achromatic 4x, 10x, 40x | Movable, 360° rotating, 90mm diameter, with sample clips | Separate coarse and fine control knobs | LED with rechargeable battery |
| B-20 SOLAR | Monocular 360° rotating, 30° inclined. | WF10x/16mm | Achromatic 4x, 10x, 40x | Movable, 360° rota- ting, 90mm diameter, with sample clips | Separate coarse and fine control knobs | LED powered by solar panel |
| B-50 | Monocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic DIN 4x, 10x, 40x | Fixed stage, 120x110 mm with sample clips | Coaxial coarse and fine control knobs | Special condenser with built-in 1W LED |
| M-100FL | Monocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic DIN 4x, 10x, 40x | Fixed stage, 120x110 mm with sample clips | Separate coarse and fine control knobs | 20W tungsten |
| M-100FL-H | Monocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic DIN 4x, 10x, 40x | Fixed stage, 120x110 mm with sample clips | Separate coarse and fine control knobs | 10W halogen |
| M-100FLed | Monocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic DIN 4x, 10x, 40x | Fixed stage, 120x110 mm with sample clips | Separate coarse and fine control knobs | LED with rechargeable battery |

ECOVISION Series - Accessories

B-20 - B-20R - B-20 Solar

| | |
|-------|--|
| M-044 | Eyepiece WF10x/16mm. |
| M-727 | Achromatic objective 4x/0.10. |
| M-728 | Achromatic objective 10x/0.25. |
| M-729 | Achromatic objective 40x/0.65. |
| M-030 | Dust cover type 1. |
| M-114 | C-Mount adapter for 1/2" sensor. |
| M-116 | C-Mount adapter for 2/3" sensor. |
| M-173 | Photo adapter for APS-C and Full Frame Reflex cameras. |

M-100FL - M-100FL-H - M-100FLed

| | |
|-------|--|
| M-001 | Eyepiece H5x. |
| M-002 | Eyepiece WF10x/18mm. |
| M-003 | Eyepiece WF16x/12mm. |
| M-004 | Eyepiece with micrometer WF10x/18mm. |
| M-008 | Eyepiece with pointer WF10x/18mm. |
| M-131 | Achromatic objective 4x/0.10. |
| M-132 | Achromatic objective 10x/0.25. |
| M-133 | Achromatic objective 20x/0.40. |
| M-134 | Achromatic objective 40x/0.65. |
| M-135 | Achromatic objective 60x/0.80. |
| M-136 | Achromatic objective 100x/1.25 (Oil). |
| M-040 | Attachable mechanical stage. |
| M-099 | Polarising set (filters and rotating table). |
| M-012 | Tungsten bulb 20W/230V. |
| M-013 | Halogen bulb 12V/10W, with dichroic mirror. |
| M-971 | Plane-concave mirror, with base, type 4. |
| M-015 | Dust cover type 2. |
| M-114 | C-Mount adapter for 1/2" sensor. |
| M-116 | C-Mount adapter for 2/3" sensor. |
| M-173 | Photo adapter for APS-C and Full Frame Reflex cameras. |
| 15008 | OPTIKA immersion oil 10ml. |
| M-069 | Solar battery pack. * |

* Only for M-100FLed

15104 - Lens cleaner, 50ml

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



B-50

| | |
|---------|--|
| M-001 | Eyepiece H5x. |
| M-002.1 | Eyepiece WF10x/18mm. |
| M-003 | Eyepiece WF16x/12mm. |
| M-004 | Eyepiece with micrometer WF10x/18mm. |
| M-008 | Eyepiece with pointer WF10x/18mm. |
| M-131 | Achromatic objective 4x/0.10. |
| M-132 | Achromatic objective 10x/0.25. |
| M-134 | Achromatic objective 40x/0.65. |
| M-040 | Attachable mechanical stage. |
| M-099 | Polarising set (filters and rotating table). |
| M-015 | Dust cover type 2. |
| M-069 | Solar battery pack. |
| M-114 | C-Mount adapter for 1/2" sensor. |
| M-116 | C-Mount adapter for 2/3" sensor. |
| M-173 | Photo adapter for APS-C and Full Frame Reflex cameras. |

B-20C

| | |
|-------|--|
| M-002 | Eyepiece WF10x/18mm. |
| M-008 | Eyepiece with pointer WF10x/18mm. |
| M-727 | Achromatic objective 4x/0.10. |
| M-728 | Achromatic objective 10x/0.25. |
| M-729 | Achromatic objective 40x/0.65. |
| M-030 | Dust cover type 1. |
| M-114 | C-Mount adapter for 1/2" sensor. |
| M-116 | C-Mount adapter for 2/3" sensor. |
| M-173 | Photo adapter for APS-C and Full Frame Reflex cameras. |



How to connect the cameras to our microscopes.

Please refer to the Adapter reference list on Digital section.

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).



B-150 Series

Biological microscopes for students



B-150 Series

The B-150 series has been designed to fulfill all requirements of educational laboratories.

The available models are made for a pleasant and effective approach to the world of microscopy.

The quality of the optics, the reliability of the mechanical parts and the excellent price/quality ratio rank these instruments at the top of their category.

| | |
|-------------------|---|
| B-151 | Monocular microscope, 400x, fixed stage. |
| B-153 | Monocular microscope, 600x, double layer stage. |
| B-155 | Monocular microscope, 1000x, double layer stage. |
| B-157 | Binocular microscope, 600x, double layer stage. |
| B-159 | Binocular microscope, 1000x, double layer stage. |
| B-150POL-M | Monocular polarizing microscope, 400x, round stage. |
| B-150POL-B | Binocular polarizing microscope, 400x, round stage. |

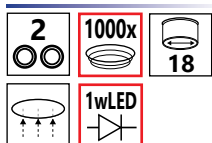


B-150 Series

B-150

This series is the perfect choice for students who want an innovative and easy to use product.

B-159



Heads: Binocular observation head, 30° inclined and 360° rotatable. Interpupillary adjustment 48-75 mm. Diopter adjustment on the left eyepiece.

Monocular observation head, 30° inclined and 360° rotatable.

Focusing: Coaxial coarse and fine focusing mechanism (graduation: 0.002mm) with limit stop to prevent the contact between objective and specimen. Adjustable tension of coarse focusing knob.

Specimen stages: Double layer mechanical sliding stage, 125x116mm, 76x30mm X-Y movement range. Specimen holder for one slide. Vernier scale on the two axes, accuracy: 0,1mm.

B-151: plain stage, 125X120mm.

B-153 / B-155 / B-157 / B-159: mechanical stage, 126x116mm.

B150POL-M and **B-150POL-B:** rotatable round stage, 120mm diameter.

Illumination: White LED; light intensity controlled by a knob on the left side of the base. LED power: 1W.

Color temperature: 6300K. LED average lifetime: approx. 50.000h

External power supply: 100/240Vac, 50/60Hz. Output: 5Vdc, 500mA.

Condenser: Abbe condenser, 1.2 N.A., precentered.

B-151: Abbe condenser 0.65 N.A., precentered.

B150POL-M and **B-150POL-B:** 1.2 N.A. fixed condenser.



B-150 Series - Models

Polarizing models

Microscopes designed for simple polarization analysis.

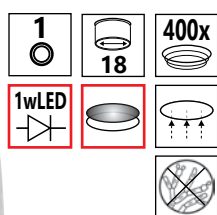
Available in monocular and binocular versions.

The two models are equipped with a swing-out polarizer and a slide-out analyzer as well as a rotating table.

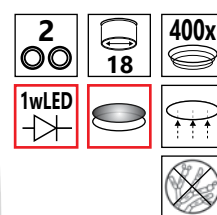
B-150POL-M and **B-150POL-B** are suitable for common observations with polarized light in the educational field.



B-150POL-M



B-150POL-B



Polarized models are available with rechargeable battery **B-150POL-MR / B-150POL-BR** and with ALC light intensity control **B-150POL-MALC / B-150POL-BALC**

B-150 Series - Technical specifications

| Model | Head | Eyepiece(s) | Objectives | Stage | Condenser | Focusing | Illuminator |
|-------------------|--|-------------|-------------------------------|--|---------------------------------------|---|---|
| B-151 | Monocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic 4X/10X/40X | Plain stage, 125x120mm with sample clips | 0.65 N.A. fixed, with diaphragm | Coaxial coarse and fine focusing me- chanism with limit stop | 1W LED with external power supply |
| B-153 | Monocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic 4X/10X/40X/60X | Mechanical stage, 125x116mm with specimen holder | 1.2 N.A. with diaphragm | Coaxial coarse and fine focusing me- chanism with limit stop | 1W LED with external power supply |
| B-155 | Monocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic 4x/10X/40X/100X | Mechanical stage, 125x116mm with specimen holder | 1.2 N.A. with diaphragm | Coaxial coarse and fine focusing me- chanism with limit stop | 1W LED with external power supply |
| B-157 | Binocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic 4X/10X/40X/60X | Mechanical stage, 125x116mm with specimen holder | 1.2 N.A. with diaphragm | Coaxial coarse and fine focusing me- chanism with limit stop | 1W LED with external power supply |
| B-159 | Binocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic 4x/10X/40X/100X | Mechanical stage, 125x116mm with specimen holder | 1.2 N.A. with diaphragm | Coaxial coarse and fine focusing me- chanism with limit stop | 1W LED with external power supply |
| B-150POL-M | Monocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic 4X/10X/40X | Rotatable stage, 120mm diameter | 1.2 N.A. fixed, with diaphragm | Coaxial coarse and fine focusing me- chanism with limit stop | 1W LED with external power supply. Rotatable swing-out polarizer, slide- out analyzer |
| B-150POL-B | Binocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic 4X/10X/40X | Rotatable stage, 120mm diameter | 1.2 N.A. fixed, with diaphragm | Coaxial coarse and fine focusing me- chanism with limit stop | 1W LED with external power supply. Rotatable swing-out polarizer, slide- out analyzer |



