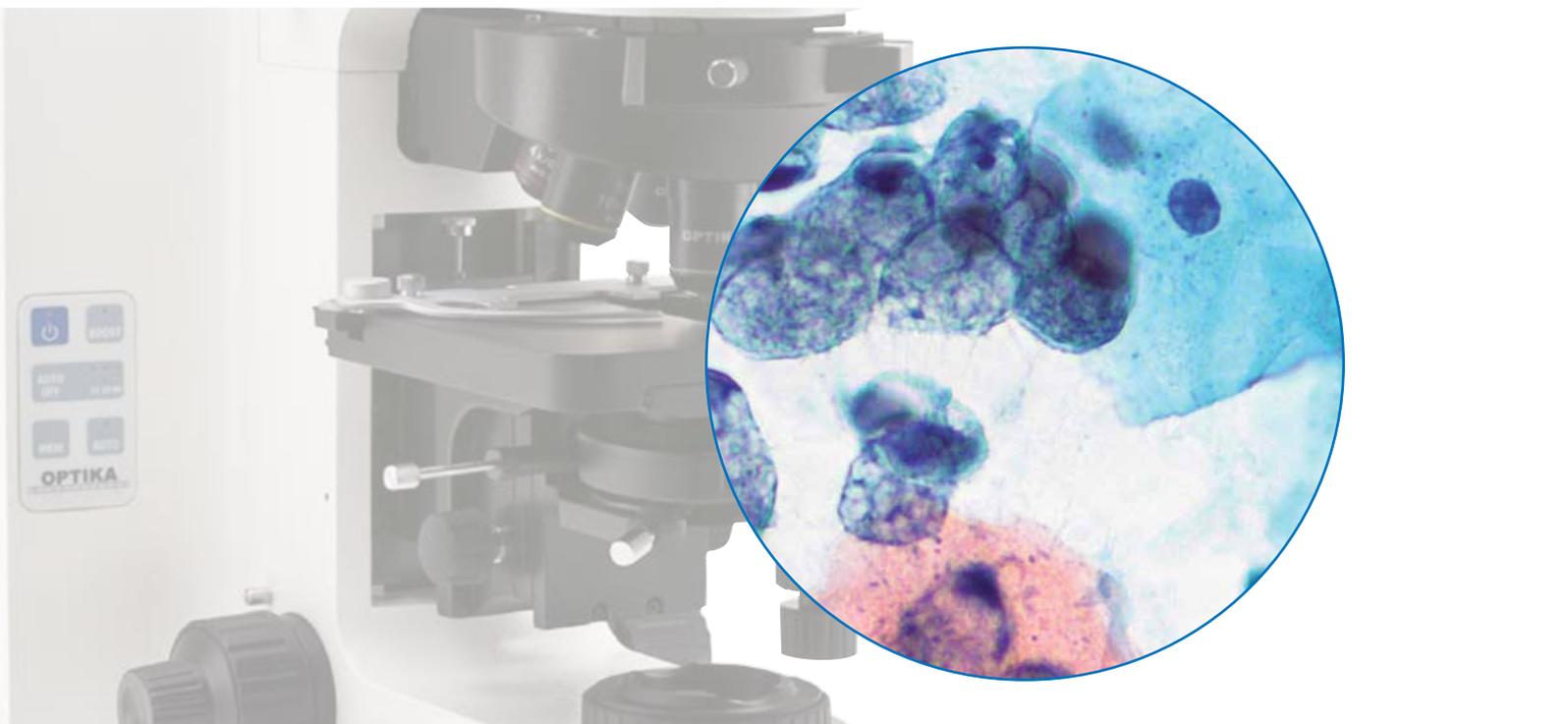
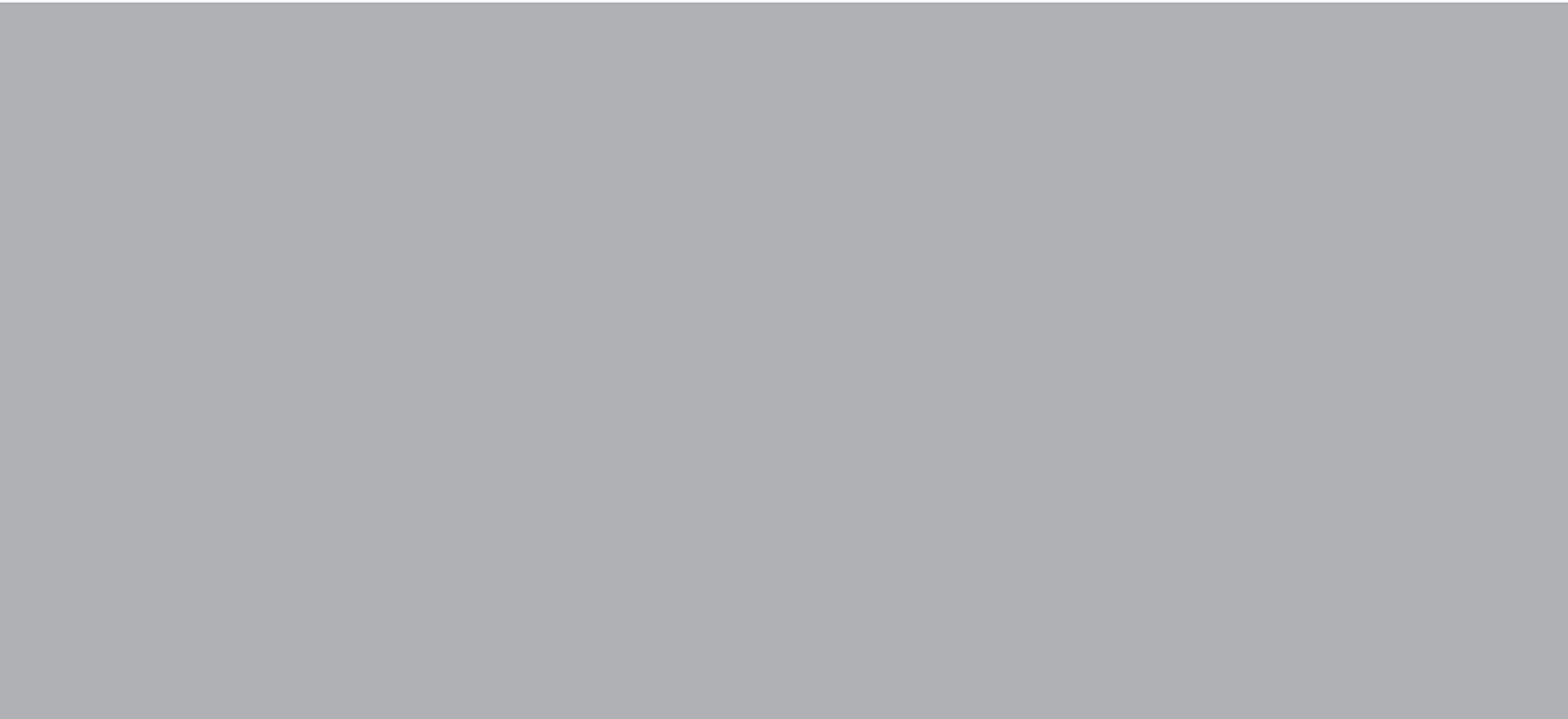


OPTIKA

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

LABORATORY *microscopes*





- B-350 SERIES - Entry-level upright laboratory microscopes page 69
- B-500 SERIES - High quality upright laboratory microscopes page 77
- B-800 SERIES - Research microscopes page 87
- B-1000 SERIES - Modular research microscopes page 93
- POL SERIES - Laboratory polarizing microscopes page 113
- FLUO SERIES - Epi-fluorescence microscopes page 123
- XDS SERIES - Inverted biological microscopes page 141



Icons

	Monocular		Magnification 400X		X-LED ² illuminator
	Binocular		Magnification 1000X		X-LED ³ illuminator
	Trinocular		Incident light		X-LED ⁸ illuminator
	Field number 16		Transmitted light		1W LED illuminator
	Field number 18		Polarized light		LED illuminator
	Field number 20		Halogen lamp		Automatic light control
	Field number 22		Incandescant lamp		Infinity-corrected optics
	Field number 24		Dichroic lamp		Rechargeable battery
	Rotating head 360°		USB connection		Anti-fungus treatment

B-350 Series

Entry-level upright laboratory microscopes



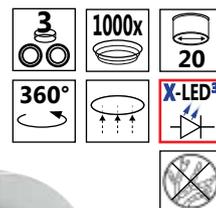
B-350 Series

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.

B-353PL



Special additional version

- B-353MET** Trinocular upright metallurgical microscope.
- B-353POL** Trinocular microscope, transmitted polarization.
- B-353LD1** Trinocular microscope, LED fluorescence.
- B-353LD2** Trinocular microscope, LED fluorescence.
- B-353FL** Trinocular microscope, HBO fluorescence.

B-350 Range



B-352A

B-353A

B-352PL

B-353PL

B-353PH

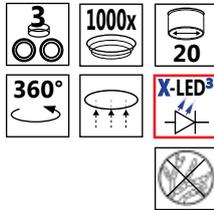
B-352Phi

B-353TDK

B-350 Series



B-353A



Optical system & objectives

The models of the B-350 series are equipped, depending on the various models, 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 eye-pieces is 20mm.

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 dioptic 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 base.

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.

Standard LED



X-LED³



X-LED³ - 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 ...!



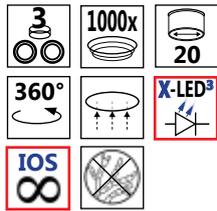
Frog, blood smear. Real picture taken from B-353PLi with 100x objective **without immersion oil**



X-LEDTM vs. Halogen

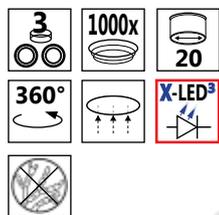
B-350 Series - Models

B-353PLi

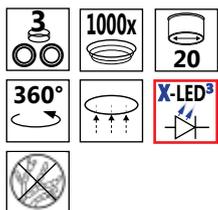


B-350 Series - Models

B-353DK

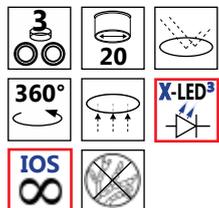


B-353Ph



B-350 Series - Special additional models

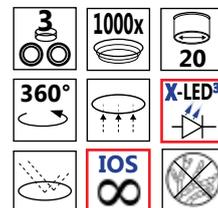
B-353LD2



More information in
FLUO SERIES



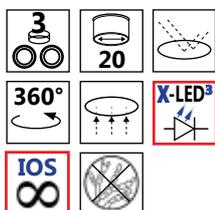
B-353FL



More information in
FLUO SERIES



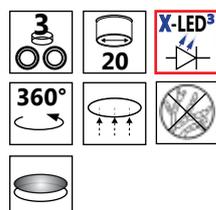
B-353MET



More information in
INDUSTRY SERIES



B-353POL



More information in
INDUSTRY SERIES



B-350 Series - Technical specifications

Model	Head	Eyepiece	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 nosepiece, reversed	Double layer mechanical sliding stage, 160x142mm, moving range 76x52mm	Coaxial coarse and fine focusing with limit stop	1.25 N.A. Abbe type, with cen- tring system	X-LED ³ , with brightness control
B-353A	Trinocular 360°rotating 30° inclined	Wide Field 10X/20 mm	Achromatic 4x, 10x, 40x, 100x (oil)	Quadruple nosepiece, reversed	Double layer mechanical sliding stage, 160x142mm, moving range 76x52mm	Coaxial coarse and fine focusing with limit stop	1.25 N.A. Abbe type, with cen- tring system	X-LED ³ , with brightness control
B-352PL	Binocular 360°rotating 30° inclined	Wide Field 10X/20 mm	Plan Achromatic 4x, 10x, 40x, 100x (oil)	Quintuple nosepiece, reversed	Double layer mechanical sliding stage, 160x142mm, moving range 76x52mm	Coaxial coarse and fine focusing with limit stop	1.25 N.A. Abbe type, with cen- tring system	X-LED ³ , with brightness control
B-353PL	Trinocular 360°rotating 30° inclined	Wide Field 10X/20 mm	Plan Achromatic 4x, 10x, 40x, 100x (oil)	Quintuple nosepiece, reversed	Double layer mechanical sliding stage, 160x142mm, moving range 76x52mm	Coaxial coarse and fine focusing with limit stop	1.25 N.A. Abbe type, with cen- tring system	X-LED ³ , with brightness control
B-352PLi	Binocular 360°rotating 30° inclined	Wide Field 10X/20 mm	Plan Achromatic IOS 4x, 10x, 40x, 100x (oil)	Quintuple nosepiece, reversed	Double layer mechanical sliding stage, 160x142mm, moving range 76x52mm	Coaxial coarse and fine focusing with limit stop	1.25 N.A. Abbe type, with cen- tring system	X-LED ³ , with brightness control
B-353PLi	Trinocular 360°rotating 30° inclined	Wide Field 10X/20 mm	Plan Achromatic IOS 4x, 10x, 40x, 100x (oil)	Quintuple nosepiece, reversed	Double layer mechanical sliding stage, 160x142mm, moving range 76x52mm	Coaxial coarse and fine focusing with limit stop	1.25 N.A. Abbe type, with cen- tring system	X-LED ³ , with brightness control
B-352Ph	Binocular 360°rotating 30° inclined	Wide Field 10X/20 mm	Plan Achromatic 4x, 10xPh, 40xPh, 100xPh (oil)	Quintuple nosepiece, reversed	Double layer mechanical sliding stage, 160x142mm, moving range 76x52mm	Coaxial coarse and fine focusing with limit stop	Phase condenser (10x, 40x, 100x) with darkfield (dry) and brightfield	X-LED ³ , with brightness control
B-353Ph	Trinocular 360°rotating 30° inclined	Wide Field 10X/20 mm	Plan Achromatic 4x, 10xPh, 40xPh, 100xPh (oil)	Quintuple nosepiece, reversed	Double layer mechanical sliding stage, 160x142mm, moving range 76x52mm	Coaxial coarse and fine focusing with limit stop	Phase condenser (10x, 40x, 100x) with darkfield (dry) and brightfield	X-LED ³ , with brightness control
B-352Phi	Binocular 360°rotating 30° inclined	Wide Field 10X/20 mm	E-Plan IOS 10xPh, 20xPh, 40xPh, 100xPh (oil)	Quintuple nosepiece, reversed	Double layer mechanical sliding stage, 160x142 mm, moving range 76x52 mm	Coaxial coarse and fine system, with limit stop	Phase conden- ser (10x, 20x, 40x, 100x) and brightfield	X-LED ³ , with brightness control
B-353Phi	Trinocular 360°rotating 30° inclined	Wide Field 10X/20 mm	E-Plan IOS 10xPh, 20xPh, 40xPh, 100xPh (oil)	Quintuple nosepiece, reversed	Double layer mechanical sliding stage, 160x142 mm, moving range 76x52 mm	Coaxial coarse and fine system, with limit stop	Phase conden- ser (10x, 20x, 40x, 100x) and brightfield	X-LED ³ , 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 nosepiece, reversed	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 ³ , 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: 5h at max intensity. Charging modes: with solar panel (12h) - with included power supply (6h). By USB port.



