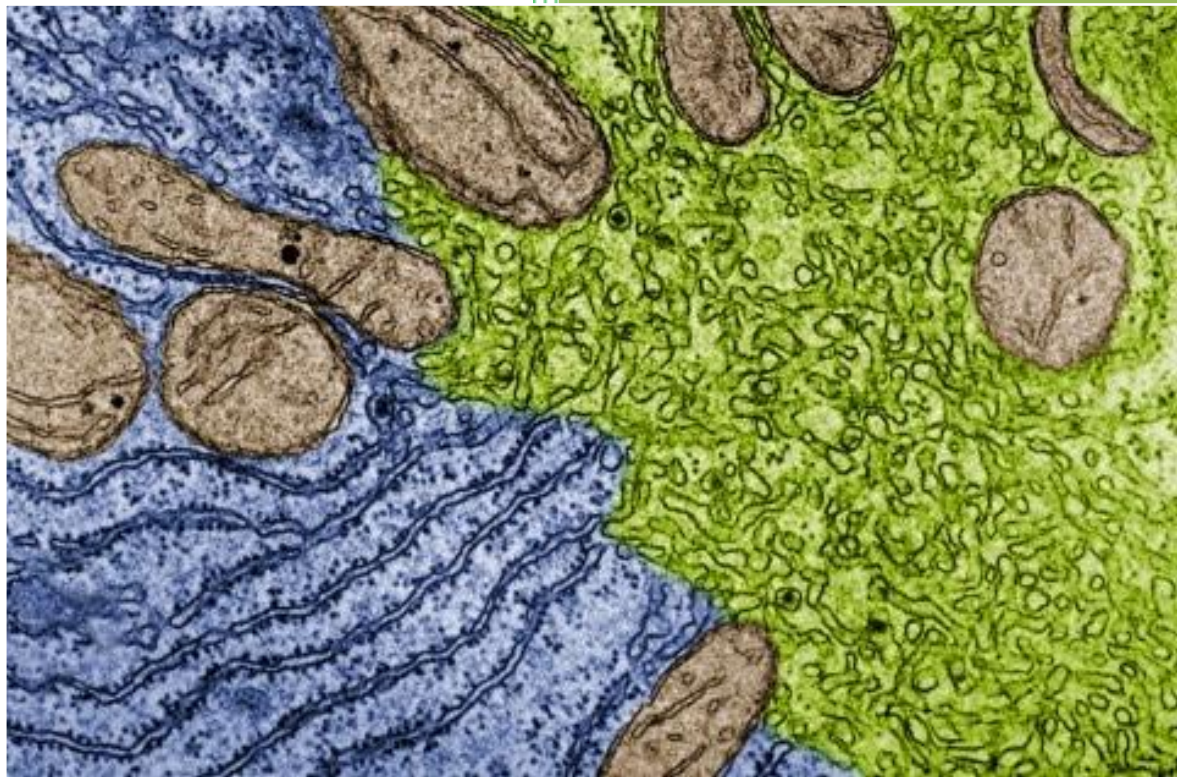
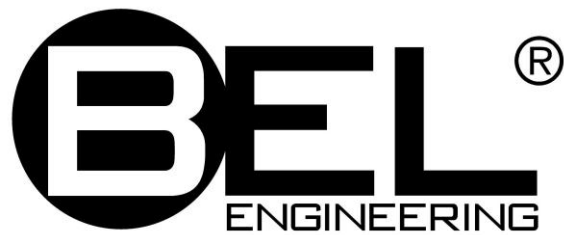




MICROSCOPES and CAMERAS



BIOLOGICAL
STEREO
INVERTED
POLARIZATION
FLUORESCENCE
METALLURGICAL
CAMERAS
TABLET



THE COMPANY

BEL Engineering® s.r.l. is an Italian company manufacturer of Electronic Precision Balances and laboratory scientific instruments, with Headquarters in Monza (Milano), ITALY.

The company was born at the beginning of the Eighties, taking care from the very beginning to its own production through a constant, deep scientific and technological research. Each step of production process of Balances [mechanics, electronics, software, design] is completely followed, so ensuring a 360 degrees quality check on each part related to the electronic balance and to other products, such as Microscopes.

The experience stored during the years and the direct design of our products ensures BEL Engineering srl to be strongly innovative and to be able to give an accurate and quick technical support thanks to a qualified and skilled personell. Thanks to this background and to a refined "Italian style", each product of Bel Engineering combines *Quality, Design and Performance*.

BEL Photonics® is a division of BEL Engineering® s.r.l. concerned with Optical instruments design and Optical Microscopy. Bel Photonics leads the field of Optical Microscopy with a innovative range of Video Microscopes, biological, stereo, inverted microscopes and high-resolution cameras for Microscopy.

BEL Engineering s.r.l. has its production and Research & Development headquarters in Monza, ITALY, with other productive branch units in the most crucial parts of the world.