B-150 Series - Accessories

B-150

| | |
|---------|--|
| M-001 | Eyepiece H5x. |
| M-002.1 | Eyepiece WF10x/18mm. |
| M-003 | Eyepiece WF16x/12mm. |
| M-004 | Eyepiece with micrometer WF10x/18mm. |
| M-008 | Eyepiece with pointer WF10x/18mm. |
| M-137 | Achromatic objective 4x/0,10. |
| M-138 | Achromatic objective 10x/0,25. |
| M-139 | Achromatic objective 20x/0,40. |
| M-141 | Achromatic objective 40x/0,65. |
| M-142 | Achromatic objective 60x/0,80. |
| M-143 | Achromatic objective 100x/1,25 (Oil). |
| M-040 | Attachable mechanical stage. * |
| M-155 | Polarising set (filters only). |
| M-031 | Dust cover type 3. |
| M-069 | Solar battery pack. |
| M-114 | C-Mount adapter for 1/2" sensor. |
| M-116 | C-Mount adapter for 2/3" sensor. |
| M-173 | Photo adapter for APS-C and Full Frame Reflex cameras. |
| 15008 | OPTIKA immersion oil 10ml. |

* Only for B-151



How to connect the cameras to our microscopes.

Please refer to the Adapter reference list on Digital section.

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).



B-150R Series

Biological microscopes with rechargeable battery



B-150R Series

The B-150R series has been designed to fulfill all requirements of educational laboratories.

The available models are made for a pleasant and effective approach to the world of microscopy.

The quality of the optics, the reliability of the mechanical parts and the excellent price/quality ratio, rank these instruments at the top of their category.

| | |
|--------------------|--|
| B-151R | Monocular microscope 400x, fixed stage, with rechargeable batteries. |
| B-153R | Monocular microscope 600x, double layer stage, with rechargeable batteries. |
| B-155R | Monocular microscope 1000x, double layer stage, with rechargeable batteries. |
| B-157R | Binocular microscope 600x, double layer stage, with rechargeable batteries. |
| B-159R | Binocular microscope 1000x, double layer stage, with rechargeable batteries. |
| B-150POL-MR | Monocular polarizing microscope, 400x, round stage, with rechargeable batteries. |
| B-150POL-BR | Binocular polarizing microscope, 400x, round stage, with rechargeable batteries. |

R - Rechargeable battery

B-150R series comes with an internal rechargeable battery for use on field.



B-159R



B-150R Series

B-150R

This series is the perfect choice for students who want an innovative and easy to use product.

Heads: Binocular observation head, 30° inclined and 360° rotatable.

Interpupillary adjustment 48-75 mm. Diopter adjustment on the left eyepiece.

Monocular observation head, 30° inclined and 360° rotatable.

Focusing: Coaxial coarse and fine focusing mechanism (graduation: 0.002mm) with limit stop to prevent the contact between objective and specimen. Adjustable tension of coarse focusing knob.

Specimen stages: Double layer mechanical sliding stage, 125x116mm, 76x30mm X-Y movement range. Specimen holder for one slide. Vernier scale on the two axes, accuracy: 0,1mm.

B-151R: plain stage, 125X120mm.

B-153R / B-155R / B-157R / B-159R: mechanical stage, 125x116mm.

B150POL-MR and **B-150POL-BR:** rotatable round stage, 120mm diameter.

Illumination: White LED; light intensity controlled by a knob on the left side of the base.

LED power: 1W.

Color temperature: 6300K. LED average lifetime: approx. 50.000h.

External power supply: 100/240Vac, 50/60Hz. Output: 6Vdc, 2,5A.

Condensers: Abbe condenser, 1.2 N.A., precentered.

B-151R: Abbe condenser 0.65 N.A., precentered. **B150POL-MR** and **B-150POL-BR:** 1.2 N.A. fixed condenser.

B-150R Series - Technical specifications

| Model | Head | Eyepiece | Objectives | Stage | Condenser | Focusing | Illuminator |
|--------------------|--|------------|-------------------------------|--|------------------------------------|--|--|
| B-151R | Monocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic 4X/10X/40X | Plain stage, 125x120mm with sample clips | 0.65 N.A. fixed, with diaphragm | Coaxial coarse and fine focusing mechanism with limit stop | 1W LED with rechargeable battery |
| B-153R | Monocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic 4X/10X/40X/60X | Mechanical stage, 125x116mm with specimen holder | 1.2 N.A. with diaphragm | Coaxial coarse and fine focusing mechanism with limit stop | 1W LED with rechargeable battery |
| B-155R | Monocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic 4x/10X/40X/100X | Mechanical stage, 125x116mm with specimen holder | 1.2 N.A. with diaphragm | Coaxial coarse and fine focusing mechanism with limit stop | 1W LED with rechargeable battery |
| B-157R | Binocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic 4X/10X/40X/60X | Mechanical stage, 125x116mm with specimen holder | 1.2 N.A. with diaphragm | Coaxial coarse and fine focusing mechanism with limit stop | 1W LED with rechargeable battery |
| B-159R | Binocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic 4x/10X/40X/100X | Mechanical stage, 125x116mm with specimen holder | 1.2 N.A. with diaphragm | Coaxial coarse and fine focusing mechanism with limit stop | 1W LED with rechargeable battery |
| B-150POL-MR | Monocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic 4X/10X/40X | Rotatable stage 120mm diameter | 1.2 N.A. fixed, with diaphragm | Coaxial coarse and fine focusing mechanism with limit stop | 1W LED with rechargeable battery. Rotatable swing-out polarizer, slide-out analyzer |
| B-150POL-BR | Binocular 360° rotating, 30° inclined. | WF10x/18mm | Achromatic 4x/10X/40X | Rotatable stage 120mm diameter | 1.2 N.A. fixed, with diaphragm | Coaxial coarse and fine focusing mechanism with limit stop | 1W LED with rechargeable battery. Rotatable swing-out polarizer, slide-out analyzer |

B-150R Series - Accessories

B-150R

| | |
|---------|--|
| M-001 | Eyepiece H5x. |
| M-002.1 | Eyepiece WF10x/18mm. |
| M-003 | Eyepiece WF16x/12mm. |
| M-004 | Eyepiece with micrometer WF10x/18mm. |
| M-008 | Eyepiece with pointer WF10x/18mm. |
| M-137 | Achromatic objective 4x/0,10. |
| M-138 | Achromatic objective 10x/0,25. |
| M-139 | Achromatic objective 20x/0,40. |
| M-141 | Achromatic objective 40x/0,65. |
| M-142 | Achromatic objective 60x/0,80. |
| M-143 | Achromatic objective 100x/1,25 (Oil). |
| M-040 | Attachable mechanical stage. * |
| M-155 | Polarising set (filters only). |
| M-031 | Dust cover type 3. |
| M-069 | Solar battery pack. |
| M-114 | C-Mount adapter for 1/2" sensor. |
| M-116 | C-Mount adapter for 2/3" sensor. |
| M-173 | Photo adapter for APS-C and Full Frame Reflex cameras. |
| 15008 | OPTIKA immersion oil 10ml. |

* Only for B-151R



How to connect the cameras to our microscopes.

Please refer to the Adapter reference list on Digital section.

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).



B-150ALC Series

Biological microscopes with automatic light control



B-150ALC Series

The B-150ALC series has been designed to fulfill all requirements of educational laboratories.

The available models are made for pleasant and effective approach to the world of microscopy.

The quality of the optics, the reliability of the mechanical parts and the excellent price/quality ratio, rank these instruments at the top of their category.

B-151ALC

Monocular microscope 400x, fixed stage, with Automatic Light Control.

B-153ALC

Monocular microscope 600x, double layer stage, with Automatic Light Control.

B-155ALC

Monocular microscope 1000x, double layer stage, with Automatic Light Control.

B-157ALC

Binocular microscope 600x, double layer stage, with Automatic Light Control.

B-159ALC

Binocular microscope 1000x, , double layer stage, with Automatic Light Control.

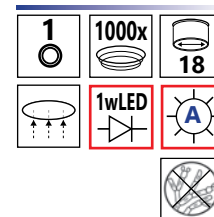
B-150POL-MALC

Monocular polarizing microscope, round stage, with Automatic Light Control.