B-350 Series - Photo-video applications

The B-350 series is compatible with our Opti-kam 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



B-500 Series

High quality upright laboratory microscopes



B-500 Series

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

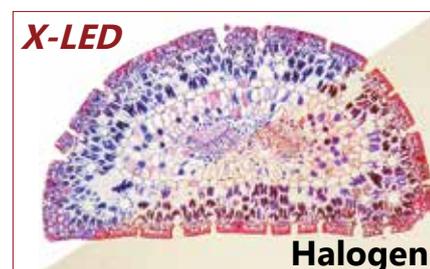
With InfiniFix optical system, the two worlds of infinity-corrected and 160 mm optical system find the way to meet each other. With this exclusive optical system all InfiniFix models use a true infinity-corrected optical path, implemented with standard 160 mm objectives. IOS simply means "Infinity Optical System". All IOS models of B-500 series are equipped with true Infinity Corrected Objectives.

B-500Bsp	Binocular microscope, halogen lamp.
B-500Tsp	Trinocular microscope, halogen lamp.
B-500Bpl	Binocular microscope, X-LED ³ .
B-500Tpl	Trinocular microscope, X-LED ³ .
B-500Bi	Binocular microscope, X-LED ³ , IOS objectives.
B-500Ti	Trinocular microscope, X-LED ³ , IOS objectives.
B-500ERGO	Binocular ergonomic microscope, X-LED ³ .
B-500iERGO	Binocular ergonomic microscope, X-LED ³ IOS objectives.
B-500Bph	Binocular microscope, phase contrast, X-LED ³ .
B-500Tph	Trinocular microscope, phase contrast, X-LED ³ .
B-500BiPh	Binocular microscope, phase contrast, X-LED ³ , IOS objectives.
B-500TiPh	Trinocular microscope, phase contrast, X-LED ³ , IOS objectives.
B-500Ti-2	Trinocular microscope, discussion heads, X-LED ³ , IOS objectives, 2 heads.
B-500Ti-3	Trinocular microscope, discussion heads, X-LED ³ , IOS objectives, 3 heads.
B-500Ti-5	Trinocular microscope, discussion heads, X-LED ³ , IOS objectives, 5 heads.
B-500TDK	Trinocular microscope, darkfield, X-LED ³ .



Special additional versions

B-500TiFl	Trinocular microscope, HBO fluorescence, X-LED ³ .
B-500POL	Trinocular microscope, transmitted polarization, X-LED ³ .
B-500POL-I	Trinocular microscope, transmitted (X-LED ³) and incident (X-LED ³) polarization.
B-500MET	Trinocular metallographic microscope, X-LED ³ .



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-LEDTM 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

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.

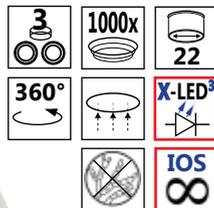
A new high-efficiency single chip LED works in combination with a special optical lens, which allows to double the intensity of the light generated by the LED itself.

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.

B-500Ti



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.

Standard LED



X-LED³ illumination system

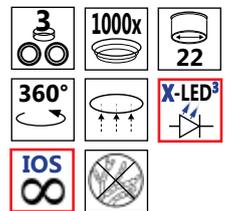


B-500 Series - Models

A perfect mix of performance and ease of use



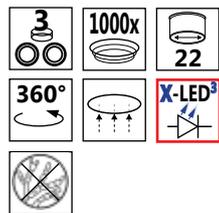
B-500Ti



B-500 Series - Models

A complete range of instruments

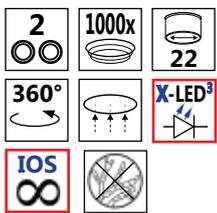
B-500Tpl



infinifix™
optical system

X-LED³

B-500iERGO



X-LED³

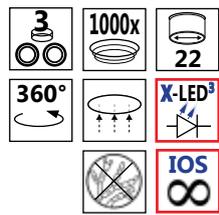
IOS™
objectives



B-500 Series - Special additional version



B-500Ti-5



B-500 Series - Component scheme

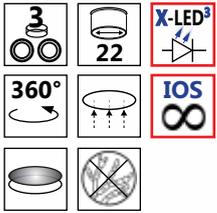


B-500 Series - Technical specifications

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 ³ 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 ³ 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-LED ³ 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 ³ illuminator
B-500ERGO	InfiniFix	30°-60° ergono- mical 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 ³ illuminator
B-500IERGO	IOS	30°-60° ergono- mical 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 ³ 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 ³ 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 ³ 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 ³ 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 ³ 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 ³ 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 ³ 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 ³ 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 ³ illuminator. Discussion laser pointer under the head

B-500 Series - Special additional versions

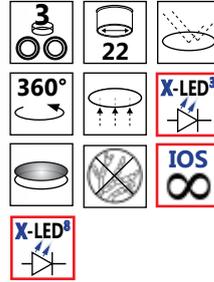
B-500POL



More information in
POL SERIES



B-500POL-I



More information in
POL SERIES



CAMERA ADAPTER CHART FOR TRINOCULAR MODELS

VC CAMERAS / OPTIKAM CAMERAS



C-MOUNT

1/2 1/3

M-620.1 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

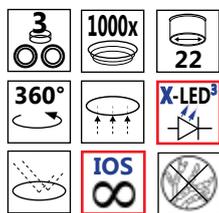


B-500
Trinocular versions

*T/2 is not supplied by OPTIKA

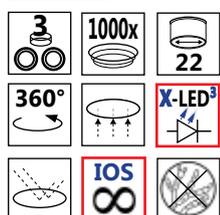
B-500 Series - Special additional versions

B-500MET



More information in
INDUSTRY SERIES

B-500TiFL



More information in
FLUO SERIES



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 dichro 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

15103 - Lens cleaner, 50ml

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



B-800 Series

Research microscopes



B-800 BF Model - Brightfield version

OPTIKA Microscopes, thanks to the long experience achieved in microscopy development, has conceived the new B-800: a major leap in our technological offer. As a flagship instrument, B-800 originates, from customer most demanding feedbacks and needs. Its modularity and versatility will allow to find the perfect place in any clinical or basic research laboratory. All controls are easily accessible and comfortable also for extended periods of observation. The highest category of optical equipment among our product range guarantees a sharp and clear view in any situation, while top level mechanical design offers sturdiness and a long lifetime.

B-800 is built on IOS Infinity Corrected optical system, which gives both top-notch optical performances, and the possibility to extend your instrument with the broad range of accessories and modules. X-LED illumination is the best solution to have pure white light, very intense even at higher magnification, and optimum power efficiency given by solid state source. If you search for our best solution to your present and future professional needs, B-800 is the answer.

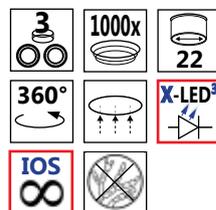
B-800 BF

Brightfield research microscope

B-800 PH

Phase contrast research microscope

B-800 BF



B-800 BF

Type:

BRIGHTFIELD RESEARCH MICROSCOPE

Description:

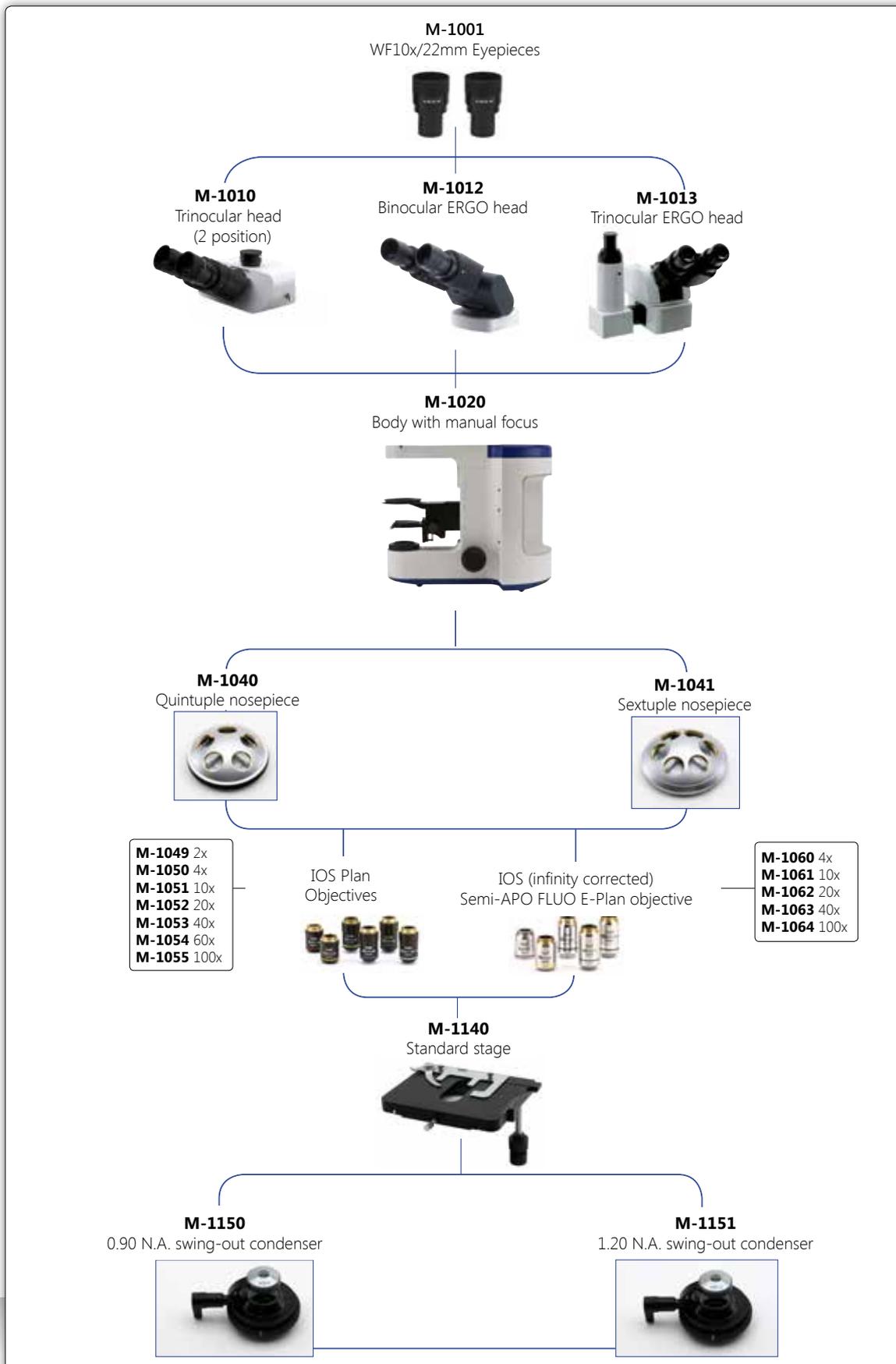
Laboratory microscope for routine and research applications.

Dye-cast frame, with high stability and ergonomy, for transmitted light observation.