BEL Engineering s.r.l. Quality system is certified UNI EN ISO 9001:2008, certification n. 9105.BELN

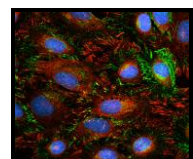
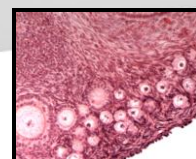
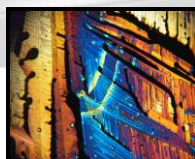
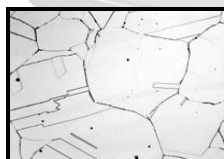
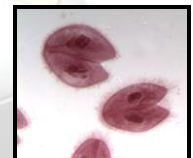
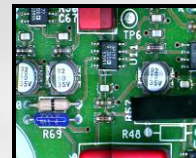
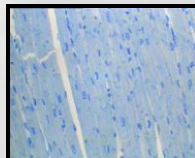
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BIOLOGICAL - INVERTED - STEREO - FLUORESCENCE - POLARIZATION - METALLURGICAL -
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BIOLOGICAL MICROSCOPE ► BIO2



BIO2B

BIO2 series is an innovative line of biological microscope with refined style and with an optical system suitable for most laboratory microscopy applications. In fact these microscopes mount as standard a Koehler illuminator, widefield eyepieces, 5 places inward tilt nosepiece, halogen bulb or LED. Can accept dark field and phase contrast as accessories. All this, combined with an refined Italian design, ergonomic and steady aluminum stand and with a choice of achromatic / semiplan / plan-achromatic DIN160mm or INFINITY objectives, give to these microscopes the capability to match a wide range of applications from educational use to routine laboratory work.

Included: protection cover, oil bottle, user manual

SPECIFICATIONS		BIO2 series	
Optical system	Standard DIN 160mm system		
Illumination	Built-in transmitted Koehler illumination with field diaphragm 6V 20W Halogen bulb or High intensity LED Adjustable Intensity		
Eyepieces	Wide field WF10x/18mm		
Objectives	-AC	ACHROMATIC 4x/0.1; 10x/0.25; 40x/0.65; 100x/1.25 (oil immersion)	
	-PL	PLAN ACHROMATIC 4x/0.1; 10x/0.25; 40x/0.65; 100x/1.25 (oil immersion)	
Focusing	Macrometric and micrometric coaxial knobs on both sides (0,002mm). Upper limit excursion adjustment. Torque adjustment on coarse focus knob		
Revolving nosepiece	Reversed quintuple nosepiece, rotating and locking at every objective.		
Observation tube	Type	Binocular	Trinocular
	Tube inclination	30° tilted, 360° rotatable	
	Interpupillary distance adjustment	55-75mm, dioptric difference adjustment ± 5mm	
	Light division		70% : 30%
Stage	135x125mm. Excursion XY: 75x35mm (div 0,1mm). Coaxial knobs on right side.		
Condenser	Abbe N.A. 1,25. Equipped with diaphragm and filter seat. Height and centering are adjustable.		

ADDITIONAL ACCESSORIES			
Code	Description	Code	Description
MB05001 5/6	Phase contrast kit (achromatic or plan)	MB010005	Eyepiece 16x
MB030003	Dark field condenser (dry or immersion)	MB020014	20x Plan achromatic objective
MB120001	Micrometric slide 0.01mm	MB020016	60x Plan achromatic objective
MB010007	Micrometric eyepiece 10x		Eurekam / Eurekam PRO digital cameras

ORDERING CODES			
Code	Description	Code	Description
BIO2B-AC	Binocular, achromatic optics, Halogen 20W	BIO2B-AC-LED	Binocular, achromatic optics, LED
BIO2T-AC	Trinocular, achromatic optics, Halogen 20W	BIO2T-AC-LED	Trinocular, achromatic optics, LED
BIO2B-PL	Binocular, Plan-achromatic, Halogen 20W	BIO2B-PL-LED	Binocular, Plan-achromatic optics, LED
BIO2T-PL	Trinocular, Plan-achromatic, Halogen 20W	BIO2T-PL-LED	Trinocular, Plan-achromatic optics, LED
BIO2-AC-VIDEO	Trinocular, Video Head, achromatic, Halogen	BIO2-PL-VIDEO	Trinocular, Plan-achromatic, Video head, LED

BIOLOGICAL MICROSCOPE ► SOLARIS



SOLARIS-T

SOLARIS series Microscopes combine experience and design in one solution Microscope.

These microscopes mount Plan-achromatic objectives, Koehler illuminator, Extra Widefield eyepieces, quintuple inward tilt nosepiece, a high intensity warm white LED to get very reliable colors or 30W halogen lamp for maximum intensity.

SOLARIS has infinity optical system for best optical performance. All these features make these Microscopes suitable for research, laboratory use and medical field operations.

Included: protection cover, oil bottle, user manual

SPECIFICATIONS		SOLARIS series	
Optical system	Infinity corrected optics system		
Illumination	Built-in transmitted Koehler illumination with field diaphragm 6V 30W Halogen bulb or High intensity LED (Warm white) Adjustable Intensity		
Eyepieces	Extra Wide field WF10x/22mm		
Objectives	PLAN ACHROMATIC 4x/0.1; 10x/0.25; 40x/0.65; 100x/1.25 (oil immersion)		
Focusing	Macrometric and micrometric coaxial knobs on both sides (0,002mm). Upper limit excursion adjustment. Torque adjustment on coarse focus knob		
Revolving nosepiece	Reversed quintuple nosepiece, rotating and locking at every objective.		
Observation tube	Type	Binocular	Trinocular
	Tube inclination	30° tilted, 360° rotatable	
	Interpupillary distance adjustment	48-75mm, dioptric difference adjustment ± 5mm	
	Light path selector		100% - 0% or 0% - 100%
Stage	193x155mm. Excursion XY: 75x50mm (division 0,1mm). Coaxial knobs on right side.		
Condenser	Abbe condenser, N.A. 1,25. Equipped with diaphragm and filter seat. Height and centering are adjustable.		