B-150POL-BALC

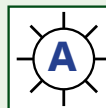
Binocular polarizing microscope, round stage, with Automatic Light Control.

B-155ALC



ALC - Automatic light control

Automatic light control: the level of light is adjusted by the microscope in order to maintain the same level as the one the user has chosen, no matter if the aperture of the diaphragm changes, another objective is inserted, opacity of the sample changes, etc.



B-150ALC Series

This series is the perfect choice for students who want an innovative and easy to use product.



Heads: Binocular observation head, 30° inclined.

Interpupillary adjustment 48-75 mm. Diopter adjustment on the left eyepiece.

Monocular observation head, 30° inclined.

Focusing: Coaxial coarse and fine focusing mechanism (graduation: 0.002mm) with limit stop to prevent the contact between objective and specimen. Adjustable tension of coarse focusing knob.

Specimen stages: Double layer mechanical sliding stage, 125x116mm, 76x30mm X-Y movement range. Specimen holder for one slide.

Vernier scale on the two axes, accuracy: 0,1mm.

B-151ALC: plain stage, 125X120mm.

B-153ALC / B-155ALC / B-157ALC / B-159ALC: Mechanical stage, 125X116mm.

B150POL-MALC and **B-150POL-BALC:** rotatable round stage, 120mm diameter.

Illumination: White LED; light intensity controlled by a knob on the left side of the base. LED power: 1W.

Color temperature: 6300K. LED average lifetime: approx. 50.000h

External power supply: 100/240Vac, 50/60Hz. Output: 5Vdc, 500mA.

Condenser: Abbe condenser, 1.2 N.A., precentered.

B-151ALC: Abbe condenser 0.65 N.A., precentered.

B150POL-MALC and **B-150POL-BALC:** 1.2 N.A. fixed condenser.

B-150ALC Series - Technical specifications

| Model | Head | Eyepiece | Objectives | Stage | Condenser | Focusing | Illuminator |
|----------------------|----------------------------|------------|-------------------------------|--|------------------------------------|--|---|
| B-151ALC | Monocular 30° inclined. | WF10x/18mm | Achromatic 4X/10X/40X | Plain stage, 125x120mm with sample clips | 0.65 N.A. fixed, with diaphragm | Coaxial coarse and fine focusing mechanism with limit stop | 1W LED with external power supply |
| B-153ALC | Monocular 30° inclined. | WF10x/18mm | Achromatic 4X/10X/40X/60X | Mechanical stage, 125x116mm with specimen holder | 1.2 N.A. with diaphragm | Coaxial coarse and fine focusing mechanism with limit stop | 1W LED with external power supply |
| B-155ALC | Monocular 30° inclined. | WF10x/18mm | Achromatic 4x/10X/40X/100X | Mechanical stage, 125x116mm with specimen holder | 1.2 N.A. with diaphragm | Coaxial coarse and fine focusing mechanism with limit stop | 1W LED with external power supply |
| B-157ALC | Binocular 30° inclined. | WF10x/18mm | Achromatic 4X/10X/40X/60X | Mechanical stage, 125x116mm with specimen holder | 1.2 N.A. with diaphragm | Coaxial coarse and fine focusing mechanism with limit stop | 1W LED with external power supply |
| B-159ALC | Binocular 30° inclined. | WF10x/18mm | Achromatic 4x/10X/40X/100X | Mechanical stage, 125x116mm with specimen holder | 1.2 N.A. with diaphragm | Coaxial coarse and fine focusing mechanism with limit stop | 1W LED with external power supply |
| B-150POL-MALC | Monocular 30° inclined. | WF10x/18mm | Achromatic 4X/10X/40X | Rotatable stage 120mm diameter | 1.2 N.A. fixed, with diaphragm | Coaxial coarse and fine focusing mechanism with limit stop | 1W LED with external power supply. Rotatable swing-out polarizer, slide-out analyzer |
| B-150POL-BALC | Binocular 30° inclined. | WF10x/18mm | Achromatic 4x/10X/40X | Rotatable stage 120mm diameter | 1.2 N.A. fixed, with diaphragm | Coaxial coarse and fine focusing mechanism with limit stop | 1W LED with external power supply. Rotatable swing-out polarizer, slide-out analyzer |

B-150ALC Series - Accessories

B-150ALC

| | |
|---------|--|
| M-001 | Eyepiece H5x. |
| M-002.1 | Eyepiece WF10x/18mm. |
| M-003 | Eyepiece WF16x/12mm. |
| M-004 | Eyepiece with micrometer WF10x/18mm. |
| M-008 | Eyepiece with pointer WF10x/18mm. |
| M-137 | Achromatic objective 4x/0,10. |
| M-138 | Achromatic objective 10x/0,25. |
| M-139 | Achromatic objective 20x/0,40. |
| M-141 | Achromatic objective 40x/0,65. |
| M-142 | Achromatic objective 60x/0,80. |
| M-143 | Achromatic objective 100x/1,25 (Oil). |
| M-040 | Attachable mechanical stage. * |
| M-155 | Polarising set (filters only). |
| M-031 | Dust cover type 3. |
| M-069 | Solar battery pack. |
| M-114 | C-Mount adapter for 1/2" sensor. |
| M-116 | C-Mount adapter for 2/3" sensor. |
| M-173 | Photo adapter for APS-C and Full Frame Reflex cameras. |
| 15008 | OPTIKA immersion oil 10ml. |

* Only for B-151ALC



How to connect the cameras to our microscopes.

Please refer to the Adapter reference list on Digital section.

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).



B-190 Series

Biological microscopes for the next teaching generation

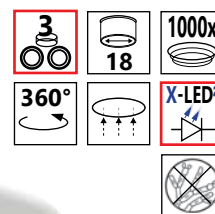


B-190 Series

The B-190 series is the result of a perfect fusion between years of experience in the microscopy field and a refined design study. This series represents our product philosophy at its best: quality, reliability and innovation. The B-190 series is the answer of OPTIKA Microscopes to the challenge of the future in the teaching field.

- | | |
|---------------|---|
| B-191 | Monocular microscope 1000x, double layer stage, with X-LED illumination. |
| B-191s | Monocular microscope 600x, double layer stage, with X-LED illumination. |
| B-192 | Binocular microscope 1000x, double layer stage, with X-LED illumination. |
| B-192s | Binocular microscope 600x, double layer stage, with X-LED illumination. |
| B-193 | Trinocular microscope 1000x, double layer stage, with X-LED illumination. |

B-193



X-LED²™ - The future of illumination

The X-LED²™ powered illumination system has been developed by our R&D dept. and consists of a combination of LED and optical technology. A high-efficiency single chip LED improved by a special optical system doubles the light intensity generated by an ordinary LED. The resulting light is comparable to the light generated by a 30W halogen lamp but with a colour temperature of 6300K: this means a white light instead of the yellow one produced by filament lamps. The electric consumption (3W only) proves the high efficiency of this system: the same light intensity with less consumption; 10% of an ordinary 30W halogen lamp's consumption. In addition, the lifetime of the LED is 50.000 hours instead of the 1.500 hours of an ordinary halogen lamp.



B-190 Series

Heads

Available in monocular, binocular or trinocular version.

The heads are equipped with interpupillary distance control (48-75 mm) as well as with dioptic compensation. All heads are 360° rotatable and 30° inclined.

Optical system

The optical system has been developed for demanding users; it consists of high quality components which guarantee a high image contrast and an excellent optical resolution. The optical components have been designed and treated with special techniques to prevent the formation of moulds and fungi.

Stand

The stand has a modern and ergonomic design. It is easy to carry the microscope thanks to the large opening behind the revolving nosepiece, to be used as a handle. The opening allows the user to see clearly the objectives and the samples, as requested in discussion groups.

Mechanic

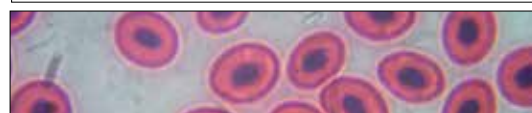
The moving parts are made by means of machine tools with computerized numerical control reducing manufacturing tolerance and increasing the reliability of the instrument.

The strict controls on materials and production processes are optimized through the procedures established by ISO 9001:2008 quality system.