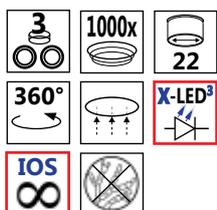
B-800 BF Model - Configuration chart

BUILD THE MICROSCOPE THAT SUITES YOUR NEEDS BY CHOOSING AMONG THE COMPONENTS OF CONFIGURATION CHART:



B-800 PH Model - Phase contrast version

B-800 PH



B-800 PH

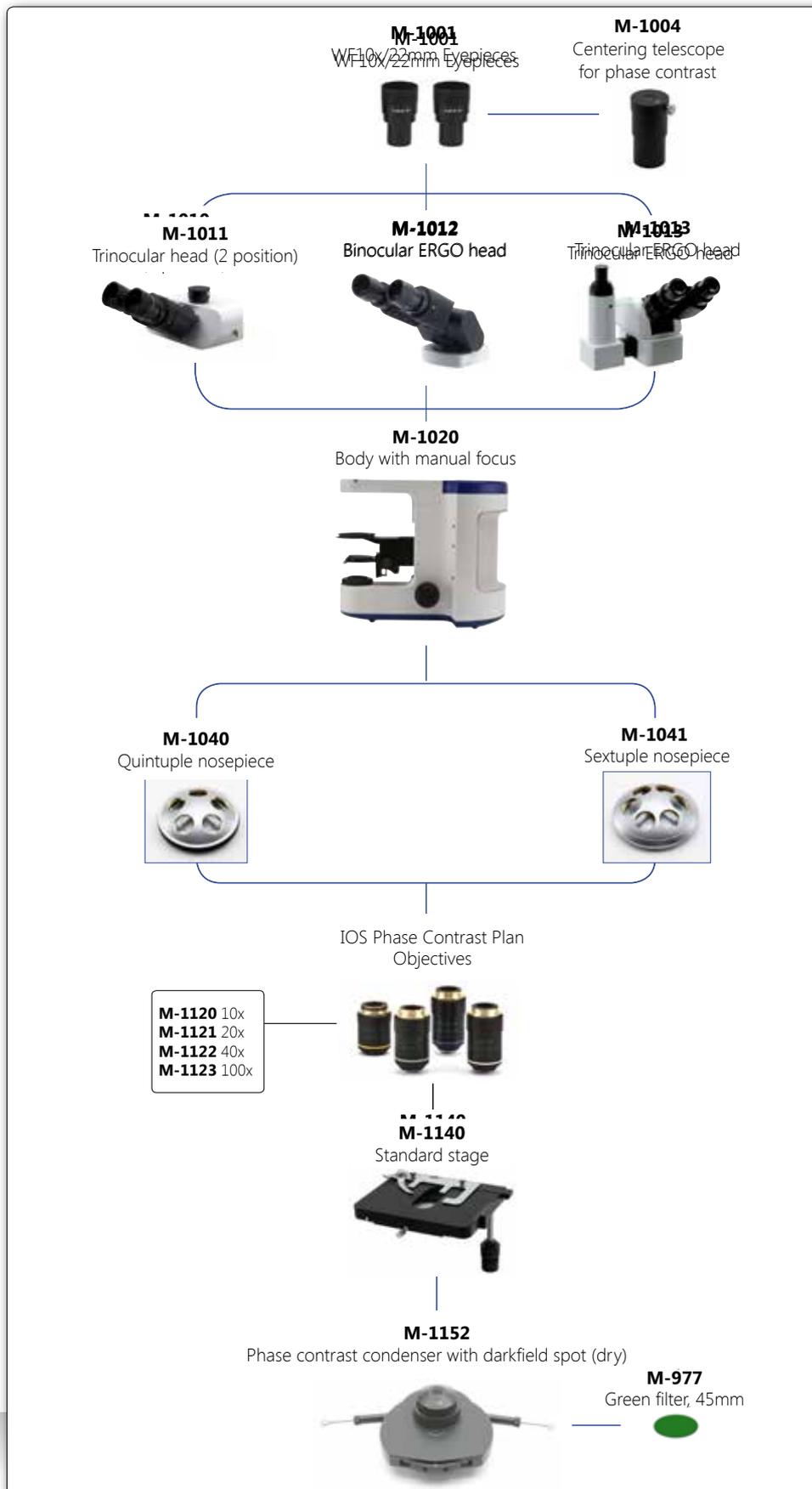
Type:
PHASE CONTRAST RESEARCH MICROSCOPE

Description:
Laboratory microscope for routine and research applications.
Dye-cast frame, with high stability and ergonomy, for transmitted light observation.



B-800 PH Model - Configuration chart

BUILD THE MICROSCOPE THAT SUITES YOUR NEEDS BY CHOOSING AMONG THE COMPONENTS OF CONFIGURATION CHART:



B-800 Series - Accessories

EYEPIECES

M-1001	WF10x/22mm eyepiece (pair)
M-781	WF10x/22mm micrometer eyepiece (10mm, 0.1mm div.)
M-1003	WF15X/16mm
M-1004	Centering telescope for phase contrast

HEADS

M-1010	Trinocular Head (2 positions)
M-1012	Binocular ERGO head
M-1013	Trinocular ERGO head

OBJECTIVES

M-1050	4x IOS PLAN objective
M-1051	10x IOS PLAN objective
M-1052	20x IOS PLAN objective
M-1053	40x IOS PLAN objective
M-1054	60x IOS PLAN objective
M-1055	100x IOS PLAN objective
M-1060	4x IOS Semi-APO E-PLAN objective
M-1061	10x IOS Semi-APO E-PLAN objective
M-1062	20x IOS Semi-APO E-PLAN objective
M-1063	40x IOS Semi-APO E-PLAN objective
M-1064	100x IOS Semi-APO E-PLAN objective
M-1120	10x IOS PLAN objective, for Phase Contrast
M-1121	20x IOS PLAN objective, for Phase Contrast
M-1122	40x IOS PLAN objective, for Phase Contrast
M-1123	100x IOS PLAN objective, for Phase Contrast

STAGES

M-1140	Standard Mechanical Stage
M-1141	Belt Drive Mechanical Stage
M-1142	Ceramic Coated Mechanical Stage
M-1143	MPC (Mineral Solid Surface) Belt Drive Mechanical Stage
M-1144	Heating Stage

CONDENSERS

M-1150	0,90 N.A. Swing-Out Condenser
M-1151	1,25 N.A. Swing-Out Condenser
M-1152	1,25 N.A. Phase Contrast Condenser, with Darkfield (dry) spot

ACCESSORIES

M-1004	Centering telescope for phase contrast
M-005	Micrometric slide, 26x76mm, range 1mm, div. 0,01mm
M-613	Polarizing set (filters only)
M-615	Lambda filter for polarizing set
M-617.1	Set phase contrast, single IOS PLAN objective 40x
M-977	Green filter, 45mm diameter
M-690	Eyecup (pair)
M-619	Photo tube adapter for full frame SLR camera
M-173	Photo tube adapter for APS-C SLR camera
M-699	Photo tube adapter for DIGI digital camera series
M-620	CCD camera adapter for 1/3" sensor
M-620.1	CCD camera adapter for 1/2" sensor
15008	OPTIKA immersion oil, 10ml

15103 - Lens cleaner, 50ml

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



10X: M-1120

20X: M-1121



40X: M-1122

100X: M-1123

IOS (infinity corrected) Phase Contrast Plan Objectives



M-1142

Ceramic coated Mechanical Stage; movement knobs with friction adjustment control



M-1144

Heating Stage



M-1013

Binocular Ergonomic Head with side Video/Photo Tube

B-1000 Series

Modular research microscopes



B-1000 Series

OPTIKA Microscopes, thanks to the long experience achieved in microscopy development, has conceived the new B-1000: a major leap in our technological offer. As a flagship instrument, the B-1000 originates, from customer most demanding feedback and needs. Its modularity and versatility will allow to find the perfect place in any clinical or basic research laboratory. All controls are easily accessible and comfortable also for extended periods of observation. Highest category of optical equipment among our product range guarantees a sharp and clear view in any situation, while top level mechanical design offers sturdiness and long lifetime.

The B-1000 product-line is built on IOS Infinity Corrected optical system, which gives both a top-notch optical performances, and the possibility to extend your instrument with the broad range of accessories and modules. X-LED illumination is the best solution to have pure white light and very intense, even at higher magnification, and optimum power efficiency given by solid state source.

If you search for our best solution to your present and future professional needs, B-1000 is the answer.

B-1000 BF	Brightfield trinocular microscope.
B-1000 PH	Phase contrast trinocular microscope.
B-1000 FL LED	Trinocular microscope, LED fluorescence.
B-1000 FL HBO	Trinocular microscope, HBO fluorescence.
B-1000 POL	Trinocular microscope, transmitted polarization.
B-1000 POL-I	Trinocular microscope, incident polarization.
B-1000 MET	Trinocular microscope, metallography.
B-1000 TI-2	Trinocular discussion microscope, 2 heads.
B-1000 TI-3	Trinocular discussion microscope, 3 heads.
B-1000 TI-5	Trinocular discussion microscope, 5 heads.
B-1000 TI-10	Trinocular discussion microscope, 10 heads.

B-1000 Range



B-1000 BF



B-1000 PH



B-1000 FL LED



B-1000 FL HBO



B-1000 POL



B-1000 POL-I



B-1000 MET



MULTI HEADS

B-1000 Series



B-1000 FL HBO



B-1000 Series - General information

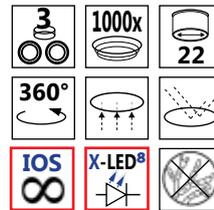
Solid Stand – Extra Stability

Completely new design and a die-cast aluminium stand offer solidity and durability, even for the most demanding laboratory use.

This new microscope can seamlessly be upgraded with many attachments that extend its field of use.



B-1000 FL LED



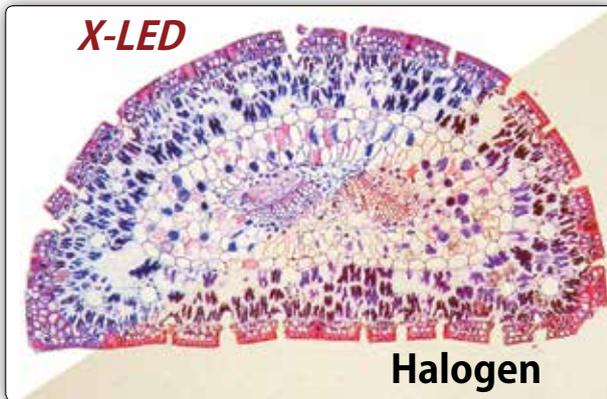
Modularity – Build your own solution

Many worlds in one instrument. Modularity allows to build the desired solution (brightfield, darkfield, phase contrast, material science, fluorescence, motorized automation and so on).

B-1000 has the flexibility to help your work the best way.



B-1000 Series - General information



X-LED White Illumination

X-LED illumination system is based on a pure white high-efficiency LED and a special optics. It guarantees constant color temperature, no heat, and an extreme electrical consumption efficiency.

The whole system is pre-aligned and boasts a lifetime of 50.000 hours.



Light under control

Intelligent control of the microscope illumination: the "AUTO-OFF" function automatically switches the light off after a user-selectable time period. "BOOST" gives an extra high level of illumination for light-demanding applications.

"AUTO" allows to store an illumination level, and to maintain it throughout the inspection.



Ergonomy

Low position focus and stage controls allow a fast and comfortable operation. Frequently used controls as light intensity adjustment and diaphragm are also placed in the lower part of the stand and enable operation without having to take the eyes off the specimen.

All optical heads are equipped with high-point eyepieces and dioptic adjustment, for the best viewing experience.



Comfortable Stage

Refined ceramic stage, with a wide working surface and a highly precise XY movement.

B-1000 Series - General information

High Quality IOS Optical System

Infinity corrected optical system, based on planachromatic, fluorite, and semi-apochromatic objectives, designed to give sharp and clear images, both for the user and the digital camera. Quintuple and sextuple nosepieces give the flexibility to build the optics set that best suits your needs.

The system is complete with wide field, high-point eyepieces, with a field number of 24mm.



Ready for Digital Imaging

Range of adapters can accommodate for C-mount digital cameras, as well as reflex cameras. Focus adjustment gives perfectly clear digital images.

Our cameras include specific software for capturing, measuring, marking and storing your pictures. Optika Vision Pro software allows to perform image acquisition, post-processing, measurements and storage of your images. User can save a preset for later work, or even create a multi-focus composition.

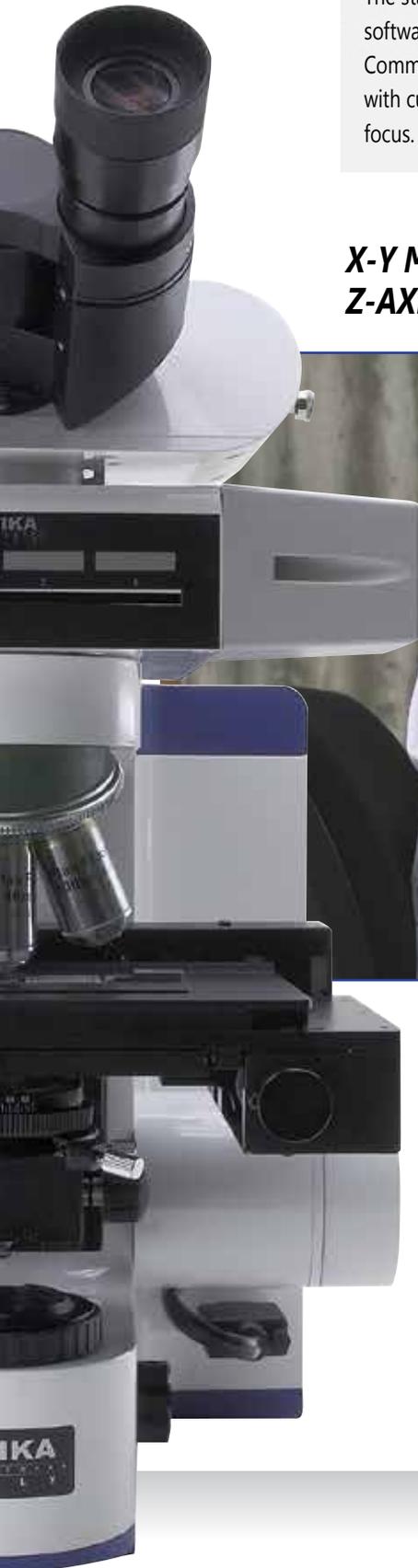


B-1000 Series - General information

Remote Stage Control

The stage can be remote-controlled through a dedicated software: X, Y and Z axes can be moved with a single click. Communication protocol is available for interfacing with custom software, such as automated analysis or auto-focus.

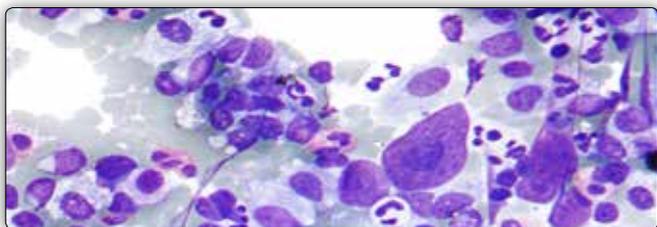
X-Y MOTORIZED STAGE Z-AXIS WITH AUTOFOCUS SYSTEM



X-LED benefits

Powerful pure white LED illumination, ideal for brightfield, darkfield and phase contrast applications. Color temperature constant through all the intensity levels. No heat generation, that could damage the specimen. Factory pre-centering assures uniform illumination over the field of view, yet providing perfect Koehler alignment. Very long lifetime and high power efficiency.

