

# OPTIKA

M I C R O S C O P E S

I T A L Y

High quality upright laboratory microscopes

**B-500**

B-500Bsp / B-500Tsp / B-500Bpl / B-500Tpl / B-500Bi / B-500Ti  
B-500ERGO / B-500iERGO / B-500BPh / B-500TPh / B-500BiPh /  
B-500TiPh / B-500Ti-2 / B-500Ti-3 / B-500Ti-5 / B-500TDK

## B-500 Series

High quality upright laboratory microscopes



**infinifx™**  
optical system

**IOS™**  
objectives

B-500



## B-500 Series

The B-500 microscopes have been designed for the best performance in routine laboratory use. According to the models, two different optical systems are available (InfiniFix and IOS).



With InfiniFix optical system, the two worlds of infinity-corrected and 160 mm optical system find the way to meet each other. With this exclusive optical system all InfiniFix models use a true infinity-corrected optical path, implemented with standard 160 mm objectives.



IOS simply means "Infinity Optical System". All IOS models of B-500 series are equipped with true Infinity Corrected Objectives.

B-500Bsp	Binocular microscope, semi-planachromatic objectives
B-500Tsp	Trinocular microscope, semi-planachromatic objectives
B-500Bpl	Binocular microscope, planachromatic objectives
B-500Tpl	Trinocular microscope, planachromatic objectives
B-500Bi	Binocular microscope, IOS planachromatic objectives
B-500Ti	Trinocular microscope, IOS planachromatic objectives
B-500ERGO	Binocular microscope, planachromatic objectives. With ergonomic head
B-500iERGO	Binocular microscope, IOS planachromatic objectives. With ergonomic head
B-500Bph	Binocular microscope, planachromatic objectives for phase contrast
B-500Tph	Trinocular microscope, planachromatic objectives for phase contrast
B-500BiPh	Binocular microscope, IOS planachromatic objectives for phase contrast
B-500TiPh	Trinocular microscope, IOS planachromatic objectives for phase contrast
B-500Ti-2	Multi head microscope (2 heads), IOS planachromatic objectives
B-500Ti-3	Multi head microscope (3 heads), IOS planachromatic objectives
B-500Ti-5	Multi head microscope (5 heads), IOS planachromatic objectives
B-500TDK	Trinocular microscope for immersion darkfield technique, with planachromatic iris 100x objective



### B-500TDK: Brief introduction to our darkfield system for blood analysis



Two great solutions together:  
 - our 1.36 - 1.25 N.A. special extra efficient dark-field condenser  
 - OPTIKA X-LED™ illuminator (integrated into the condenser)  
**RESULTS:** our immersion darkfield system provides the same result achieved by 150W external illuminators in combination with traditional cardioid darkfield condenser.



# X-LED™ The future of illumination

## B-500 Series - Specifications

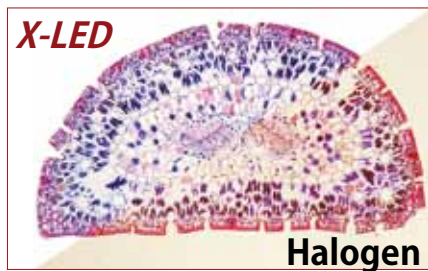
OPTIKA is proud to introduce its own revolutionary LED powered illumination system. Developed by our R&D dept., it consists of a new combination of LED and optical technology.

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 normal 30-35W 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 normal halogen bulb.

Last but not least, the lifetime of our LED: 50.000 hours, instead of 1.500 hours.



Standard LED



X-LED™  
illumination system



### Optical system & objectives

S-Plan and Plan 160mm Finitly Corrected Objectives on InfiniFix models.

Plan Infinity corrected objectives on all IOS models.

### Microscope stand

The modern stand design, with accessible and ergonomic controls, complements and enhances the instrument's usability.

### Head

The wide 22 mm field of view and the high-point eyepieces allow for hours of use without eye fatigue.

### Illuminators

The B-500 microscopes are equipped with two kinds of illuminators (both with field diaphragm): high-efficiency dichroic 20W halogen illuminator (models with SEMI-PLAN objectives), or our special X-LED illuminator (models with PLAN objectives). Both systems permit light-intensive applications, such as phase contrast or darkfield, without the need of complex active cooling and keeping the electrical consumption at lowest levels.

### Condenser

Two kinds of swing-out condensers are available (depending on the models):

- 0.10/1.20 N.A. for better performances with high magnifications;
- 0.22/0.90 N.A. for better performances with low magnifications (pathology)

### Specimen stage

A generously sized double layer stage, suitable for two specimen slides, optimally completes the instrument.