ADDITIONAL ACCESSORIES			
Code	Description	Code	Description
	Phase contrast kit		Polarizer slide
	Dark field		20x Plan achromatic objective
	Micrometric slide 0.01mm		60x Plan achromatic objective
	Micrometric eyepiece 10x		Eurekam / Eurekam PRO digital cameras

ORDERING CODES			
Code	Description	Code	Description
SOLARIS-B	Binocular, Halogen 30W	SOLARIS-B-LED	Binocular, LED
SOLARIS-T	Trinocular, Halogen 30W	SOLARIS-T-LED	Trinocular LED
SOLARIS-PHASE	Trinocular, Halogen 30W , Phase contrast objectives, turrett condenser with phase anulus	SOLARIS-VIDEO	Trinocular, LED, Video head

BIOLOGICAL MICROSCOPE ► BIO1



BIO1M



BIO1B



BIO1T

BIO1 series Microscopes represent the best choice to enter into the world of Microscopy.

In fact these microscopes can reach magnifications up to 1000x. They have coaxial focus knobs, stage with sample-holder and Abbe condenser.

USB Hi-resolution cameras can be mounted on all models, monocular, binocular, trinocular, through the adapters. BIO1 Microscopes can be used in educational field, laboratory and also for routine microscopy.

Included: protection cover, oil bottle, user manual

SPECIFICATIONS BIO1 series

Optical system	Standard DIN 160mm system			
Illumination	Built-in transmitted illumination 6V 20W Halogen bulb or High intensity LED Adjustable Intensity			
Eyepieces	Wide field WF10x/18mm			
Objectives	ACHROMATIC 4x/0.1; 10x/0.25; 40x/0.65; 100x/1.25 (oil immersion)			
Focusing	Macrometric and micrometric coaxial knobs on both sides (0,002mm). Upper limit excursion adjustment. Torque adjustment on coarse focus knob			
Revolving nosepiece	quadruple nosepiece, rotating and locking at every objective.			
Observation tube	Type	Monocular	Binocular	Trinocular
	Tube inclination	30° tilted, 360° rotatable		
	Interpupillary distance adjustment	55-75mm, dioptric difference adjustment ± 5mm		
	Light split			70% : 30%
Stage	135x125mm. Excursion XY: 68x28mm (div 0,1mm). Coaxial knobs on right side.			
Condenser	Abbe condenser, N.A. 1,25. Equipped with diaphragm and filter seat. Height and centering are adjustable.			

ADDITIONAL ACCESSORIES

Code	Description	Code	Description
MB060011	0.4x C-mount adapter	MB010005	16x Eyepiece
MB060012	1x C-mount adapter	MB120001	Micrometric slide 0.01mm
MB010009	10x Eyepiece with pointer	MB010007	Micrometric eyepiece 10x
MB12000 3/4/5	Box with 30 HISTOLOGICAL samples (also Botanical or Zoological)		Eurekam digital cameras

ORDERING CODES

Code	Description	Code	Description
BIO1M-3	Monocular, 3 achromatic objectives, Halogen	BIO1M-3-LED	Monocular, 3 achromatic objectives, LED
BIO1M	Monocular, 4 achromatic objectives, Halogen	BIO1M-LED	Monocular, 4 achromatic objectives, LED
BIO1B	Binocular, achromatic objectives, Halogen	BIO1B-LED	Binocular, achromatic objectives, LED
BIO1T	Trinocular, achromatic objectives, Halogen	BIO1T-LED	Trinocular, achromatic objectives, LED

STEREO MICROSCOPE ► STMPRO



STMPRO-T

STMPRO series include professional Stereo Zoom microscopes, suitable for many applications in Industry and Laboratory field. A wide choice of accessories such as, for example, additional objectives, eyepieces, XY traslators, LED and fiber optics illuminators, universal stands, make this series of microscopes professional tools for every type of observation.

Zoom ratio is 1:6.4. Range of total magnification starts from a minimum of 3.5x upto a maximum of 210x, thanks to the available additional optics.

Trinocular version allow easy connection of CMOS hi-resolution cameras and CCD cameras, for acquiring and image analysis.