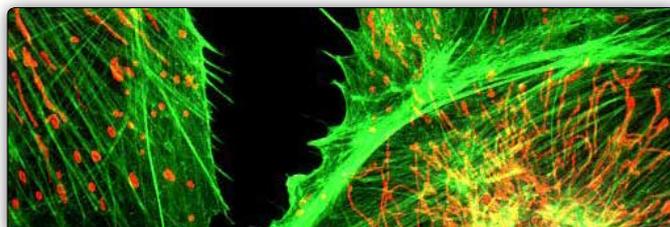
B-1000 Series - Fields of application



Pathology / Cytology

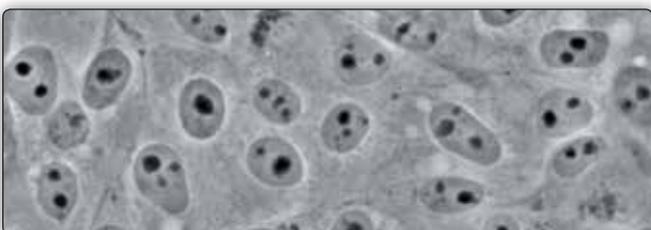
Since B-800 / B-1000 use white LED illumination, they can maintain the same color temperature even if the brightness is changed. "AUTO" function automatically adjusts the light intensity when the objective is changed or the aperture diaphragm is set to a different value.

These features, along with motorized stage and ergonomic controls, make your workflow easier.



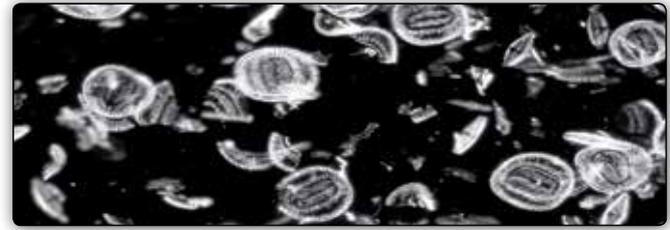
Fluorescence Microscopy

A new attachment for epi-fluorescence provides the ultimate solution in the field of fluorescence diagnostic. Vibration-free six positions filter wheel with shutter, field and aperture diaphragms, it offers all you need for a complete analysis. Custom filtersets are available and mounted on request. For application where efficiency, rapidity and ease of use are crucial, this model offers also a LED epi-fluorescence attachment, with very high power standard illuminators.



Phase Contrast Microscopy

The bright LED illuminator brings a comfortable view in phase contrast with all magnifications. Universal wheel condenser allows to quickly switch between brightfield, darkfield and phase contrast. Ideal for clinical laboratories or fibers (e.g. asbestos) analysis.



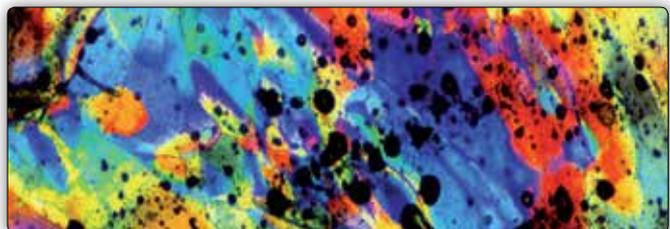
Darkfield Microscopy

Ideal for observing blood cells, diatoms, small insects, bone, fibers, unstained bacteria, yeast, protozoa, mineral and chemical crystals, colloidal particles, dust-count specimens, and thin sections of polymers and ceramics.



Material Science

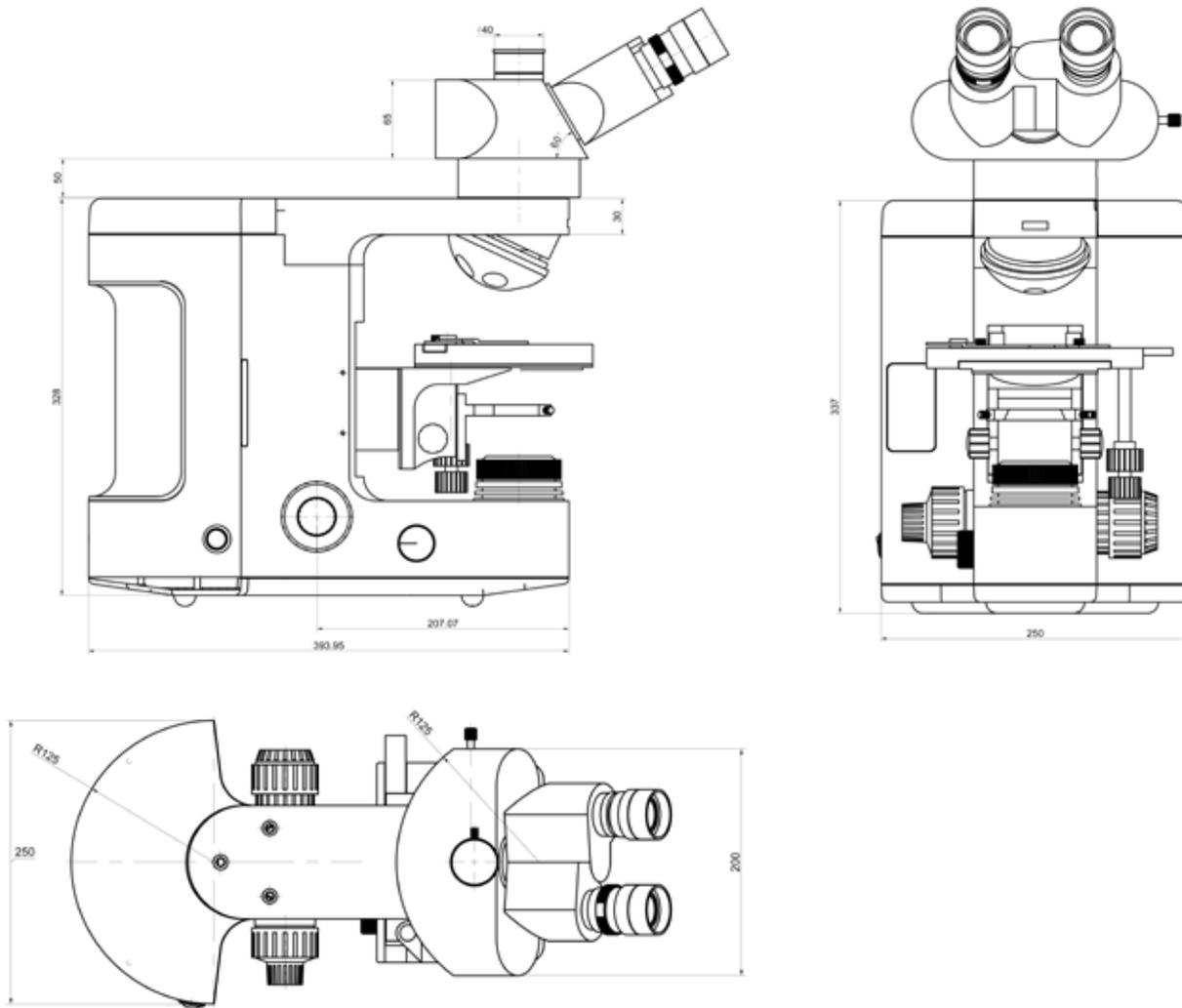
A new attachment designed specifically for metallographic inspection, with dedicated objectives set, for the most complete epi-illumination analysis: brightfield, darkfield and polarizing view.



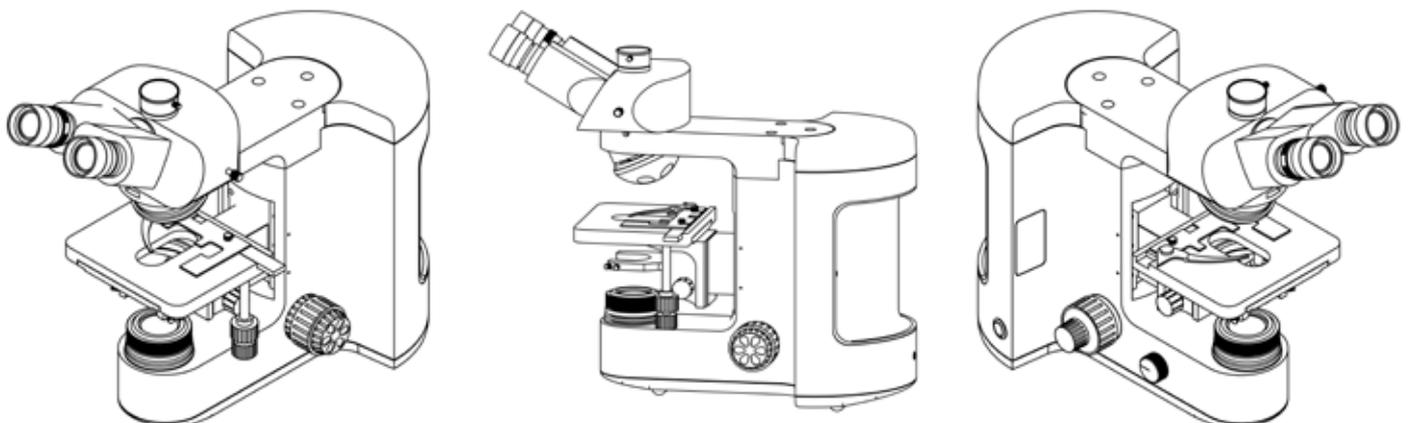
Polarizing Microscopy

Polarized light microscopy is used in geological applications or also for both natural and industrial minerals, composites such as concretes, ceramics, mineral fibers and polymers, and crystalline or biological molecules such as DNA, starch, wood and urea. Attachments for a full polarization analysis are available (both for transmitted and incident light), so it's possible to look at color fringes right away.

B-1000 Series - Dimension drawing



B-1000 Series - Concept art



B-1000 Series - Components

Eyepieces



WF10x/22mm Eyepieces, high-point type



WF10x/24mm Eyepieces, high-point type

Heads



Trinocular Head 100/0 - 50/50 type



Trinocular Head 100/0 - 50/50 - 0/100 type



Binocular Ergonomic Head



Binocular Ergonomic Head with side Video/Photo Tube

Nosepieces



Quintuple revolving Nosepiece, for RMS objectives



Sextuple revolving Nosepiece, for RMS objectives



Sextuple revolving Nosepiece, for RMS objectives; with DIC slot



Sextuple motorized revolving Nosepiece, for RMS objectives; with DIC slot



Quintuple revolving Nosepiece, with centration positions for polarizing objectives



Quintuple revolving Nosepiece for darkfield metallurgical objectives; with 3 ring adapters for brightfield objectives



Quintuple motorized revolving Nosepiece for darkfield metallurgical objectives; with 3 ring adapters for brightfield objectives motorized

B-1000 Series - Components

Objectives



IOS (infinity corrected) Plan Objectives



IOS (infinity corrected) Semi-APO FLUO E-Plan objectives



IOS (infinity corrected) Semi-APO FLUO High-Grade Plan objectives



IOS (infinity corrected) POL Plan objectives, for transmitted polarized light



IOS (infinity corrected) LWD POL Plan objectives, for transmitted and incident polarized light



IOS (infinity corrected) MET Plan objectives, for brightfield



IOS (infinity corrected) MET Plan objectives, for darkfield



IOS (infinity corrected) Phase Contrast Plan Objectives

Stages



Standard Mechanical Stage



Belt drive Mechanical Stage; movement knobs with friction adjustment control



Ceramic coated Mechanical Stage; movement knobs with friction adjustment control



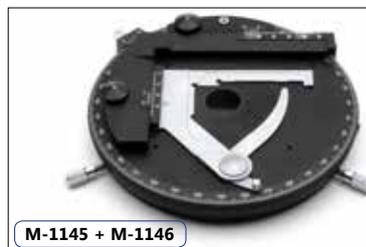
MPC (mineral solid surface) Belt drive Mechanical Stage; movement knobs with friction adjustment control



Metallographic stage for B-1000 MET



Heating Stage



Rotating Stage + attachable XY stage



Motorized stage

B-1000 Series - Components

Condensers



M-1150
0.90 N.A. swing-out Condenser



M-1151
1.20 N.A. swing-out Condenser



M-1153
0.90 N.A. swing-out Polarizing Condenser



M-1154
0.70 N.A. swing-out Condenser



M-1152
Phase contrast Condenser with darkfield stop (dry)



M-618
Darkfield Condenser (dry)

Fluorescence attachments



M-1031
4-position LED Fluorescence Attachment



M-1032
6-position HBO Fluorescence attachment

Polarizing attachments



M-1033
Bertrand Lens with analyzer and Lambda slides slot



M-1034
Incident Polarizing Light attachment, with field and aperture diaphragms

Discussion heads



M-1160 - 2-Head attachment
M-1161 - 3-Head Attachment

M-1162 - 5-Head Attachment
M-1163 - 10-Head attachment

Metallurgical attachment



M-1035

Metallurgical Brightfield/Darkfield attachment, with field and aperture diaphragms, neutral density filter, and polarizer/analyzer filters.

B-1000 Series - Discussion microscope

Share your view with up to 10 persons. With built-in movable pointer, it helps any teaching or discussion experience.

- B-1000Ti-2** (with 1 discussion head)
- B-1000Ti-3** (with 2 discussion heads)
- B-1000Ti-5** (with 4 discussion heads)
- B-1000Ti-10** (with 9 discussion heads)

B-1000Ti-5



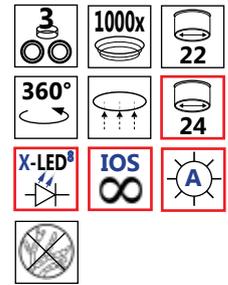
B-1000Ti-10



B-1000 BF Model - Bright field version



B-1000 BF



B-1000 BF

Type:

BRIGHT FIELD RESEARCH MICROSCOPE

Description:

Laboratory microscope for routine and research applications.