175x145mm, X-Y range: 76x51mm.

A perfect mix of performance and ease of use

## B-500 Series - Models



**B-500Ti**

Quintuple reversed  
Infinity Planachromatic  
4x, 10x, 40x, 100x (oil)



# A complete range of instruments

## B-500 Series - Models

### B-500Tpl

Quintuple reversed  
Planachromatic  
4x, 10x, 40x, 100x (oil)

**infinifix™**  
optical system  
**X-LED™**



### B-500iERGO

Quintuple reversed  
Infinity Planachromatic  
4x, 10x, 40x, 100x (oil)

**X-LED™**  
**IOS™**  
objectives



### CAMERA ADAPTER CHART FOR TRINOCULAR MODELS

VC CAMERAS / OPTIKAM CAMERAS		DIGI	REFLEX APS-C	REFLEX Full frame 35mm
				
C-MOUNT		WITH LENS		
1/2	1/3		T/2*	T/2*
M-620.1	M-620	M-699	M-173 M-699	M-619



**B-500**  
Trinocular versions

\*T/2 is not supplied by OPTIKA



## B-500 Series - Component scheme



## B-500 Series - Technical specifications

Model	Optical System	Head	Eyepiece	Objectives	Nosepiece	Stage	Focusing	Condenser	Illuminator
B-500Bsp	<b>InfniFix</b>	Binocular 360°rotating 30° inclined	Wide Field 10X / 22 mm	S-planachromatic 4x, 10x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 1.2 N.A., centrable	High efficiency Halogen 20W dichroic bulb
B-500Tsp	<b>InfniFix</b>	Trinocular 360°rotating 30° inclined	Wide Field 10X / 22 mm	S-planachromatic 4x, 10x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 1.2 N.A., centrable	High efficiency Halogen 20W dichroic bulb
B-500Bpl	<b>InfniFix</b>	Binocular 360°rotating 30° inclined	Wide Field 10X / 22 mm	Planachromatic 4x, 10x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 1.2 N.A., centrable	OPTIKA X-LED™ illuminator
B-500Tpl	<b>InfniFix</b>	Trinocular 360°rotating 30° inclined	Wide Field 10X / 22 mm	Planachromatic 4x, 10x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 1.2 N.A., centrable	OPTIKA X-LED™ illuminator
B-500Bi	<b>IOS</b>	Binocular 360°rotating 30° inclined	Wide Field 10X / 22 mm	Infinity Planachro 4x, 10x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 0.90 N.A., centrable	OPTIKA X-LED™ illuminator
B-500Ti	<b>IOS</b>	Trinocular 360°rotating 30° inclined	Wide Field 10X / 22 mm	Infinity Planachro 4x, 10x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 0.90 N.A., centrable	OPTIKA X-LED™ illuminator
B-500ERGO	<b>InfniFix</b>	30°-60° ergonomical bino head 360°rotating	Wide Field 10X / 22 mm	Planachromatic 4x, 10x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 1.2 N.A., centrable	OPTIKA X-LED™ illuminator
B-500IERGO	<b>IOS</b>	30°-60° ergonomical bino head 360°rotating	Wide Field 10X / 22 mm	Infinity Planachro 4x, 10x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 0.90 N.A., centrable	OPTIKA X-LED™ illuminator
B-500BPh	<b>InfniFix</b>	Binocular 360°rotating 30° inclined	Wide Field 10X / 22 mm	Planachromatic for phase contrast 10x, 20x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	-PH condenser 1,25 N.A. - Brightfield swing-out 1,2 N.A. - Both with centering system.	OPTIKA X-LED™ illuminator
B-500TPh	<b>InfniFix</b>	Trinocular 360°rotating 30° inclined	Wide Field 10X / 22 mm	Planachromatic for phase contrast 10x, 20x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	-PH condenser 1,25 N.A. - Brightfield swing-out 1,2 N.A. - Both with centering system.	OPTIKA X-LED™ illuminator
B-500BiPh	<b>IOS</b>	Binocular 360°rotating 30° inclined	Wide Field 10X / 22 mm	Infinity Planachro for phase contrast 10x, 20x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	-PH condenser 1,25 N.A. - Brightfield swing-out 0,90 N.A. - Both with centering system.	OPTIKA X-LED™ illuminator
B-500TiPh	<b>IOS</b>	Trinocular 360°rotating 30° inclined	Wide Field 10X / 22 mm	Infinity Planachro for phase contrast 10x, 20x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	-PH condenser 1,25 N.A. - Brightfield swing-out 0,90 N.A. - Both with centering system.	OPTIKA X-LED™ illuminator
B-500TDK	<b>InfniFix</b>	Trinocular 360°rotating 30° inclined	Wide Field 10X / 22 mm	Planachromatic 4x, 10x, 40x. Special PL100x (oil, with iris diaphragm)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 1.2 N.A., centrable. Extra N.A. 1.36 darkfield type with built-in X-LED	OPTIKA X-LED™ illuminator
B-500Ti-2	<b>IOS</b>	Main Head: trino 360°/30°. 1 discussion heads: bino 360°/30°	Main head: WF10X/22mm Discussion heads: WF10x/20mm	Infinity Planachromatic 4x, 10x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 0.90 N.A., centrable	OPTIKA X-LED™ illuminator. Discussion laser pointer under the head
B-500Ti-3	<b>IOS</b>	Main Head: trino 360°/30° 2 discussion heads: bino 360°/30°	Main head: WF10X/22mm Discussion heads: WF10x/20mm	Infinity Planachromatic 4x, 10x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 0.90 N.A., centrable	OPTIKA X-LED™ illuminator. Discussion laser pointer under the head
B-500Ti-5	<b>IOS</b>	Main Head: trino 360°/30° 4 discussion heads: bino 360°/30°	Main head: WF10X/22mm Discussion heads: WF10x/20mm	Infinity Planachromatic 4x, 10x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 0.90 N.A., centrable	OPTIKA X-LED™ illuminator. Discussion laser pointer under the head