Included: protection cover, user manual

SPECIFICATIONS		STMPRO series	
Optical system	Separated objectives		
Illumination	Halogen lamp with adjustable intensity Reflected Halogen lamp 20W with adjustable intensity		
Eyepieces	Wide field WF10x/21mm		
Objectives	ZOOM 0.7x – 4.5x (1:6.4) Total magnification 7x-45x, expandible to 225x with additional optics		
Focusing	Accurately adjustable through knobs on both microscope sides Torque adjustment		
Working distance	90mm expandible to 137mm with additional optics		
Observation tube	Type	Binocular	Trinocular
	Tube inclination	45° tilted, 360° rotatable	
	Interpupillary distance adjustment	53-75mm, dioptric difference adjustment \pm 5mm	
	Light split		70% : 30%
Stage	STMPRO-B STMPRO-T	260x290mm	
	STMPRO-B-LXY STMPRO-T-LXY	230x300mm stage with XY moving mechanical traslator (75x50mm excursion), no trasmitted light	

ADDITIONAL ACCESSORIES			
Code	Description	Code	Description
MS100012	Fiber optics illuminator, double arm (or anular guide), 150Watt	MS010002	Eyepiece 10x with divisions
MS100010	LED annular illuminator, 4 zones	MS0600 19/29	0.5x or 1x C-mount adapter
MS01000 3/4/5	Additional Eyepieces 15x, 20x, 25x	MB030005	Dark filed condenser w/gem clamp
MS02000 1/2/3/4	Additional Objectives 0.5x, 0.75x, 1.5X, 2x		Eurekam / Eurekam PRO digital cameras

ORDERING CODES			
Code	Description	Code	Description
STMPRO-B	Binocular, 7x-45x magnification	STMPRO-B-LXY	Binocular, no lights, 7x-45x magnification, with XY moving mechanical
STMPRO-T	Trinocular, 7x-45x magnification	STMPRO-T-LXY	Trinocular, no lights, 7x-45x magnification, with XY moving mechanical
STMPRO-T-VIDEO	Trinocular, 7x-45x, with Video head		

STEREO MICROSCOPE ► STMDLX



STMDLX

STMDLX StereoZoom Microscopes are the top choice when looking for an instrument that can afford optimal observations both in the laboratory and in the industry field. Standard total magnification is 10x - 65x (1:6,5) extendable from 2.5x up to 390x total magnification thanks to additional optics. Features like high eyepoint wide field eyepieces, long working distance, large depth of field and a wide choice of accessories make this instrument the best investment for your work. Trinocular version allow easy connection of CMOS high-resolution cameras, for acquiring and image analysis.

Included: protection cover, user manual

SPECIFICATIONS		STMDLX series	
Optical system	Separated objectives		
Illumination	Transmitted Fluorescent 5W lamp Reflected Halogen lamp 10W with adjustable intensity		
Eyepieces	Wide field WF10x/23mm high eye point		
Objectives	ZOOM 1.0x – 6.5x (1:6.5) Total magnification 10x-65x, expandible to 390x with additional optics		
Focusing	Accurately adjustable through knobs on both microscope sides Torque adjustment		
Working distance	118mm expandible to 195mm with additional optics		
Observation tube	Type	Binocular	Trinocular
	Tube inclination	45° tilted, 360° rotatable	
	Interpupillary distance adjustment	52-76mm, dioptric difference adjustment \pm 6mm	
	Light path selector		100% - 0% / 70% - 30%
Stage	240x260mm 230 x 300mm with 76x50mm excursion (STMDLX-B-XY, STMDLX-T-XY models)		

ADDITIONAL ACCESSORIES			
Code	Description	Code	Description
MS100012/13	Fiber optics illuminator, double arm (or anular guide), 150Watt	MS010016	Eyepiece 10x with divisions
MS100010	LED annular illuminator, 4 zones	MB060037/38	0.5x or 1x C-mount adapter
MS010013/14/15	Additional Eyepieces 15x, 20x, 30x	MB060039	Reflex camera adapter
MS020014/15/16/17	Additional Objectives 0.5x, 0.7x, 1x, 2x	MS090015	XY mechanical stage for trasmitted light
	Dark filed condenser and gem clamp		Eurekam / Eurekam PRO digital cameras

ORDERING CODES			
Code	Description	Code	Description
STMDLX-B	Binocular, 10x-65x magnification	STMDLX-B-XY	Binocular, with XY moving mechanical stage for trasmitted light
STMDLX-T	Trinocular, 10x-65x magnification	STMDLX-T-XY	Trinocular, with XY moving mechanical stage for trasmitted light

RESEARCH STEREO MICROSCOPE ► STM800



STM864

STM800 StereoZoom Microscopes are the professional choice when looking for a stereo microscope with research grade performance for best observations both in the laboratory and in the industry field. This is given by the clear PLAN achromatic objective and the INFINITY parallel optical system. Standard total magnification is 8x - 64x or 8x-80x, extendable thanks to additional optics. Trinocular version allow easy connection of high-resolution cameras, for acquiring and image analysis.

Included: protection cover, sample holders, user manual

SPECIFICATIONS		STM800 series	
Optical system	Infinity Parallel Optical system		
Illumination	Transmitted and Reflected LED light, with adjustable intensity.		
Eyepieces	Extra Wide field WF10x/22mm		
Objectives	STM864	PLAN ACHROMATIC ZOOM 0.8x – 6.4x (1:8) Total magnification 8x-64x, expandible with additional optics	
	STM880	PLAN ACHROMATIC ZOOM 0.8x – 8x (1:10) Total magnification 8x-80x, expandible with additional optics	
Focusing	Accurately adjustable through knobs on both microscope sides Torque adjustment		
Working distance	78mm expandible with additional optics		
Observation tube	Type	Binocular	Trinocular
	Tube inclination	20° tilted, 360° rotatable	
	Interpupillary distance adjustment	50-75mm, dioptric difference adjustment ± 5	
	Light split		100% - 0% or 0% - 100%
Stage	STM864 STM880	285x330mm	

