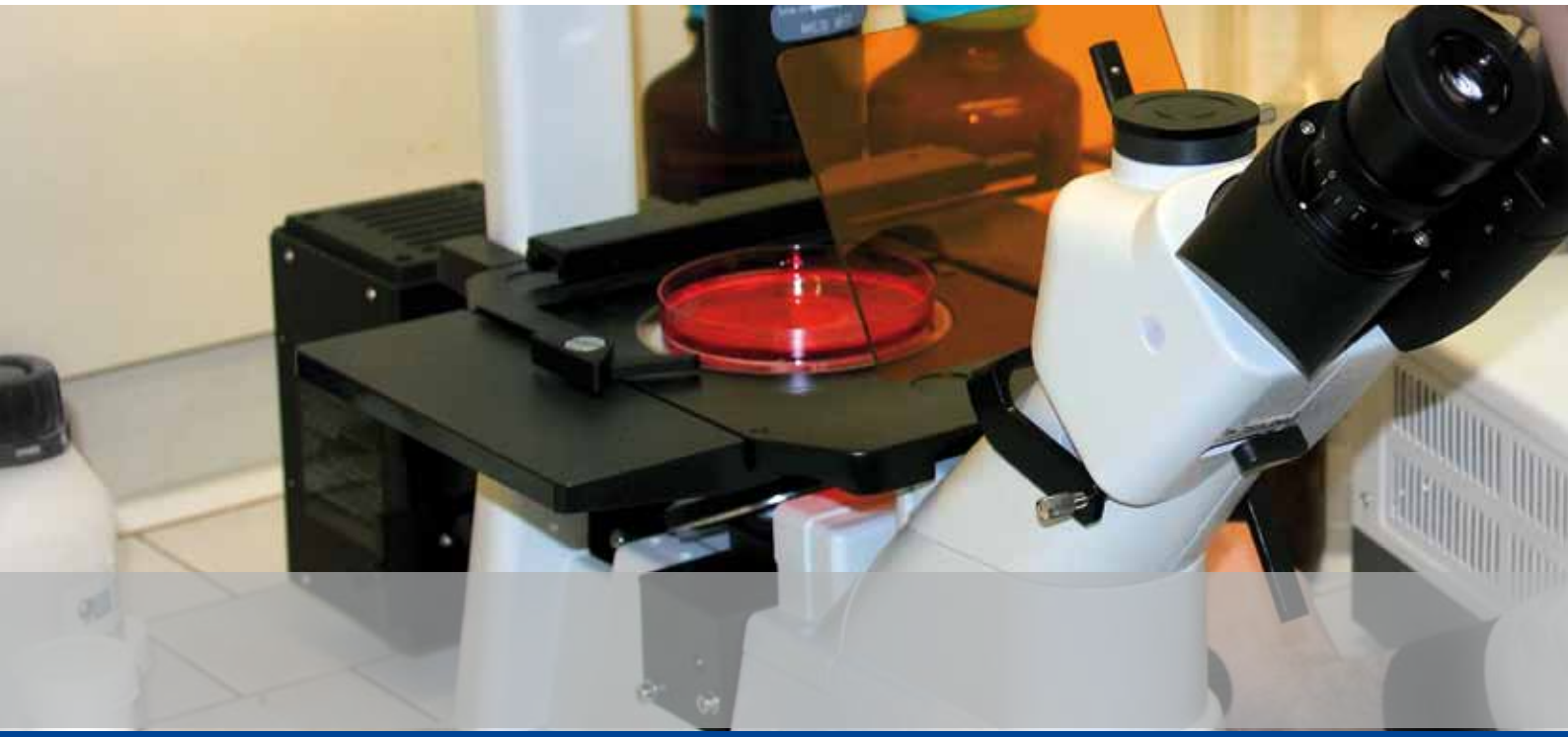
OPTIKA
MICROSCOPES
ITALY

LABORATORY MICROSCOPES



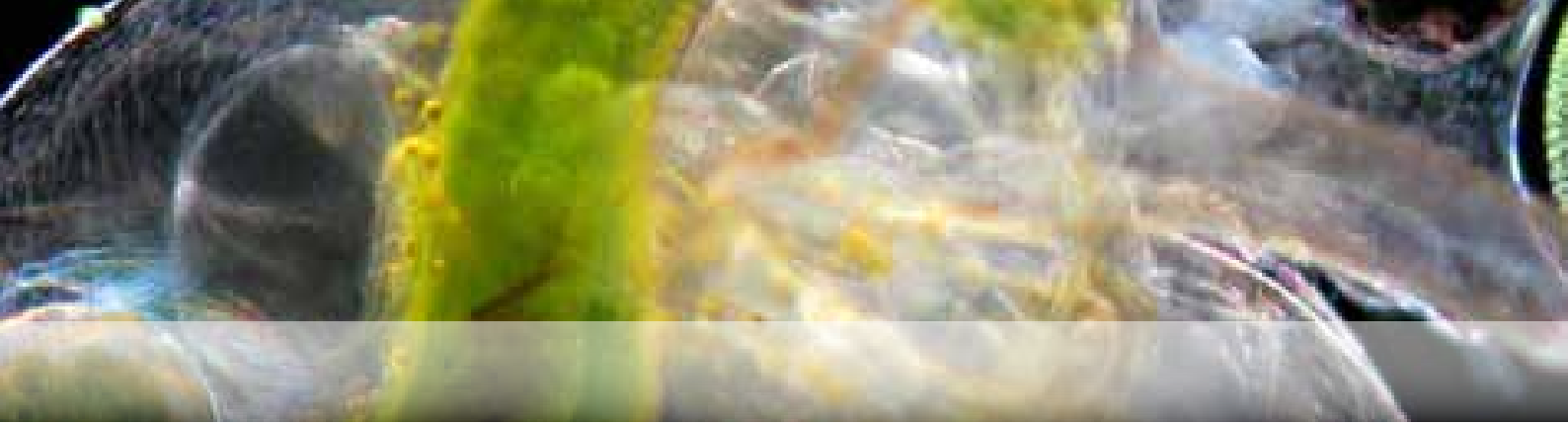
LABORATORY MICROSCOPES

B-350 Series

Entry-level upright laboratory microscopes

X-LED™

B-350



B-350 Series

The B-350 series represents the right balance between price and quality.
Thanks to its wide range of models, it can be successfully used both in advanced teaching situations and in laboratories.
Professional users will certainly value the technical features of the B-350 series that make its high quality microscopes resistant and reliable. The B-350 series includes 11 models featuring achromatic, planachromatic and infinity corrected plan objectives.
Let's take a closer look to each model:

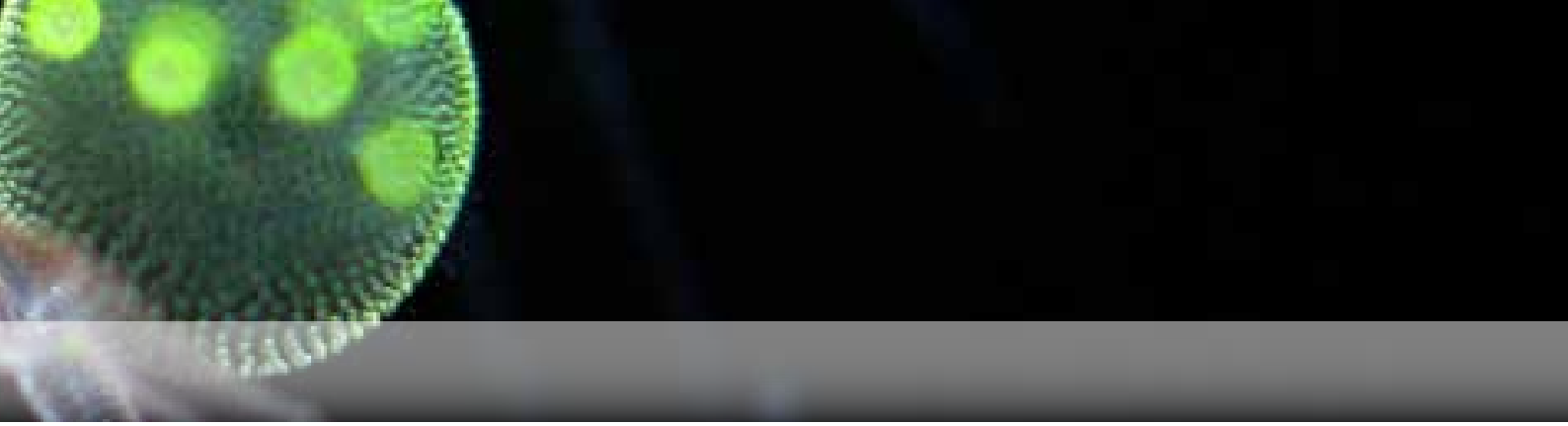
B-352A	Binocular microscope, achromatic objectives.
B-353A	Trinocular microscope, achromatic objectives.
B-352PL	Binocular microscope, planachromatic objectives.
B-353PL	Trinocular microscope, planachromatic objectives.
B-352PLi	Binocular microscope, infinity-corrected E-planachromatic objectives.
B-353PLi	Trinocular microscope, infinity-corrected E-planachromatic objectives.
B-352Ph	Binocular microscope, Ph planachromatic objectives.
B-353Ph	Trinocular microscope, Ph planachromatic objectives.
B-352Phi	Binocular microscope, Ph infinity-corrected E-planachromatic objectives.
B-353Phi	Trinocular microscope, Ph infinity-corrected E-planachromatic objectives.
B-353DK	Trinocular microscope for immersion darkfield technique, with planachromatic iris 100x objective.

Standard LED

X-LED™

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 standard 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 standard halogen bulb. Last but not least, the lifetime of our LED is 50.000 hours, instead of 1.500 hours ...!



B-350 Series

Optical system & objectives

The models of the B-350 series are equipped with two different types of optical system: the standard 160mm one and the infinity corrected system (IOS). In both cases the field diameter of the eyepieces is 20 mm.

Microscope stand

Modern and ergonomic, this stand is made of die-cast aluminium. Coarse and fine focusing (graduation: 0.002mm) with coaxial control knobs. Adjustable focusing tension and limit stop.

Head

Available in binocular or trinocular version.
The heads are equipped with interpupillary distance control (55-75 mm) as well as with dioptric compensation.
All heads are 360° rotatable and 30° inclined.

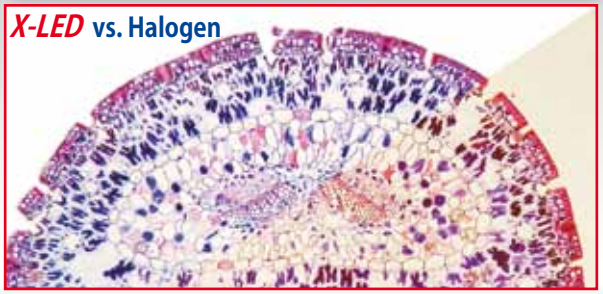
Illumination

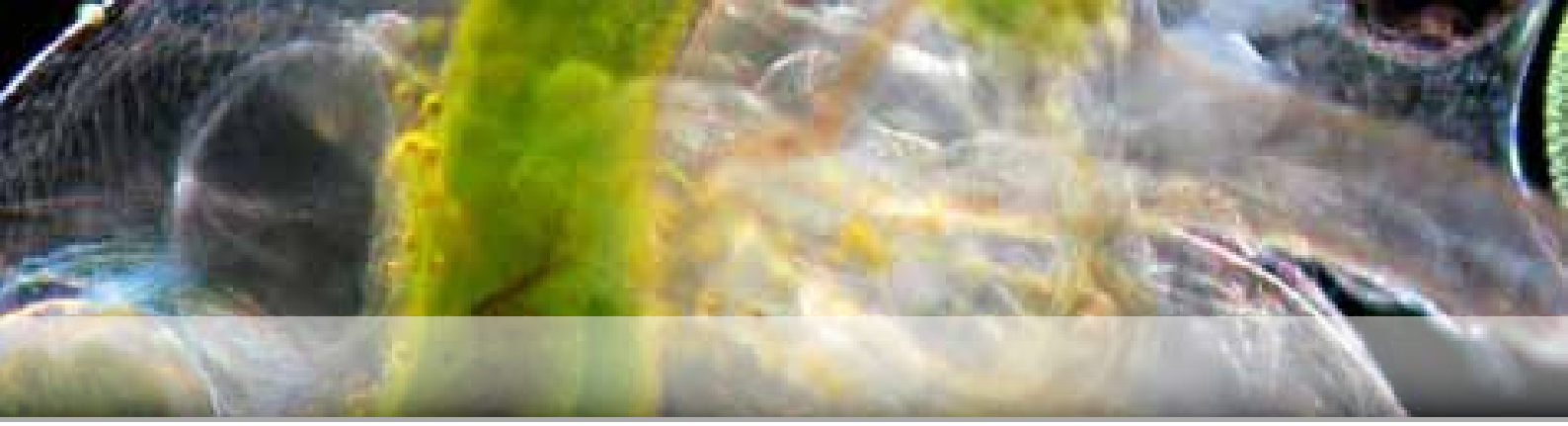
The illuminating system consists of X-LED source. The brightness can be adjusted by a rheostat located on the right side of the microscope.

Condenser

An Abbe type condenser is included in the package. It can be centred through a double-control system and adjusted in height through a rack-and-pinion mechanism (control knobs located on both sides of the microscope stand). The condenser is also fitted with an iris diaphragm whose aperture can be adjusted by a graduated reference scale.

Frog, blood smear. Real picture taken from B-353PLi with 100x objective without immersion oil





B-350 Series - Models

B-353PLi

Quintuple nosepiece
4x 10x 40x 100x
Planachromatic IOS objectives

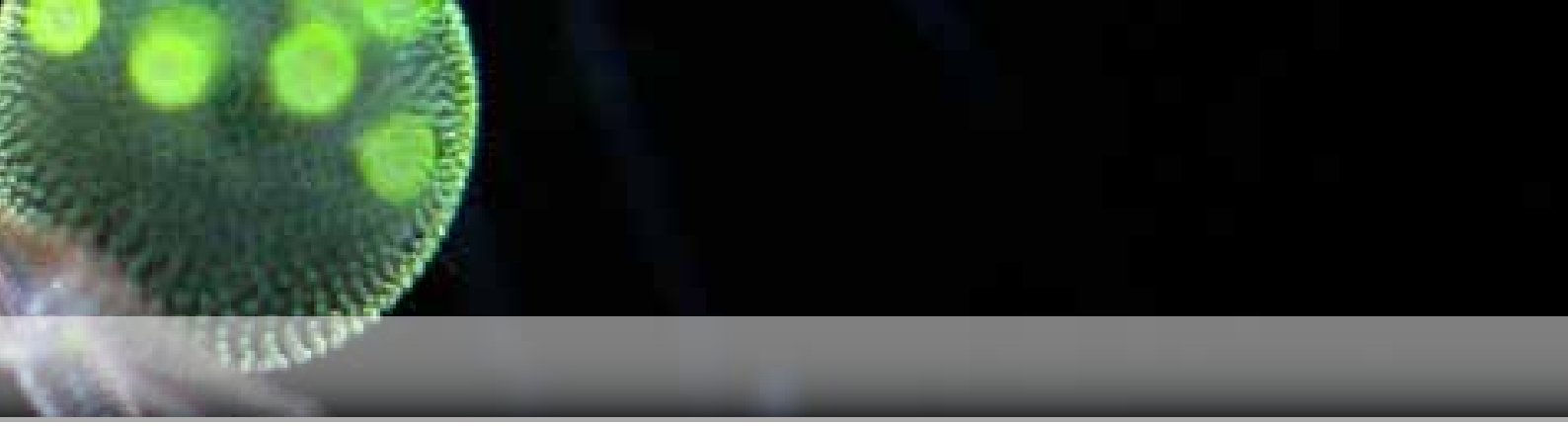
X-LED TM

IOS TM objectives

X-LED TM

B-353PL

Quintuple nosepiece
4x 10x 40x 100x
Planachromatic objectives



B-350 Series - Models

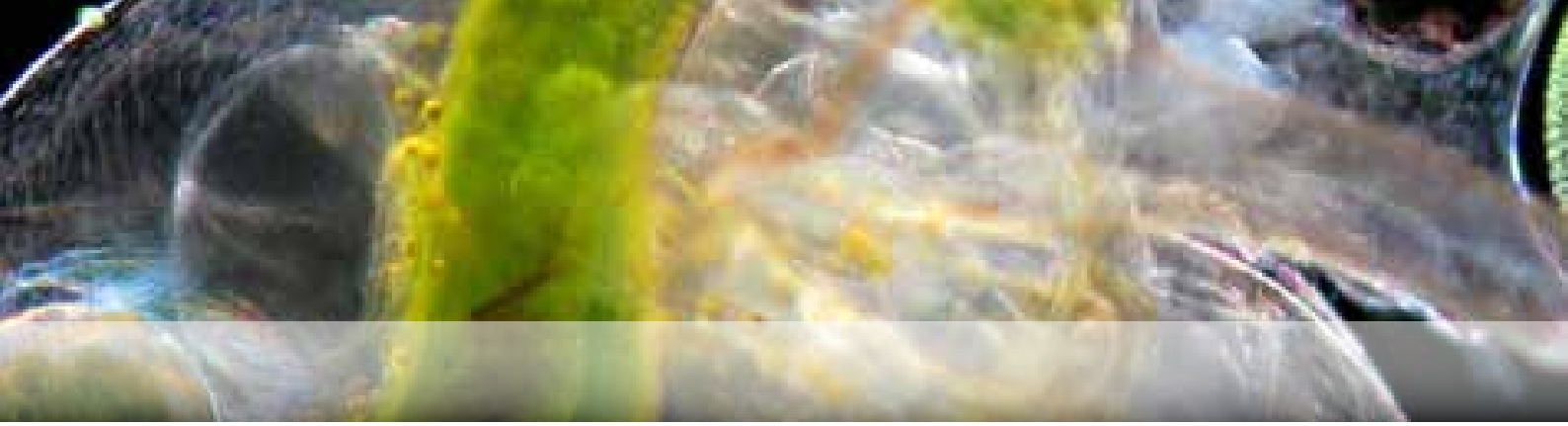
B-353DK

Achromatic 4x, 10x, 40x,
Planachromatic
100x (oil, with iris diaphragm)