B-192

Frog, blood smear
Real picture taken from B-192 with 100x objective
without immersion oil



B-190 Series - Technical specifications

| Model | Head | Eyepiece(s) | Nosepiece | Objectives | Stage | Focusing | Illuminator | Condenser | Power supply |
|---------------|---|---------------------|---------------------|---|--|----------------------------------|---|---|---|
| B-191 | Monocular, 360° rotating, 30° inclined. | Wide Field 10x/18mm | Quadruple, reversed | DIN Achromatic 4x/0.10, 10x/0.25, 40x/0.65, 100x/1.25 | Double layer, 125x115 mm with 70x30mm X-Y moving range | Coaxial coarse and fine focusing | X-LED ² system with adjustable intensity | 1.25 N.A. Abbe type with adjustable height and iris diaphragm | 100-240 Vac 50-60 Hz external power adapter 6Vdc output |
| B-191s | Monocular, 360° rotating, 30° inclined. | Wide Field 10x/18mm | Quadruple, reversed | DIN Achromatic 4x/0.10, 10x/0.25, 40x/0.65, 60x/0.85 | Double layer, 125x115 mm with 70x30mm X-Y moving range | Coaxial coarse and fine focusing | X-LED ² system with adjustable intensity | 1.25 N.A. Abbe type with adjustable height and iris diaphragm | 100-240 Vac 50-60 Hz external power adapter 6Vdc output |
| B-192 | Binocular 360° rotating, 30° inclined. | Wide Field 10x/18mm | Quadruple, reversed | DIN Achromatic 4x/0.10, 10x/0.25, 40x/0.65, 100x/1.25 | Double layer, 125x115 mm with 70x30mm X-Y moving range | Coaxial coarse and fine focusing | X-LED ² system with adjustable intensity | 1.25 N.A. Abbe type with adjustable height and iris diaphragm | 100-240 Vac 50-60 Hz external power adapter 6Vdc output |
| B-192s | Binocular 360° rotating, 30° inclined. | Wide Field 10x/18mm | Quadruple, reversed | DIN Achromatic 4x/0.10, 10x/0.25, 40x/0.65, 60x/0.85 | Double layer, 125x115 mm with 70x30mm X-Y moving range | Coaxial coarse and fine focusing | X-LED ² system with adjustable intensity | 1.25 N.A. Abbe type with adjustable height and iris diaphragm | 100-240 Vac 50-60 Hz external power adapter 6Vdc output |
| B-193 | Trinocular 360° rotating, 30° inclined. | Wide Field 10x/18mm | Quadruple, reversed | DIN Achromatic 4x/0.10, 10x/0.25, 40x/0.65, 100x/1.25 | Double layer, 125x115 mm with 70x30mm X-Y moving range | Coaxial coarse and fine focusing | X-LED ² system with adjustable intensity | 1.25 N.A. Abbe type with adjustable height and iris diaphragm | 100-240 Vac 50-60 Hz external power adapter 6Vdc output |

B-190 Series - Accessories

B-190

| | |
|---------|---|
| M-001 | Eyepiece H5x. |
| M-002.1 | Eyepiece WF10x/18mm. |
| M-003 | Eyepiece WF16x/12mm. |
| M-004 | Eyepiece with micrometer WF10x/18mm. |
| M-008 | Eyepiece with pointer WF10x/18mm. |
| M-137 | Objective Achromatic 4x/0,10. |
| M-138 | Objective Achromatic 10x/0,25. |
| M-139 | Objective Achromatic 20x/0,40. |
| M-141 | Objective Achromatic 40x/0,65. |
| M-142 | Objective Achromatic 60x/0,80. |
| M-143 | Objective Achromatic 100x/1,25 (Oil). |
| M-190 | Polarising set (filters only). |
| M-031 | Dust cover type 3. |
| M-069 | Solar battery pack. |
| M-062 | Photo adapter for REFLEX camera with FULL FRAME sensor. |
| M-974 | Blue filter, 32 mm diameter. |
| M-976 | Green filter, 32 mm diameter. |
| M-978 | Yellow filter, 32 mm diameter. |
| M-988 | Frosted glass filter, 32 mm diameter. |
| M-114 | C-Mount adapter for 1/2" sensor. |
| M-116 | C-Mount adapter for 2/3" sensor. |
| M-173 | Photo adapter for APS-C and Full Frame Reflex cameras. |
| 15008 | OPTIKA immersion oil 10ml. |



How to connect the cameras to our microscopes.

Please refer to the Adapter reference list on Digital section.

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).



B-192 Powered by solar battery pack (M-069)

15104 - Lens cleaner, 50ml

It cleans glass quickly and effectively,
without leaving residue or odor.

Ideal for precision lens or prism cleaning.



B-290 Series

Routine laboratory microscopes



B-290 Series

This series incorporates all the experience gathered by OPTIKA Microscopes in the field of light microscopy, adapted specifically for routine laboratory brightfield applications. These microscopes are suitable for routine microscopy and have an ergonomic design for comfortable long-term use. All main controls are located close to each other, which enable operation with minimal movements.

- B-292** Binocular microscope 1000x, E-PLAN objectives, belt drive stage, X-LED illumination.
- B-292PLi** Binocular microscope 1000x, IOS objectives, belt drive stage, X-LED illumination.
- B-293** Trinocular microscope 1000x, E-PLAN objectives, belt drive stage, X-LED illumination.
- B-293PLi** Trinocular microscope 1000x, IOS objectives, belt drive stage, X-LED illumination.

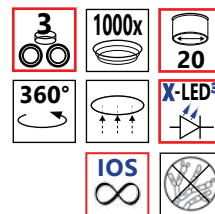
X-LED³ - The future of illumination

OPTIKA is proud to introduce its own revolutionary LED powered illumination system. Developed by our R&D dept. it consists of a new combination of LED and optical technology. A new high-efficiency single chip LED works in combination with a special optical lens, which allows to double the intensity of the light generated by the LED itself. The result is a quantity of light equivalent to the light generated by a standard 50W halogen bulb, but with a colour temperature of 6300K. It means white light instead of the yellow one produced by halogen bulbs.

The electrical consumption (3.6W only) shows the high efficiency of the system: same light intensity with less than 10% of the consumption of a standard halogen bulb. Last but not least, the lifetime of our LED is 50.000 hours, instead of 1.500 hours ...!



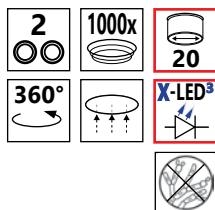
B-293PLi



B-290 Series



B-292



Heads

Available in binocular or trinocular version. The heads are equipped with interpupillary distance control (48-75 mm) as well as with dioptic compensation. All heads are 360° rotatable and 30° inclined.

Optical system

The optical system has been developed for demanding users; it consists of high quality components which guarantee an high image contrast and an excellent optical resolution. The optical components have been designed and treated with special techniques to prevent the formation of moulds and fungi.

Stand

The stand has a modern and ergonomic design. It is easy to carry the microscope thanks to the large opening behind the revolving nosepiece, to be used as a handle. The opening allows the user to see clearly the objectives and the samples, as requested in discussion groups.

Mechanics

The moving parts are made by means of machine tools with computerized numerical control reducing manufacturing tolerance and increasing the reliability of the instrument.

The strict controls on materials and production processes are optimized through the procedures established by **ISO 9001:2008** quality system.

Stage

Innovative belt drive system

B-290 Series - Technical specifications

| Model | Head | Eyepieces | Nosepiece | Objectives | Stage | Focusing | Illuminator | Condenser | Power supply |
|-----------------|--|---------------------|---------------------|--|--|----------------------------------|---|---|---|
| B-292 | Binocular, 360° rotating, 30° inclined. | Wide Field 10x/20mm | Quadruple, reversed | E-PLAN Achromatic 4x/0.10, 10x/0.25, 40x/0.65, 100x/1.25 | Double layer, 150x133 mm with X-Y moving range 75x50mm. Belt-drive in X direction | Coaxial coarse and fine focusing | X-LED ³ system with adjustable intensity | Sliding-in, 1.25 N.A. Abbe type with adjustable height and iris diaphragm | 100-240 Vac 50-60 Hz external power adapter 6Vdc output |
| B-292PLi | Binocular, 360° rotating, 30° inclined. | Wide Field 10x/20mm | Quadruple, reversed | Infinity corrected E-PLAN 4x/0.10, 10x/0.25, 40x/0.65, 100x/1.25 | Double layer, 150x133 mm with X-Y moving range 75x50mm. Belt-drive in X direction | Coaxial coarse and fine focusing | X-LED ³ system with adjustable intensity | Sliding-in, 1.25 N.A. Abbe type with adjustable height and iris diaphragm | 100-240 Vac 50-60 Hz external power adapter 6Vdc output |
| B-293 | Trinocular, 360° rotating, 30° inclined | Wide Field 10x/20mm | Quadruple, reversed | E-PLAN Achromatic 4x/0.10, 10x/0.25, 40x/0.65, 100x/1.25 | Double layer, 150x133 mm with X-Y moving range 75x50mm. Belt-drive in X direction | Coaxial coarse and fine focusing | X-LED ³ system with adjustable intensity | Sliding-in 1.25 N.A. Abbe type with adjustable height and iris diaphragm | 100-240 Vac 50-60 Hz external power adapter 6Vdc output |
| B-293PLi | Trinocular, 360° rotating, 30° inclined. | Wide Field 10x/20mm | Quadruple, reversed | Infinity corrected E-PLAN 4x/0.10, 10x/0.25, 40x/0.65, 100x/1.25 | Double layer, 150x133 mm with X-Y moving range 75x50mm. Belt-drive in X direction | Coaxial coarse and fine focusing | X-LED ³ system with adjustable intensity | Sliding-in, 1.25 N.A. Abbe type with adjustable height and iris diaphragm | 100-240 Vac 50-60 Hz external power adapter 6Vdc output |

