

OPTIKA

M I C R O S C O P E S
I T A L Y

Biological microscopes for the next teaching generation

B-190

B-191 / B-191s / B-192 / B-192s / B-192PLi / B-193

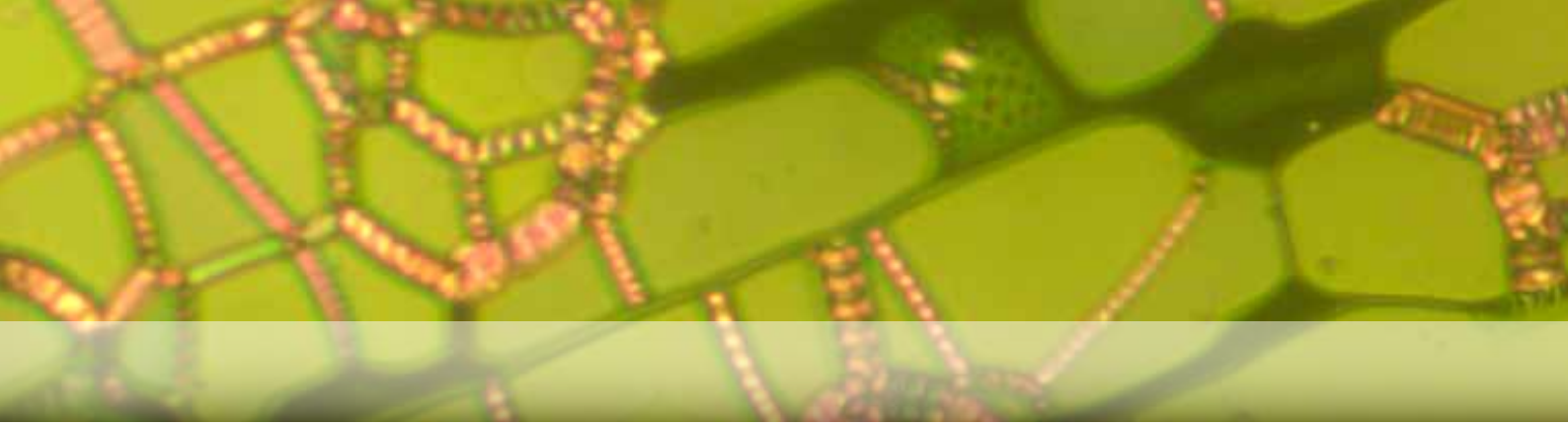
B-190 Series

Biological microscopes for the next teaching generation

X-LED²™

B-190





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. |
| B-191s | Monocular microscope, 600x. |
| B-192 | Binocular microscope, 1000x. |
| B-192s | Binocular microscope, 600x. |
| B-192PLi | Binocular microscope, 1000x, IOS. |
| B-193 | Trinocular microscope, 1000x. |

Optical system

The optical system has been developed for demanding users; it consists of high quality components which guarantees 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.



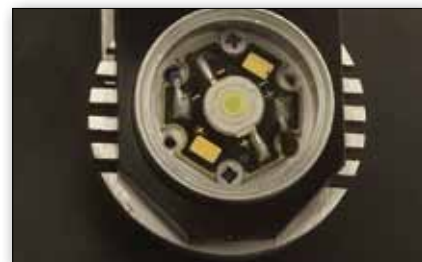
B-190 Series

Illumination

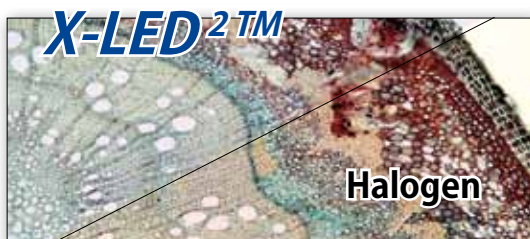
X-LED²™ - The future of illumination

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.