B-353Ph

Quintuple nosepiece
4x 10xPh 40xPh 100xPh
Planachromatic objectives

X-LED™



B-350 Series - Additional models

B-353LD2

LED Epi-Fluorescence
trinocular microscope

B-353FL

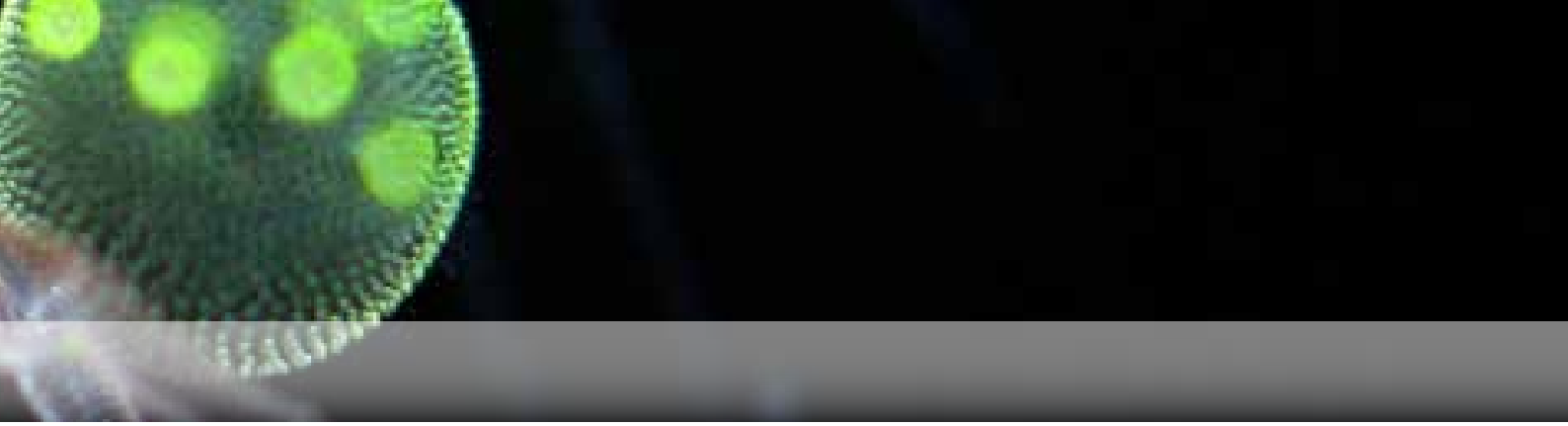
HBO Epi-Fluorescence
trinocular microscope

B-353MET

Upright trinocular metallurgical
microscope

B-353POL

Upright trinocular
polarizing microscope



B-350 Series - Technical specifications

Model	Head	Eyepieces	Objectives	Nosepiece	Stage	Focusing	Condenser	Illuminator
B-352A	Binocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	Achromatic 4x, 10x, 40x, 100x (oil)	Quadruple	Double layer mechanical sliding stage, 160x142 mm, moving range 76x52 mm	Coaxial coarse and fine system, with limit stop	1.25 N.A. Abbe type, with centring system	*X-LED™*, with brightness control
B-353A	Trinocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	Achromatic 4x, 10x, 40x, 100x (oil)	Quadruple	Double layer mechanical sliding stage, 160x142 mm, moving range 76x52 mm	Coaxial coarse and fine system, with limit stop	1.25 N.A. Abbe type, with centring system	*X-LED™*, with brightness control
B-352PL	Binocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	Planachromatic 4x, 10x, 40x, 100x (oil)	Quintuple	Double layer mechanical sliding stage, 160x142 mm, moving range 76x52 mm	Coaxial coarse and fine system, with limit stop	1.25 N.A. Abbe type, with centring system	*X-LED™*, with brightness control
B-353PL	Trinocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	Planachromatic 4x, 10x, 40x, 100x (oil)	Quintuple	Double layer mechanical sliding stage, 160x142 mm, moving range 76x52 mm	Coaxial coarse and fine system, with limit stop	1.25 N.A. Abbe type, with centring system	*X-LED™*, with brightness control
B-352PLi	Binocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	Planachromatic IOS 4x, 10x, 40x, 100x (oil)	Quintuple	Double layer mechanical sliding stage, 160x142 mm, moving range 76x52 mm	Coaxial coarse and fine system, with limit stop	1.25 N.A. Abbe type, with centring system	*X-LED™*, with brightness control
B-353PLi	Trinocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	Planachromatic IOS 4x, 10x, 40x, 100x (oil)	Quintuple	Double layer mechanical sliding stage, 160x142 mm, moving range 76x52 mm	Coaxial coarse and fine system, with limit stop	1.25 N.A. Abbe type, with centring system	*X-LED™*, with brightness control
B-352Ph	Binocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	Planachromatic 4x, 10xPh, 40xPh, 100xPh (oil)	Quintuple	Double layer mechanical sliding stage, 160x142 mm, moving range 76x52 mm	Coaxial coarse and fine system, with limit stop	Phase condenser (10x, 40x, 100x) with darkfield (dry) and brightfield	*X-LED™*, with brightness control
B-353Ph	Trinocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	Planachromatic 4x, 10xPh, 40xPh, 100xPh (oil)	Quintuple	Double layer mechanical sliding stage, 160x142 mm, moving range 76x52 mm	Coaxial coarse and fine system, with limit stop	Phase condenser (10x, 40x, 100x) with darkfield (dry) and brightfield	*X-LED™*, with brightness control
B-352Phi	Binocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	E-Plan IOS 10xPh, 20xPh, 40xPh, 100xPh (oil)	Quintuple	Double layer mechanical sliding stage, 160x142 mm, moving range 76x52 mm	Coaxial coarse and fine system, with limit stop	Phase condenser (10x, 20x, 40x, 100x) and brightfield	*X-LED™*, with brightness control
B-353Phi	Trinocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	E-Plan IOS 10xPh, 20xPh, 40xPh, 100xPh (oil)	Quintuple	Double layer mechanical sliding stage, 160x142 mm, moving range 76x52 mm	Coaxial coarse and fine system, with limit stop	Phase condenser (10x, 20x, 40x, 100x) and brightfield	*X-LED™*, with brightness control
B-353DK	Trinocular 360°rotating 30° inclined	Wide Field 10X / 20 mm	Achromatic 4x, 10x, 40x, Planachromatic 100x (oil, with iris diaphragm)	Quadruple	Double layer mechanical sliding stage, 160x142 mm, moving range 76x52 mm	Coaxial coarse and fine system, with limit stop	1.25 N.A. Abbe and extra N.A. 1.36 darkfield type with built-in X-LED	*X-LED™*, with brightness control

B-350 Series - Accessories

M-301	Eyepiece high-point WF10x/20mm
M-302	Eyepiece high-point WF16x/12mm
M-303	Eyepiece micrometer high-point WF10x/20mm
M-005	Micrometric slide 26x76 mm, range 1 mm, div. 0,01 mm
M-310	Objective achromatic 4x/0.10
M-311	Objective achromatic 10x/0.25
M-312	Objective achromatic 20x/0.40
M-313	Objective achromatic 40x/0.65
M-314	Objective achromatic 60x/0.80
M-315	Objective achromatic 100x/1.25 (oil)
M-320	Objective planachromatic 4x/0.10
M-321	Objective planachromatic 10x/0.25
M-322	Objective planachromatic 20x/0.40
M-323	Objective planachromatic 40x/0.65
M-324	Objective planachromatic 60x/0.80
M-325	Objective planachromatic 100x/1.25
M-330	Objective IOS planachromatic 4x/0.10
M-331	Objective IOS planachromatic 10x/0.25
M-332	Objective IOS planachromatic 20x/0.40
M-333	Objective IOS planachromatic 40x/0.65
M-334	Objective IOS planachromatic 100x/1.25
M-059	Objective with iris diaphragm for darkfield PL100x (oil)
M-340	Objective planachromatic for phase contrast 10x/0.25
M-341	Objective planachromatic for phase contrast 40x/0.65
M-342	Objective planachromatic for phase contrast 100x/1.25 (oil)
M-350	Objective IOS planachromatic for phase contrast 10x/0.25
M-351	Objective IOS planachromatic for phase contrast 20x/0.40
M-352	Objective IOS planachromatic for phase contrast 40x/0.65
M-353	Objective IOS planachromatic for phase contrast 100x/1.25 (oil)
M-360	Complete phase contrast set with PLAN obj. 10x, 40x, 100x, with darkfield condenser for dry objectives
M-361	Complete phase contrast set with IOS E-PLAN obj. 10x, 20x, 40x, 100x
M-362	Polarizing set (filters only)
M-363	Rotating table for polarizing set
M-364	Darkfield condenser for dry objectives
M-173	Photo tube adapter for APS-C sensor
M-365	Photo tube adapter for full frame sensor
M-366	CCD camera adapter
M-031	Dust cover type 3
M-974	Blue filter, 32mm diameter
M-976	Green filter, 32mm diameter
M-978	Yellow filter, 32mm diameter
M-988	Frosted glass filter, 32mm diameter
M-069	Solar battery pack
M-666	Heating stage, with digital temperature controller

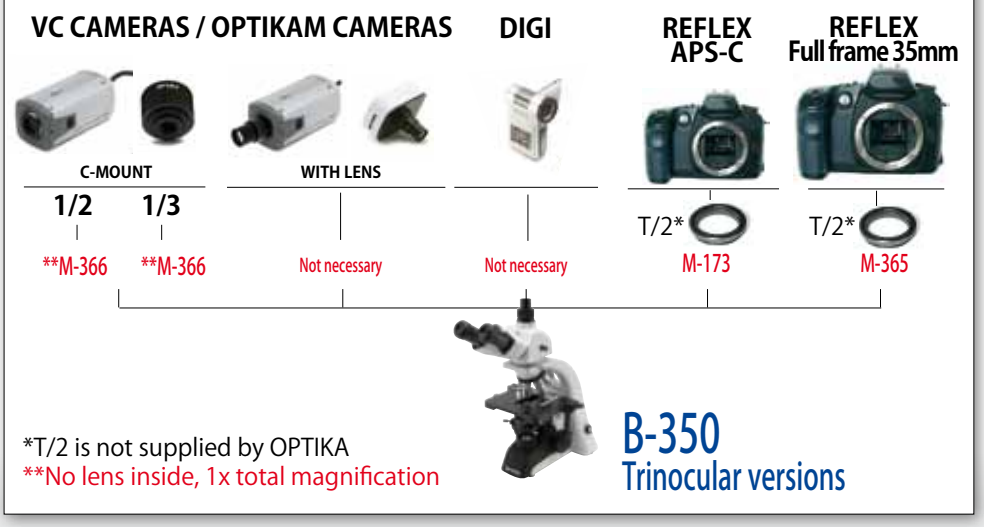
M-069 - Solar battery pack

Included battery: rechargeable – Lithium-Poly.
Capacity: 2500 mAh.
Output voltage: 5,5Vdc. Dimensions: 110x70x15 mm.
Autonomy: 2,5h at max intensity.
Charging modes: with solar panel (12h) - with included power supply (6h).

B-350 Series - Photo-video applications

The B-350 series is compatible with our Optikam and DIGI cameras.
For T-mount (reflex) and C-mount cameras, specific adapters are available (according to the adapter chart).

CAMERA ADAPTER CHART FOR TRINOCULAR MODELS



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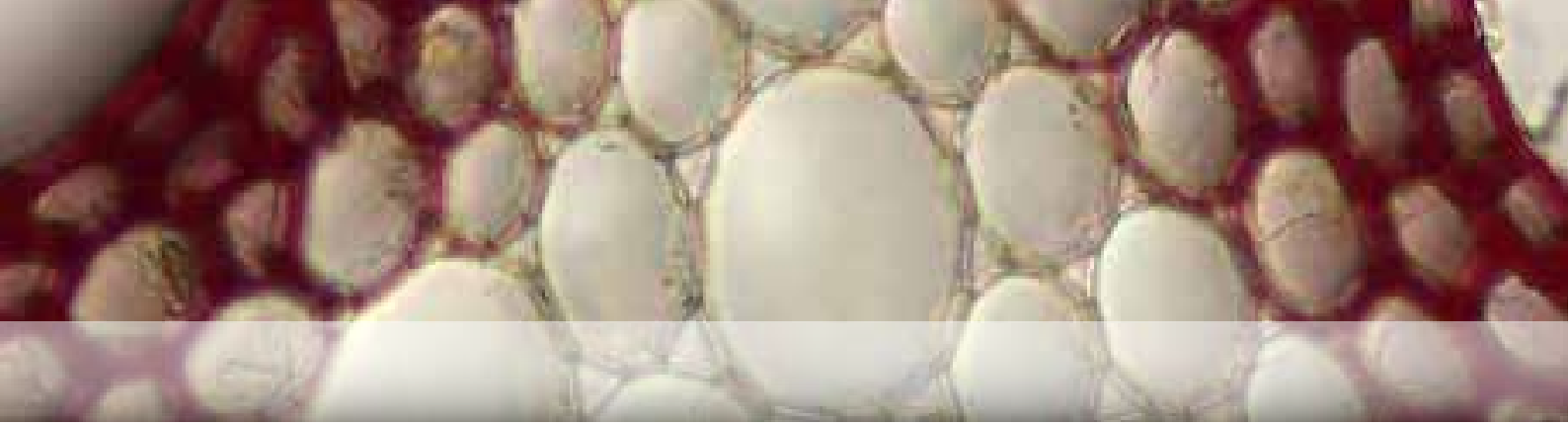
B-500 Series

High quality upright laboratory microscopes

infinifix™ 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).

infinifix™ optical system

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™ objectives

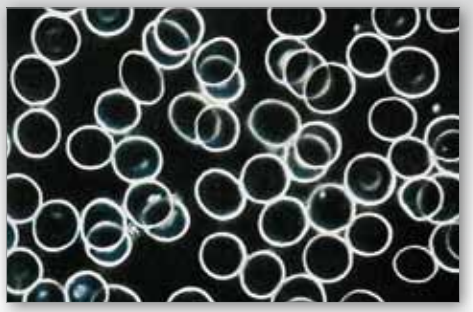
IOS simply means "Infinity Optical System". All IOS models of B-500 series are equipped with true Infinity Corrected Objectives.

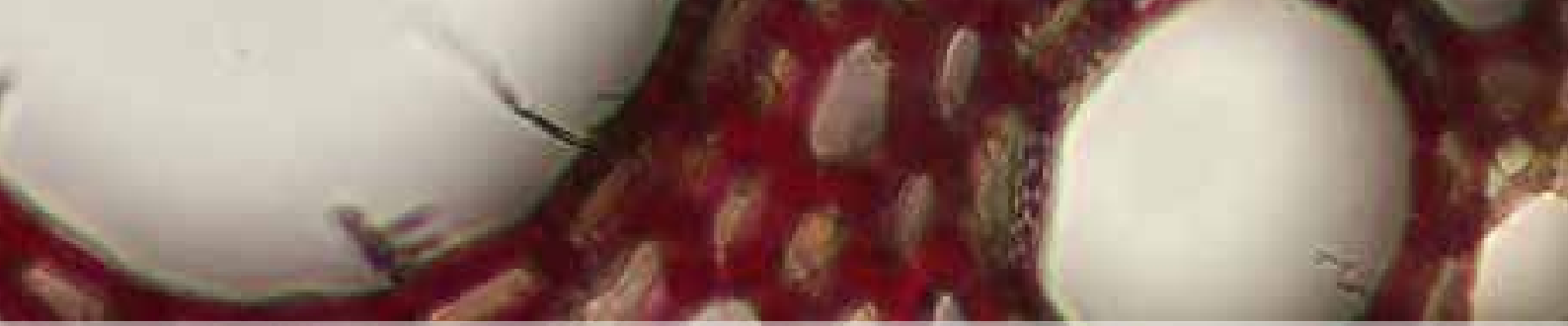
B-500Bsp	Binocular microscope, semi-planachromatic objectives
B-500Tsp	Trinocular microscope, semi-planachromatic objectives
B-500Bpl	Binocular microscope, planachromatic objectives
B-500Tpl	Trinocular microscope, planachromatic objectives
B-500Bi	Binocular microscope, IOS planachromatic objectives
B-500Ti	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.

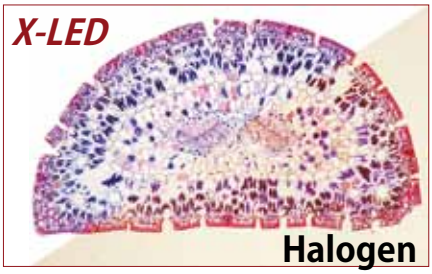




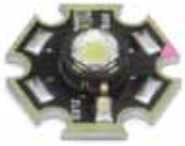
X-LED™ The future of illumination

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 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.

