

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

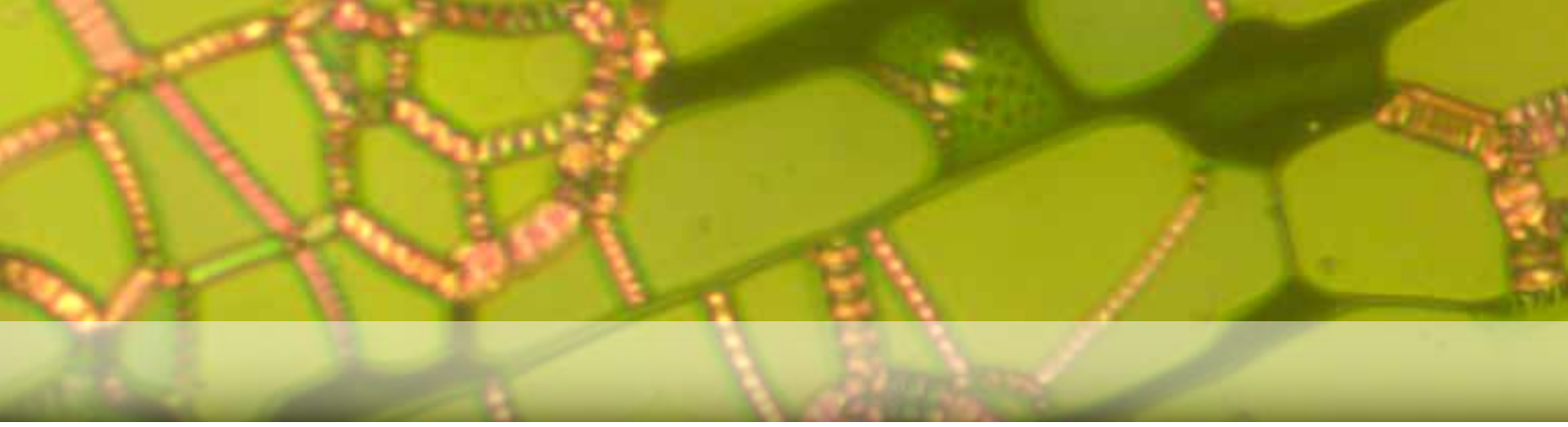
B-190 Series

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

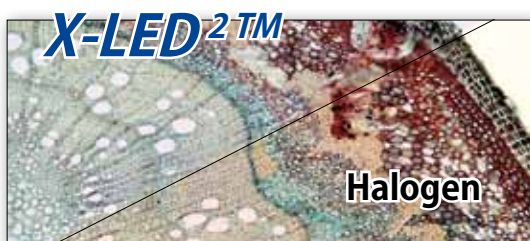
X-LED²™ - The future of illumination

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.

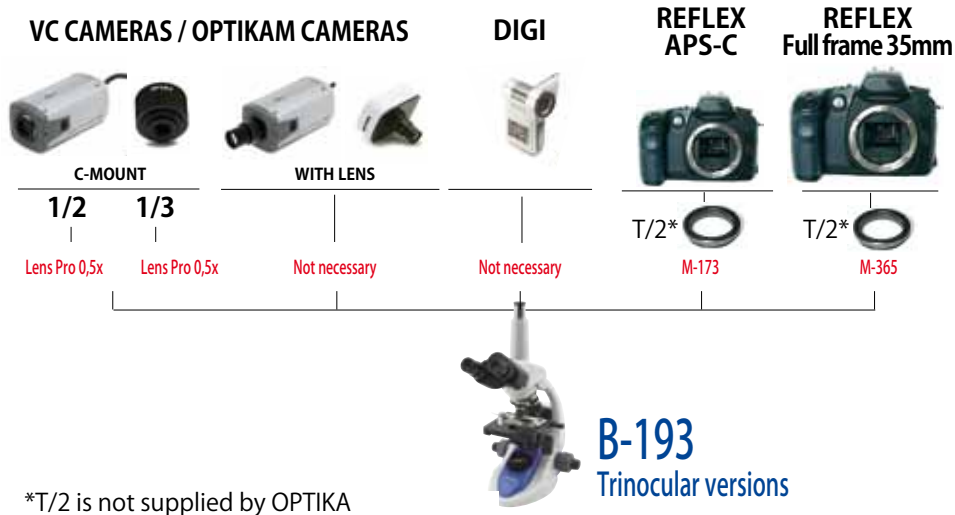
Dimensions: 110x70x15 mm. Autonomy: 5h at max intensity.

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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