

OPTIKA

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



InfiniFix™ (IFX) Optical System



B - 500 SERIES

High Quality Upright Laboratory Microscopes

OPTIKA

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-500 SERIES

THE 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.



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.

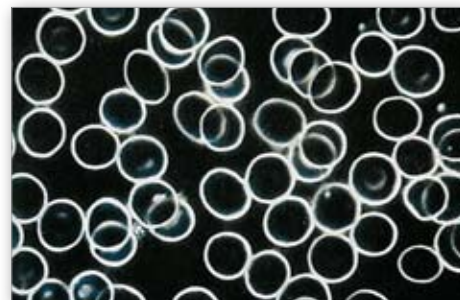
B-500TDK: Brief introduction to our darkfield system for blood analysis



Two great solutions together:

- our 1.36 - 1.25 N.A. special extra efficient darkfield 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.



B-500 SERIES - Specifications

X-LED™ - 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 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.

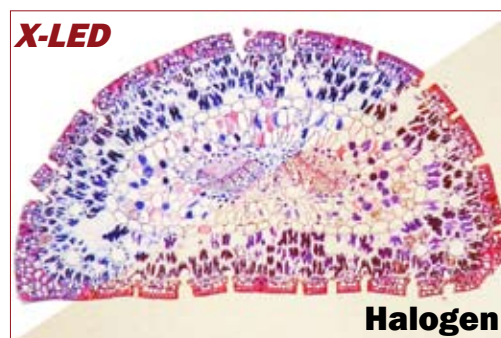
Last but not least, the lifetime of our LED: 50.000 hours, instead of 1.500 hours ...!



Standard LED



X-LED™
illumination system



Optical system & objectives

S-Plan and Plan 160mm Finity 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.

Heads

The ample 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 dark field, without the need of complex active cooling and keeping the electrical consumption at lowest levels.

Condensers

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.

No compromise on image quality

OPTIKA

B-500 SERIES



**A perfect mix of performance
and ease of use**

B-500 SERIES - Technical specifications

Model	Optical System	Head	Eyepieces	Objectives	Revolver	Stage	Focusing	Condenser	Illuminator
B-500Bsp	InfiniFix	Binocular 360° rotating 30° inclined	Wide Field 10X / 22 mm	S-plan Achromatic 4x, 10x, 40x, 100x (oil immersion)	Quintuple reversed	2-layer with 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	InfiniFix	Trinocular 360° rotating 30° inclined	Wide Field 10X / 22 mm	S-plan Achromatic 4x, 10x, 40x, 100x (oil immersion)	Quintuple reversed	2-layer with 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	InfiniFix	Binocular 360° rotating 30° inclined	Wide Field 10X / 22 mm	Plan Achromatic 4x, 10x, 40x, 100x (oil immersion)	Quintuple reversed	2-layer with mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 1.2 N.A., centrable	OPTIKA X-LED™ illuminator
B-500Tpl	InfiniFix	Trinocular 360° rotating 30° inclined	Wide Field 10X / 22 mm	Plan Achromatic 4x, 10x, 40x, 100x (oil immersion)	Quintuple reversed	2-layer with mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 1.2 N.A., centrable	OPTIKA X-LED™ illuminator
B-500Bi	IOS	Binocular 360° rotating 30° inclined	Wide Field 10X / 22 mm	Infinity Plan Achro 4x, 10x, 40x, 100x (oil immersion)	Quintuple reversed	2-layer with mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 0.90 N.A., centrable	OPTIKA X-LED™ illuminator
B-500Ti	IOS	Trinocular 360° rotating 30° inclined	Wide Field 10X / 22 mm	Infinity Plan Achro 4x, 10x, 40x, 100x (oil immersion)	Quintuple reversed	2-layer with mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 0.90 N.A., centrable	OPTIKA X-LED™ illuminator
B-500ERGO	InfiniFix	30°-60° ergonomical bino head 360° rotating	Wide Field 10X / 22 mm	Plan Achromatic 4x, 10x, 40x, 100x (oil immersion)	Quintuple reversed	2-layer with mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 1.2 N.A., centrable	OPTIKA X-LED™ illuminator
B-500iERGO	IOS	30°-60° ergonomical bino head 360° rotating	Wide Field 10X / 22 mm	Infinity Plan Achro 4x, 10x, 40x, 100x (oil immersion)	Quintuple reversed	2-layer with mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 0.90 N.A., centrable	OPTIKA X-LED™ illuminator
B-500BPh	InfiniFix	Binocular 360° rotating 30° inclined	Wide Field 10X / 22 mm	Plan Achromatic for phase contrast 10x, 20x, 40, 100x (oil immersion)	Quintuple reversed	2-layer with mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	1.25 N.A. Abbe type, with cen- tring system, disc condenser for phase contrast	OPTIKA X-LED™ illuminator
B-500TPh	InfiniFix	Trinocular 360° rotating 30° inclined	Wide Field 10X / 22 mm	Plan Achromatic for phase contrast 10x, 20x, 40, 100x (oil immersion)	Quintuple reversed	2-layer with mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	1.25 N.A. Abbe type, with cen- tring system, disc condenser for phase contrast	OPTIKA X-LED™ illuminator
B-500BiPh	IOS	Binocular 360° rotating 30° inclined	Wide Field 10X / 22 mm	Infinity Plan Achro for phase contrast 10x, 20x, 40, 100x (oil immersion)	Quintuple reversed	2-layer with mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	1.25 N.A. Abbe type, with cen- tring system, disc condenser for phase contrast	OPTIKA X-LED™ illuminator
B-500TiPh	IOS	Trinocular 360° rotating 30° inclined	Wide Field 10X / 22 mm	Infinity Plan Achro for phase contrast 10x, 20x, 40, 100x (oil immersion)	Quintuple reversed	2-layer with mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	1.25 N.A. Abbe type, with cen- tring system, disc condenser for phase contrast	OPTIKA X-LED™ illuminator
B-500Ti-5	IOS	Main Head: trino 360°/30° Discussion heads: bino 360°/30°	Main head: WF10X/22mm Discussion heads: WF10x/20mm	Infinity Plan Achro 4x, 10x, 40x, 100x (oil immersion)	Quintuple reversed	2-layer with 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-500TDK	InfiniFix	Trinocular 360° rotating 30° inclined	Wide Field 10X / 22 mm	Plan Achromatic 4x, 10x, 40x. Special PL100x im- mersion darkfield objective (with iris diaphragm)	Quintuple reversed	2-layer with mechanical sliding stage, 175x145 mm	Coaxial coarse and fine control knobs	Swing-out 1.2 N.A. , centrable. Additional im- mersion N.A. 1.36 darkfield condenser	OPTIKA X-LED™ illuminator