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

C-MOUNT

1/2 — M-620.1

1/3 — M-620

WITH LENS

M-699

DIGI

M-699

REFLEX APS-C

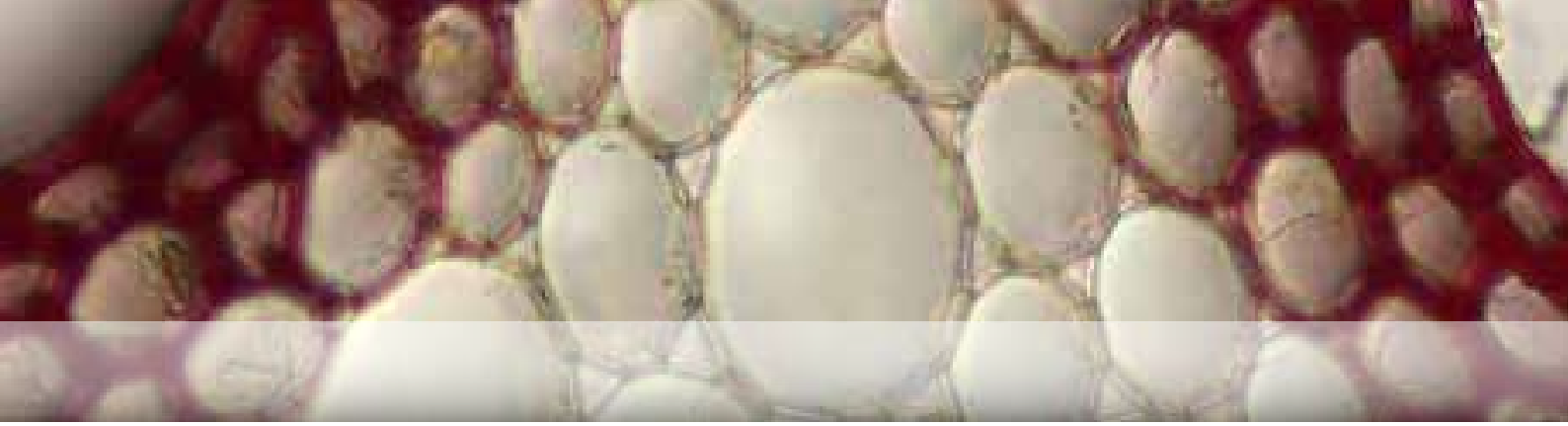
T/2* — M-173, M-699

REFLEX Full frame 35mm

T/2* — M-619

B-500
Trinocular versions

*T/2 is not supplied by OPTIKA



B-500 Series - Component scheme

Centering telescope for phase contrast

M-602

M-601

M-699 for eyepiece connection and DIGI

M-620 for C-MOUNT

M-619 for Reflex camera

Semiplan or plan achromatic objectives bright field or phase contrast

Binocular head

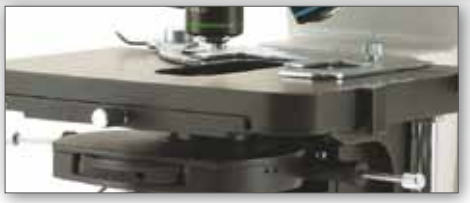
Trinocular head

M-513

M-616

M-618

M-513



B-500 Series - Technical specifications

Model	Optical System	Head	Eyepiece	Objectives	Nosepiece	Stage	Focusing	Condenser	Illuminator
B-500Bsp	InfiniFix	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	InfiniFix	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	InfiniFix	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	InfiniFix	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	IOS	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-LEDTM illuminator
B-500Ti	IOS	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	InfiniFix	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	IOS	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	InfiniFix	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	InfiniFix	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	IOS	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	IOS	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	InfiniFix	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	IOS	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	IOS	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	IOS	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.

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B-600 Series

High-end upright laboratory microscopes

infinifix™ optical system

IOS™ objectives

B-600

B-600 Series

With the B-600 series, OPTIKA Microscopes sets a new record in the quality-to-price ratio. The extraordinary characteristics of a series of highly professional microscopes are now accessible for all laboratories, meeting the needs of those who are looking for a prime quality instrument, without having large budgets.
The B-600 series microscopes are instruments specifically designed to be used in a laboratory, where high optical and mechanical quality as well as sturdiness to guarantee longer life are required. The B-600 microscopes have been designed for the best performance in 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.

infinifix™ optical system

IOS simply means "Infinity Optical System".
All IOS models of B-600 series are equipped with true Infinity Corrected Objectives.

IOS™ objectives

B-600B	Binocular microscope, planachromatic objectives
B-600T	Trinocular microscope, planachromatic objectives
B-600Bph	Binocular microscope, planachromatic objectives for phase contrast
B-600Tph	Trinocular microscope, planachromatic objectives for phase contrast
B-600Bi	Binocular microscope, IOS planachromatic objectives
B-600Ti	Trinocular microscope, IOS planachromatic objectives
B-600Biph	Binocular microscope, IOS planachromatic objectives for phase contrast
B-600Tiph	Trinocular microscope, IOS planachromatic objectives for phase contrast

B-600T

X-LED 8 TM - Never so bright !

OPTIKA is proud to introduce its own latest 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 matrix-based LED board 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 100W 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 (8W 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.

B-600 Series - Specifications

Optical system & objectives

The B-600 series microscopes are equipped, depending on the various models, with two different types of infinity optical systems: INFINIFIX™ and IOS™.
In both cases the field number of the system is 22 mm. All models in the B-600 series are equipped with plan achromatic objectives.
The models with INFINIFIX™ system are provided with plan achromatic objectives corrected to 160mm. The models with IOS™ system are provided with plan achromatic objectives corrected to infinity. Depending on the models, different sets of objectives are included in the package.

Microscope stand

Modern and ergonomic, this stand is made of die-cast aluminium. Macro and micrometric focusing (graduated, 0.002mm) with coaxial controls.
Adjustable focusing tension and upper sliding stop.

Head

They are available in binocular and in trinocular version suitable for photography/video applications.
Both heads are equipped with interpupillary distance control (51-78 mm) and with dioptric compensation that takes place on the left eyepiece holder tube.
EWF10x/22 eyepieces also suitable for people wearing glasses. All heads are 360° rotatating and 30° inclined. Additionally, a new 30°-60° ergonomical head is available as an accessory.

Condenser

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

This large-size (175x145mm) stage is fitted with a graduated translation mechanism (double 0.1mm vernier) operated by a rack-and-pinion system with coaxial controls mounted in a comfortable position beneath the specimen stage.
The object slide clamp accepts up to two specimens at the same time.
The standard rectangular stage may be replaced by a rotating stage for polarized light (optional feature). XY range: 76x51mm.

Illuminators

The B-600 series is equipped with the strongest illumination systems of the OPTIKA range.
Two kinds of illuminators are available and both systems have been designed according to the Köhler scheme with field diaphragm:

- **12V/50W halogen illuminator.**
  Centrable bulb in external case equipped with active cooling system.
- ***X-LED8 ™*** System 8W white LED illuminator.
  Centrable, in external case. For more information about this revolutionary illumination system, please see the previous page.

X-LED 8 ™ **vs. Halogen**

B-600 Series - Models

B-600Tiph

Quintuple reversed
Planachromatic IOS for phase
contrast 10x, 20x, 40x, 100x (oil)

IOS™ objectives

B-600T

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

infinifix™ optical system

Ergo Head

B-600 Series - Additional models

B-600TiFL

Quintuple reversed
Planachromatic IOS FLUO
4x, 10x, 20x, 40x

B-600POL

Quadruple reversed
with centering mechanism
for all objectives.
Planachromatic IOS POL
4x, 10x, 20x, 60x

B-600MET

Quintuple reversed
Planachromatic IOS MET
5x, 10x, 20x, 50x, 100x (dry)

B-600 Series - Component scheme

B-600 Series - Technical specifications

Model	Head	Eyepiece	Objectives	Nosepiece	Stage	Focusing	Condenser	Illuminator
B-600B	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 system, with limit stop	Swing-out 1.2 N.A., centrable	External high efficiency Halogen 50W dichroic bulb or *X-LED⁸™* system
B-600T	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 system, with limit stop	Swing-out 1.2 N.A., centrable	External high efficiency Halogen 50W dichroic bulb or *X-LED⁸™* system
B-600Bph	Binocular 360° rotating 30° inclined	Wide Field 10X / 22 mm	Planachromatic for phase constrast 10x, 20x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine system, with limit stop	-PH condenser 1,25 N.A. - Brightfield swing-out 1,2 N.A. - Both with centering system.	External high efficiency Halogen 50W dichroic bulb or *X-LED⁸™* system
B-600Tph	Trinocular 360° rotating 30° inclined	Wide Field 10X / 22 mm	Planachromatic for phase constrast 10x, 20x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine system, with limit stop	-PH condenser 1,25 N.A. - Brightfield swing-out 1,2 N.A. - Both with centering system.	External high efficiency Halogen 50W dichroic bulb or *X-LED⁸™* system
B-600Bi	Binocular 360° rotating 30° inclined	Wide Field 10X / 22 mm	Planachromatic IOS 4x, 10x, 20x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine system, with limit stop	Swing-out 0.90 N.A., centrable	External high efficiency Halogen 50W dichroic bulb or *X-LED⁸™* system
B-600Ti	Trinocular 360° rotating 30° inclined	Wide Field 10X / 22 mm	Planachromatic IOS 4x, 10x, 20x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine system, with limit stop	Swing-out 0.90 N.A., centrable	External high efficiency Halogen 50W dichroic bulb or *X-LED⁸™* system
B-600Biph	Binocular 360° rotating 30° inclined	Wide Field 10X / 22 mm	Planachromatic IOS for phase constrast 10x, 20x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine system, with limit stop	-PH condenser 1,25 N.A. - Brightfield swing-out 0,9 N.A. - Both with centering system.	External high efficiency Halogen 50W dichroic bulb or *X-LED⁸™* system
B-600Tiph	Trinocular 360° rotating 30° inclined	Wide Field 10X / 22 mm	Plan Achromatic IOS for phase constrast 10x, 20x, 40x, 100x (oil)	Quintuple reversed	2-layer mechanical sliding stage, 175x145 mm	Coaxial coarse and fine system, with limit stop	-PH condenser 1,25 N.A. - Brightfield swing-out 0,9 N.A. - Both with centering system.	External high efficiency Halogen 50W dichroic bulb or *X-LED⁸™* system

B-600 Series - Accessories

M-680	Ergo binocular head 30°-60°
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-603	Objective planachromatic 4x/0.10
M-604	Objective planachromatic 10x/0.25
M-605	Objective planachromatic 20x/0.40
M-606	Objective planachromatic 40x/0.65
M-689	Objective planachromatic 60x/0.80
M-607	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/0.85
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-613	Polarizing set (filters only)
M-615	Lambda filter for polarizing set
M-614	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-616.1	Set phase contrast, single plan objective 40x
M-617	Complete phase contrast set with plan IOS obj. 10x, 20x, 40x, 100x (oil)
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-621	Halogen bulb 6V/30W
M-622	Halogen bulb 12V/50W
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-600 Series - Photo-video applications

The B-600 series can be connected to our Optikam and DIGI systems by using an additional accessory (M-699).
For T-mount (reflex) and C-mount cameras, specific adaptors are readily available (according to the adapter chart).

OPTIKAM

DIGI

CAMERA ADAPTER CHART FOR TRINOCULAR MODELS

*T/2 is not supplied by OPTIKA

B-600
Trinocular versions

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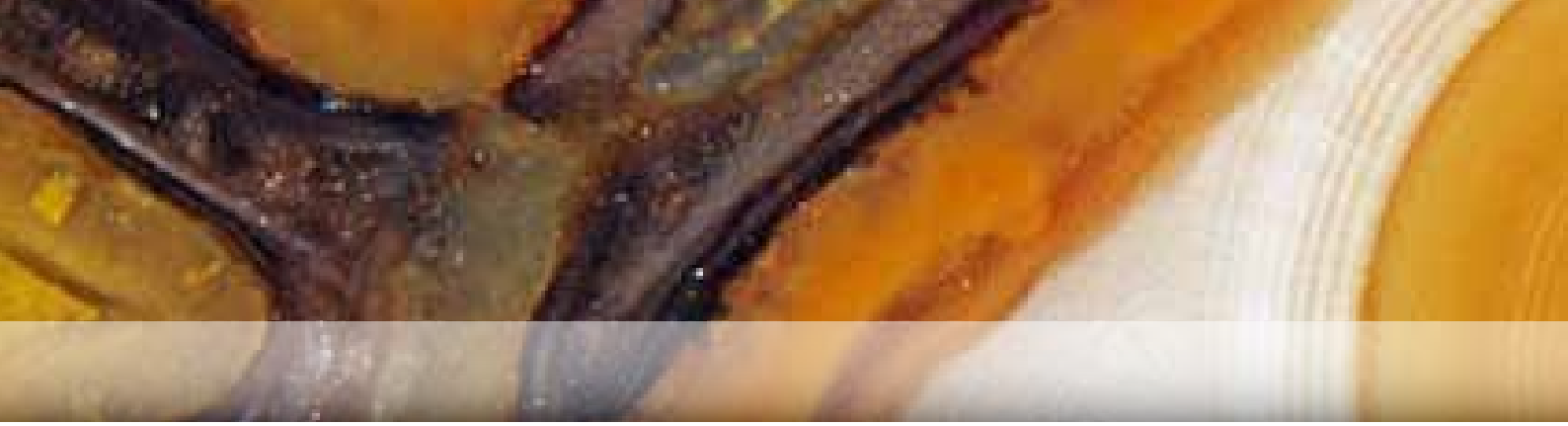
POL Series

Laboratory polarizing microscopes

POL



POL Series

Polarized light microscopy provides all the benefits of brightfield microscopy and yet offers a wealth of information, which is simply not available with any other optical microscopy technique, such as refractive indices, birefringence, retardation, extinction angle, pleochroism.
Polarized light microscopy is best known for its geological applications – primarily for the study of minerals in rock thin sections, but it can also be used to study many other materials.
OPTIKA polarizing microscopes offer a complete system for your laboratory analysis, including polarizer and analyzer filters, Bertrand lens for conoscopic observation, compensator plates, and high-precision rotatable stages.
Also available the X-LED illumination system, an high-intensity light source which delivers bright and clear images.
The extraordinary characteristics of this series are now accessible to all laboratories, meeting the needs of those who are looking for a prime quality instrument.

B-353POL - Technical specifications

Part	Description
Head	Trinocular, 30° inclined, 360° rotating.
Eyepiece	WF10X/20mm and with cross hair and micrometer
Bertrand lens	Swing-out type; centrable.
Polarizing attachment	0°-90° rotating analysing filter. Tint plates included: 1° order red (lambda), lambda/4, quartz wedge.
Nosepiece	5-positions with centering mechanism for all objectives.
Objectives	Achromatic POL (strain-free): 4x/0.10, 10x/0.25, 25x/0.40, 40x/0.65, 63x/0.85.
Magnifications	40x, 100x, 250x, 400x, 630x.
Focusing system	Coaxial coarse and fine.
Stage	160mm dia.; 360° rotating with stop knob and 0.1° vernier.
Condenser	1.25 N.A., with iris diaphragm, focusable and centrable. With rotating polarising filter.
Illumination	X-LED™ illumination system with brightness control.

