

# OPTIKA

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



**X-LED<sup>2</sup>™**

## **B-190 SERIES**

*Biological microscopes for the next  
teaching generation*

Italian headquarters



OPTIKA Microscopes belongs to the group "M.A.D. Apparecchiature Scientifiche" and, with its almost 40 years experience in the field of scientific instrumentation, is worldwide known as a leading Company for optical microscopes' production and distribution.

The Company, a team of 70 people in 3 different European locations, is engaged in the development of new models, production, quality control, sales and after-sales service.

OPTIKA microscopes excellence, concerning quality, innovation, competitive prices and customer assistance, reaches the end users through a wide network of national and international distributors.

## B-190 SERIES

### The series

OPTIKA Microscopes is pleased to introduce its B-190 series, the result of a perfect fusion between years of experience in microscopy's field and a refined design study.

At the moment, this series presents our philosophy at its best: quality, reliability and innovation.

The B-190 series is the OPTIKA Microscopes' answer to the challenge of the future of microscopy in teaching field.

### Optical system

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

### Stand

The stand is characterised by a modern and ergonomic design. It is easy to carry the microscopes thanks to the large opening behind the revolving nosepiece to be used as an 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 control on materials and production process is optimized through the procedures established by ISO 9001:2008 quality system.

### Illumination

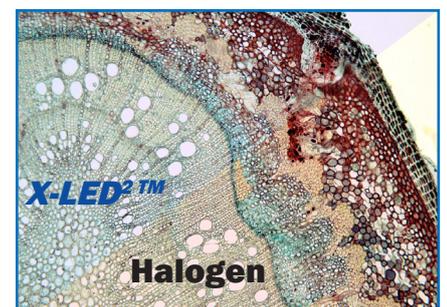
#### **X-LED<sup>2</sup>™ - The future of illumination**

OPTIKA Microscopes is proud to introduce a revolutionary LED powered illumination system. This system has been developed by our R&D dept. and consists of a new combination of LED and optical technology. A new 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.

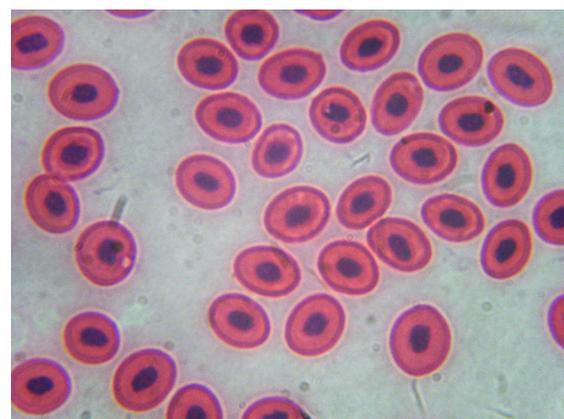


## B-190 SERIES - Models



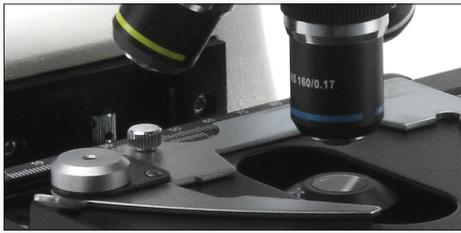
### B-192

Binocular with  
DIN achromatic objectives  
(4x, 10x, 40x, 100x)



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

Model	Head	Eyepieces	Revolving nosepiece	Objectives	Stage	Focusing	Illuminator	Condenser	Supply
<b>B-191</b>	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 X-Y 70x30mm moving range	Coaxial coarse and fine focusing	X-LED <sup>2</sup> system with adjustable intensity	1,25 N.A. Abbe type with adjustable height and iris diaphragm	100-240 Vac 50-60 Hz external power unit 7,5Vdc output
<b>B-191s</b>	Special version of the B-191 model, fitted with 60x/0.85 objective instead of the 100x/1.25 objective								
<b>B-192</b>	Binocular 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 <sup>2</sup> system with adjustable intensity	1,25 N.A. Abbe type with adjustable height and iris diaphragm	100-240 Vac 50-60 Hz external power unit 7,5 Vdc output
<b>B-192s</b>	Special version of the B-192 model, fitted with 60x/0.85 objective instead of the 100x/1.25 objective								

**B-190 SERIES - Optional accessories**

- M-001 H5x eyepiece
- M-002.1 WF10x/18mm eyepiece
- M-003 WF16x/12mm eyepiece
- M-004 WF10x/18mm micrometric eyepiece
- M-137 4x/0.10 achromatic objective
- M-138 10x/0.25 achromatic objective
- M-139 20x/0.40 achromatic objective
- M-141 40x/0.65 achromatic objective
- M-142 60x/0.85 achromatic objective
- M-143 100x/1.25 achromatic objective (oil immersion)
- M-190 Polarising set (filters only)
- M-031 Dust cover type 3