ADDITIONAL ACCESSORIES			
Code	Description	Code	Description
MS020019	Additional PLAN APO achromatic 0.5x objective	MS100012	Fiber optics illuminator, double arm, 150Watt
MS020020	Additional PLAN achromatic objective 2x	MS100010	LED annular illuminator, 4 zones
MS020021	Additional PLAN achromatic objective 1x		Eyepiece 10x with divisions
MS020022	Additional achromatic objective 0.3x	MB060036/35	0.5x or 1x C-mount adapter
MS010020/21/22	Additional Eyepieces 15x, 20x, 30x	MB030008	Dark filed kit
MS090016	Drawing tube		Polarization kit
	Universal stands		EUREKAM PRO digital cameras

ORDERING CODES			
Code	Description	Code	Description
STM864	Binocular, 8x-64x magnification	STM880	Binocular, 8x-80x magnification
STM864-T	Trinocular, 8x-64x magnification	STM880-T	Trinocular, 8x-80x magnification

BIOLOGICAL MICROSCOPE ► INV100



INV100

Inverted biological Microscope INV100 is the optimal choice for microBiology and Biology. Infinity corrected Plan-achromatic objectives deliver always excellent and contrasted images, the 10x/22 eyepieces allow exploring of a wide area of the specimen, while the high working distance of the condenser allows a comfortable and pratic use. A stable stand structure, phase contrast objectives, Trinocular tube and a large stage make this microscope an excellent choice for viewing living cell and tissue.

Included: protection cover, 0.45X c-mount adapter, color filters, user manual

SPECIFICATIONS		SOLARIS series	
Optical system	Infinity corrected optics system		
Illumination	Built-in transmitted Koehler illumination with field diaphragm 6V 30W Halogen bulb. Adjustable Intensity		
Eyepieces	Extra Wide field WF10x/22mm		
Objectives	INV100	Infinity Long Working Distance PLAN ACHROMATIC 4x/0.1 WD18mm; 10x/0.25 WD 10mm; 20x/0.4 WD 5.1mm; 40x/0.6 WD 2.6mm Infinity Long Working Distance PLAN ACHROMATIC PHASE CONTRAST 10x/0.25 WD 10mm; 20x/0.4 WD 5.1mm; 40x/0.6 WD 2.6mm	
	INV100-PH	Infinity Long Working Distance PLAN ACHROMATIC 4x/0.1 WD18mm Infinity Long Working Distance PLAN ACHROMATIC PHASE CONTRAST 10x/0.25 WD 10mm; 20x/0.4 WD 5.1mm; 40x/0.6 WD 2.6mm	
Focusing	Macrometric and micrometric coaxial knobs on both sides		
Revolving nosepiece	Quintuple nosepiece, rotating and locking at every objective.		
Observation tube	Type	Trinocular	
	Tube inclination	30° tilted, 360° rotatable	
	Interpupillary distance adjustment	48-75mm, dioptric difference adjustment ± 5mm	
	Light path selector	100% - 0% or 0% - 100%	
Stage	250x160mm. Excursion XY: 120x78mm. Glass insert, Adapter for Ø35mm, Adapter for Ø54mm, adapter for Terasaky. Coaxial knobs on right side.		
Condenser	Abbe condenser N.A.:0,3; W.D.:72mm. Equipped with diaphragm and filter seat. Phase contrast sliding plate. Phase annulus 10x/20x/40x		

ADDITIONAL ACCESSORIES			
Code	Description	Code	Description
	Micrometric 10x eyepiece		Eurekam PRO digital cameras
MB120001	Micrometric slide 0.01mm	MB06004 5/6	Adapter for Reflex camera (Nikon/Canon)

ORDERING CODES			
Code	Description	Code	Description
INV100	4 bright field objectives and 3 phase contrast objectives	INV100-PH	only the 4x bright field objective and 3 phase contrast objectives
INV100-VIDEO	with Video head, 4 bright field objectives and 3 phase contrast objectives,	INV100-PH-VIDEO	with Video head, only the 4x bright field objective and 3 phase contrast objectives

METALLURGICAL MICROSCOPE ► MTM-1A



MTM-1A

Model MTM-1A is a Metallurgical upright Microscope with reflected illumination (Epi-illumination), suitable for observing surfaces of non-transparent objects. It is ideal for identification and analysis of structure of many kinds of materials and alloys and for IC inspection.

It is equipped with five objectives with plan-achromatic optics to achieve best image quality. The stage is wide, with a large X-Y excursion possibility. It is also equipped with a polarizer/analyzer that gives to this microscope a great versatility and possibility to work in many fields like metallography, mineralogy, electronics, silicon wafer inspection, quality control and scientific research.