B-290 Series - Accessories

B-292 - B-293

| | |
|-----------|--|
| M-160 | Eyepiece WF10x/20mm. |
| M-161 | Eyepiece WF15x/16mm. |
| M-162 | Eyepiece WF20x/10mm. |
| M-163 | Micrometer eyepiece WF10x/20mm. |
| M-005 | 26x76 mm micrometric slide. Range 1 mm, div. 0,01 mm. |
| M-164 | Objective 4x/0,10 E-PLAN. |
| M-165 | Objective 10x/0,25 E-PLAN. |
| M-166 | Objective 20x/0,40 E-PLAN. |
| M-167 | Objective 40x/0,65 E-PLAN. |
| M-168 | Objective 60x/0,80 E-PLAN. |
| M-169 | Objective 100x/1,25 E-PLAN (Oil). |
| M-174 | Polarizing set, filters only (for B-290 series). |
| M-175 | Rotating table for polarizing set. |
| M-069 | Solar battery pack. |
| M-114 | C-Mount adapter for 1/2" sensor. |
| M-116 | C-Mount adapter for 2/3" sensor. |
| M-173 | Photo adapter for APS-C and Full Frame Reflex cameras. |
| M-666.290 | Heating stage, with digital temperature controller B-290 series. |

B-292PLi - B-293PLi

| | |
|-----------|--|
| M-160 | Eyepiece WF10x/20mm. |
| M-161 | Eyepiece WF15x/16mm. |
| M-162 | Eyepiece WF20x/10mm. |
| M-163 | Micrometer eyepiece WF10x/20mm. |
| M-005 | 26x76 mm micrometric slide. Range 1 mm, div. 0,01 mm. |
| M-144 | Objective E-PLAN IOS 4x/0,10. |
| M-145 | Objective E-PLAN IOS 10x/0,25. |
| M-146 | Objective E-PLAN IOS 20x/0,40. |
| M-147 | Objective E-PLAN IOS 40x/0,65. |
| M-148 | Objective E-PLAN IOS 100x/1,25 (Oil). |
| M-149 | Objective E-PLAN IOS 60x/0,80. |
| M-174 | Polarizing set, filters only (for B-290 series). |
| M-175 | Rotating table for polarizing set. |
| M-069 | Solar battery pack. |
| M-114 | C-Mount adapter for 1/2" sensor. |
| M-116 | C-Mount adapter for 2/3" sensor. |
| M-173 | Photo adapter for APS-C and Full Frame Reflex cameras. |
| M-666.290 | Heating stage, with digital temperature controller B-290 series. |

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).



15104 - Lens cleaner, 50ml

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



How to connect the cameras to our microscopes.

Please refer to the Adapter reference list on Digital section.

B-380 Series

Advanced biological microscopes for teachers



B-380 Series

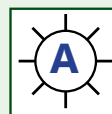
Educational and laboratory microscope for routine applications.
Dye-cast frame, with high stability and ergonomy, for transmitted light observation.

| | |
|---------------------|---|
| B-382PL-ALC | Binocular microscope, E-PLAN objectives, with Automatic Light Control . |
| B-383PL | Trinocular microscope, E-PLAN objectives. |
| B-382PLi-ALC | Binocular microscope, E-PLAN IOS objectives, with Automatic Light Control . |
| B-383PLi | Trinocular microscope, E-PLAN IOS objectives. |
| B-382PH-ALC | Binocular phase contrast microscope, PLAN objectives, with Automatic Light Control . |
| B-383PH | Trinocular phase contrast microscope, PLAN objectives. |
| B-382PHi-ALC | Binocular phase contrast microscope, PLAN IOS objectives, with Automatic Light Control . |
| B-383PHi | Trinocular phase contrast microscope, PLAN IOS objectives. |

ALC - Automatic light control



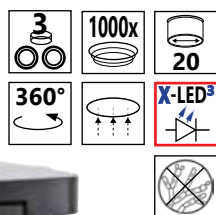
Automatic light control: the level of light is adjusted by the microscope in order to maintain the same level as the one the user has chosen, no matter if the aperture of the diaphragm changes, another objective is inserted, opacity of the sample changes, etc.



B-380 Series



B-383PH



Optical system & objectives:

The models of the B-380 series are equipped, depending on version, with two different types of optical systems: the standard 160mm one and the infinity corrected system (IOS). In both cases the field diameter of the eyepieces is 20mm.

Microscope stand:

Modern and ergonomic, this stand is made of die-cast aluminium. Coarse and fine focusing (graduation: 0.002mm) with coaxial control knobs.

Adjustable focusing tension and limit stop.

Heads:

Available in binocular or trinocular version.

The heads are equipped with interpupillary distance control (55-75 mm) as well with dioptric compensation.

Illumination:

The illuminating system consists of X-LED source.

The brightness can be adjusted by a rheostat located on the left side of the microscope base.

Design

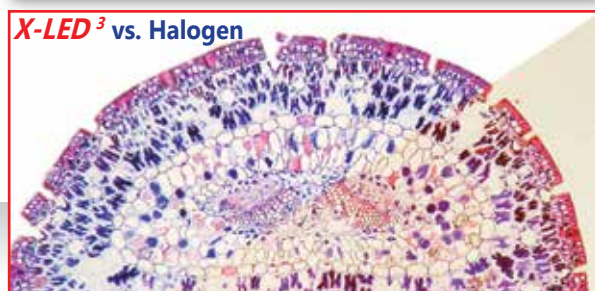
New ergonomic design

X-LED³ - The future of illumination

OPTIKA is proud to introduce its own revolutionary LED powered illumination system. Developed by our R&D dept. it consists of a new combination of LED and optical technology.

A new high-efficiency single chip LED works in combination with a special optical lens, which allows to double the intensity of the light generated by the LED itself. The result is a quantity of light equivalent to the light generated by a standard 50W halogen bulb, but with a colour temperature of 6300K. It means white light instead of the yellow one produced by halogen bulbs.

The electrical consumption (3.6W only) shows the high efficiency of the system: same light intensity with less than 10% of the consumption of a standard halogen bulb. Last but not least, the lifetime of our LED is 50.000 hours, instead of 1.500 hours ...!