Dye-cast frame, with high stability and ergonomomy, for transmitted light observation.



Version for standard brightfield view.
Illumination: X-LED⁸ (8W power)

B-1000 BF Model - Configuration chart

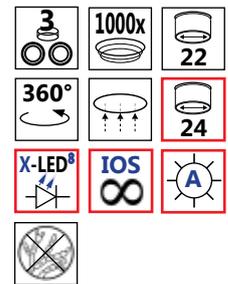
BUILD THE MICROSCOPE THAT SUITES YOUR NEEDS BY CHOOSING AMONG THE COMPONENTS OF CONFIGURATION CHART:



B-1000 PH Model - Phase contrast version



B-1000 PH



B-1000 PH

Type:

PHASE CONTRAST RESEARCH MICROSCOPE

Description:

Laboratory microscope for routine and research applications.

Dye-cast frame, with high stability and ergonomomy, for transmitted light observation.



Version for phase contrast analysis.
Illumination: X-LED⁸ (8W power).

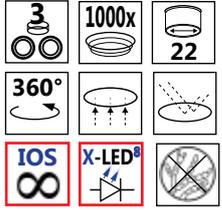
B-1000 PH Model - Configuration chart

BUILD THE MICROSCOPE THAT SUITES YOUR NEEDS BY CHOOSING AMONG THE COMPONENTS OF CONFIGURATION CHART:

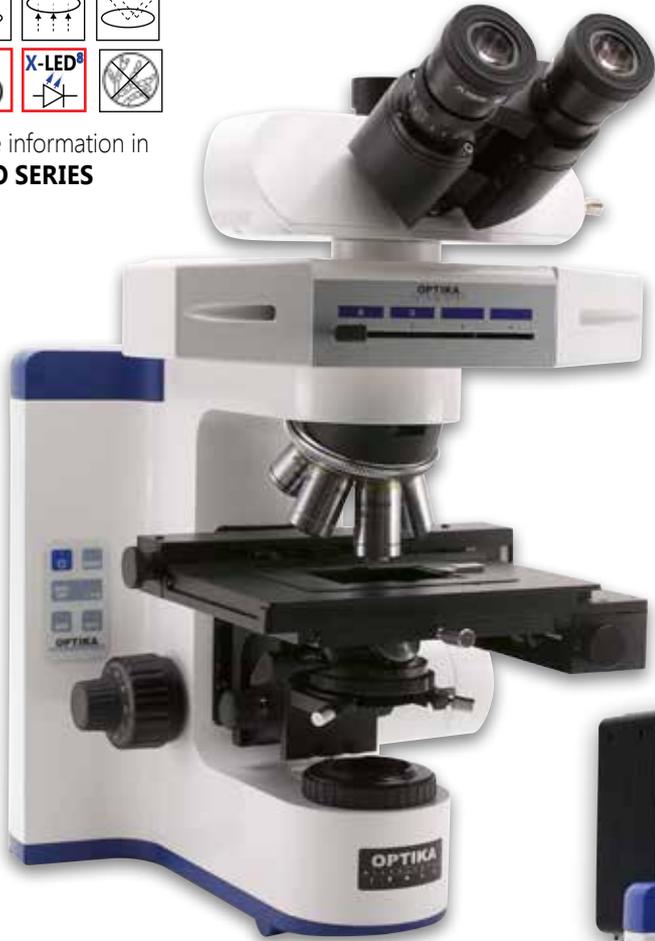


B-1000 Series -Additional models

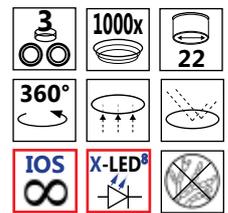
B-1000 FL LED



More information in
FLUO SERIES



B-1000 FL HBO



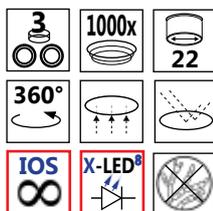
More information in
FLUO SERIES



B-1000 Series - Additional models

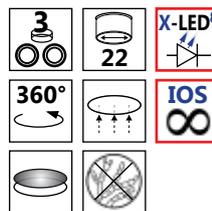


B-1000 MET



More information in
INDUSTRY SERIES

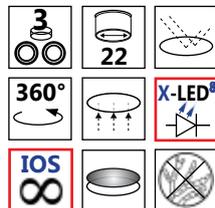
B-1000 POL



More information in
POL SERIES



B-1000 POL-I



More information in
POL SERIES



B-1000 Series - Accessories

EYEPIECES

M-1001	WF10x/22mm eyepiece (pair)
M-781	WF10x/22mm micrometer eyepiece (10mm, 0.1mm div.)
M-1002	WF10x/24mm eyepiece (pair)
M-1003	WF15X/16mm

HEADS

M-1011	Trinocular Head (3 positions)
M-1012	Binocular ERGO head
M-1013	Trinocular ERGO head

ATTACHMENTS

M-1030	Automatic Brightness Control System
M-1031	4-Position LED Fluorescence attachment, with standard Blue and Green filtersets (FITC & TRITC)
M-1032	6-Position HBO Fluorescence attachment, with standard Blue and Green filtersets (FITC & TRITC)
M-1033	Bertrand Lens with Analyzer and slot for slides (with Lambda, 1/4 Lambda and Quartz Edge)
M-1034	Incident Polarizing Attachment
M-1035	Metallurgical Attachment

OBJECTIVES

M-1049	2x IOS PLAN objective
M-1050	4x IOS PLAN objective
M-1051	10x IOS PLAN objective
M-1052	20x IOS PLAN objective
M-1053	40x IOS PLAN objective
M-1054	60x IOS PLAN objective
M-1055	100x IOS PLAN objective
M-1060	4x IOS Semi-APO E-PLAN objective
M-1061	10x IOS Semi-APO E-PLAN objective
M-1062	20x IOS Semi-APO E-PLAN objective
M-1063	40x IOS Semi-APO E-PLAN objective
M-1064	100x IOS Semi-APO E-PLAN objective
M-1070	4x IOS Semi-APO High-Grade PLAN objective
M-1071	10x IOS Semi-APO High-Grade PLAN objective
M-1072	20x IOS Semi-APO High-Grade PLAN objective
M-1073	40x IOS Semi-APO High-Grade PLAN objective
M-1074	100x IOS Semi-APO High-Grade PLAN objective
M-1080	4x IOS POL PLAN objective
M-1081	10x IOS POL PLAN objective
M-1082	40x IOS POL PLAN objective
M-1083	60x IOS POL PLAN objective
M-1090	5x IOS LWD POL PLAN objective
M-1091	10x IOS LWD POL PLAN objective
M-1092	20x IOS LWD POL PLAN objective
M-1093	50x IOS LWD POL PLAN objective
M-1099	2,5x IOS MET PLAN objective for brightfield (with depolarizer)
M-1100	5x IOS MET PLAN objective, for brightfield
M-1101	10x IOS MET PLAN objective, for brightfield
M-1102	20x IOS MET PLAN objective, for brightfield
M-1103	50x IOS MET PLAN objective, for brightfield
M-1104	100x IOS MET PLAN objective, for brightfield

M-1109	5x IOS MET PLAN objective, for darkfield
M-1110	10x IOS MET PLAN objective, for darkfield
M-1111	20x IOS MET PLAN objective, for darkfield
M-1112	40x IOS MET PLAN objective, for darkfield
M-1113	50x IOS MET PLAN objective, for darkfield
M-1114	100x IOS MET PLAN objective, for darkfield

M-1120	10x IOS PLAN objective, for Phase Contrast
M-1121	20x IOS PLAN objective, for Phase Contrast
M-1122	40x IOS PLAN objective, for Phase Contrast
M-1123	100x IOS PLAN objective, for Phase Contrast

STAGES

M-1140	Standard Mechanical Stage
M-1141	Belt Drive Mechanical Stage
M-1142	Ceramic Coated Mechanical Stage
M-1143	MPC (Mineral Solid Surface) Belt Drive Mechanical Stage
M-1144	Heating Stage
M-1145	Rotating Stage, centrable
M-1146	Attachable mechanical stage for rotating Stage
M-1147	Motorized mechanical Stage
M-1148	Metallurgical Stage, with glass

CONDENSERS

M-1150	0,90 N.A. Swing-Out Condenser
M-1151	1,25 N.A. Swing-Out Condenser
M-1152	1,25 N.A. Phase Contrast Condenser, with Darkfield (dry) spot
M-1153	0,90 N.A. Swing-Out POL Condenser
M-1154	0,70 N.A. Swing-Out MET Condenser
M-618	Darkfield condenser for dry objectives

ACCESSORIES

M-1004	Centering telescope for phase contrast
M-005	Micrometric slide, 26x76mm, range 1mm, div. 0,01mm
M-613	Polarizing set (filters only)
M-615	Lambda filter for polarizing set
M-617.1	Set phase contrast, single IOS PLAN objective 40x
M-977	Green filter, 45mm diameter
M-690	Eyecup (pair)
M-619	Photo tube adapter for full frame SLR camera
M-173	Photo tube adapter for APS-C SLR camera
M-699	Photo tube adapter for DIGI digital camera series
M-620	CCD camera adapter for 1/3" sensor
M-620.1	CCD camera adapter for 1/2" sensor
M-151	HBO 100W high-pressure mercury bulb for fluorescence
M-1164	Empty fluorescence filterblock for B-1000 FL HBO
M-1165	Fluorescence filterset V (filterblock included) for B-1000 FL HBO
M-1166	Fluorescence filterset UV-DAPI (filterblock included) for B-1000 FL HBO
15008	OPTIKA immersion oil, 10ml

15103 - Lens cleaner, 50ml

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



POL Series

Laboratory polarizing microscopes



POL Series

Polarized light microscopy provides all the benefits of brightfield microscopy and 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** Trinocular microscope, transmitted polarization.
- B-500POL** Trinocular microscope, transmitted polarization.
- B-500POL-I** Trinocular microscope, transmitted and incident polarization.
- B-1000 POL** Trinocular microscope, advanced transmitted polarization.
- B-1000 POL-I** Trinocular microscope, advanced transmitted and incident polarization.

POL Range



B-353POL



B-500POL



B-500POL-I



B-1000POL

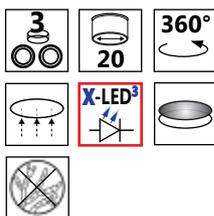


B-1000POL-I

B-353POL Series - Technical specification



B-353POL



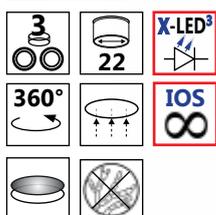
Technical specifications

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 (λ), $\lambda/4$, 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 ³ illumination system with brightness control.

B-500POL Model



B-500POL

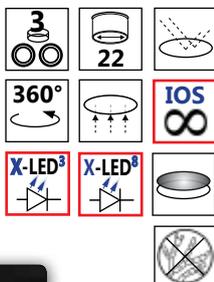


Technical specifications

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, I slip (first class red), 1/4 I 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	X-LED ³ illumination system with brightness control

B-500POL-I Model

B-500POL-I



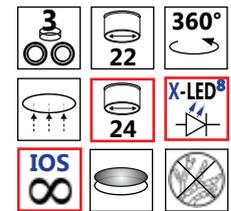
Technical specifications

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, I slip (first class red), 1/4 I 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: X-LED ³ system. Incident light: X-LED ⁸ system polarizing attachment with built-in polarizer filter, aperture diaphragm and field diaphragm.

B-1000 POL Model - Transmitted polarization



B-1000 POL



B-1000 POL

Typology:

TRANSMITTED POLARIZING RESEARCH MICROSCOPE

Description:

Laboratory microscope for routine and research applications.

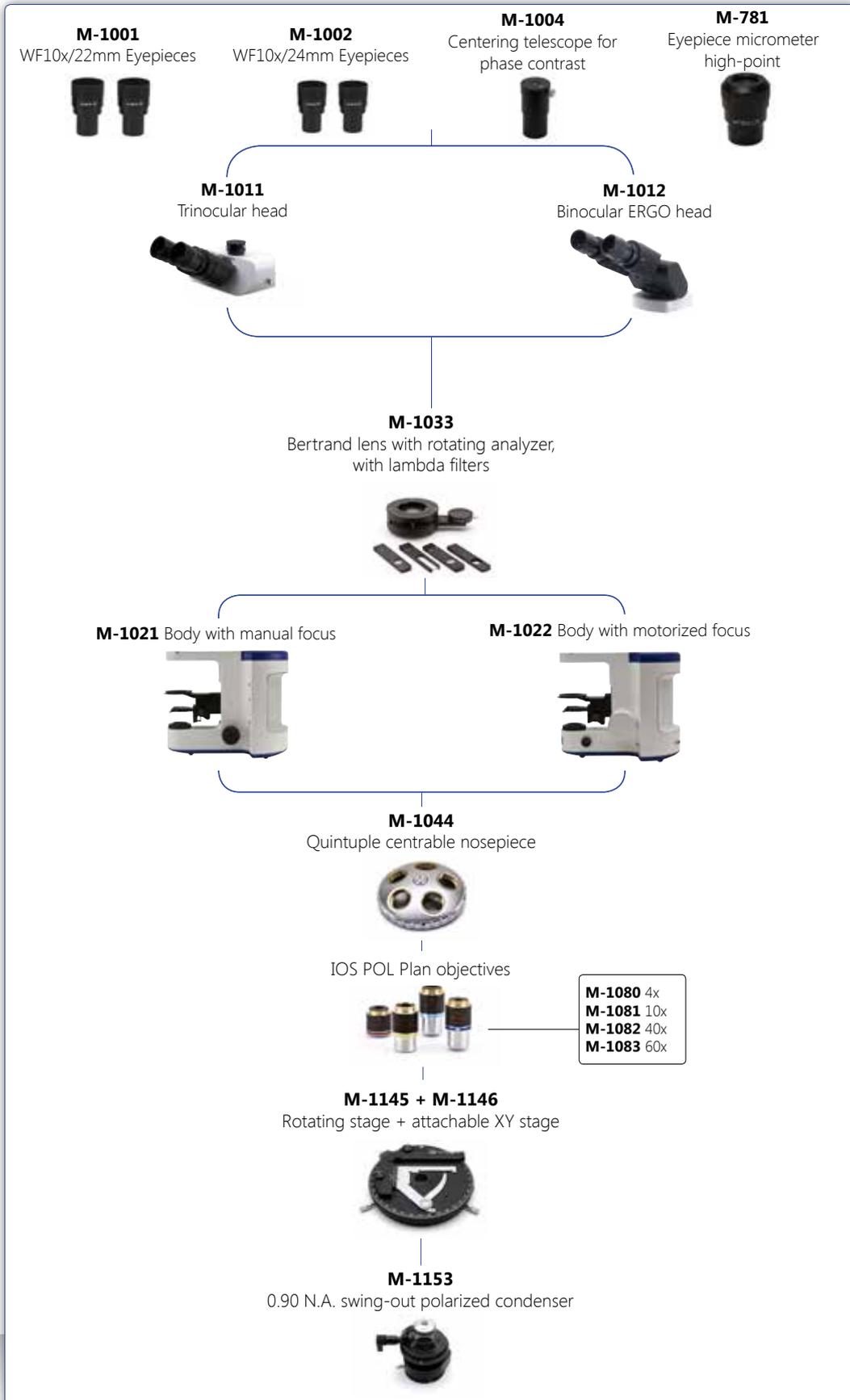
Dye-cast frame, with high stability and ergonomy, for transmitted light observation.