Included: protection cover, user manual

SPECIFICATIONS		MTM-1A series	
Optical system	Standard DIN 160mm system		
Illumination	Built-in transmitted Koehler illumination with field diaphragm 20W Halogen bulb. Adjustable Intensity		
Eyepieces	Wide field WF10x/20mm		
Objectives	No cover glass PLAN ACHROMATIC PL 5x/0.1; PL 10x/0.25; PL 20x/0.4; 40x/0.6; 80x/0.8		
Focusing	Macrometric and micrometric coaxial knobs on both sides (division 0,002mm). Torque adjustment and upper limit excursion adjustment		
Revolving nosepiece	Quintuple nosepiece, rotating and locking at every objective.		
Observation tube	Type	Trinocular	
	Tube inclination	30° tilted, 360° rotatable	
	Interpupillary distance adjustment	55-75mm, dioptric difference adjustment \pm 5mm	
	Light path selector	100% - 0% or 0% - 100%	
Stage	274x274mm. Mechanical stage Excursion XY: 203x203mm		
Polarizing	Polarizer slide , analyzer slide, colored filters		

ADDITIONAL ACCESSORIES			
Code	Description	Code	Description
MM020006	Plan 100x dry objective no cover glass	MM020003	Plan 50x objective no cover glass
MB010008	Micrometric 10x/20 eyepiece		Eurekam PRO digital cameras
MB120001	Micrometric slide 0.01mm	MB060008	Adapter for Reflex camera

ORDERING CODES			
Code	Description	Code	Description
MTM-1A	5 bright field objectives	MTM1A-VIDEO	5 bright field objectives and video head

METALLURGICAL MICROSCOPE ► MTM-100**MTM-100**

Model MTM-100 is a Metallurgical Inverted Microscope with Plan-achromatic Infinity corrected objectives, that provide excellent image quality.

It is used to observe surfaces of non-transparent objects and for analysis and inspection of structure of many kinds of materials and alloys. It is equipped with a polarizer and analyzer slides that allow wider range of operations and possibility to work in many fields like metallography, mineralogy, electronics, silicon wafer inspection, quality control and scientific research.

An ergonomic and stable structure complete this professional microscope.

Included: protection cover, sample holder, user manual

SPECIFICATIONS		MTM-100 series	
Optical system	Infinity corrected optics system		
Illumination	Built-in transmitted illumination with field diaphragm 30Watt Halogen bulb. Adjustable Intensity		
Eyepieces	Wide field WF10x/20mm		
Objectives	Infinity Long Working Distance PLAN ACHROMATIC PL 4x/0.1; PL 10x/0.25; PL 20x/0.35; PL 40x/0.65		
Focusing	Macrometric and micrometric coaxial knobs on both sides		
Revolving nosepiece	Quintuple nosepiece, rotating and locking at every objective.		
Observation tube	Type	Trinocular	
	Tube inclination	30° tilted, 360° rotatable	
	Interpupillary distance adjustment	48-75mm, dioptric difference adjustment ± 5mm	
	Light path selector	100% - 0% or 0% - 100%	
Stage	250x160mm		
Polarizer	Polarizer slide , analyzer slide, colored filters (blue,yellow,green)		

ADDITIONAL ACCESSORIES			
Code	Description	Code	Description
	Micrometric 10x eyepiece		Eurekam PRO digital cameras
MM020024	5x plan achromatic objective	MB120001	Micrometric slide 0.01mm
MM020025	50x plan achromatic objective		Adapter for Reflex camera
MM020026	80x plan achromatic objective	MM020027	100x dry plan achromatic objective

ORDERING CODES			
Code	Description	Code	Description
MTM-100	Inverted metallurgical microscope with 4 objectives, magnification 40x-400x	MTM-100-VIDEO	Inverted metallurgical microscope with Video Head, with 4 objectives, magnification 40x-400x

FLUORESCENCE ► INV100-FL



INV100-FL

Fluorescence Inverted biological Microscope INV100-FL is a high quality tool for scientific research. It is composed by an inverted microscope with Infinity corrected Plan-achromatic objectives, by a set of phase contrast objectives and by an Epi-fluorescent fluorescence device. This allows that the images are always clear and contrasted in each observation situation. The 10x/22 eyepieces allow exploring of a wide area of the specimen, while the high working distance of the condenser allows a comfortable and pratic use. Trinocular tube, a large stage with traslator, a solid and ergonomic design and a stable structure complete the picture of a professional scientific instrument. This instrument is widely used in Biology, Medicine, Histology, Immunology.

Included: protection cover, 0.45X c-mount adapter, color filters, user manual

SPECIFICATIONS		INV100-FL series
Optical system	Infinity corrected optics system	
Illumination	Built-in transmitted illumination 6V 30W Halogen bulb with diaphragm. Adjustable Intensity Epifluorescent illumination: High pressure Mercury lamp DC 100W. Adjustable, with timer.	
Eyepieces	Extra Wide field WF10x/22mm	
Objectives	Infinity Long Working Distance PLAN ACHROMATIC 4x/0.1 WD18mm; 10x/0.25 WD 10mm; 20x/0.4 WD 5.1mm; 40x/0.6 WD 2.6mm	
	Infinity Long Working Distance PLAN ACHROMATIC PHASE CONTRAST 10x/0.25 WD 10mm; 20x/0.4 WD 5.1mm; 40x/0.6 WD 2.6mm	
Filters	Green, Blue (optional:Violet, UltraViolet)	
Focusing	Macrometric and micrometric coaxial knobs on both sides	
Revolving nosepiece	Quintuple nosepiece, rotating and locking at every objective.	
Observation tube	Type	Trinocular
	Tube inclination	30° tilted, 360° rotatable
	Interpupillary distance adjustment	48-75mm, dioptric difference adjustment ± 5mm
	Light path selector	100% - 0% or 0% - 100%
Stage	250x160mm. Excursion XY: 120x78mm. Glass insert, Adapter for Ø35mm, Adapter for Ø54mm, adapter for Terasaky. Coaxial knobs on right side.	
Condenser	Abbe condenser N.A.:0,3; W.D.:72mm. Equipped with diaphragm and filter seat. Phase contrast sliding plate. Phase annulus 10x/20x/40x	