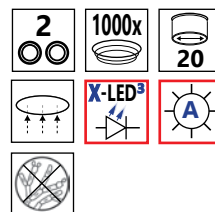
B-380 Series - Models

ALC

Automatic Light Control



B-382PL-ALC

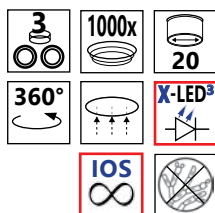


Stage

Innovative belt drive system

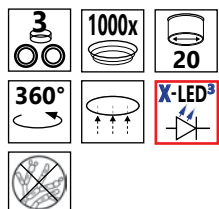


B-383PHi

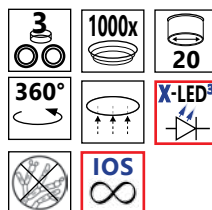


B-380 Series - Models

B-383PL



B-383PLi



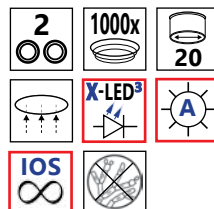
B-380 Series - Models

Stage

Innovative belt drive system



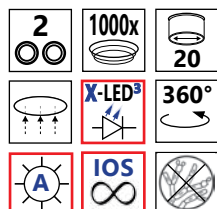
B-382PLi-ALC



ALC

Automatic Light Control

B-382PHi-ALC



B-380 Series - Technical specifications

| Model | Head | Eyepieces | Objectives | Nosepiece | Stage | Focusing | Condenser | Illuminator | Power Supply |
|---------------------|--|-------------------------|--|-------------------------------------|---|--|--|---|---|
| B-382PL-ALC | Binocular 30° inclined. | Wide Field 10X/20 mm | E-PLAN 4x, 10x, 40x, 100x (oil) | Quintuple nosepiece, reversed | Double layer mechanical sliding stage, 160x140mm, moving range 78x54mm | Coaxial coarse and fine focusing with limit stop | Abbe condenser, sliding-in, N.A. 1.25 with centering system | X-LED ³ , with Automatic Light Control | External power supply: Input 100-240Vac 50-60Hz. Output 6Vdc 1A |
| B-383PL | Trinocular 360°rotating 30° inclined | Wide Field 10X/20 mm | E-PLAN 4x, 10x, 40x, 100x (oil) | Quintuple nosepiece, reversed | Double layer mechanical sliding stage, 160x140mm, moving range 78x54mm | Coaxial coarse and fine focusing with limit stop | Abbe condenser, sliding-in, N.A. 1.25 with centering system. | X-LED ³ , with manual brightness control | External power supply: Input 100-240Vac 50-60Hz. Output 6Vdc 1A |
| B-382PLi-ALC | Binocular 30° inclined. | Wide Field 10X/20 mm | IOS E-PLAN 4x, 10x, 40x, 100x (oil) | Quintuple nosepiece, reversed | Double layer mechanical sliding stage, 216x150mm, moving range 78x54mm, Belt-drive in X direction | Coaxial coarse and fine focusing with limit stop | Abbe condenser, sliding-in, N.A. 1.25 with centering system. | X-LED ³ , with Automatic Light Control | External power supply: Input 100-240Vac 50-60Hz. Output 6Vdc 1A |
| B-383PLi | Trinocular 360°rotating 30° inclined | Wide Field 10X/20 mm | IOS E-PLAN 4x, 10x, 40x, 100x (oil) | Quintuple nosepiece, reversed | Double layer mechanical sliding stage, 216x150mm, moving range 78x54mm, Belt-drive in X direction | Coaxial coarse and fine focusing with limit stop | Abbe condenser, sliding-in, N.A. 1.25 with centering system. | X-LED ³ , with manual brightness control | External power supply: Input 100-240Vac 50-60Hz. Output 6Vdc 1A |
| B-382PH-ALC | Binocular 30° inclined. | Wide Field 10X/20 mm | PLAN 4x, 10xPh, 40xPh, 100xPh (oil) | Quintuple nosepiece, reversed | Double layer mechanical sliding stage, 160x140mm, moving range 78x54mm | Coaxial coarse and fine focusing with limit stop | Phase condenser (10x/20x, 40x, 100x) with darkfield (dry) and brightfield | X-LED ³ , with Automatic Light Control | External power supply: Input 100-240Vac 50-60Hz. Output 6Vdc 1A |
| B-383PH | Trinocular 360°rotating 30° inclined | Wide Field 10X/20 mm | PLAN 4x, 10xPh, 40xPh, 100xPh (oil) | Quintuple nosepiece, reversed | Double layer mechanical sliding stage, 160x140mm, moving range 78x54mm | Coaxial coarse and fine focusing with limit stop | Phase condenser (10x/20x, 40x, 100x) with darkfield (dry) and brightfield | X-LED ³ , with manual brightness control | External power supply: Input 100-240Vac 50-60Hz. Output 6Vdc 1A |
| B-382PHi-ALC | Binocular 30° inclined. | Wide Field 10X/20 mm | IOS PLAN 10xPh, 20xPh, 40xPh, 100xPh (oil) | Quintuple nosepiece, reversed | Double layer mechanical sliding stage, 216x150mm, moving range 78x54mm, Belt-drive in X direction | Coaxial coarse and fine focusing with limit stop | Phase condenser (10x/20x, 40x, 100x) with darkfield (dry) and brightfield | X-LED ³ , with Automatic Light Control | External power supply: Input 100-240Vac 50-60Hz. Output 6Vdc 1A |
| B-383PHi | Trinocular 360°rotating 30° inclined | Wide Field 10X/20 mm | IOS PLAN 10xPh, 20xPh, 40xPh, 100xPh (oil) | Quintuple nosepiece, reversed | Double layer mechanical sliding stage, 216x150mm, moving range 78x54mm, Belt-drive in X direction | Coaxial coarse and fine focusing with limit stop | Phase condenser (10x/20x, 40x, 100x) with darkfield (dry) and brightfield | X-LED ³ , with manual brightness control | External power supply: Input 100-240Vac 50-60Hz. Output 6Vdc 1A |

B-380 Series - Accessories

B-380

| | |
|-----------|--|
| M-160 | Eyepiece WF10x/20mm. |
| M-161 | Eyepiece WF15x/16mm. |
| M-162 | Eyepiece WF20x/10mm. |
| M-163 | Micrometer eyepiece WF10x/20mm. |
| M-005 | Micrometric slide 26x76 mm, range 1 mm, div. 0,01 mm. |
| M-164 | Objective 4x/0,10 E-PLAN. |
| M-165 | Objective 10x/0,25 E-PLAN. |
| M-166 | Objective 20x/0,40 E-PLAN. |
| M-167 | Objective 40x/0,65 E-PLAN. |
| M-168 | Objective 60x/0,80 E-PLAN. |
| M-169 | Objective 100x/1,25 E-PLAN (Oil). |
| M-144 | Objective 4x/0,10 IOS E-PLAN. |
| M-145 | Objective 10x/0,25 IOS E-PLAN. |
| M-146 | Objective 20x/0,40 IOS E-PLAN. |
| M-147 | Objective 40x/0,65 IOS E-PLAN. |
| M-149 | Objective 60x/0,80 IOS E-PLAN. |
| M-148 | Objective 100x/1,25 IOS E-PLAN (Oil). |
| M-170 | Objective 10x/0.25 PLAN for phase contrast. |
| M-171 | Objective 20x/0.40 PLAN for phase contrast. |
| M-172 | Objective 40x/0.65 PLAN for phase contrast. |
| M-182 | Objective 100x/1.25 (oil) PLAN for phase contrast. |
| M-183 | Objective 10x/0.25 IOS PLAN for phase contrast. |
| M-176 | Objective 20x/0.40 IOS PLAN for phase contrast. |
| M-177 | Objective 40x/0.65 IOS PLAN for phase contrast. |
| M-178 | Objective 100x/1.25 (oil) IOS PLAN for phase contrast. |
| M-179 | Complete phase contrast set with PLAN obj. 10x, 40x, 100x, with darkfield condenser for dry objectives. |
| M-181 | Complete phase contrast set with IOS PLAN obj. 10x, 20x, 40x, 100x, with darkfield condenser for dry objectives. |
| M-174.1 | Polarizing set, filters only (for B-380 series). |
| M-175 | Rotating table for polarizing set. |
| M-185 | Darkfield condenser for dry objectives. |
| M-114 | C-Mount adapter for 1/2" sensor. |
| M-116 | C-Mount adapter for 2/3" sensor. |
| M-173 | Photo adapter for APS-C and Full Frame Reflex cameras. |
| M-666.380 | Heating stage, with digital temperature controller. |

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).



15104 - Lens cleaner, 50ml

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



How to connect the cameras to our microscopes.

Please refer to the Adapter reference list on Digital section.

STEREO Series

Stereomicroscopes for students



STEREO Series

This series includes a wide selection of stereomicroscopes designed to satisfy every need in both teaching and amateur fields.

The whole range, from MS-2 to ST-50LED, is assembled according to the best technical standards. The optical system, thanks to its transparency, quality and depth, is at the top of its category.

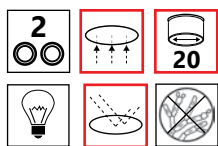
The series is composed of 16 models, each one designed to satisfy multiple needs.

| | |
|--------------------|--|
| MS-2 | Monoscope 20x. |
| STX | Stereomicroscope, LED incident illumination, powered by batteries (not included). |
| S-10-P | Stereomicroscope 20x. |
| S-10-L | Stereomicroscope 20x, tungsten incident illumination, inclined head. |
| S-10-2L | Stereomicroscope 20x, tungsten incident & transmitted illumination, inclined head. |
| S-20-L | Stereomicroscope 20x, tungsten incident illumination, inclined head. |
| S-20-2L | Stereomicroscope 20x, tungsten incident & transmitted illumination, inclined head. |
| ST-30B-2L | Stereomicroscope 10x-30x, tungsten incident & transmitted illumination, inclined head in rear position. |
| ST-30-2LR | Stereomicroscope 20x-40x, tungsten incident & transmitted illumination, inclined head in rear position. |
| ST-30-2LF | Stereomicroscope 20x-40x, tungsten incident & transmitted illumination, inclined head in front position. |
| ST-30-2Led | Stereomicroscope 20x-40x, LED incident & transmitted illumination, inclined head in front position. |
| ST-30-2LedR | Stereomicroscope 20x-40x, LED incident & transmitted illumination, inclined head in rear position. |
| ST-40B-2L | Stereomicroscope 10x-30x, tungsten incident & transmitted illumination, inclined head 360° rotating. |
| ST-40-2L | Stereomicroscope 20x-40x, tungsten incident & transmitted illumination, inclined head 360° rotating. |
| ST-45-2L | Stereomicroscope 20x-40x, halogen incident & transmitted illumination, inclined head 360° rotating. |
| ST-50Led | Stereomicroscope 20x, overhanging stand, LED incident illumination. |



STEREO Series

ST-30-2LF



Versatility

The range includes a model, the ST-30-2Led, which allows you to work without worrying about the electrical power supply, thanks to its rechargeable longlife battery. "Cold" light allows an excellent vision of the samples.

Heads

Binocular heads (except for MS-2 model). **ST-40B-2L**, **ST-40-2L** and **ST-45-2L** models have 360° rotating heads. All remaining models have fixed heads.

STX, **S-10-P**, **S-10-L** and **S-10-2L** models have vertical heads.

Specimen stage

All models have a specimen stage fitted with a black/white disc and specimen clips. Models with transmitted light have also a frosted disk.

Interpupillary distance

Binocular heads have an interpupillary distance adjustable between 51 and 75mm. Dioptic compensation adjustable on eyepiece tubes, except for MS-2 model.

Optical system

WF10x/20mm eyepieces. Supplied objective changes according to the model: 2x fixed objective or double selectable objective (2x-4x or 1x-3x).

Using additional eyepieces and objectives, it's possible to obtain up to 80 magnifications.

The **ST-50Led** model have a long working distance 2x objective (119 mm).

Illumination

The models with incident and/or transmitted light have 12V/10W tungsten bulbs. The **ST-45-2L** model is the only one supplied with halogen bulbs and brightness control.

ST-30-2Led, **ST-30-2LedR** and **ST-50Led** have LED illumination.