POL Series - Technical specifications

B-600POL - Technical specifications

Part	Description
Head	Trinocular, 30° inclined, 360° rotating.
Eyepiece	WF10X/22mm
Bertrand lens	Swing-out type; centrable (for Conoscopy/Orthoscopy)
Polarizing attachment	Blue filter, 0°-90° rotating analysing filter, l slip (first class red), 1/4 l slip, quartz wedge
Nosepiece	4-positions with centering mechanism for all objectives
Objectives	PLAN IOS POL (strain-free) 4x/0.10, 10x/0.25, 40x/0.65, 60x/0.85
Magnifications	40x, 100x, 400x, 600x
Focusing system	Coaxial coarse and fine
Stage	160mm diameter; 360° rotating with stop knob and 0.1° vernier
Condenser	0,9 N.A., with iris diaphragm, focusable and centrable. With rotating polarizing filter (swing-out type)
Illumination	External high efficiency halogen 50W dichroic bulb or X-LED^{8}™ system for transmitted light

B-600POL-I - Technical specifications

Part	Description
Head	Trinocular, 30° inclined, 360° rotating
Eyepiece	WF10X/22mm
Bertrand lens	Swing-out type; centrable (for Conoscopy/Orthoscopy)
Polarizing attachment	Blue filter, 0°-90° rotating analysing filter, l slip (first class red), 1/4 l slip, quartz wedge
Nosepiece	4-positions with centering mechanism for all objectives
Objectives	LWD PLAN IOS POL (strain-free) for transmitted and incident polarized light 5x/0.15, 10x/0.25, 20x/0.40, 50x/0.70
Magnifications	50x, 100x, 200x, 500x
Focusing system	Coaxial coarse and fine
Stage	160mm diameter; 360° rotating with stop knob and 0.1° vernier
Condenser	0,9 N.A., with iris diaphragm, focusable and centrable. With rotating polarizing filter (swing-out type)
Illumination	Transmitted light: external high efficiency halogen 50W dichroic bulb or X-LED^{8}™ system. Incident light: polarizing attachment with built-in polarizer filter, aperture diaphragm and field diaphragm; external high efficiency halogen 50W dichroic bulb or X-LED^{8}™ system

POL Series - Accessories

ACCESSORIES FOR B-353POL

M-301	Eyepiece high-point WF10x/20mm
M-302	Eyepiece high-point WF16x/12mm
M-303	Eyepiece micrometer high-point WF10x/20mm
M-005	Micrometric slide, 26x76 mmm, range 1 mm, div. 0,01 mm
M-390	Objective POL achromatic 4x/0.10
M-391	Objective POL achromatic 10x/0.25
M-392	Objective POL achromatic 25x/0.40
M-393	Objective POL achromatic 40x/0.65
M-394	Objective POL achromatic 63x/0.80
M-365	Photo tube adapter for SLR cameras full frame
M-366	CCD camera adapter
M-031	Dust cover type 3
M-974	Blue filter, 32 mm diameter
M-976	Green filter, 32 mm diameter
M-978	Yellow filter, 32 mm diameter
M-988	Frosted glass filter, 32 mm diameter
M-173	APS-C reflex camera adapter

15103 - Lens cleaner, 50ml

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

ACCESSORIES FOR B-600POL / B-600POL-I

M-680	Ergo binocular head 30°- 60°
M-625	Eyepiece EWF10x/22mm
M-601	Eyepiece WF15x/16mm
M-781	Eyepiece micrometer EWF10x/22mm
M-005	Micrometric slide, 26x76 mm, range 1 mm, div. 0,01 mm
M-691	Objective IOS POL planachromatic 4x/0.10 for B-600POL
M-692	Objective IOS POL planachromatic 10x/0.25 for B-600POL
M-693	Objective IOS POL planachromatic 40x/0.65 for B-600POL
M-694	Objective IOS POL planachromatic 60x/0.80 for B-600POL
M-695	Objective IOS POL LWD planachromatic 5x for B-600POL-I
M-696	Objective IOS POL LWD planachromatic 10x for B-600POL-I
M-697	Objective IOS POL LWD planachromatic 20x for B-600POL-I
M-688	Objective IOS POL LWD planachromatic 50x for B-600POL-I
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-622	Halogen bulb 12V/50W
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

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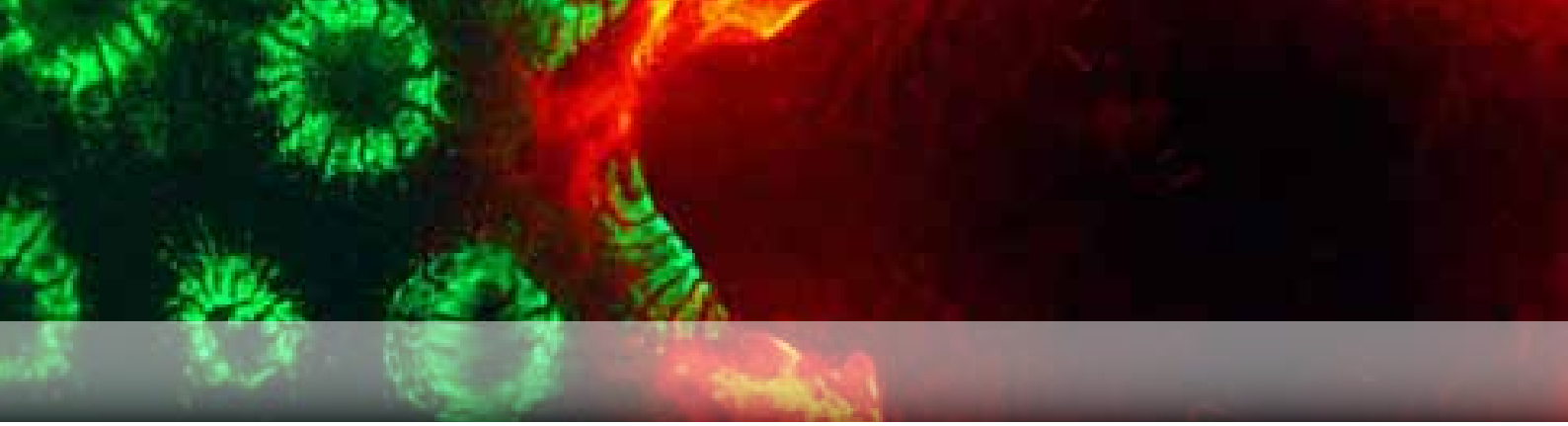
Alpha Optika Microscopes Hungary
2030 ÉRD, Kaktusz u. 22.- HUNGARY - Tel.: (23) 520-077 Fax: (23) 374-965

FLUO Series

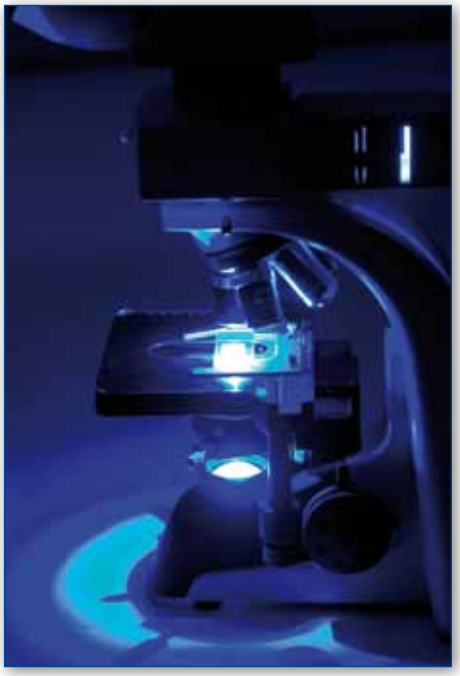
Upright and inverted epi-fluorescence microscopes

FLUO



FLUO Series - LED Fluorescence

A complete range of microscopes, designed to meet your needs in fluorescence microscopy.
Quality, innovative technology, power, safety and simplicity of use are the common characteristics of these instruments.



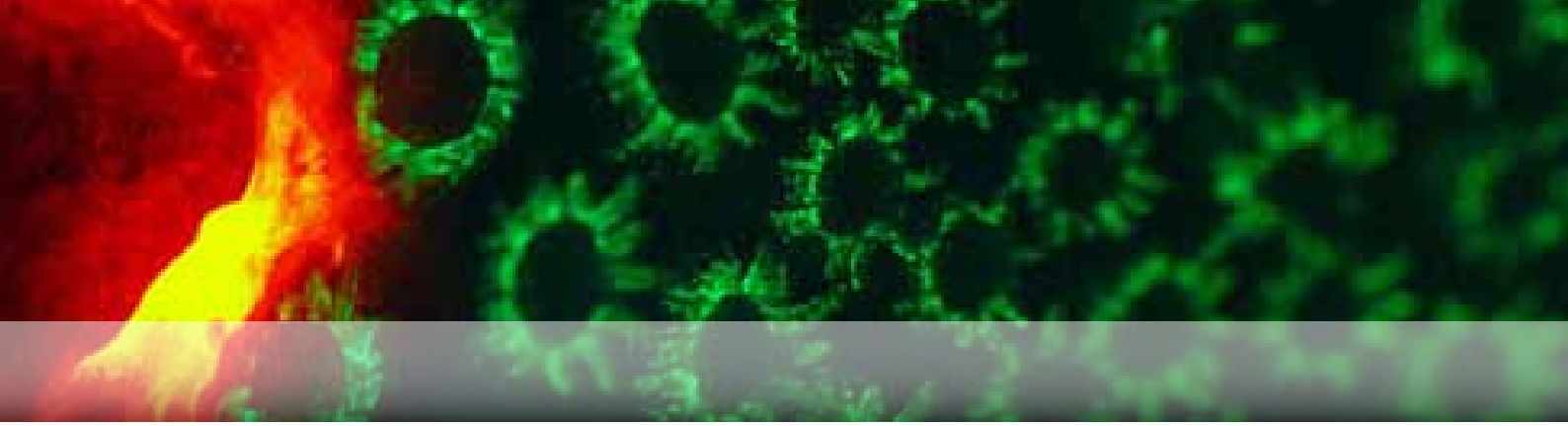
Imagine a fluorescence microscope that needs a lamp change every **50.000 hours**.
Imagine a fluorescence microscope with a cold light source that barely heats up during use.
Imagine a fluorescence microscope that can be switched on, used immediately, switched off and then back on again.
Imagine a fluorescence microscope that is so safe as to need no protection shield whatsoever, and that can be used by everyone, without any specific precaution.
Imagine a fluorescence microscope that can be powered by batteries, as easily as a torchlight.
Imagine a fluorescence microscope that is so sturdy and so compact that it can be used on the field, without any transport problems.
You may think that such an instrument exists in your imagination only.
Actually, such microscope is real, and its name is **OPTIKA B-353LD.**
Developed by the OPTIKA Research labs, the **B-353LD** marks a revolution in the field of fluorescence microscopy.
Strictly derived from the **B-353FL** model, of which it shares the body, the optics and the filter sets, the **B-353LD** employs high-power LED instead of the classical mercury vapour bulb.
The LED is tailored to the specific applications (FITC-TRITC).
The brightfield illuminator uses our *X-LED™* system, and the colour temperature closely matches sunlight. The microscope is available in two versions: **B-353LD1** and **B-353LD2**

B-353LD1 - Technical specifications

Part	Description
Optical system	Mechanical tube lenght: IOS - Infinity Optical System; parfocal distance 45 mm.
Head	Trinocular, 30° inclined, 360° rotating. Diopter adjustment; interpupillary distance adjustment 55-75 mm.
Eyepieces	Wide Field WF10x/20 mm.
Nosepiece	5-position reversed revolving nosepiece. Ball bearing linear guides.
Objectives	IOS Planachromatic 4x/0.1, 10x/0.25, 20x/0.40, 40x/0.65 and 50x/0.75 (no cover slide).
Specimen stage	Double layer with mechanical sliding stage, 160x142 mm; moving range 76x52 mm.
Focusing system	Rack and pinion mechanism, with coaxial coarse and fine control knobs. Fine adjustment graduation 0.002 mm. Vertical movement range: 20 mm. Tension control on left side; upper stage drive stop on right side.
Condenser	Centrable Abbe condenser with double lens. N.A. 1.25. Fitted with iris diaphragm and filter holder. Height adjustment by a rack and pinion mechanism.
Illumination	*X-LED™* unit for transmitted light. High power blue LED unit for epi-fluorescence (for standard use with B).

Standard filterset

Name	Excitation wavelength (nm)	Dichroic mirror cut-off (nm)	Barrier filter cut-off (nm)
B (Blue)	450 – 480	500	515



FLUO Series - LED Fluorescence

B-353LD2 - Technical specifications

Part	Description
Optical system	Mechanical tube lenght: IOS - Infinity Optical System; parfocal distance 45 mm.
Head	Trinocular, 30° inclined, 360° rotating. Diopter adjustment; interpupillary distance adjustment 55-75 mm.
Eyepieces	Wide Field WF10x/20 mm.
Nosepiece	5-position reversed revolving nosepiece. Ball bearing linear guides.
Objectives	IOS Planachromatic 4x/0.1, 10x/0.25, 20x/0.40, 40x/0.65 and 50x/0.75 (no cover slide).
Specimen stage	Double layer with mechanical sliding stage, 160x142 mm; moving range 76x52 mm.
Focusing system	Rack and pinion mechanism, with coaxial coarse and fine control knobs. Fine adjustment graduation 0.002 mm. Vertical movement range: 20 mm. Tension control on left side; upper stage drive stop on right side.
Condenser	Centrable Abbe condenser with double lens. N.A. 1.25. Fitted with iris diaphragm and filter holder. Height adjustment by a rack and pinion mechanism.
Illumination	*X-LED*^{TM} unit for transmitted light. High power LED unit for epi-fluorescence (for standard use with B and G).

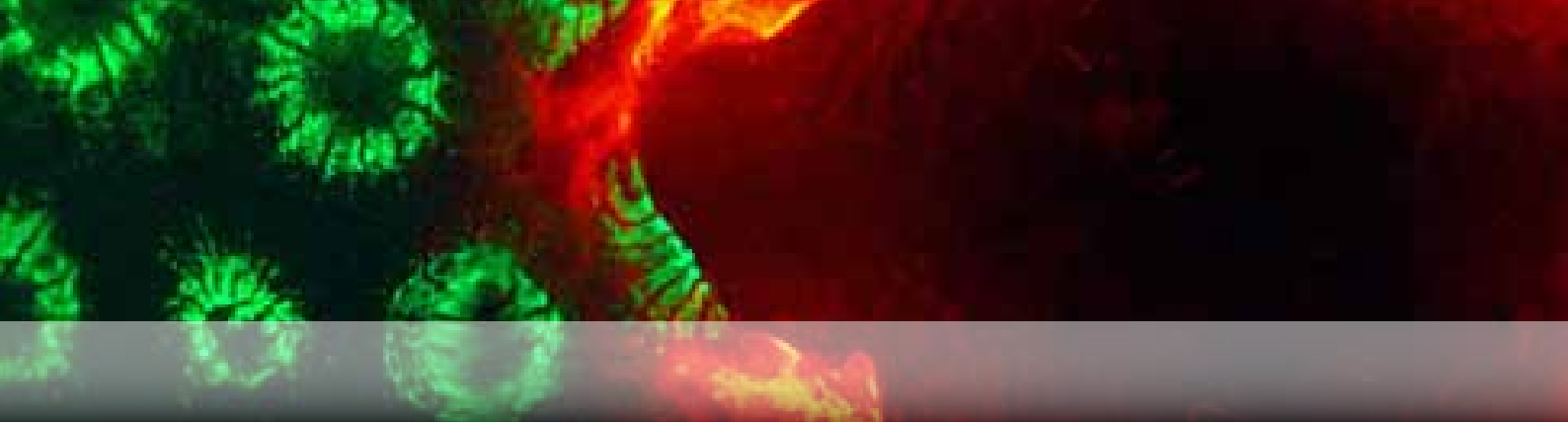
Standard filtersets

Name	Excitation wavelength (nm)	Dichroic mirror cut-off (nm)	Barrier filter cut-off (nm)
B (Blue)	450 – 480	500	515
G (Green)	510 – 550	570	590

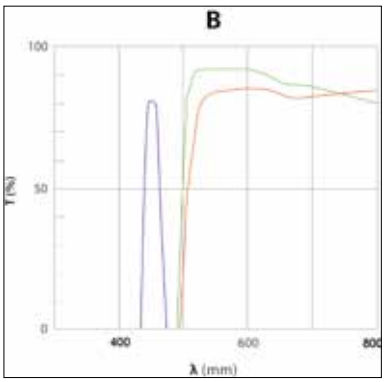
FLUO Series - HBO Fluorescence attachment for szp stereomicroscope

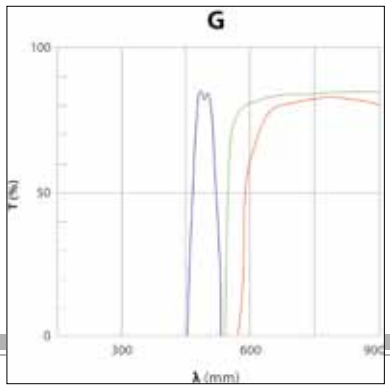
SZP-FL

Part	Description
Description	Fluorescence attachment for SZP stereomicroscopes. Fluorescence observation for biology, industrial inspection, criminal justice, etc. Essential tool for security printing and mineral research.
Optical system	Parallel optical system (SZP system)
Filterset	Standard: GFP-B (EX460-500, DM505, BA510-560) GFP-L (EX460-500, DM505, BA510) Optional: CFP-B (EX430-450, DM455, BA465-495) YFP-B (EX490-510, DM525, BA530-560) G (EX515-550, DM570, BA590) RFP-B (EX525-555, DM570, BA585)
Illumination	100W HBO high-pressure mercury vapor bulb. Average lamp lifetime: 400 hours. Input voltage: 110/240Vac, 50/60Hz, 1A ; Fuse: F8AL 250V. Maximum input power: 125W. Current and time counter LED displays.
Photo&Video Attachment	Trinocular output port



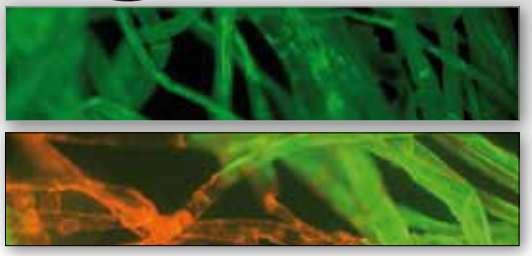
FLUO Series - LED Fluorescence

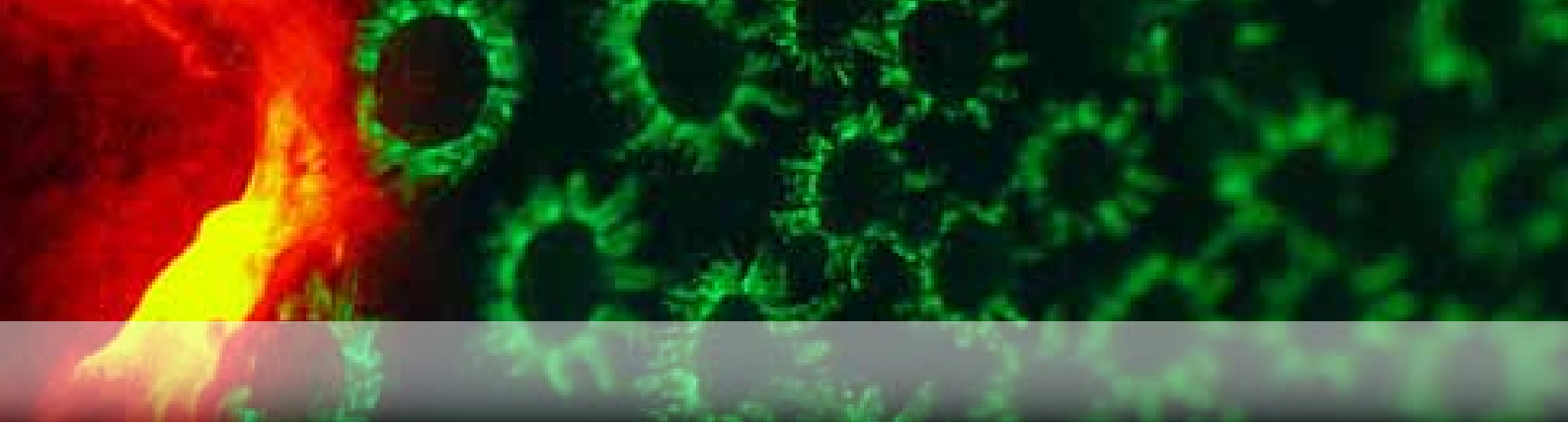




Automatic LED switching:

when a filter is inserted, fluorescence LED automatically switches on, while brightfield LED switches off