ADDITIONAL ACCESSORIES			
Code	Description	Code	Description
	Micrometric 10x eyepiece	MB080007	Violet filter
	BLACKLIGHT CCD digital cameras	MB080008	UltraViolet filter

ORDERING CODES			
Code	Description	Code	Description
INV100-FL	HBO 100W Mercury lamp, B/G filters	INV100-FL-ALL	HBO 100W Mercury lamp, B/G/V/UV filters

FLUORESCENCE ► FLUO3



FLUO3

FLUO-3 Fluorescence microscope is equipped with plan-achromatic Infinity optics objectives and a Epi-Fluorescent illuminator. The extra wide field 10x/22 eyepieces allow inspection of a large part of specimen at same time. It can mount phase contrast objectives too, as optional.

This microscope is an essential tool for biology and in biomedical science, as well in live cell science.

HBO 100W Mercury lamp and a complete set of filters (B-G-V-UV) allow this Microscope investigation of most of biomedical specimen.

Included: protection cover, oil bottle, user manual

SPECIFICATIONS		INV100-FL series	
Optical system	Infinity corrected optics system		
Illumination	Built-in transmitted Kohler illumination 6V 30W Halogen bulb with diaphragm. Adjustable Intensity Epifluorescent illumination: High pressure Mercury lamp DC 100W. Adjustable.		
Eyepieces	Extra Wide field WF10x/22mm		
Objectives	Infinity PLAN ACHROMATIC 4x/0.1; 10x/0.25; 40x/0.65; 100x/1.25 (oil immersion)		
Filters	Green, Blue, Violet, UltraViolet		
Focusing	Macrometric and micrometric coaxial knobs on both sides. Tension adjustment and upper limit excursion adjustment		
Revolving nosepiece	Quintuple nosepiece, rotating and locking at every objective.		
Observation tube	Type	Trinocular	
	Tube inclination	30° tilted, 360° rotatable	
	Interpupillary distance adjustment	55-75mm, dioptric difference adjustment ± 5mm	
	Light path selector	100% - 0% or 0% - 100%	
Stage	135x125mm. Excursion XY: 75x35mm (div.0,1mm)		
Condenser	Abbe condenser, N.A. 1,25. Equipped with diaphragm and filter seat. Height and centering are adjustable.		

ADDITIONAL ACCESSORIES			
Code	Description	Code	Description
MB050024	Infinity Plan complete Phase contrast KIT		Eyepiece 16x
MB120001	Micrometric slide 0.01mm	MB010011	Micrometric 10x eyepiece
	BLACKLIGHT CCD digital cameras		Plan achromatic objective 20x

ORDERING CODES			
Code	Description		
FLUO3	HBO 100W Mercury lamp, B/G/V/UV filters		

POLARIZATION MICROSCOPE ► MPL



MPL-2

MPL Polarizing Microscopes allow investigation of composition and structure of materials. Polarized light microscopy is primarily used for study of minerals, but also for cements, ceramics, mineral fibers, polymers and biological molecules. These Microscope can employ both qualitative and quantitative observations and represent an outstanding tool for materials science, geology, biology, chemistry, metallurgy and medicine. These Microscopes allow polarizing observations, orthoscopic and conoscopic observations.

MPL-1 is equipped with Transmitted illumination. MPL-2 is equipped both with Transmitted and Reflected illumination, for the most complete range of observations.

Included: protection cover, user manual

SPECIFICATIONS		MPL series
Optical system	Infinity corrected optics system	
Illumination	MPL-2	Trasmitted and Reflected illumination. Koehler illuminator. Halogen lamp 30Watt with adjustable intensity.
	MPL-1	Trasmitted illumination. Koehler illuminator. Halogen lamp 30Watt with adjustable intensity.
Eyepieces	Extra Wide field WF10x/22mm and one micrometric 10x eyepiece (0.01mm)	
Objectives	MPL-2	STRAIN-FREE PLAN ACHROMATIC LONG 5x/0.12; 10x/0.25; 40x/0.65; 80x
	MPL-1	STRAIN-FREE PLAN ACHROMATIC LONG 4x/0.1; 10x/0.25; 40x/0.65; 60x/0.75
Focusing	Macrometric and micrometric coaxial knobs on both sides (0,002mm). Upper limit excursion adjustment. Torque adjustment on coarse focus knob	
Attachment	Polarizer and Analyzer. λ and $\lambda/4$ compensators, quartz wedge compensator; Bertrand lens	
Nosepiece	Revolving reversed quintuple nosepiece, rotating and locking at every objective.	
Observation tube	Type	Trinocular
	Tube inclination	30° tilted, 360° rotatable
	Interpupillary distance adjustment	55-75mm, dioptric difference adjustment \pm 5mm
	Light path selector	100% - 0% or 0% - 100%
Stage	Rotating stage with divisions (1° increment), diameter 150mm. Center adjustable and with lock. Slide-sample holder with XY translator.	
Condenser	Abbe condenser, N.A. 1,25; with diaphragm and filter seat. Height and centering are adjustable.	