A complete range of instruments

B-500 SERIES - Components scheme

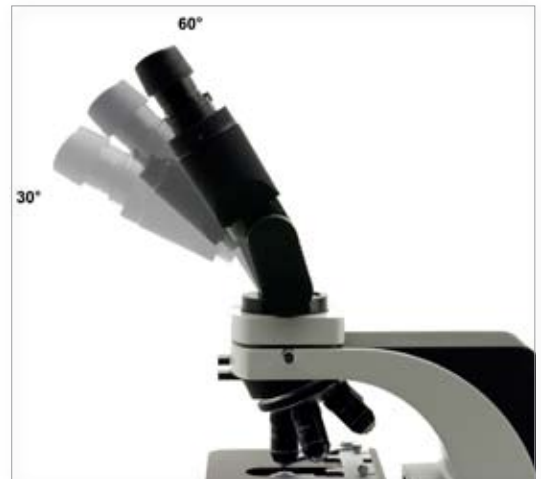
The B-500 series can be equipped with accessories such as phase contrast, polarizing set, photo or video adapter, dark field condenser and eyepieces.



B-500 SERIES - Models

B-500Tpl

infinifix™
optical system
X-LED™



B-500iERGO

IOS™
objectives
X-LED™

B-500 SERIES - Accessories

- M-625 EWF10x/22mm eyepiece
- M-601 WF15x/16mm eyepiece
- M-602 Micrometer eyepiece EWF10x/22mm
- M-005 26x76 mm micrometric slide. Range 1 mm, div. 0,01 mm
- M-501 4x/0.10 s-plan achromatic objective
- M-502 10x/0.25 s-plan achromatic objective
- M-503 20x/0.40 s-plan achromatic objective
- M-504 40x/0.65 s-plan achromatic objective
- M-505 60x/0.80 s-plan achromatic objective
- M-506 100x/1.25 (oil immersion) s-plan achromatic objective
- M-507 4x/0.10 plan achromatic objective
- M-508 10x/0.25 plan achromatic objective
- M-509 20x/0.40 plan achromatic objective
- M-510 40x/0.65 plan achromatic objective
- M-511 60x/0.80 plan achromatic objective
- M-512 100x/1.25 (oil immersion) plan achromatic objective
- M-608 4x/0.10 IOS plan achromatic objective
- M-609 10x/0.25 IOS plan achromatic objective
- M-610 20x/0.40 IOS plan achromatic objective
- M-611 40x/0.65 IOS plan achromatic objective
- M-612 100x/1.25 (oil immersion) IOS plan achromatic objective
- M-630 10x/0.25 plan achromatic objective for phase contrast
- M-631 20x/0.40 plan achromatic objective for phase contrast
- M-632 40x/0.65 plan achromatic objective for phase contrast
- M-633 100x/1.25 (oil) plan achromatic objective for phase contrast
- M-760 10x/0.25 IOS plan achromatic objective for phase contrast
- M-761 20x/0.40 IOS plan achromatic objective for phase contrast
- M-762 40x/0.65 IOS plan achromatic objective for phase contrast
- M-763 100x/1.25 (oil) IOS plan achromatic objective for phase contrast
- M-513 Polarising set (filters only)
- M-516 Rotating table for polarising 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 Single phase contrast set 40x, plan objective
- M-616.2 Single phase contrast set 40x, IOS plan objective
- M-666 Heating stage, with digital temperature controller
- M-619 Photo tube adapter for SRL cameras
- 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 12V/20W halogen bulb, with dichroic mirror
- 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)



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