FLUO Series - HBO Fluorescence

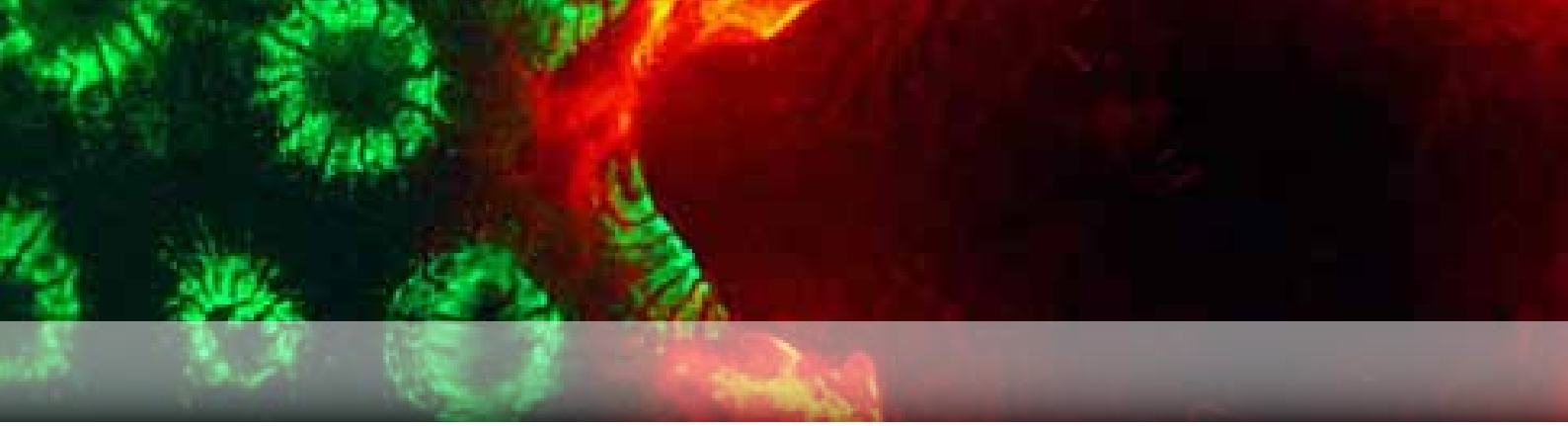
B-353FL - Technical specifications

Part	Description
Optical system	Mechanical tube lenght: IOS - Infinity Optical System; parfocal distance 45 mm.
Head	Trinocular, 30° inclined, 360° rotating. Diopter adjustment; interpupillary distance adjustment 55-75 mm.
Eyepieces	Wide Field 10x/20 mm.
Nosepiece	5-position reversed revolving nosepiece. Ball bearing linear guides.
Objectives	IOS Planachromatic 4x/0.1, 10x/0.25, 20x/0.40, 40x/0.65 and 100x/1.25 (oil).
Specimen stage	Double layer with mechanical sliding stage, 160x142 mm; moving range 76x52 mm.
Focusing system	Rack and pinion mechanism, with coaxial coarse and fine control knobs. Fine adjustment graduation 0.002 mm. Vertical movement range: 20 mm. Tension control on left side; upper stage drive stop on right side.
Condenser	Centrable Abbe condenser with double lens. N.A. 1.25. Fitted with iris diaphragm and filter holder. Height adjustment by a rack and pinion mechanism.
Illumination	*X-LED*^{TM} unit for transmitted light. HBO 100W high pressure mercury bulb for epi-fluorescence.

Standard filtersets

Name	Excitation wavelength (nm)	Dichroic mirror cutoff (nm)	Barrier filter cutoff (nm)
B (Blue)	450 – 480	500	515
G (Green)	510 – 550	570	590

B-353FL



FLUO Series - HBO Fluorescence

B-600TiFL - Technical specifications

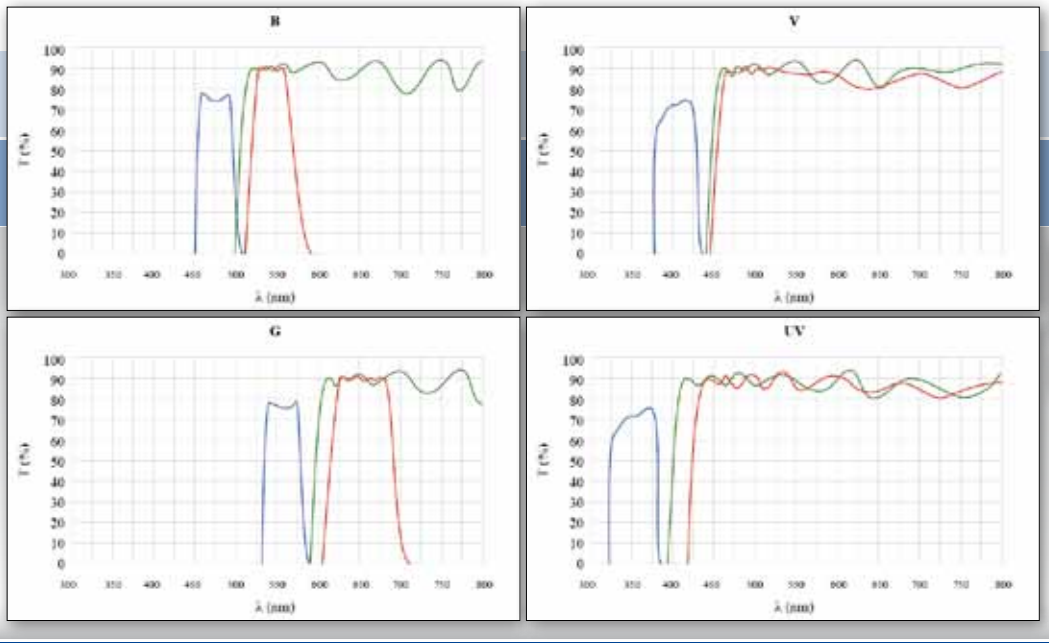
Part	Description
Optical system	Mechanical tube lenght: IOS - Infinity Optical System; parfocal distance 45 mm.
Head	Trinocular, 30° inclined, 360° rotating. Diopter adjustment; interpupillary distance adjustment 55-75 mm.
Eyepieces	Wide Field 10x/22 mm.
Nosepiece	5-position reversed revolving nosepiece. Ball bearing linear guides.
Objectives	IOS Planachromatic FLUO 4x/0.13, 10x/0.30, 20x/0.50, 40x/0.75
Specimen stage	Double layer with mechanical sliding stage, 175x145 mm; moving range 76x51 mm.
Focusing system	Rack and pinion mechanism, with coaxial coarse and fine control knobs. Fine adjustment graduation 0.002 mm. Vertical movement range: 20 mm. Tension control on right side; upper stage drive stop on left side.
Condenser	Centrable Abbe condenser (swing-out type) with double lens. N.A. 0.9 Fitted with iris diaphragm. Height adjustment by a rack and pinion mechanism.
Illumination transmitted	External 12V/50W with halogen bulb, fan-cooled case, centering system. Field diaphragm. Full Köhler system. **Optional**: X-Led^{8} illumination.
Illumination incident	HBO 100W high pressure mercury bulb for epi-fluorescence.

Standard filters (in bundle)

Name	Excitation wavelength (nm)	Dichroic mirror cut-off (nm)	Barrier filter cut-off (nm)
B (Blue)	450-500	505	510-560
G (Green)	530-590	595	610-680

Additional filters (as option)

Name	Excitation wavelength (nm)	Dichroic mirror cut-off (nm)	Barrier filter cut-off (nm)
V (Violet)	385-425	440	455LP
UV	325-375	400	420LP



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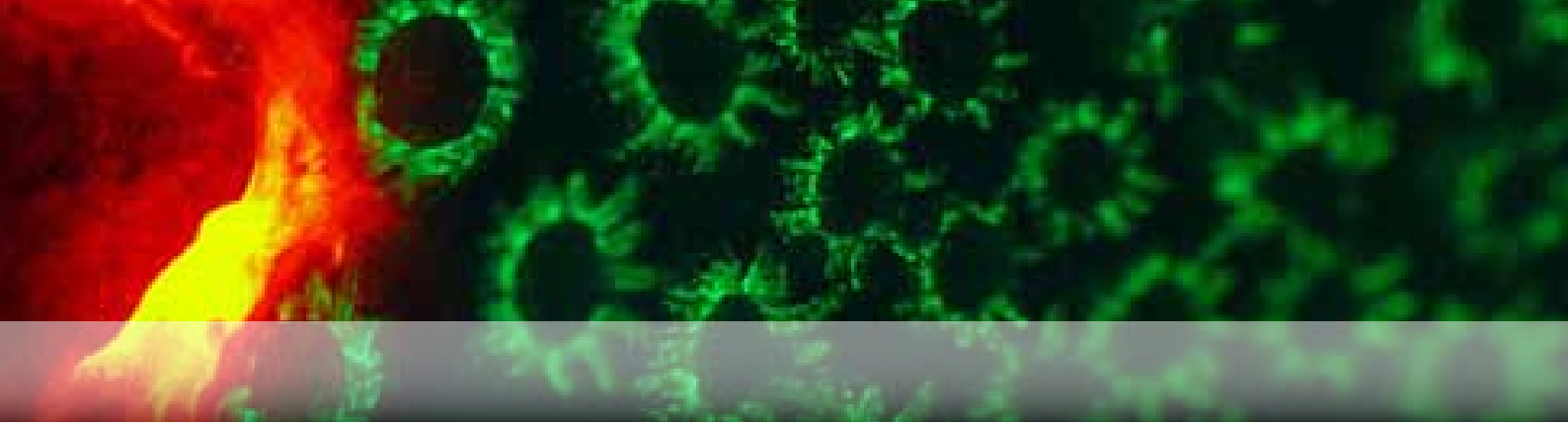
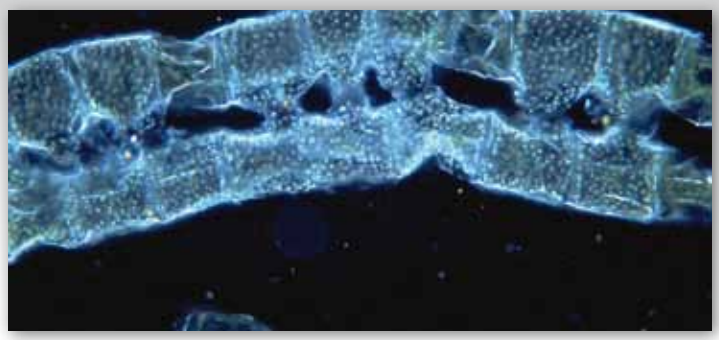
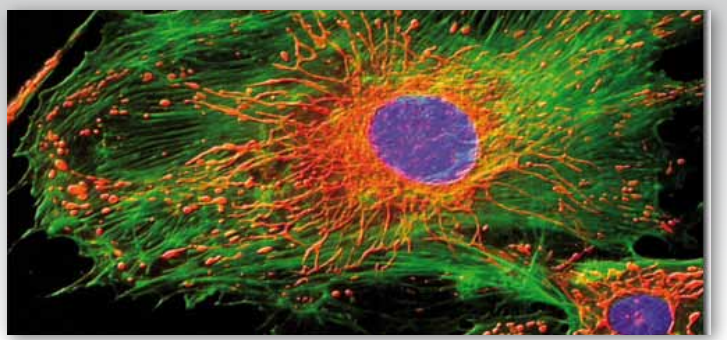
THE WORLD'S FINEST OPTICAL FILTERS

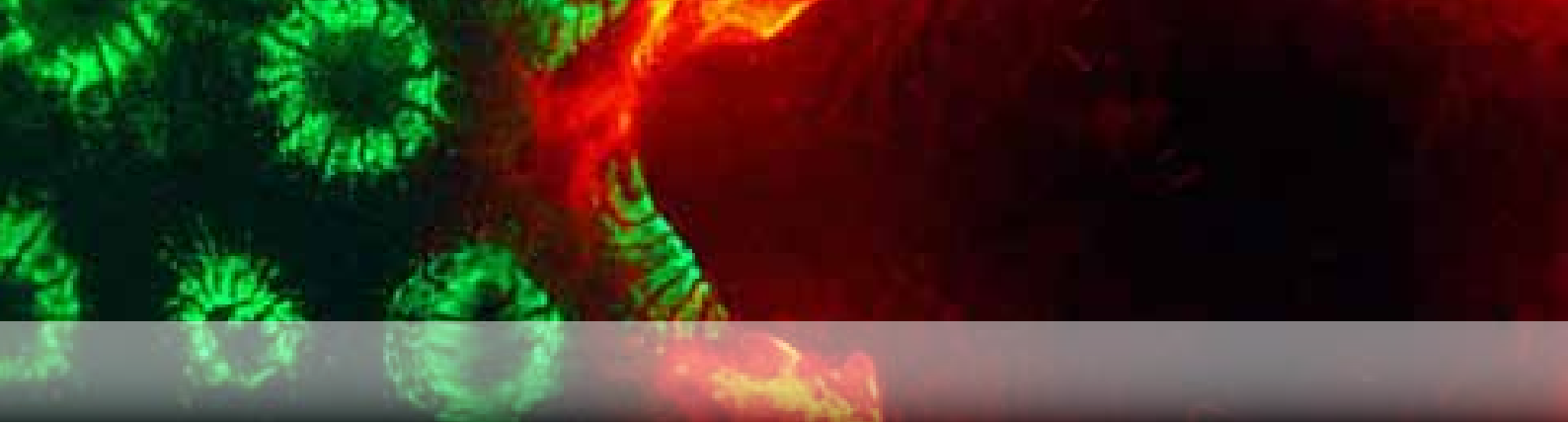


FLUO Series - HBO Fluorescence





HB100W high-pressure mercury bulb for fluorescence



FLUO Series - HBO Fluorescence

The instrument

XDS-2FL is a routine inverted epifluorescence microscope. The basic structure is dedicated to the most demanding applications of routine fluorescence analysis. XDS-2FL offers, in the same unit, brightfield and phase contrast capabilities, thus extending its potentials to most multi-contrast applications.

Optical system

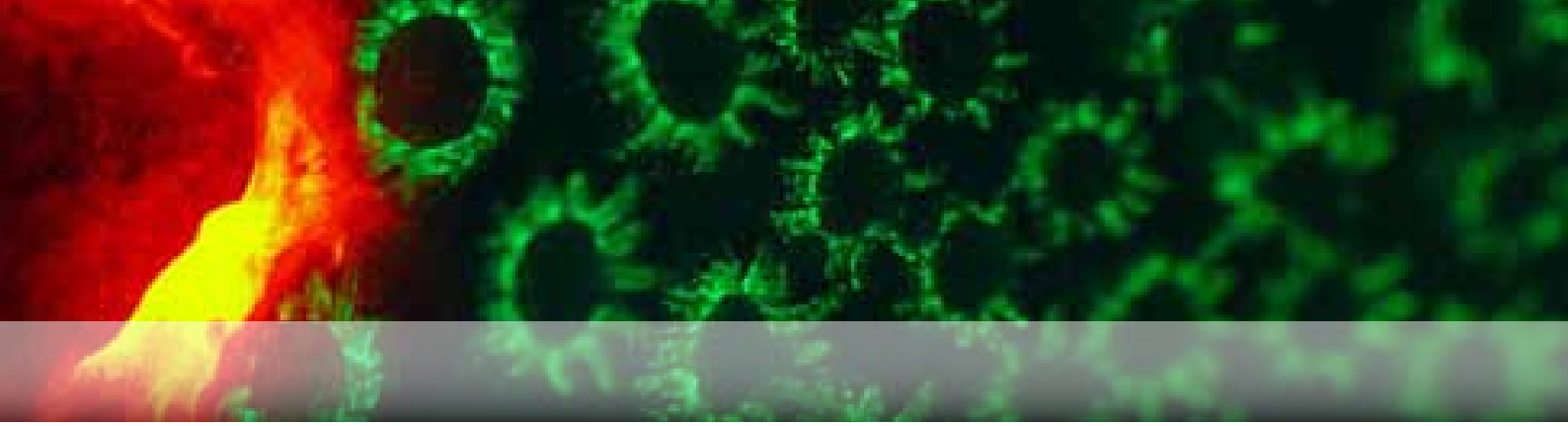
The epifluorescence optical system is implemented via the standard excitation filter-dichroic mirror-barrier filter combination, applied to a 100W Hg lamp. It is supplied with EWF10x/22mm extra-widefield eyepieces, long working distance IOS objectives, and a double filterblock set (blue and green excitation). The extensive range of optional accessories allows a quick interchange of contrast mechanisms, and it is optimized for multi-contrast observation without removal of the specimen from the stage.

User comfort

XDS-2 is comfortable for the operator. The 22 mm extra-wide field is pleasant to use, and minimizes operator stress. The special eyepieces are designed for eyeglass wearers.

Ergonomy

Every control is easy to reach, every component has been designed with ease of use in mind. The focusing and specimen translation controls are designed to allow to rest the wrists on the table. The brightfield light intensity regulation is placed very close to the focusing knobs. The specimen stage is fitted with a special glass insert, that allows to see the objectives, for immediate identification of the magnification setup. The head implements an extremely innovative design, that permits adjustment to compensate for operator height.