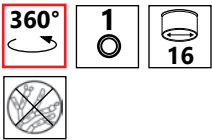
Focusing

Every model is equipped with focus adjustment knobs located on each side of the stand.

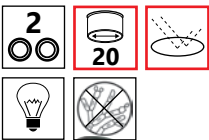


STEREO Series - Models

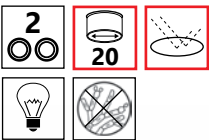
MS-2



S-10-L



S-20-L



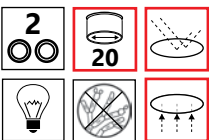
S-10-P



S-10-2L

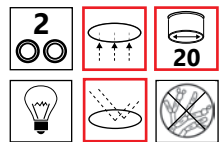


S-20-2L

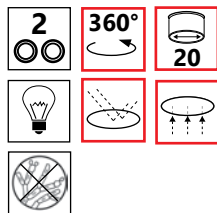


STEREO Series - Models

ST-30-2LF



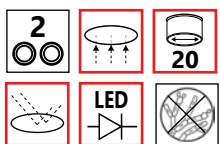
ST-40-2L



ST-30-2LR



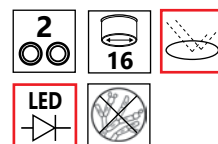
ST-30-2Ld



ST-45-2L

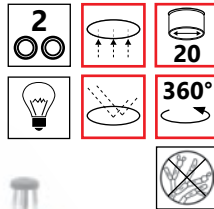


STX



STEREO Series - Models

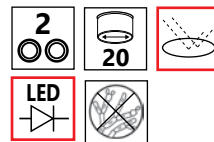
ST-40-2L



360°



ST-50-Led



LWD



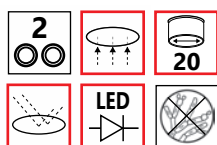
LONG WORKING DISTANCE

STEREO Series - Technical specifications

| Model | Head | Eyepiece(s) | Objectives | Stand | Illumination |
|--------------------|--|-------------|------------------|---------------------------|--|
| MS-2 | Monocular 360° rotating - 45° inclined | WF10x/16mm | Fixed 2x | Pillar | Without illumination |
| STX | Binocular Fixed - vertical | WF10x/16mm | Fixed 2x | Pillar, with fixed holder | LED incident light with slot for 2 AA batteries (batteries not included) |
| S-10-P | Binocular Fixed - vertical | WF10x/20mm | Fixed 2x | Pillar | Without illumination |
| S-10-L | Binocular Fixed - vertical | WF10x/20mm | Fixed 2x | Pillar | Incident light - tungsten bulb |
| S-10-2L | Binocular Fixed - vertical | WF10x/20mm | Fixed 2x | Pillar | Incident and transmitted light - tungsten bulbs |
| S-20-L | Binocular Fixed - 45° inclined, forwards | WF10x/20mm | Fixed 2x | Pillar | Incident light - tungsten bulb |
| S-20-2L | Binocular Fixed - 45° inclined, forwards | WF10x/20mm | Fixed 2x | Pillar | Incident and transmitted light - tungsten bulbs |
| ST-30B-2L | Binocular Fixed - 45° inclined, backwards | WF10x/20mm | Selectable 1x-3x | Pillar | Incident and transmitted light - tungsten bulbs |
| ST-30-2LR | Binocular Fixed - 45° inclined, backwards | WF10x/20mm | Selectable 2x-4x | Pillar | Incident and transmitted light - tungsten bulbs |
| ST-30-2LF | Binocular Fixed - 45° inclined, forwards | WF10x/20mm | Selectable 2x-4x | Pillar | Incident and transmitted light - tungsten bulbs |
| ST-30-2Led | Binocular Fixed - 45° inclined, forwards | WF10x/20mm | Selectable 2x-4x | Pillar | LED Incident and transmitted light - rechargeable battery |
| ST-30-2LedR | Binocular Fixed - 45° inclined, backwards | WF10x/20mm | Selectable 2x-4x | Pillar | LED Incident and transmitted light - rechargeable battery |
| ST-40B-2L | Binocular 360° rotating - 45° inclined | WF10x/20mm | Selectable 1x-3x | Pillar | Incident and transmitted light - tungsten bulbs |
| ST-40-2L | Binocular 360° rotating - 45° inclined | WF10x/20mm | Selectable 2x-4x | Pillar | Incident and transmitted light - tungsten bulbs |
| ST-45-2L | Binocular 360° rotating - 45° inclined | WF10x/20mm | Selectable 2x-4x | Pillar with fixed holder | Incident and transmitted halogen lights |
| ST-50Led | Binocular Fixed - 45° inclined, forwards | WF10x/20mm | Fixed 2x | Overhanging | LED incident light on flexible Arm |

STEREO Series - Accessories

ST-30-2Led



BATTERY FOR FIELD USE

ST-30-2Led with rechargeable batteries.

Battery box: 3 x AA, 1.2V NiMH – replaceable by the user.

Battery pack: 3 x AA, 1800 mAh.

Time required for a full recharge: 10 hours.

Battery runtime with LED incident light at maximum power: 12 hours.

Battery runtime with LED transmitted light at maximum power: 14 hours.

Battery charging enabled while using the microscope.

Performances estimated with batteries at their maximum efficiency.



STEREO

| | |
|---------|---|
| ST-001 | Eyepieces (pair) WF5x/22mm. |
| ST-002 | Eyepieces (pair) WF10x/20mm. |
| ST-003 | Eyepieces (pair) WF15x/15mm. |
| ST-004 | Eyepieces (pair) WF20x/13mm. |
| ST-005 | Eyepiece micrometer WF10x/20mm. |
| ST-020 | Objective 1x for S-10 and S-20 series. |
| ST-021 | Objective 3x for S-10 and S-20 series. |
| ST-022 | Objective 4x for S-10 and S-20 series. |
| ST-025 | Objective 1x for ST-50Led. |
| ST-026 | Objective 3,5x for ST-50Led. |
| ST-040 | Darkfield condenser. |
| ST-041 | Sample clip. |
| ST-032 | Eyecups (pair) type 1. |
| ST-011 | White/black object-plate, type 1 dia. 60 mm. |
| ST-012 | White/black object-plate, type 2 dia. 95 mm. |
| ST-014 | Glass stage, type 2, dia. 95 mm. |
| ST-015 | Glass stage, type 1, dia. 60 mm. |
| ST-006 | Tungsten bulb, 12V/10W. |
| ST-028 | Halogen bulb 12V/10W. |
| ST-009 | Dust cover type 10. |
| ST-010 | Dust cover type 11 for ST-50Led. |
| M-114 | C-Mount adapter for 1/2" sensor. |
| M-116 | C-Mount adapter for 2/3" sensor. |
| M-173 | Photo adapter for APS-C and Full Frame Reflex cameras. |
| M-113.2 | Ring adapter, 30.5mm (for monocular and binocular microscopes). |

15104 - Lens cleaner, 50ml

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



STX - MS-2

| | |
|--------|--|
| ST-009 | Dust cover type 10. |
| ST-015 | Glass stage, type 1, dia. 60 mm. |
| M-114 | C-Mount adapter for 1/2" sensor. |
| M-116 | CCD camera adapter 0,50x. |
| M-173 | Photo adapter for APS-C and Full Frame Reflex cameras. |



How to connect the cameras to our microscopes.

Please refer to the Adapter reference list on Digital section.

LAB Series

Stereomicroscopes for teachers



LAB Series

The LAB series can be considered as the entry-level of the OPTIKA professional stereomicroscopes range. The two models have been designed for end users who need professional quality at low cost.

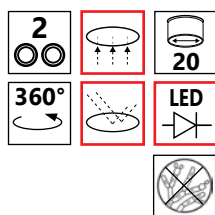
LAB-10

Stereomicroscope 20x-40x LED incident & transmitted illumination.

LAB-20

Stereozoom microscope 7x...45x, LED incident & transmitted illumination.

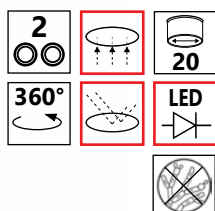
LAB-10



LAB Series



LAB-20



Heads

Binocular heads, 360° rotating and 45° inclined.

Interpupillary distance

Adjustable between 51 and 75 mm.

Eyepieces

WF10x/20 mm.

LAB-10: Dioptric compensation adjustable on left eyepiece tubes.

LAB-20: Dioptric compensation adjustable on both eyepiece tubes.

Specimen stage

Fitted with a semi-transparent disc for transmitted light with specimen clips.

Objectives

LAB-10: with double magnification (2x-4x) that can be selected by rotating the lens unit. Working distance 80mm.

LAB-20: continuous zoom 0,7x ...4,5x. (6,43:1 zoom factor).

Working distance: 85 mm.

Stand

Fixed arm type with focusing mechanism.

Focusing

Rack and pinion controlled by a pair of knobs placed on both sides of the stand.

Illumination

Double adjustable illuminator for incident and transmitted light fitted with two high-efficiency LED light sources.

The angle of the incident illuminator is adjustable.