# B-500 Series - Accessories

M-625	Eyepiece EWF10x/22mm
M-601	Eyepiece WF15x/16mm
M-602	Eyepiece micrometer EWF10x/22mm
M-005	Micrometric slide 26x76 mm, range 1 mm, div. 0,01 mm
M-501	Objective s-planachromatic 4x/0.10
M-502	Objective s-planachromatic 10x/0.25
M-503	Objective s-planachromatic 20x/0.40
M-504	Objective s-planachromatic 40x/0.65
M-505	Objective s-planachromatic 60x/0.80
M-506	Objective s-planachromatic 100x/1.25 (oil)
M-507	Objective planachromatic 4x/0.10
M-508	Objective planachromatic 10x/0.25
M-509	Objective planachromatic 20x/0.40
M-510	Objective planachromatic 40x/0.65
M-511	Objective planachromatic 60x/0.80
M-512	Objective planachromatic 100x/1.25 (oil)
M-608	Objective IOS planachromatic 4x/0.10
M-609	Objective IOS planachromatic 10x/0.25
M-610	Objective IOS planachromatic 20x/0.40
M-611	Objective IOS planachromatic 40x/0.65
M-611.1	Objective IOS planachromatic 60x/0.80
M-612	Objective IOS planachromatic 100x/1.25 (oil)
M-630	Objective planachromatic for phase contrast 10x/0.25
M-631	Objective planachromatic for phase contrast 20x/0.40
M-632	Objective planachromatic for phase contrast 40x/0.65

M-633	Objective planachromatic for phase contrast 100x/1.25 (oil)
M-760	Objective IOS planachromatic for phase contrast 10x/0.25
M-761	Objective IOS planachromatic for phase contrast 20x/0.40
M-762	Objective IOS planachromatic for phase contrast 40x/0.65
M-763	Objective IOS planachromatic for phase contrast 100x/1.25 (oil)
M-513	Polarizing set (filters only)
M-516	Rotating table for polarizing set
M-618	Darkfield condenser for dry objectives
M-616	Complete phase contrast set with plan obj. 10x, 20x, 40x, 100x (oil)
M-617	Complete phase contrast set with plan IOS obj. 10x, 20x, 40x, 100x (oil)
M-616.1	Set phase contrast, single plan objective 40x
M-617.1	Set phase contrast, single IOS plan objective 40x
M-666	Heating stage, with digital temperature controller
M-619	Photo tube adapter for SLR cameras full frame
M-699	Photo tube adapter for DIGI digital camera series
M-620	CCD camera adapter for 1/3" sensors
M-620.1	CCD camera adapter for 1/2" sensors
M-515	Halogen bulb, with dichroic mirror 12V/20W
M-034	Dust cover type 5
M-975	Blue filter, 45 mm diameter
M-977	Green filter, 45 mm diameter
M-979	Yellow filter, 45 mm diameter
M-989	Frosted glass filter, 45 mm diameter
M-690	Eyecup (pair)
M-173	APS-C reflex camera adapter



**B-500Ti-5**

Quintuple reversed  
Infinity Planachro  
4x, 10x, 40x, 100x (oil)



## 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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