FLUO Series - HBO Fluorescence

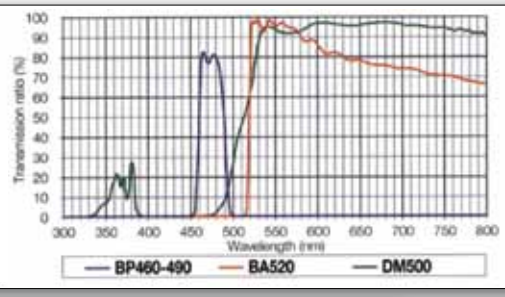
XDS-2FL - Technical specifications

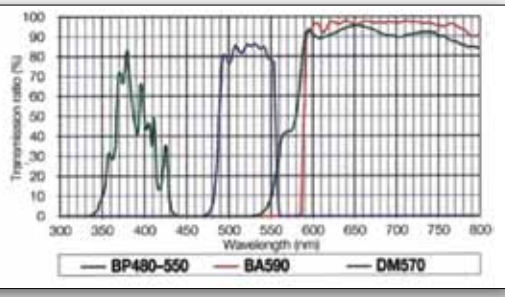
Part	Description
Optical system	Infinity corrected system, 45 mm parfocality distance. Field number 22 mm.
Head	Trinocular: 30° inclined, 360° rotating. Interpupillary distance: 48 - 75 mm. Adjustable dioptric compensation. Ergonomical head available as option.
Eyepieces	Extra-wide field10x/22mm, High-point.
Nosepiece	5 positions, with bidirectional rotation on ball bearings and click stop.
Objectives	Long working distance (LWD) infinity corrected (IOS) planachromatic: 4x/0.10 (working distance 18 mm), 10x/0.25 with phase ring (working distance 10 mm), 20x/0.40 with phase ring (working distance 5.1 mm), 40x/0.60 (working distance 2.6 mm). Corrected for 1.2 mm coverglass).
Specimen stage	Size: 250 x 230 mm. Translator with lowered ergonomic coaxial controls. X-Y translation: 119 x 70 mm. Interchangeable metallic inserts for specimen slides, Petri dishes and flasks.
Focusing system	Macro- and micrometric regulation, with coaxial knobs on both sides of the stand. Adjustable tension.
Condenser	Long working distance condenser, numerical aperture 0.30, working distance 72 mm. The condenser can be removed in order to increase the working distance to 150 mm.
Illumination	X-LED[8] system precentered illuminator, with adjustable intensity, filter and phase ring holder and aperture diaphragm. Inverted epi-fluorescence: HBO 100W high pressure mercury bulb, knobs for lamp and back mirror alignment.
Filtersets	Blue and Green fluorescence filtersets. No other as option.

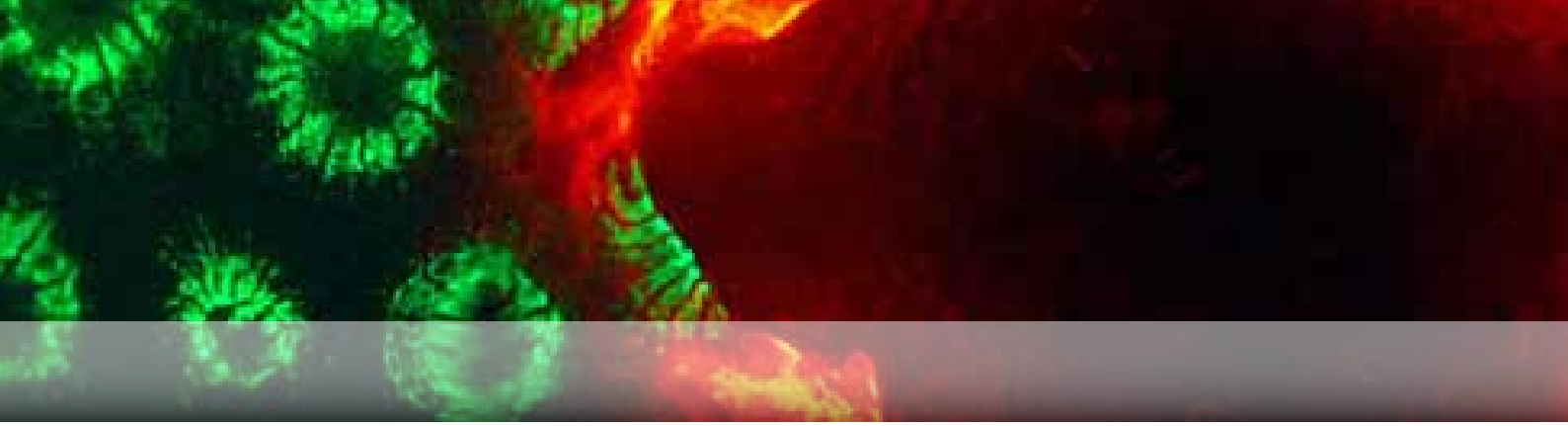
Filter sets

		Excitation	Dichroic Mirror	Barrier Filter
Filter sets	Blue excitation	BP460-490	DM500	BA520
	Green excitation	BP480-550	DM570	BA590

STANDARD FILTERS







FLUO Series - HBO Fluorescence

The instrument

XDS-3FL is an advanced inverted epifluorescence microscope.

Thanks to its special FLUO objectives, designed with quartz and special glasses (low in auto-fluorescence), XDS-3FL is upgradable with every kind of fluorescence filterset. The instrument offers, in the same unit, brightfield and phase contrast capabilities, thus extending its potentials to most multi-contrast applications.

Optical system

The epifluorescence optical system is implemented via the standard excitation filter-dichroic mirror-barrier filter combination, applied to a 100W Hg lamp. It is supplied with EWF10x/22mm extra-widefield eyepieces, long working distance IOS FLUO objectives, and a double filterblock set (blue and green excitation as standard configuration). The extensive range of optional accessories allows a quick interchange of contrast mechanisms, and it is optimized for multi-contrast observation without removal of the specimen from the stage.

Ergonomy

Every control is easy to reach, every component has been designed with ease of use in mind. The focusing and specimen translation controls are designed to allow to rest the wrists on the table.

The brightfield light intensity regulation is placed very close to the focusing knobs.

The specimen stage is fitted with a special glass insert, that allows to see the objectives, for immediate identification of the magnification setup.

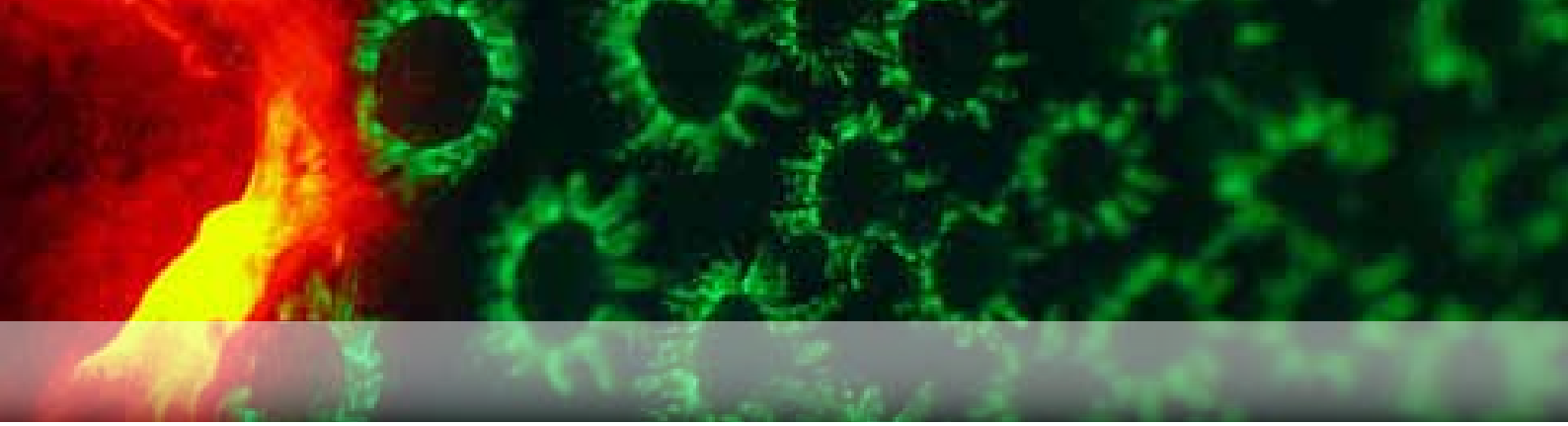
User comfort

XDS-3FL is comfortable for the operator.

The 22 mm extra-wide field is pleasant to use, and minimizes operator stress. The special eyepieces are designed for eyeglass wearers.

XDS-3FL

XDS-3FL4



FLUO Series - HBO Fluorescence

XDS-3FL - Technical specifications

Part	Description
Optical system	Infinity corrected system, 45 mm parfocality distance. Field number 22 mm.
Head	Trinocular: 45° inclined. Interpupillary distance: 48 - 75 mm. Adjustable dioptric compensation.
Eyepieces	Extra-wide field 10x/22mm, High-point.
Nosepiece	5 positions, with bidirectional rotation on ball bearings and click stop.
Objectives	Long working distance (LWD) infinity corrected (IOS) planachromatic: FLUO 10X/0.3 (working distance 10 mm), FLUO 20X/0.45 (working distance 5.1 mm), FLUO 40X/0.65 (working distance 2.6 mm). Corrected for 1.2 mm coverglass.
Specimen stage	Size: 250 x 230 mm. Translator with lowered ergonomic coaxial controls. X-Y translation: 119 x 70 mm. Interchangeable metallic inserts for specimen slides, Petri dishes and flasks.
Focusing system	Macro- and micrometric regulation, with coaxial knobs on both sides of the stand. Adjustable tension.
Condenser	Long working distance condenser, numerical aperture 0.30, working distance 72 mm. The condenser can be removed in order to increase the working distance to 150 mm. Green IF550 filter and Blue LBD filter are provided.
Illumination	Brightfield: X-LED^{8TM} system, precentered illuminator, with adjustable intensity and aperture diaphragm. Epi-fluorescence: HBO 100W high pressure mercury bulb, knobs for lamp alignment.
Filtersets	Blue and Green fluorescence filtersets. Violet and Ultraviolet as optional accessories.

XDS-3FL4 - Same as XDS-3FL with 4 positions filter holder (Blue and Green filtersets, plus 2 empty positions)

Filter sets

	Excitation	Dichroic Mirror	Barrier Filter
Blue excitation	BP460-490	DM500	BA520
Green excitation	BP480-550	DM570	BA590
Ultraviolet excitation	BP325-375	DM400	BA420LP
Violet excitation	BP385-425	DM440	BA455LP

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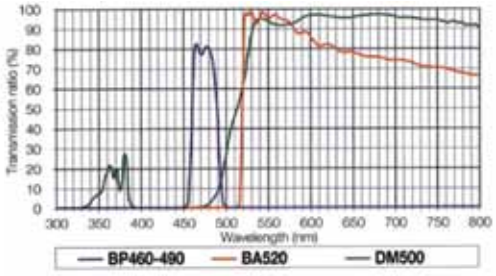
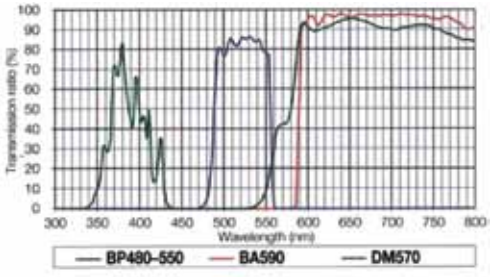
STANDARD FILTERS

Blue excitation

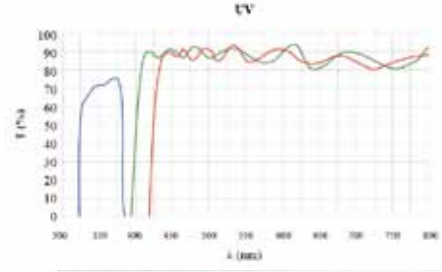


Green excitation

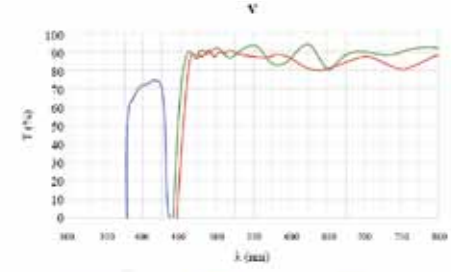


OPTIONAL FILTERS

Ultraviolet excitation



Violet excitation



FLUO Series - Accessories

Accessories for B-353LD1 / B-353LD2 / B-353FL

M-301	Eyepiece high-point WF10x/20mm
M-302	Eyepiece high-point WF16x/12mm
M-303	Eyepiece micrometer high-point WF10x/20mm
M-005	Micrometric slide, 26x76 mm, range 1 mm, div. 0,01 mm
M-330	Objective IOS planachromatic 4x/0.10
M-331	Objective IOS planachromatic 10x/0.25
M-332	Objective IOS planachromatic 20x/0.40
M-333	Objective IOS planachromatic 40x/0.65
M-335	Objective IOS planachromatic (no cover glass) 50x/0.70
M-334	Objective IOS planachromatic 100x/1.25 (oil)
M-350	Objective IOS planachromatic for phase contrast 10x/0.25
M-351	Objective IOS planachromatic for phase contrast 20x/0.40
M-352	Objective IOS planachromatic for phase contrast 40x/0.65
M-353	Objective IOS planachromatic for phase contrast 100x/1.25 (oil)
M-361	Complete phase contrast set with IOS E-PLAN obj. 10x, 20x, 40x, 100x
M-362	Polarising set (filters only)
M-363	Rotating table for polarizing set
M-364	Darkfield condenser for dry objectives
M-365	Photo tube adapter for SLR cameras full frame
M-366	CCD camera adapter
M-031	Dust cover type 3
M-974	Blue filter, 32 mm diameter
M-976	Green filter, 32 mm diameter
M-978	Yellow filter, 32 mm diameter
M-988	Frosted glass filter, 32 mm diameter
M-151	HBO100W high-pressure mercury bulb for fluoresc. (for B-353FL only)
M-173	APS-C reflex camera adapter

Accessories for B-600TiFL

M-680	Ergo binocular head 30°-60°
M-625	Eyepiece EWF10x/22mm
M-601	Eyepiece WF15x/16mm
M-602	Micrometer eyepiece EWF10x/22mm
M-005	26x76 mm micrometric slide. Range 1 mm, div. 0,01 mm
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-681	Objective IOS FLUOR planachromatic 4x/0.13
M-682	Objective IOS FLUOR planachromatic 10x/0.30
M-683	Objective IOS FLUOR planachromatic 20x/0.50
M-684	Objective IOS FLUOR planachromatic 40x/0.75
M-685	Objective IOS FLUOR planachromatic 100x/1.30
M-613	Polarising set (filters only)
M-615	Lambda filter for polarizing set
M-614	Rotating table for polarizing set
M-618	Darkfield condenser for dry objectives
M-617	Complete phase contrast set with plan IOS obj. 10x, 20x, 40x, 100x
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-622	Halogen bulb 12V/50W
M-151	HBO100W high-pressure mercury bulb for fluorescence
M-670	Empty fluorescence filterblock
M-671	Fluorescence filterset V (filterblock included)
M-672	Fluorescence filterset UV-DAPI (filterblock included)
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

Accessories for XDS-2FL

M-755	Ergonomical trinocular head
M-755.1	Trinocular attachment for ergonomical binocular head for XDS-2
M-017	Eyepiece EWF10x/22mm
M-021	Eyepiece micrometer EWF10x/22mm
M-005	Micrometric slide, 26x76 mm, range 1 mm, div. 0,01 mm
M-770	Objective LWD IOS planachromatic 4x/0.10 (w. d. 18 mm)
M-771	Objective LWD IOS planachromatic for phase contrast 10x/0.25 (w. d. 10 mm)
M-772	Objective LWD IOS planachromatic for phase contrast 20x/0.40 (w. d. 5.1 mm)
M-773	Objective LWD IOS planachromatic 40x/0.60 (w. d. 2.6 mm)
M-774	Objective LWD IOS planachromatic for phase contrast 40x
M-776	Phase ring 40x
M-151	HBO100W high-pressure mercury bulb for fluorescence
M-777	Photo tube adapter for SLR cameras full frame
M-778	CCD camera adapter
M-779	Halogen bulb 6V/30W
M-036	Dust cover type 7
M-173	APS-C reflex camera adapter

Accessories for XDS-3FL/XDS-3FL4

M-780	Eyepiece EWF10x/22mm
M-781	Eyepiece micrometric EWF10x/22mm
M-005	Micrometric slide, 26x76 mm, range 1 mm, div. 0,01 mm
M-782	Objective LWD IOS planachromati 4x/0.10 (working distance 22mm)
M-783	Objective LWD IOS planachromatic for phase contrast 10x/0.25 (w. d. 7.94mm)
M-784	Objective LWD IOS planachromatic for phase contrast 20x/0.40 (w. d. 7.66mm)
M-785	Objective LWD IOS planachromatic for phase contrast 40x/0.60 (w. d. 3.71mm)
M-783.1	Phase ring 10x/20x
M-785.1	Phase ring 40x
M-786	Objective LWD IOS planachromatic 60x/0.7 (working distance 2.50 mm)
M-801	Objective LWD IOS FLUO planachromatic 10x/0.25 (w. d. 10mm)
M-802	Objective LWD IOS FLUO planachromatic 20x/0.40 (w. d. 5.1mm)
M-803	Objective LWD IOS FLUO planachromatic 40x/0.60 (w. d. 2.6mm)
M-804	Objective LWD IOS FLUO planachromatic 60x
M-676	Empty fluorescence filterblock
M-677	Fluorescence filterset V (filterblock included)
M-678	Fluorescence filterset UV-DAPI (filterblock included)
M-151	HBO100W high-pressure mercury bulb for fluorescence
M-787	Cut-off filter (infrared)
M-788	Photo tube adapter for SLR cameras full frame
M-789	CCD camera adapter
M-790	Tube adapter for digital cameras DIGI series
M-621	Halogen bulb 6V/30W
M-036	Dust cover type 7
M-679	Empty filter block 4 positions (only for XDS-3FL)
M-677.1	Fluorescence filterset V for XDS-3FL4
M-678.1	Fluorescence filterset UV-DAPI for XDS-3FL4
M-173	APS-C reflex camera adapter