Voltage: 110/240V ac.

LAB Series - Technical specifications

| Model | Head | Eyepiece | Objectives | Working Distance | Stand | Illuminator |
|--------|--|-------------|-----------------------------------|------------------|-----------------------------------|--|
| LAB-10 | Binocular 360° rotating 45° inclined | WF 10x/20mm | 2x - 4x selectable by rotating | 80 mm | Pillar stand with fixed holder | Double incident and transmitted light. High-efficiency LED light sources with separate brightness controls |
| LAB-20 | Binocular 360° rotating 45° inclined | WF 10x/20mm | 0,7x...4,5x zoom | 85 mm | Pillar stand with fixed holder | Double incident and transmitted light. High-efficiency LED light sources with separate brightness controls |

LAB Series - Accessories

LAB

| | |
|----------|---|
| ST-001.1 | Eyepieces (pair) WF5x/22mm. |
| ST-401 | Eyepieces (pair) WF10x/20 mm. |
| ST-402 | Eyepieces (pair) WF15x/15 mm. |
| ST-403 | Eyepieces (pair) WF20x/10 mm. |
| ST-405 | Eyepiece micrometer WF10x/20mm. |
| ST-085 | Additional lens 0,5x (w.d. 165mm). * |
| ST-086 | Additional lens 1,5x (w.d. 47mm). * |
| ST-415 | Eyecups (pair). |
| ST-029 | Dust cover type 12. |
| ST-092 | Protective glass for stereohead. |
| ST-417 | Round plastic stage for LAB 10 and LAB 20. |
| M-114 | C-Mount adapter for 1/2" sensor. |
| M-116 | C-Mount adapter for 2/3" sensor. |
| M-173 | Photo adapter for APS-C and Full Frame Reflex cameras. |
| M-113.1 | Ring adapter, 30mm (for monocular and binocular microscopes). |

* Only for LAB-20



How to connect the cameras to our microscopes.

Please refer to the Adapter reference list on Digital section.

15104 - Lens cleaner, 50ml

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



LAB-10



LAB-20

SZM Series

Advanced stereomicroscopes for teachers



SZM Series

The stereomicroscopes of the SZM series are instruments designed for laboratory and industry applications.

Their optical and mechanical qualities place them at the top of their category and their price/quality ratio is excellent. The stereomicroscopes share the same optical system consisting of binocular and trinocular heads with zoom objectives.

The six models of the SZM series find their proper application wherever professional instruments are required. Several accessories provide a wide choice of configurations and applications.

SZM-1 Binocular stereozoom microscope 7x...45x, halogen incident & transmitted illumination.

SZM-LED1 Binocular stereozoom microscope 7x...45x, LED incident & transmitted light.

SZM-2 Trinocular stereozoom microscope 7x...45x, halogen incident & transmitted illumination.

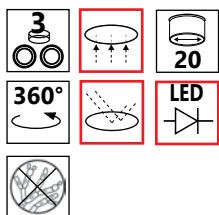
SZM-LED2 Trinocular stereozoom microscope 7x...45x, LED incident & transmitted light.

SZM-3 Binocular stereozoom microscope 7x...45x, overhanging stand.

SZM-4 Trinocular stereozoom microscope 7x...45x, overhanging stand.



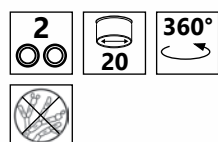
SZM-LED2



SZM Series



SZM-3



Heads

Binocular and trinocular, 360° rotating and 45° inclined.

Interpupillary distance

Adjustable between 51 and 75 mm.

Dioptric compensation

On both eyepiece tubes.

Eyepieces

EWF10x/20 mm

Objectives

Parfocal achromatic zoom 0,7x...4,5x (6,428:1 zoom factor).

Specimen stage:

Fitted with a black/white disc, specimen clips and a frosted disc for transmitted light.

Focusing

Rack and pinion mechanism controlled by a pair of knobs placed on both sides of the stand.

Stand

Models **SZM 1/2**: Pillar stand 30 mm diameter and 25 cm high, base: 26x20x6h cm.

Models **SZM-LED 1/2**: Pillar stand 32 mm diameter and 315 mm high, base 27x21x3h cm.

Models **SZM 3/4**: Overhanging stand 42 cm high, 45 cm horizontal arm length, base 23x23cm.

Illumination

Models **SZM-1/2**: Double, adjustable incident and transmitted light, fitted with two 12V/15W halogen bulbs. The angle of the incident illumination is adjustable.

The two models **SZM-LED1/2** are equipped with a double high-power LED.

SZM Series - Technical specifications

| Model | Head | Eyepiece | Objectives | Working Distance | Stand | Illuminator |
|-----------------|---|-------------|-------------------|------------------|-------------------|--|
| SZM-1 | Binocular 360° rotating 45° inclined | WF 10x/20mm | 0,7x....4,5x zoom | 100 mm | Pillar stand | Incident and transmitted 12V/15W halogen |
| SZM-LED1 | Binocular 360° rotating 45° inclined | WF 10x/20mm | 0,7x....4,5x zoom | 100 mm | Pillar stand | Incident: high power single X-LED Transmitted: LED diffusing disc |
| SZM-2 | Trinocular 360° rotating 45° inclined | WF 10x/20mm | 0,7x....4,5x zoom | 100 mm | Pillar stand | Incident and transmitted 12V/15W halogen |
| SZM-LED2 | Trinocular 360° rotating 45° inclined | WF 10x/20mm | 0,7x....4,5x zoom | 100 mm | Pillar stand | Incident: high power single X-LED Transmitted: LED diffusing disc |
| SZM-3 | Binocular 360° rotating 45° inclined | WF 10x/20mm | 0,7x....4,5x zoom | 100 mm | Overhanging stand | Without illuminator |
| SZM-4 | Trinocular 360° rotating 45° inclined | WF 10x/20mm | 0,7x....4,5x zoom | 100 mm | Overhanging stand | Without illuminator |

SZM Series - Accessories

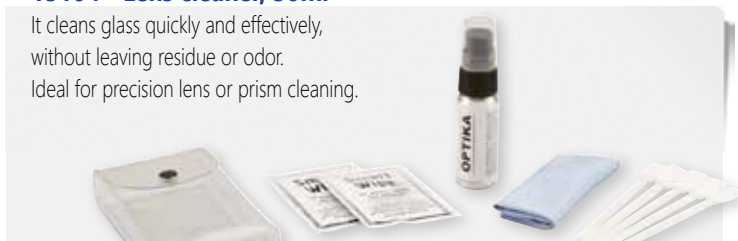
SZM

| | |
|---------------|---|
| ST-081 | Eyepieces (pair) WF10x/20 mm. |
| ST-082 | Eyepieces (pair) WF15x/15 mm. |
| ST-083 | Eyepieces (pair) WF20x/10 mm. |
| ST-084 | Eyepiece micrometer WF10x/20 mm. |
| ST-085 | Additional lens 0,5x (w.d. 165mm). |
| ST-091 | Additional lens 0,75x (w.d. 117mm). |
| ST-086 | Additional lens 1,5x (w.d. 47mm). |
| ST-087 | Additional lens 2x (w.d. 26mm). |
| ST-088.SZM | Polarising set (filters and rotating stage) for SZM. |
| ST-088.SZMLED | Polarising set (filters and rotating stage) for SZM LED. |
| ST-040.SZM | Darkfield condenser SZM. |
| ST-040.SZMLED | Darkfield condenser SZM-LED. |
| ST-100.SZM | Hand moving stage SZM. |
| ST-100.SZMLED | Hand moving stage SZM-LED. |
| ST-666.SZM | Heating stage for stereomicroscopes SZM. |
| ST-666.SZMLED | Heating stage for stereomicroscopes SZM LED. |
| ST-110.SZM | Moving stage, with coaxial knobs SZM. |
| ST-110.SZMLED | Moving stage, with coaxial knobs SZM-LED. |
| ST-111.SZM | Moving stage, with micrometric screws SZM. |
| ST-111.SZMLED | Moving stage, with micrometric screws SZM-LED. |
| ST-041 | Sample clip. |
| ST-089 | Reflex camera adapter for FULL FRAME sensor. |
| ST-090 | Focusable C-Mount adapter for 1/3" sensor. |
| ST-090.1 | Focusable C-Mount adapter for 1/2" sensor. |
| ST-036 | Eyecups (pair) type 2. |
| ST-012 | White/black object-plate, type 2 dia. 95 mm. * |
| ST-014 | Glass stage, type 2, dia. 95 mm. * |
| ST-038 | Halogen bulb, 12V/15W. |
| ST-037 | Halogen bulb, 12V/15W, with dichroic mirror. |
| ST-033 | Dust cover type 13. |
| ST-666 | Heating stage for stereomicroscopes. |
| M-114 | C-Mount adapter for 1/2" sensor. |
| M-116 | C-Mount adapter for 2/3" sensor. |
| M-173 | Photo adapter for APS-C and Full Frame Reflex cameras. |
| M-113.1 | Ring adapter, 30mm (for monocular and binocular microscopes). |

* For LED version special adapter required

15104 - Lens cleaner, 50ml

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



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