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, | Double layer, 125x115 mm with X-Y 70x30mm | Coaxial coarse and fine focusing | X-LED ² system with adjustable intensity | 1.25 N.A. Abbe type with adjustable height and iris | 100-240 Vac 50-60 Hz external power adapter |
| B-191s | Monocular, 360° rotating, 30° inclined | Wide Field 10x/18mm | Quadruple, reversed | DIN Achromatic 4x/0.10, 10x/0.25, 40x/0.65, | Double layer, 125x115 mm with X-Y 70x30mm | Coaxial coarse and fine focusing | X-LED ² system with adjustable intensity | 1.25 N.A. Abbe type with adjustable height and iris | 100-240 Vac 50-60 Hz external power adapter |
| B-192 | Binocular 360° rotating, 30° inclined with adjustable interpupillary distance and dioptic | Wide Field 10x/18mm | Quadruple, reversed | DIN Achromatic 4x/0.10, 10x/0.25, 40x/0.65, | Double layer, 125x115 mm with X-Y 70x30mm | Coaxial coarse and fine focusing | X-LED ² system with adjustable intensity | 1.25 N.A. Abbe type with adjustable height and iris | 100-240 Vac 50-60 Hz external power adapter |
| B-192s | Binocular 360° rotating, 30° inclined with adjustable interpupillary distance and dioptic | Wide Field 10x/18mm | Quadruple, reversed | DIN Achromatic 4x/0.10, 10x/0.25, 40x/0.65, | Double layer, 125x115 mm with X-Y 70x30mm | Coaxial coarse and fine focusing | X-LED ² system with adjustable intensity | 1.25 N.A. Abbe type with adjustable height and iris | 100-240 Vac 50-60 Hz external power adapter |
| B-192PLi | Binocular 360° rotating, 30° inclined with adjustable interpupillary distance and dioptic compensation | Wide Field 10x/18mm | Quadruple, reversed | Infinity Corrected DIN E-Plan 4x/0.10, 10x/0.25, 40x/0.65, | Double layer, 125x115 mm with X-Y 70x30mm 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 7,5 Vdc output |
| B-193 | Trinocular 360° rotating, 30° inclined with adjustable interpupillary distance and dioptic compensation | 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 X-Y 70x30mm 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 7,5 Vdc output |

B-190 Series - Accessories

| | |
|---------|--|
| M-001 | Eyepiece H5x |
| M-002.1 | Eyepiece WF10x/18mm |
| M-003 | Eyepiece WF16x/12mm |
| M-004 | Eyepiece micrometer WF10x/18mm m |
| 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/0.85 |
| M-143 | Achromatic objective 100x/1.25 (oil) |
| M-190 | Polarising set (filters only) |
| M-031 | Dust cover, type 3 |
| M-144 | Objective E PLAN ios 4X |
| M-145 | Objective E PLAN ios 10X |
| M-146 | Objective E PLAN ios 20X |
| M-147 | Objective E PLAN ios 40X |
| M-148 | Objective E PLAN ios 100X |
| M-069 | Solar battery pack |
| M-114 | CCD camera adapter, 0.5x |
| M-173 | Photo tube adapter for APS-C sensor |
| M-365 | Photo tube adapter for full frame sensor |

M-069 - Solar battery pack

Included battery: rechargeable – Lithium-Poly. Capacity: 2500 mAh. Output voltage: 5,5Vdc.

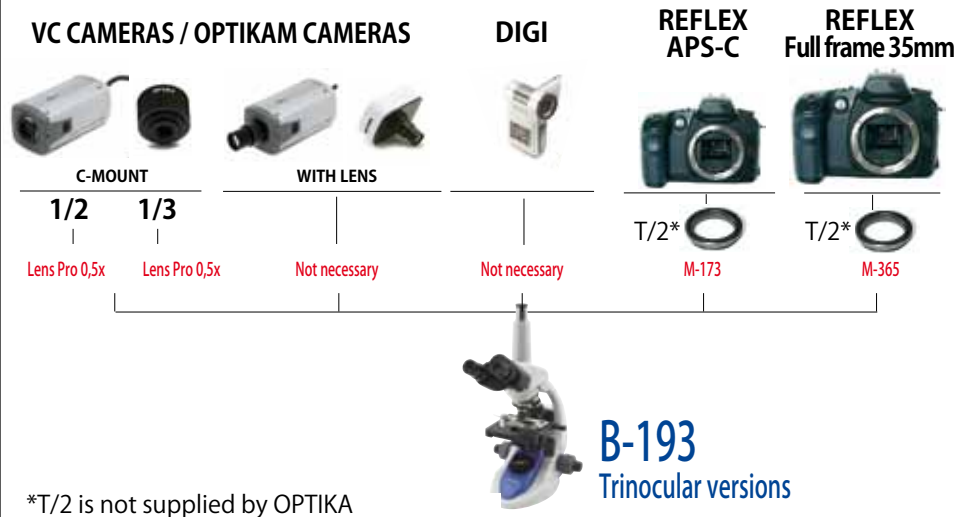
Dimensions: 110x70x15 mm. Autonomy: 5h at max intensity.

Charging modes: with solar panel (12h) - with included power supply (6h).



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

CAMERA ADAPTER CHART FOR TRINOCULAR MODELS



15103 - Lens cleaner, 50ml

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



OPTIKA SRL

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