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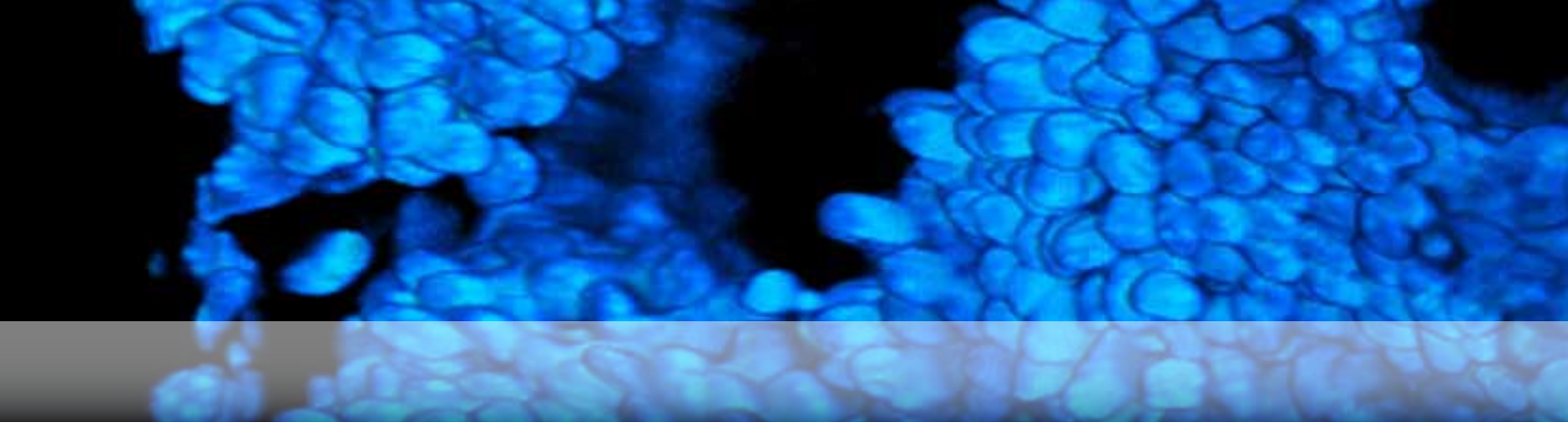
XDS Series

Inverted biological microscopes

XDS



XDS Series - XDS-1R

Easy to use

OPTIKA microscopes dedicates the model XDS-1R to routine microbiology applications, whenever ease of use is the main issue.

Cost-effectiveness

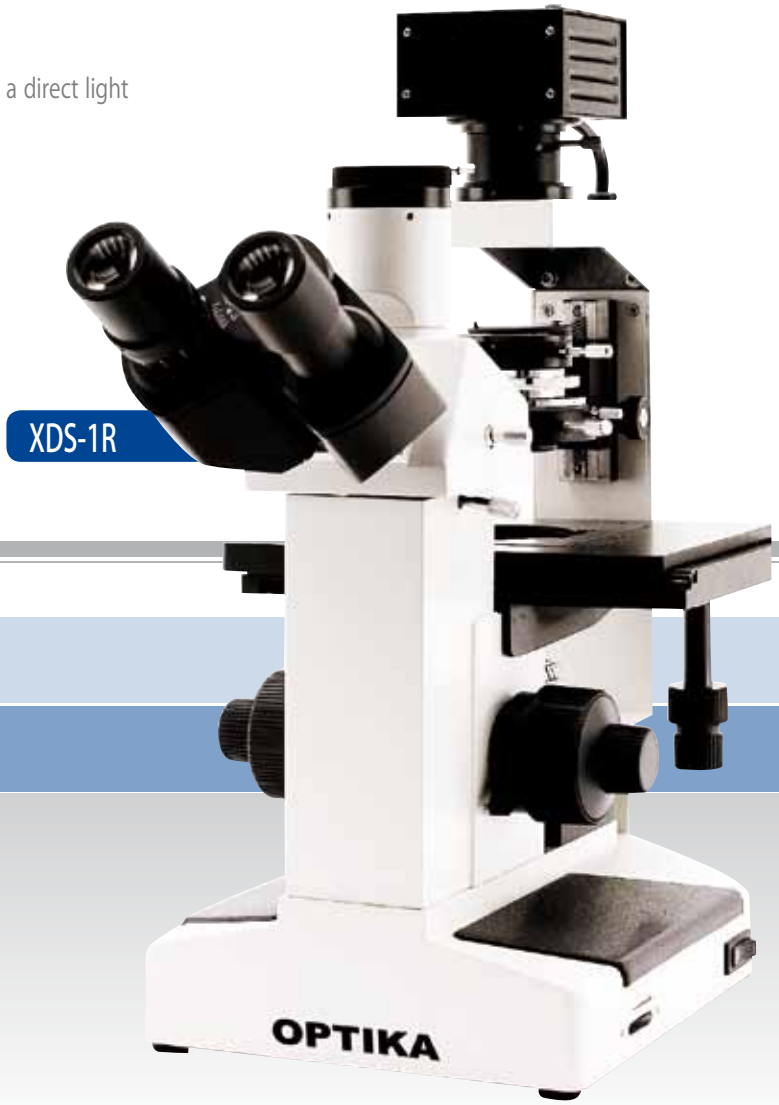
In being one of the most aggressively priced inverted microscopes on the market, XDS-1R offers a standard equipment that includes a full phase contrast set.

Classical, but young

A classical model in the OPTIKA inverted microscope range, XDS-1R has undergone small but significant improvements, that greatly enhance the usability.
An improved optical system extends the field of view to 20 mm.
A new illuminator, perpendicular to the specimen stage, implements a direct light path, with no "kinks" or bends, significantly simplifying alignment.

Versatility

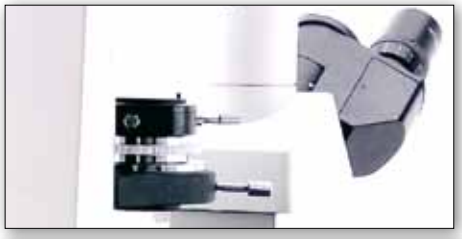
Trinocular head with photo/video port, translating specimen stage, various Petri dish and slide holders are included in the standard accessory equipment: multiple possibilities for a versatile approach to microbiology.

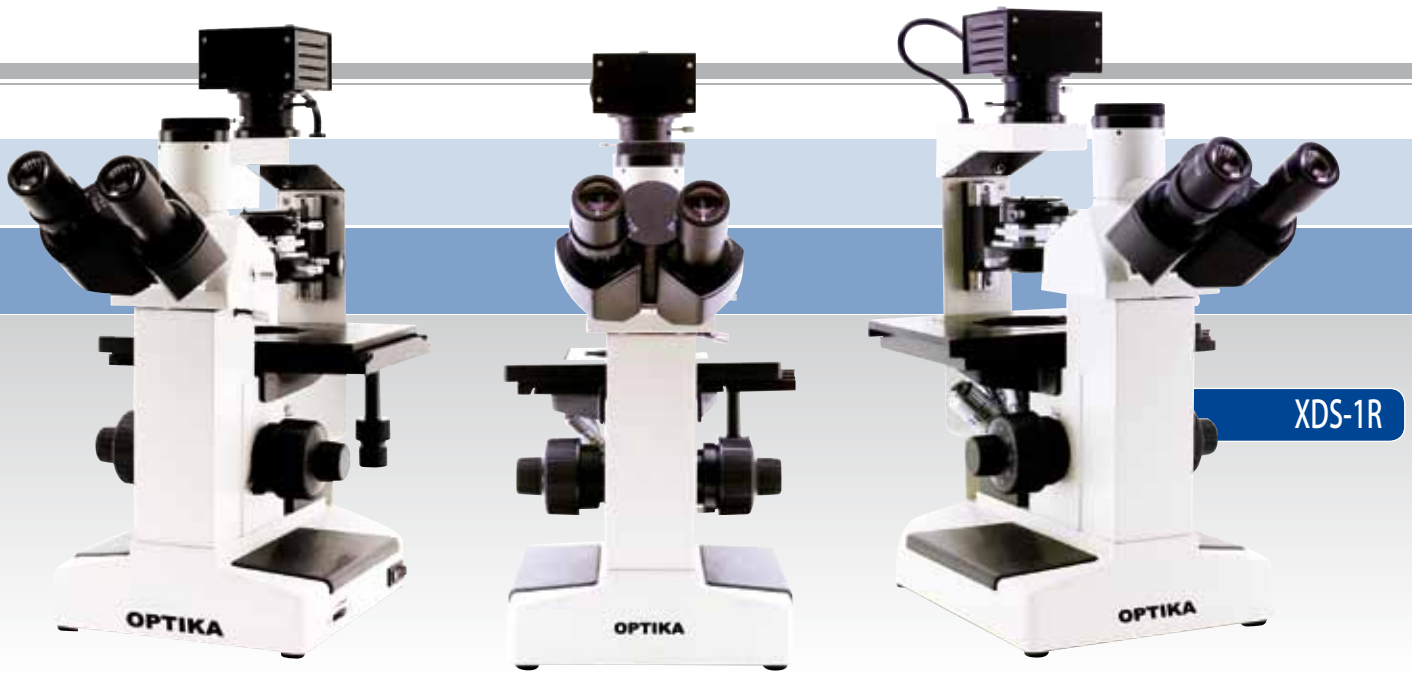


XDS Series - Inverted biological microscope

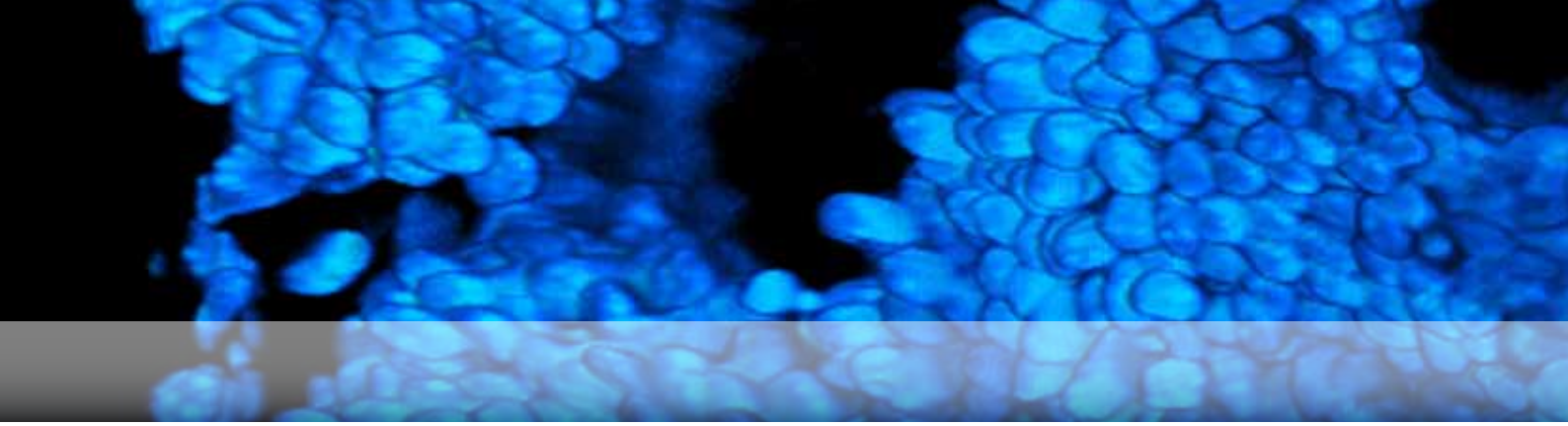
XDS-1R - Technical specifications

Part	Description
Optical system	DIN standard: 160 mm tube length, 45 mm parfocality distance. Field number 20 mm.
Head	Trinocular: 30° inclined, 360° rotating. Interpupillary distance: 55 - 75 mm. Adjustable dioptric compensation.
Eyepieces	Wide field 10x/20mm, high-point.
Nosepiece	4 positions, with bidirectional rotation on ball bearings and click stop.
Objectives	Long working distance (LWD) planachromatic: 10x/0.25 (working distance 7.9 mm), phase contrast 10x/0.25 (working distance 7.9 mm), 25x/0.40 (working distance 5 mm), 40x/0.65 (working distance 3 mm).
Specimen stage	Size: 200 x 152 mm. Double layer translator with coaxial controls. X-Y translation: 77 x 37 mm. Interchangeable metallic inserts for specimen slides and various sizes of Petri dishes.
Focusing system	Macro- and micrometric regulation, with coaxial knobs on both sides of the stand. Adjustable tension and depth stop.
Condenser	Long working distance condenser, numerical aperture 0.40. Iris aperture diaphragm, filter and phase ring holder. Adjustable height, centrable.
Illumination system	6V / 20W halogen centrable illuminator, with adjustable intensity, condenser and field diaphragm.





XDS-1R



XDS Series - XDS-2

A complete solution for your brightfield observation

All included, in the right place: this is the philosophy underlying this instrument.
XDS-2 is equipped with a full series of objectives, that covers most standard applications.
The translating stage is included in the standard equipment, and so is a set of 4 objectives (4x and 40x for brightfield; 10X and 20X for phase contrast) .

Ergonomy

Every control is easy to reach, every component has been designed with ease of use in mind.
The focusing and specimen translation controls are designed to allow to rest the wrists on the table.
The light intensity adjustemnt is placed very close to the focusing knobs.
The specimen stage is fitted with a special glass insert, that allows to see the objectives, for immediate identification of the magnification setup.
The head implements an extremely innovative design, that permits adjustment to compensate for operator height.

Efficiency

Plan-achromatic infinity corrected optics, bright 8W LED halogen illuminator, phase contrast set, holders for specimen slides, flasks, Petri dishes, trinocular head for photo/video applications. These are the features of XDS-2, a powerful, complete and innovative instrument, designed to set a reference standard for advanced routine microbiology.

User comfort

XDS-2 is comfortable for the operator. The 22 mm extra-wide field is pleasant to use, and minimizes operator stress. The special eyepieces are designed for eyeglass wearers.

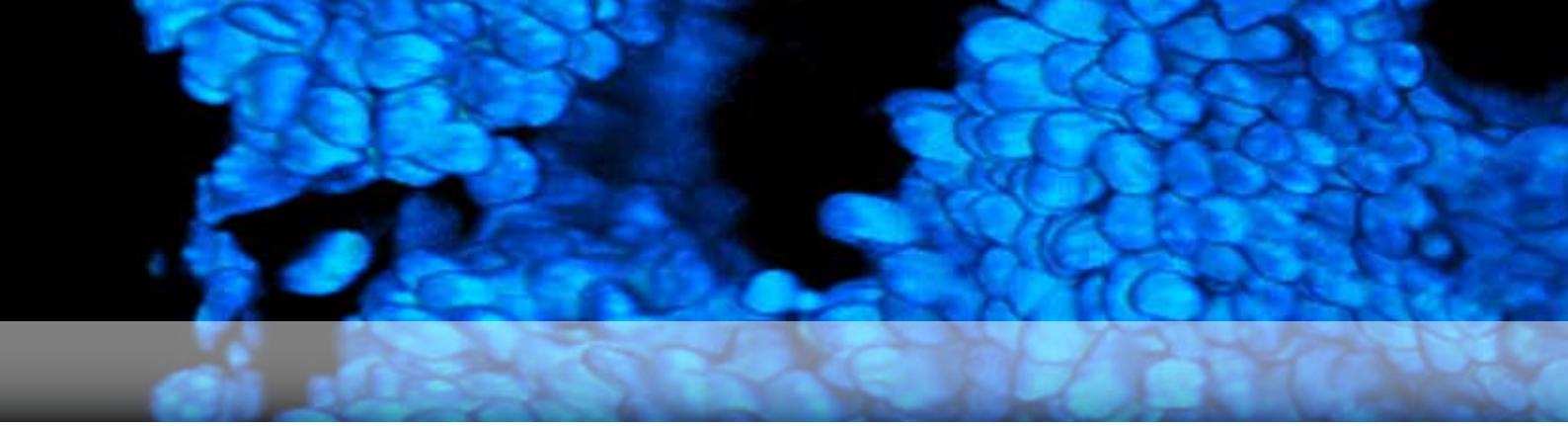
XDS-2

XDS Series - Inverted biological microscope

XDS-2 AND XDS-2ERGO - Technical specifications

Component	Description
Optical system	Infinity corrected system, 45 mm parfocality distance. Field number 22 mm.
Heads	**XDS-2**: Trinocular: 30° inclined, 360° rotating. Interpupillary distance: 48 - 75 mm. Adjustable dioptric compensation. Ergonomic height compensation. **XDS-2ERGO: 0°-30°** ergonomical head with side photo tube.
Eyepieces	Extra-wide field 10x/22mm, high-point.
Nosepiece	5 positions, with bidirectional rotation on ball bearings and click stop.
Objectives	Long working distance (LWD) infinity corrected (IOS) planachromatic: 4x/0.10 (working distance 18 mm), phase contrast 10x/0.25 (working distance 10 mm), phase contrast 20x/0.40 (working distance 5.1 mm), 40x/0.60 (working distance 2.6 mm), corrected for 1.2 mm coverglass.
Specimen stage	Size: 250 x 230 mm. Translator with lowered ergonomic coaxial controls. X-Y translation: 119 x 70 mm. Interchangeable metallic inserts for specimen slides, Petri dishes and flasks.
Focusing system	Macro and micrometric regulation, with coaxial knobs on both sides of the stand. Adjustable tension.
Condenser	Long working distance condenser, numerical aperture 0.30, working distance 72 mm. The condenser can be removed in order to increase the working distance to 150 mm.
Illumination system	**X-LED^{8TM} system**, with adjustable intensity, filter and phase ring holder and aperture diaphragm.