Version for transmitted polarization analysis.
Illumination: X-LED⁸ (8W power).

B-1000 POL Model - Configuration chart

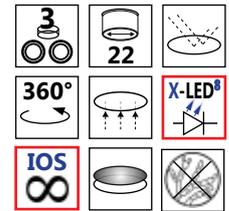
BUILD THE MICROSCOPE THAT SUITES YOUR NEEDS BY CHOOSING AMONG THE COMPONENTS OF CONFIGURATION CHART:



B-1000 POL-I Model - Transmitted and incident polarizing



B-1000 POL-I



B-1000 POL-I

Typology:

**TRANSMITTED AND INCIDENT POLARIZING
RESEARCH MICROSCOPE**

Description:

Laboratory microscope for routine and research applications.

Dye-cast frame, with high stability and ergonomomy, for transmitted and incident light observation.



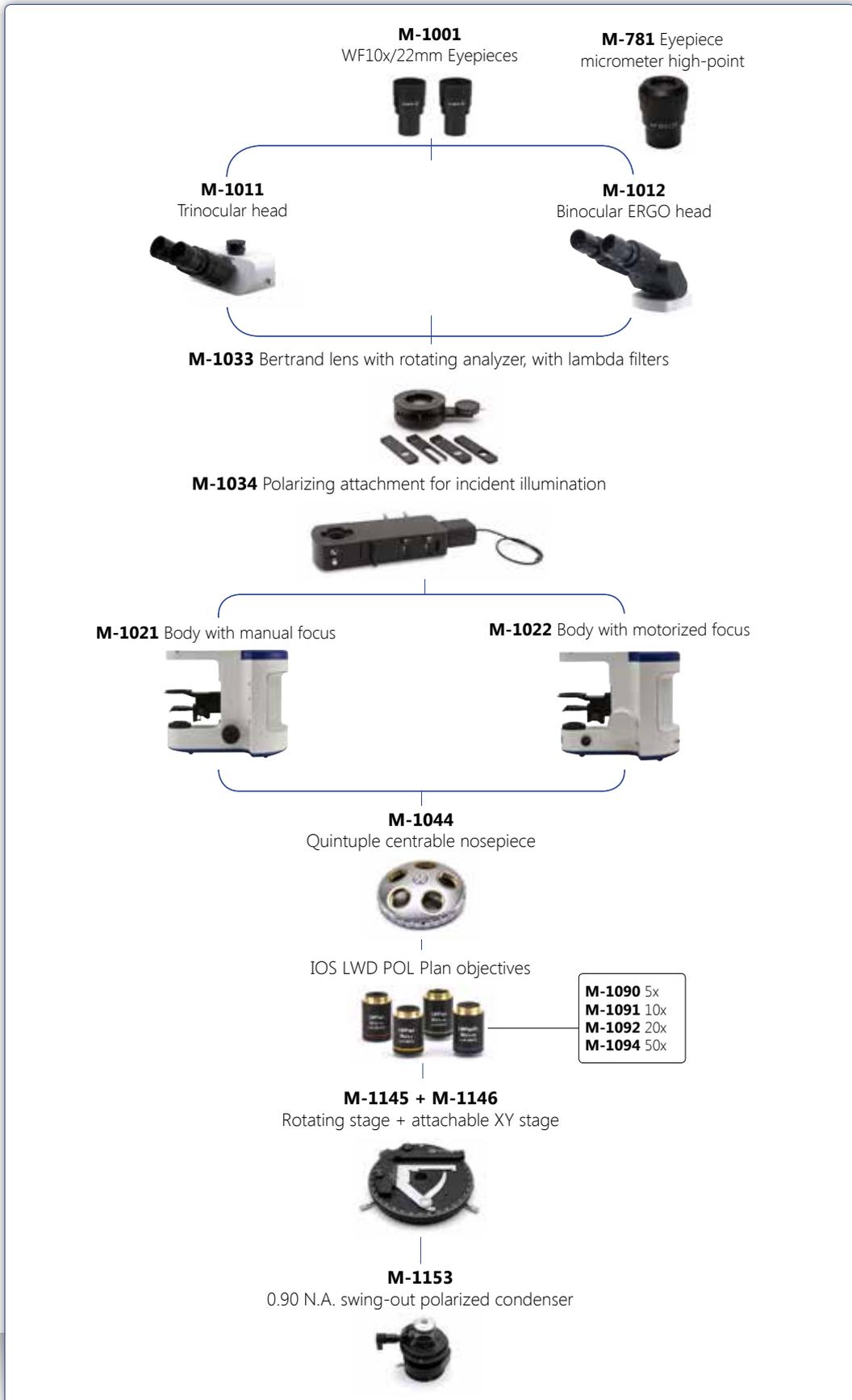
Version for transmitted and incident polarization analysis.

Transmitted illumination: X-LED[®] (8W power).

Epi-illumination: special attachment with built-in high-power white LED.

B-1000 POL-I Model - Configuration chart

BUILD THE MICROSCOPE THAT SUITES YOUR NEEDS BY CHOOSING AMONG THE COMPONENTS OF CONFIGURATION CHART:



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 mm, 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

Accessories for B-500POL / B-500POL-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-500POL
M-692	Objective IOS POL planachromatic 10x/0.25 for B-500POL
M-693	Objective IOS POL planachromatic 40x/0.65 for B-500POL
M-694	Objective IOS POL planachromatic 60x/0.80 for B-500POL
M-695	Objective IOS POL LWD planachromatic 5x for B-500POL-I
M-696	Objective IOS POL LWD planachromatic 10x for B-500POL-I
M-697	Objective IOS POL LWD planachromatic 20x for B-500POL-I
M-688	Objective IOS POL LWD planachromatic 50x for B-500POL-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-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 B-1000POL / B-1000POL-I

M-005	Micrometric slide, 26x76mm, range 1mm, div. 0,01mm
M-690	Eyecup (pair)
M-619	Photo tube adapter for full frame SLR camera
M-173	Photo tube adapter for APS-C SLR camera
M-699	Photo tube adapter for DIGI digital camera series
M-620	CCD camera adapter for 1/3" sensor
M-620.1	CCD camera adapter for 1/2" sensor

15103 - Lens cleaner, 50ml

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



FLUO Series

Upright and inverted epi-fluorescence microscopes



FLUO Series

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.

B-353LD1	Trinocular microscope, LED fluorescence.
B-353LD2	Trinocular microscope, LED fluorescence.
B-353FL	Trinocular microscope, HBO fluorescence.
SZP-FL	HBO fluorescence attachment for SZP stereomicroscope.
B-500TiFL	Trinocular microscope, HBO fluorescence.
B-1000 FL LED	Trinocular microscope, LED fluorescence.
B-1000 FL HBO	Trinocular microscope, HBO fluorescence.
XDS-2FL	Inverted microscope, HBO fluorescence.
XDS-3FL	Inverted microscope, HBO fluorescence.
XDS-3FL4	Inverted microscope, HBO fluorescence, 4 positions filter holder.

FLUO Range



B-353LD



B-353LD2



SZP-FL



B-353FL



B-500TiFL



XDS-2FL



B-1000 FL LED

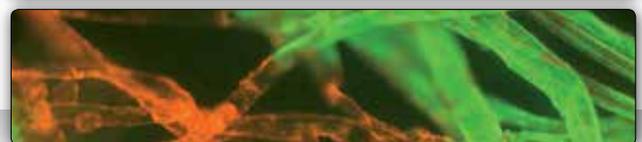
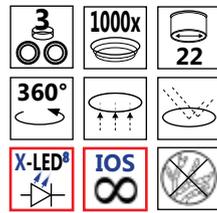


B-1000 FL HBO

B-1000 FL HBO Model



B-1000 FL HBO



FLUO Series - LED Fluorescence

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**.

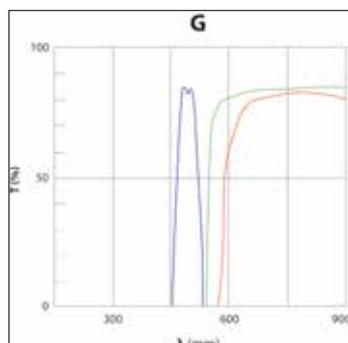
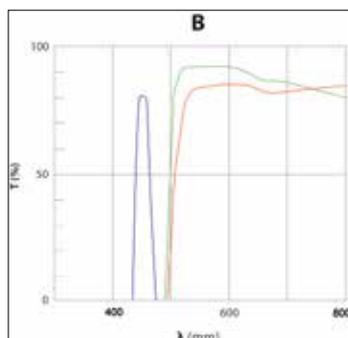
B-353LD1 Model - Technical specifications

Part	Description
Optical system	Mechanical tube length: 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).

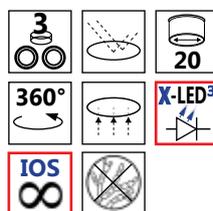
Standard filterset

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

B-353LD2 Model



B-353LD2



AUTOMATIC LED SWITCHING:

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

B-353LD2 Model - Technical specifications

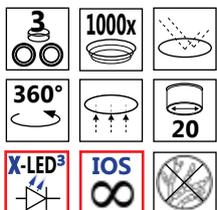
Part	Description
Optical system	Mechanical tube length: IOS - Infinity Optical System; parfocal distance 45 mm.
Head	Trinocular, 30° inclined, 360° rotating. Diopter adjustment; interpupillary distance adjustment 55-75 mm.
Eyepieces	Wide Field WF10x/20 mm.
Nosepiece	5-position reversed revolving nosepiece. 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 ³ unit for transmitted light. High power LED unit for epi-fluorescence (for standard use with B and G).

Standard filterset

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

B-353FL Model

B-353FL



B-353FL Model - Technical specifications

Part	Description
Optical system	Mechanical tube length: 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 ³ unit for transmitted light. HBO 100W high pressure mercury bulb for epi-fluorescence.

Standard filterset

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

SZP-FL Attachment



SZP-FL



HBO Fluorescence attachment for szp stereomicroscopes

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)
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

B-500TiFL Model - Technical specifications

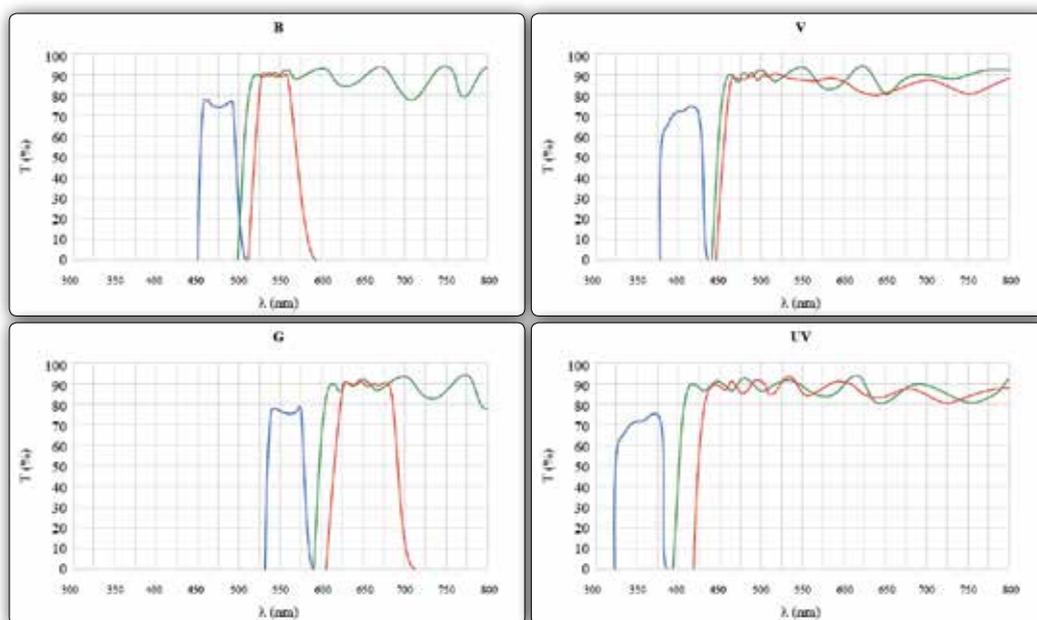
Part	Description
Optical system	Mechanical tube length: IOS - Infinity Optical System; parfocal distance 45 mm.
Head	Trinocular, 30° inclined, 360° rotating. Diopter adjustment; interpupillary distance adjustment 55-75 mm.
Eyepieces	Wide Field 10x/22 mm.
Nosepiece	5-position reversed revolving nosepiece. 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.
Transmitted illumination	X-LED ³ illumination system.
Incident illumination	HBO 100W high pressure mercury bulb for epi-fluorescence.