XDS-2ERGO



XDS Series - XDS-3

Top level solution for phase contrast observation

XDS-3 looks at the challenge of the future with confidence, offering first-class completeness, optical quality, mechanical versatility, that open the instrument to all the enhancements and accessories that will be developed throughout the years. OPTIKA has chosen XDS-3 as its inverted microscopy development platform for all illumination and manipulation accessories. Moreover, the open optical path allows the implementation of epi-fluorescence systems.

Completeness

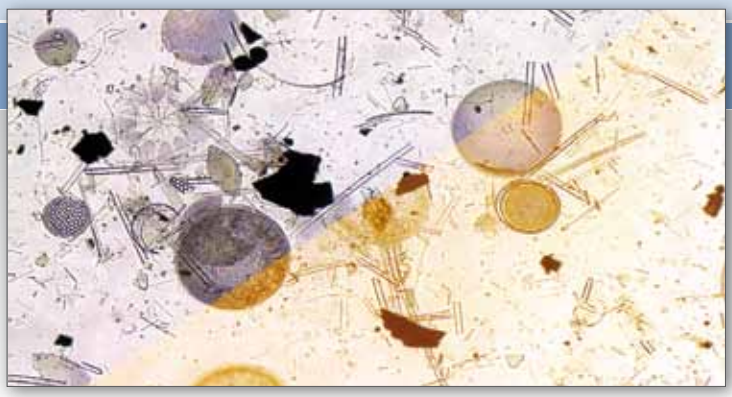
The multiple access to the optical path ideally complements the infinity-corrected optics, and offers ample freedom for the development of special accessories.The bright 8W LED illuminator, coupled to a full phase ring set, to a photo port, and to the diverse holders for slides,
Petri dishes and flasks, qualify XDS-3 as a powerful and complete instrument, that finds its optimal application in high-end routine, and as a complement to the most powerful research microscopes.

Efficiency

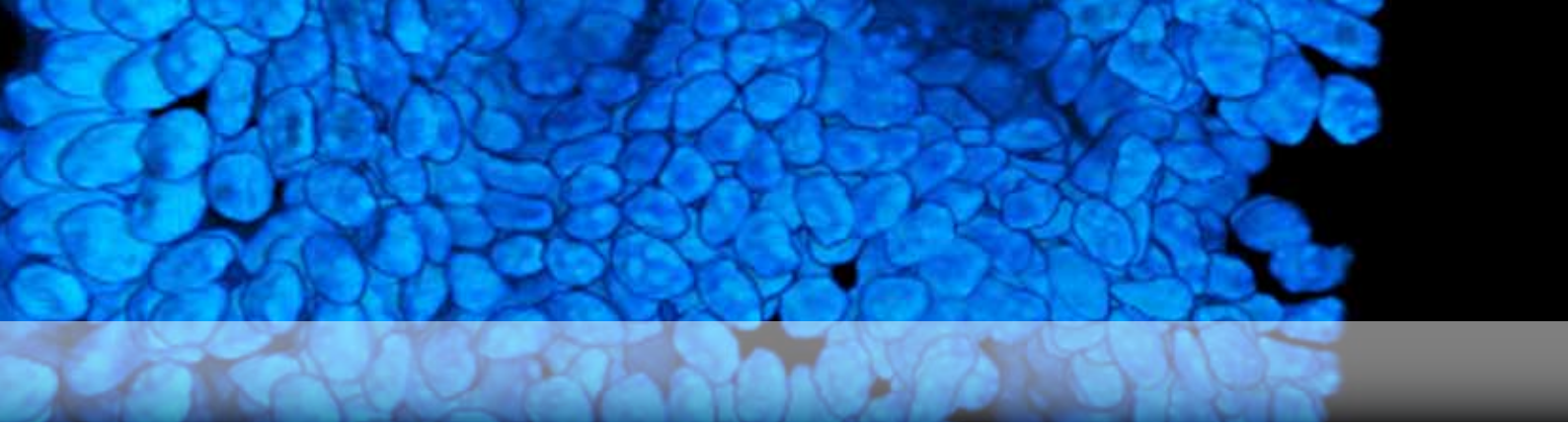
Effectiveness does not mean complexity. A particularly simple and ingenious optical design allows stable alignments and smooth and accurate movements throughout years of use.
Effectiveness does not mean cost. The optimally targeted design choices, both for mechanics and for optical components, have allowed OPTIKA to reach the performance of XDS-3 without sacrificing the accessibility that characterizes OPTIKA instruments. An additional reason to challenge the future.

Versatility

It still surprises us how, with few well-located controls, a microscope can become so versatile.
The controls are located in accessible and comfortable positions, and offer all degrees of freedom necessary for an immediate and pleasant use.
The glass stage surface allows an optimal visual access to the objective turret. The straight neck leaves ample room for sample positioning and for the most advanced probes.



X-LED 8 TM vs. Halogen

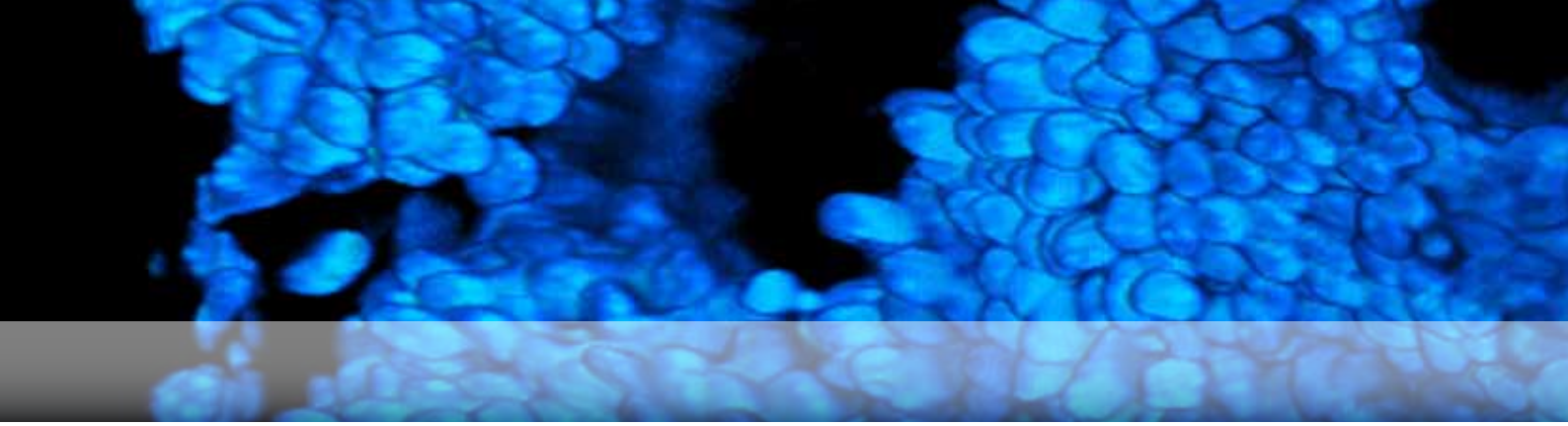


XDS Series - Inverted biological microscope

XDS-3 - Technical specifications

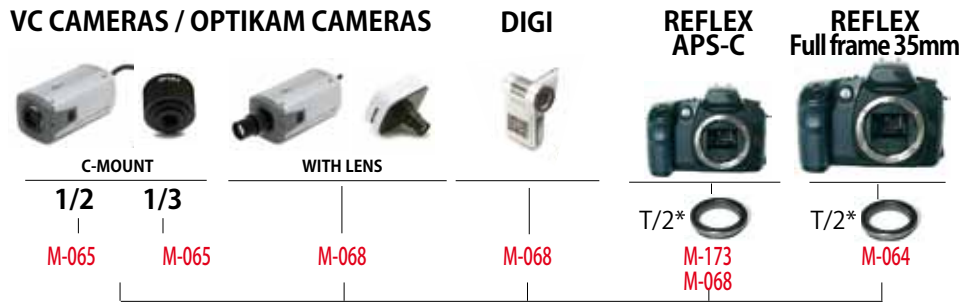
Part	Description
Optical system	Infinity corrected system, 45 mm parfocality distance. Field of view 22 mm.
Heads	Trinocular: 45° inclined. Interpupillary distance: 55 - 75 mm. Adjustable dioptric compensation.
Eyepieces	Extra-wide field 10x/22mm, high-point.
Nosepiece	5 positions, with bidirectional rotation on ball bearings and click stop.
Objectives	Long working distance (LWD) infinity corrected (IOS) planachromatic: phase contrast 10x/0.25 (working distance 7.94 mm), phase contrast 20x/0.40 (working distance 7.66 mm), phase contrast 40x/0.60 (working distance 3.71 mm), corrected for 1.2 mm coverglass.
Specimen stage	Size: 250 x 230 mm. Translator with lowered ergonomic coaxial controls. X-Y translation: 114 x 81 mm. Interchangeable metallic inserts for specimen slides, Petri dishes and flasks.
Focusing system	Macro- and micrometric regulation, with coaxial knobs on both sides of the stand. Adjustable tension..
Condenser	Long working distance condenser, numerical aperture 0.30, working distance 72 mm. The condenser can be removed in order to increase the working distance to 150 mm.
Illumination system	**X-LED^{8TM} system**, with adjustable intensity, filter and phase ring holder and aperture diaphragm.

Also available: “LT” version without hard case and moving stage



XDS Series - Photo - video applications

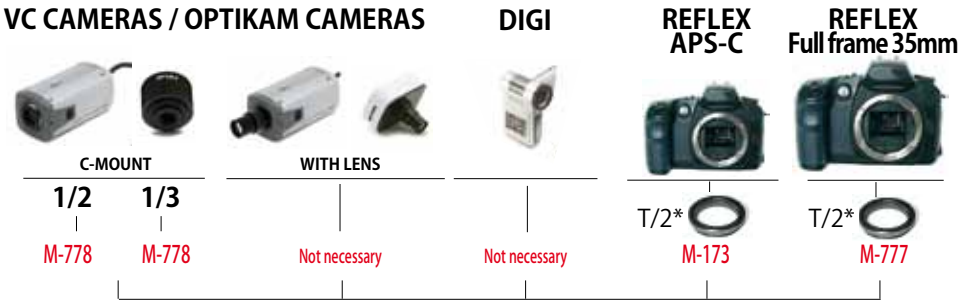
CAMERA ADAPTER CHART FOR TRINOCULAR MODELS



XDS-1R

*T/2 is not supplied by OPTIKA

CAMERA ADAPTER CHART FOR TRINOCULAR MODELS

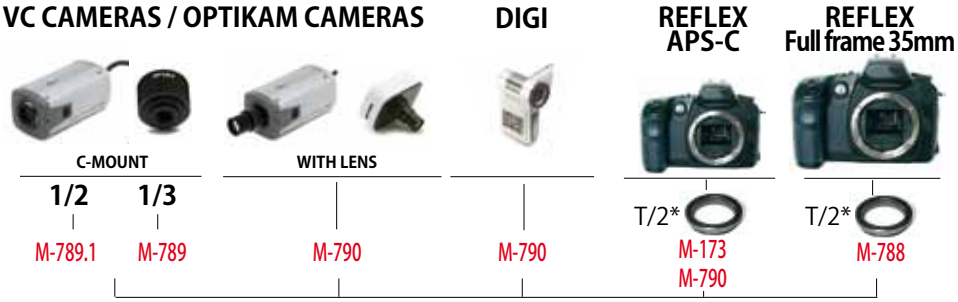


XDS-2

*T/2 is not supplied by OPTIKA

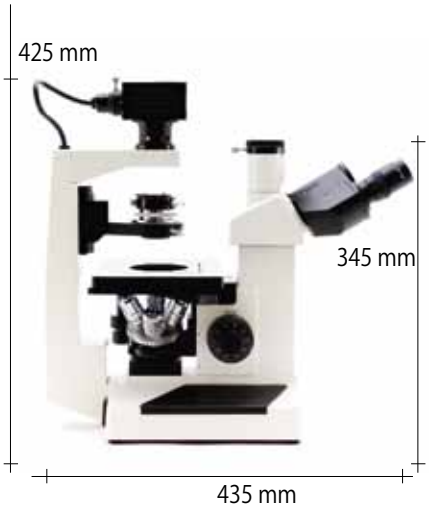
XDS Series - Photo - video applications

CAMERA ADAPTER CHART FOR TRINOCULAR MODELS



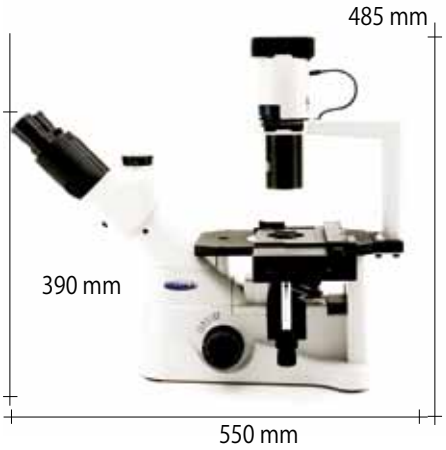
XDS-3

*T/2 is not supplied by OPTIKA



XDS-1R

XDS-2



XDS-3

XDS Series - Accessories

Accessories for XDS-1R

M-001	Eyepiece H5x
M-006	Eyepiece EWF10x/20mm
M-003	Eyepiece WF16x/12mm
M-078	Eyepiece micrometer EWF10x/20mm
M-005	Micrometric slide, 26x76 mm, range 1 mm, div. 0,01 mm
M-711	Objective LWD planachromatic 10x /0,25 (working distance 7.9 mm)
M-712	Objective LWD planachromatic 25x/0,40 (working distance 5 mm)
M-713	Objective LWD planachromatic 40x/0,65 (working distance 3 mm)
M-740	Objective LWD planachromatic for phase contrast 10x/0,25 (working distance 7.9 mm)
M-741	Objective LWD planachromatic for phase contrast 25x/0,40 (working distance 5 mm)
M-742	Objective LWD planachromatic for phase contrast 40x/0,65 (working distance 3 mm)
M-080	Phase contrast set (objective + phase ring) 25x
M-081	Phase contrast set (objective + phase ring) 40x
M-750	Phase ring 10x (spare)
M-751	Phase ring 25x (spare)
M-752	Phase ring 40x (spare)
M-064	Photo tube adapter for SLR cameras full frame
M-065	CCD camera adapter
M-068	Tube adapter for digital cameras DIGI series
M-014	Halogen bulb 6V/20W
M-035	Dust cover type 6
M-173	APS-C reflex camera adapter

Accessories for XDS-2

M-755	Binocular head
M-755.1	Trinocular attachment for ergonomical binocular head for XDS-2
M-017	Eyepiece EWF10x/22mm
M-021	Eyepiece micrometer EWF10x/22mm
M-005	Micrometric slide, 26x76 mm, range 1 mm, div. 0,01 mm
M-770	Objective LWD IOS planachromatic 4x/0.10 (working distance 18 mm)
M-771	Objective LWD IOS planachromatic for phase contrast 10x/0.25 (working distance 10 mm)
M-772	Objective LWD IOS planachromatic for phase contrast 20x/0.40 (working distance 5.1 mm)
M-773	Objective LWD IOS planachromatic 40x/0.60 (working distance 2.6 mm)
M-774	Objective LWD IOS planachromatic for phase contrast 40x
M-776	Phase ring 40x
M-777	Photo tube adapter for SLR cameras full frame
M-778	CCD camera adapter
M-779	Halogen bulb 6V/30W
M-036	Dust cover type 7
M-795	Fluorescence attachment HBO100W
M-173	APS-C reflex camera adapter

Accessories for XDS-3/XDS-3LT

M-780	Eyepiece EWF10x/22mm
M-781	Eyepiece micrometric EWF10x/22mm
M-005	Micrometric slide, 26x76 mm, range 1 mm, div. 0,01 mm
M-782	Objective LWD IOS planachromatic 4x/0.10 (working distance 22 mm)
M-783	Objective LWD IOS planachromatic for phase contrast 10x/0.25 (working distance 7.94 mm)
M-784	Objective LWD IOS planachromatic for phase contrast 20x/0.40 (working distance 7.66 mm)
M-785	Objective LWD IOS planachromatic for phase contrast 40x/0.60 (working distance 3.71 mm)
M-786	Objective LWD IOS planachromatic 60x/0.7 (working distance 2.50 mm)
M-787	Cut-off filter (infrared)
M-788	Photo tube adapter for SLR cameras full frame
M-789	CCD camera adapter for 1/3" sensor
M-789.1	CCD camera adapter for 1/2" sensor
M-790	Tube adapter for digital cameras DIGI series
M-621	Halogen bulb 6V/30W
M-036	Dust cover type 7
M-792	Mechanical stage for XDS-3
M-173	APS-C reflex camera adapter

15103 - Lens cleaner, 50ml

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

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