Standard filters (included)

Name	Excitation wavelength (nm)	Dichroic mirror cut-off (nm)	Barrier filter cut-off (nm)
B (Blue)	450-490	495	500-550
G (Green)	540-580	585	607-683

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

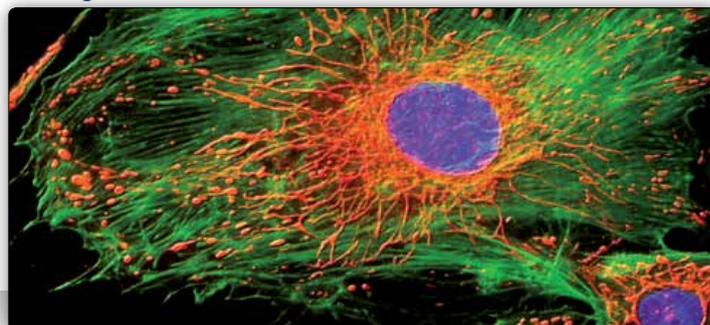
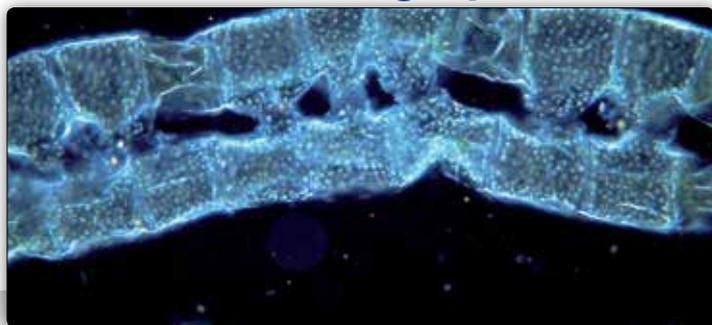


**MANY MORE FILTERSETS
AVAILABLE ON REQUEST**

FLUO Series - HBO Fluorescence



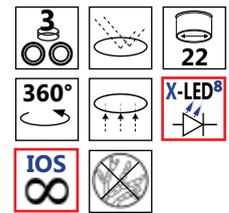
HB100W high-pressure mercury bulb for fluorescence



B-1000 FL LED Model



B-1000 FL LED



B-1000 FL LED

Type:

RESEARCH MICROSCOPE

Description:

Laboratory microscope for routine and research applications.

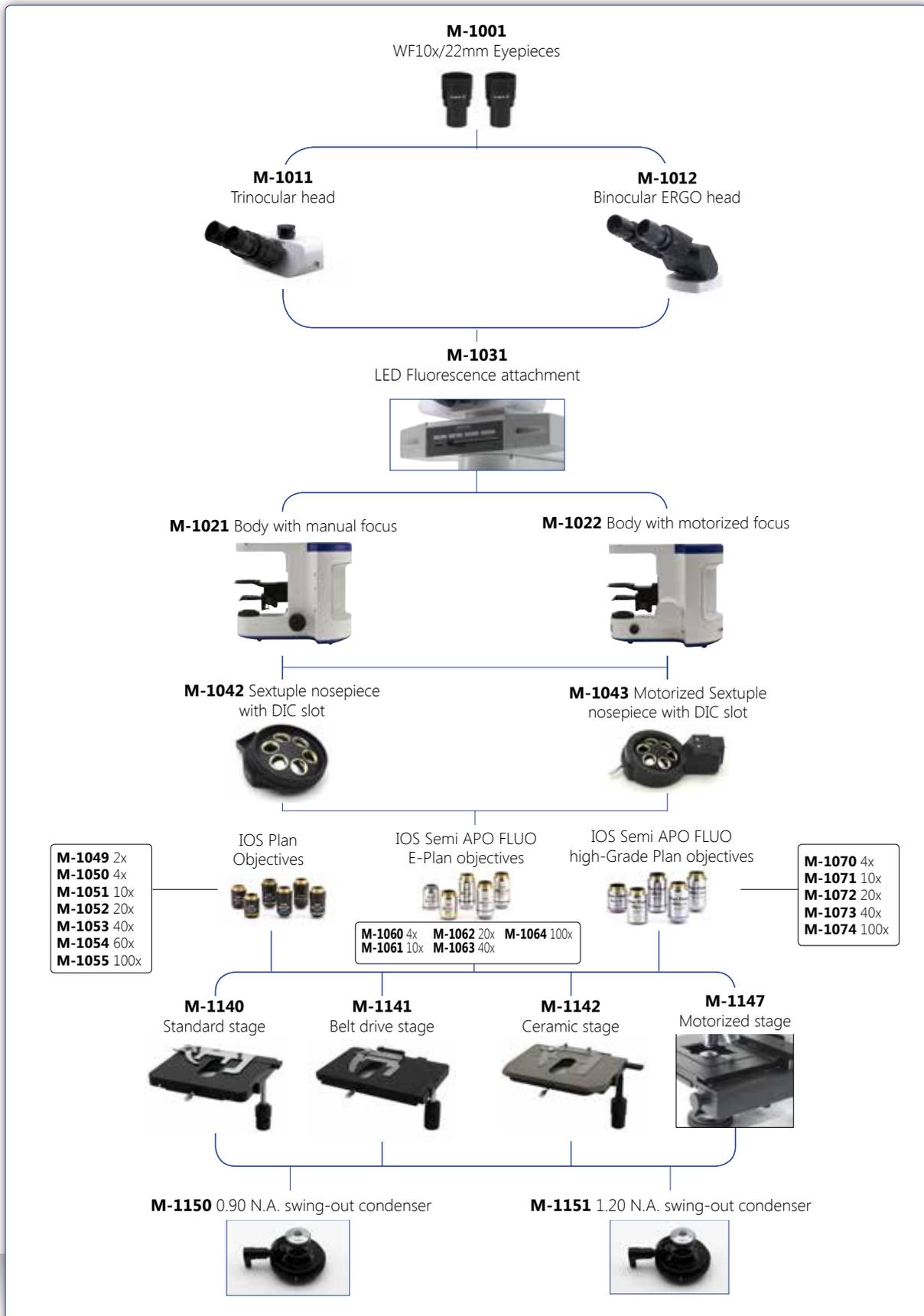
Dye-cast frame, with high stability and ergonomomy, for transmitted and incident light observation.



Version for LED epifluorescence analysis.
Transmitted illumination: X-LED⁸ (8W power).
Epi-illumination: special attachment with built-in high-power colored LEDs.

B-1000 FL LED Model - Configuration chart

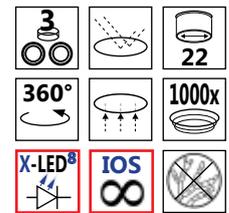
BUILD THE MICROSCOPE THAT SUITES YOUR NEEDS BY CHOOSING AMONG THE COMPONENTS OF CONFIGURATION CHART:



B-1000 FL HBO Model



B-1000 FL HBO



B-1000 FL HBO

Type:

RESEARCH MICROSCOPE

Description:

Laboratory microscope for routine and research applications.

Dye-cast frame, with high stability and ergonomy, for transmitted and incident light observation.



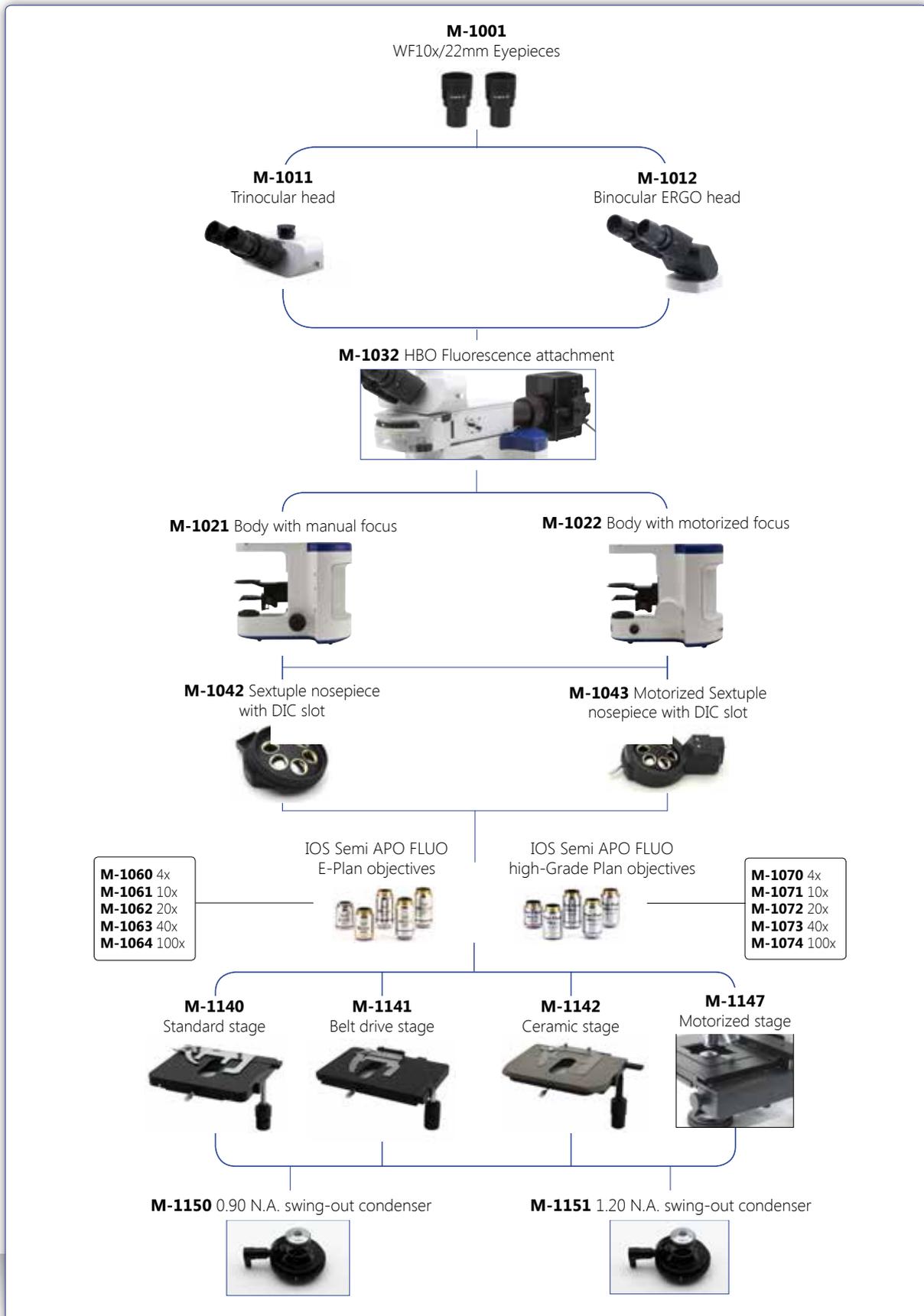
Version for epifluorescence analysis.

Transmitted illumination: X-LED[®] (8W power).

Epi-illumination: special attachment with 100W mercury lamp and 6-position filter wheel.

B-1000 FL HBO Model - Configuration chart

BUILD THE MICROSCOPE THAT SUITES YOUR NEEDS BY CHOOSING AMONG THE COMPONENTS OF CONFIGURATION CHART:



XDS-2FL Model

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.

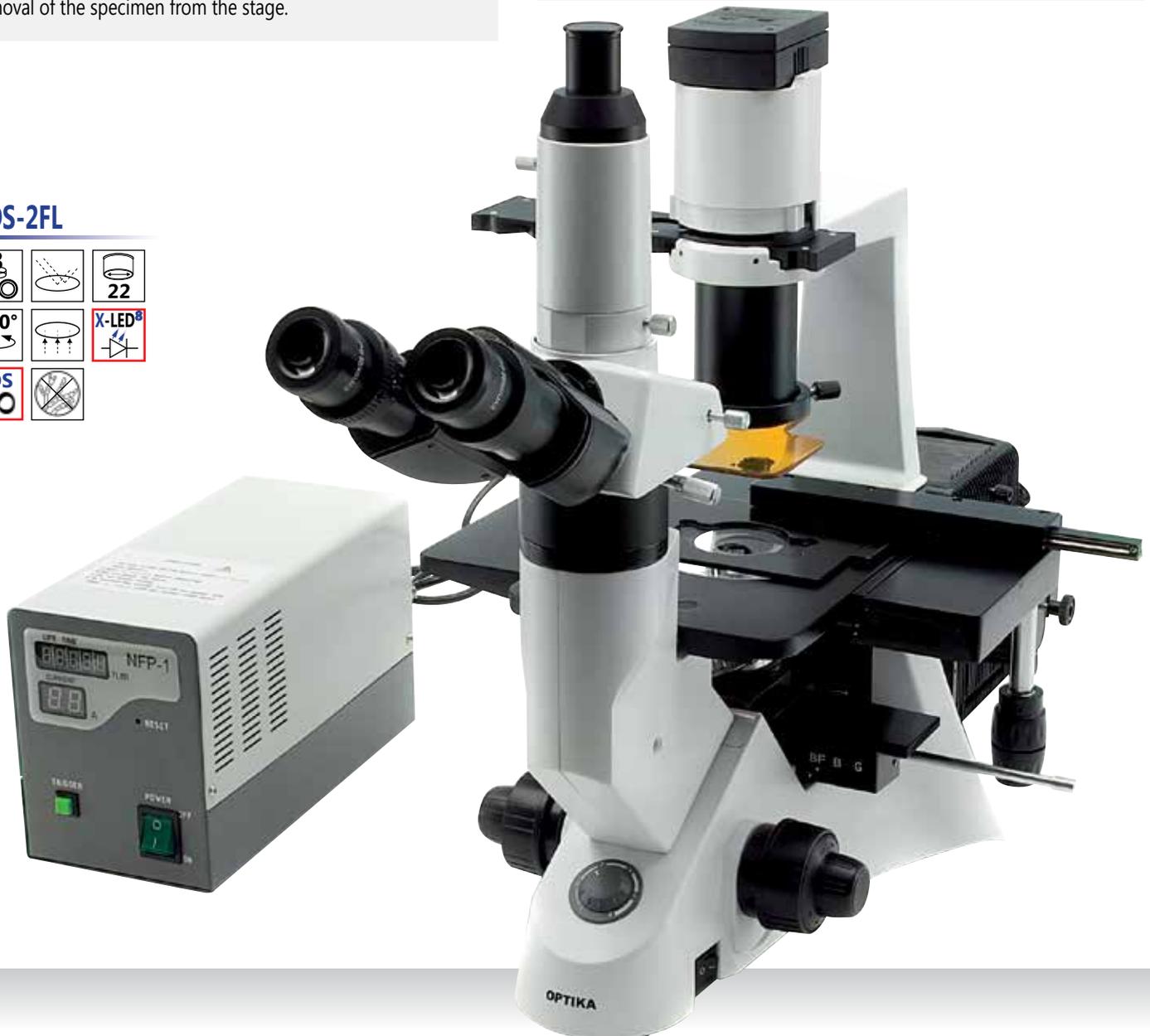
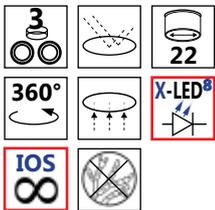
User comfort

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.

XDS-2FL

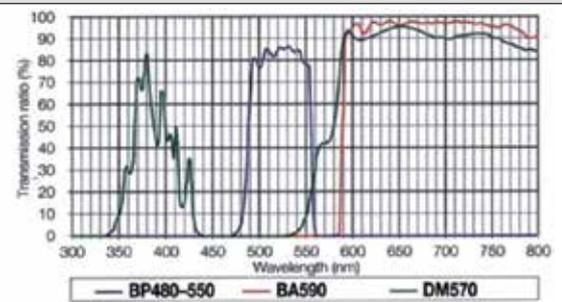
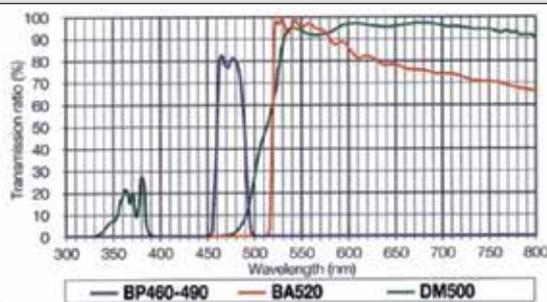


XDS-2FL Model - Technical specifications

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 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), 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-LED8 system precentered illuminator, with adjustable intensity, filter and phase ring holder and aperture diaphragm. Inverted epifluorescence: HBO 100W high pressure mercury bulb, knobs for lamp and back mirror alignment.
Filtersets	Blue and Green fluorescence filtersets. No other as option.

		Excitation	Dichroic Mirror	Barrier Filter
Filter sets	Blue excitation	BP460-490	DM500	520LP
	Green excitation	BP480-550	DM570	590LP

STANDARD FILTERS



XDS-3FL Model

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, bright-field 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.

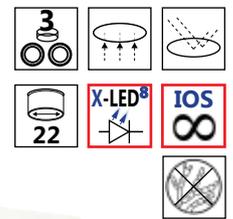
The specimen stage is fitted with a special glass insert, that allows to see the objectives, for immediate identification of the magnification setup.

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



**MANY MORE FILTERSETS
AVAILABLE ON REQUEST**

XDS-3FL Model - Technical specification

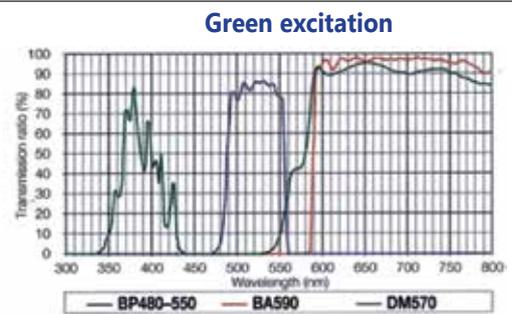
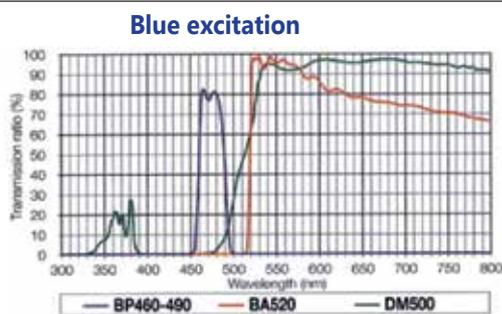
Part	Description
Optical system	Infinity corrected system, 45 mm parfocality distance. Field number 22 mm.
Head	Trinocular: 45° inclined. Interpupillary distance: 48 - 75 mm. Adjustable dioptric compensation.
Eyepieces	Extra-wide field 10x/22mm, High-point.
Nosepiece	5 positions, with bidirectional rotation 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 ⁸ 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)

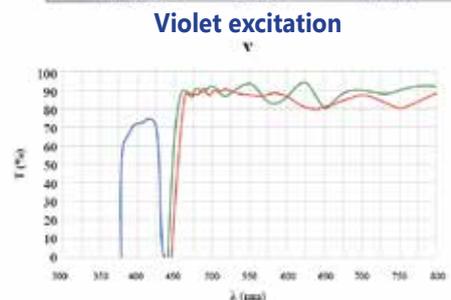
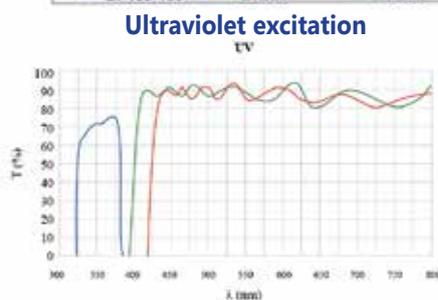
Filter sets	Excitation	Dichroic Mirror	Barrier Filter
Blue excitation	BP460-490	DM500	520LP
Green excitation	BP480-550	DM570	590LP
Ultraviolet excitation	BP325-375	DM400	420LP
Violet excitation	BP385-425	DM440	455LP

CHROMA TECHNOLOGY CORP.
THE WORLD'S FINEST OPTICAL FILTERS

STANDARD
FILTERS



OPTIONAL FILTERS



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-500TiFL

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-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 planachromatic 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

Accessories for B-1000 FL LED / B-1000 FL HBO

M-1004	Centering telescope for phase contrast
M-005	Micrometric slide, 26x76mm, range 1mm, div. 0,01mm
M-613	Polarizing set (filters only)
M-615	Lambda filter for polarizing set
M-617.1	Set phase contrast, single IOS PLAN objective 40x
M-977	Green filter, 45mm diameter
M-690	Eyecup (pair)
M-619	Photo tube adapter for full frame SLR camera
M-173	Photo tube adapter for APS-C SLR camera
M-699	Photo tube adapter for DIGI digital camera series
M-620	CCD camera adapter for 1/3" sensor
M-620.1	CCD camera adapter for 1/2" sensor
M-151	HBO 100W high-pressure mercurybulb for fluorescence
M-1164	Empty fluorescence filterblock for B-1000 FL HBO
M-1165	Fluorescence filterset V (filterblock included) for B-1000 FL HBO
M-1166	Fluorescence filterset UV-DAPI (filterblock included) for B-1000 FL HBO
15008	OPTIKA immersion oil, 10ml

XDS Series

Inverted biological microscopes



XDS Series

- XDS-1R** Trinocular inverted microscope, halogen centrable illumination.
- XDS-2** Trinocular inverted microscope, X-LED⁸ illumination.
- XDS-3** Trinocular inverted microscope, X-LED⁸ illumination.

XDS Range



XDS-1R Model

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.

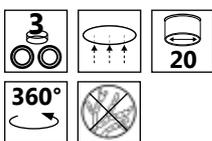
Versatility

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-1R Model - 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 dioptic compensation.
Eyepieces	Wide field 10x/20mm, high-point.
Nosepiece	5 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 2 Model

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).

A complete solution for your brightfield observation

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 adjustment 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

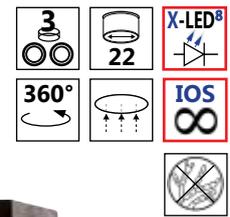
Plan-achromatic infinity corrected optics, bright 8W LED illuminator, phase contrast set, holders for specimen slides, flasks, Petri dishes, trinocular head for photo/video applications. These are the features of XDS-2, a powerful, complete and innovative instrument, designed to set a reference standard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

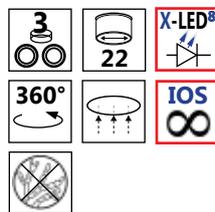


XDS-2 and XDS-2ERGO Models - Technical specifications

Part	Description
Optical system	Infinity corrected system, 45 mm parfocality distance. Field number 22 mm.
Head	XDS-2: Trinocular: 30° inclined, 360° rotating. Interpupillary distance: 48 - 75 mm. Adjustable dioptic 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 [®] system, with adjustable intensity, filter and phase ring holder and aperture diaphragm.



XDS-2ERGO



XDS-3 Model

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.

Top level solution for phase contrast observation

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

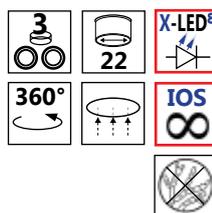
Effectiveness does not mean complexity. A particularly simple and ingenious optical design allows stable alignments and smooth and accurate movements throughout years of use. Effectiveness does not mean cost. The optimally targeted design choices, both for mechanics and for optical components, have allowed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

Versatility

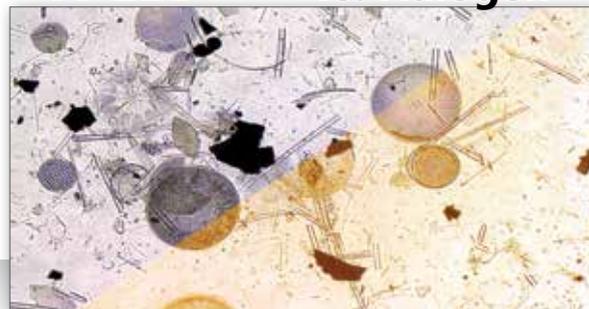
It still surprises us how, with few well-located controls, a microscope can become so versatile. The controls are located in accessible and comfortable positions, and offer all degrees of freedom necessary for an immediate and pleasant use.

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.

XDS-3



X-LED⁸™ vs. Halogen



XDS-3 Model - Technical specifications

Part	Description
Optical system	Infinity corrected system, 45 mm parfocality distance. Field of view 22 mm.
Head	Trinocular: 45° inclined. Interpupillary distance: 55 - 75 mm. Adjustable dioptic 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 ⁸ 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

VC CAMERAS / OPTIKAM CAMERAS		DIGI	REFLEX APS-C	REFLEX Full frame 35mm
				
C-MOUNT				
1/2	1/3			
M-065	M-065	M-068	T/2* M-173 M-068	T/2* M-064



XDS-1R

*T/2 is not supplied by OPTIKA

CAMERA ADAPTER CHART FOR TRINOCULAR MODELS

VC CAMERAS / OPTIKAM CAMERAS		DIGI	REFLEX APS-C	REFLEX Full frame 35mm
				
C-MOUNT				
1/2	1/3			
M-778	M-778	Not necessary	T/2* M-173	T/2* M-777



XDS-2

*T/2 is not supplied by OPTIKA

XDS Series - Photo - video applications

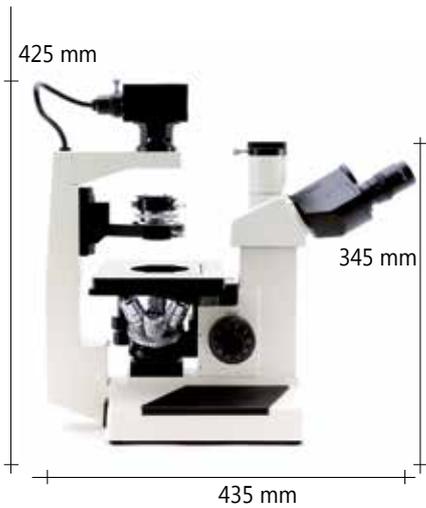
CAMERA ADAPTER CHART FOR TRINOCULAR MODELS

VC CAMERAS / OPTIKAM CAMERAS		DIGI		REFLEX APS-C	REFLEX Full frame 35mm
					
C-MOUNT		WITH LENS			
1/2	1/3			T/2*	T/2*
M-789.1	M-789	M-790	M-790	M-173 M-790	M-788

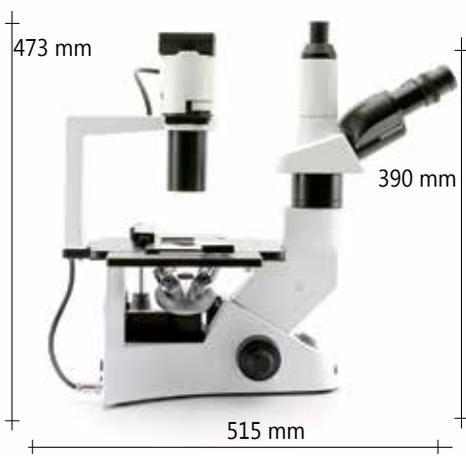


XDS-3

*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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