ADDITIONAL ACCESSORIES			
Code	Description	Code	Description
	Infinity Plan Phase contrast complete KIT		16x Eyepiece
	Dark field		100x dry Plan achromatic objective
	Micrometric slide 0.01mm		80x Plan achromatic objective
	BLACKLIGHT CCD digital cameras		EUREKAM PRO CMOS digital cameras

ORDERING CODES			
Code	Description	Code	Description
MPL-1	Transmitted 30Watt halogen lamp	MPL-2	Transmitted 30Watt halogen lamp and Reflected 30Watt halogen lamp

VIDEO HEAD FOR MICROSCOPE ► TABLET



TABKAM 5 links your microscope to the world: in fact it can capture, store, process and transmit every image observed with the Microscope.

The hardware and software are studied for professional operations, R&D, Biology, education. The large display allows large use for teaching in classrooms or academic laboratories or for presentations in Universities.

Other area of applications are: Chemical laboratories, Geology, Electronic industry, Clinical analysis laboratories, Quality production and control

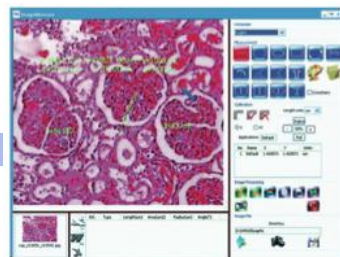
SPECIFICATIONS	TABKAM 5
Optical system	CMOS Sensor 1/2.5" 5 MegaPixels (2592x1936)
Format	720P x 15 Fps
White balance	Manual / Automatic / preset
Pixel size	2.2um x 2.2um
Optical Connection	Universal C-mount
Operating system	Android 2.3
CPU	1.2 GHz (ARM Cortex A8 Core) RAM 1GB DDR3
Internal memory	8GB
Network	Wi-fi, Bluetooth
Interfaces	Mini USB 2.0, HDMI, Card slot
Video formats	MPEG-2, MPEG-4, DIVx, MJPEG, VC1
Image formats	JPEG, GIF, BMP, PNG
Battery life	10h
Monitor	LED display 9.7", 1024x768 pixels; Touch-screen capacitive multi points
Power supply	100-240V DC 5V 2000mA
Included	Power supply, USB cable, user manual

OBSERVE

FIND, MEASURE, ANALYSIS

SEND

SHARE WITH YOUR TEAM





EUREKAM CMOS cameras

Main features:

- Resolutions: 1.3 , 3.0 , 5.0 and 10.0 Megapixel
- Quality images with good colors
- USB 2.0 interface
- C-mount

EUREKAM series includes cameras with good quality/price, suitable for all kinds and everyday observations thanks to simple operations, a good image analysis software and a wide range of available resolutions.

Models

- EUREKAM 1.3** - 1.3 Megapixel CMOS, color
- EUREKAM 3.0** - 3.0 Megapixel CMOS, color
- EUREKAM 5.0** - 5.0 Megapixel CMOS, color
- EUREKAM 10.0** - 10.0 Megapixel CMOS, color

Applications:

- Bright field, dark field, DIC
- Archiving, Cytology, Histology, Pathology
- Quality control, semiconductor inspection
- Materials and surfaces inspection

EUREKAM PRO CMOS cameras

Main features:

- Resolutions: 1.3 and 5.0 Megapixel
- High quality images with excellent colors
- Binning / Sub-sampling
- High Sensitivity
- USB 2.0 interface, C-mount

EUREKAM PRO series includes cameras with higher performance and equipped with advanced functions software. These cameras are ideal for professional applications in scientific, medical and life science fields.

Models

- EUREKAM PRO 1.3/M** - monochrome 1.3 Megapixel CMOS for near infrared imaging, sperm inspection. High Sensitivity.
- EUREKAM PRO 5.0/M** - monochrome 5.0 Megapixel CMOS for fluorescent imaging and metallography. Low noise.
- EUREKAM PRO 5.0** - color 5.0 Megapixel CMOS for general purpose

Applications:

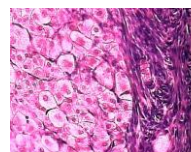
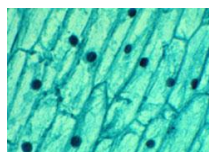
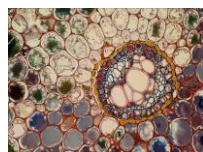
- Bright field, dark field, DIC
- Live cell imaging, Cytology, Histology, Pathology
- Metrology, semiconductor industry
- Physics of materials, quality control

>> CAMERA SPECIFICATIONS

	Meg Pixel	Resolution	Sensor	Frame/sec	Exposure	Sensibility (@550nm)	Dim. Pixel (µm)	Software
EUREKAM CMOS cameras								
EUREKAM 1.3	1.3	1280 x 1024	CMOS 1/3"	15 (1280x1024) 30 (640x480)	Rolling shutter	1.0 V/lux-sec	3.6x3.6	BEL View
EUREKAM 3.0	3.0	2048 x 1536	CMOS 1/2"	8 (2048x1536) 30 (640x480)	Rolling shutter	1.0 V/lux-sec	3.2x3.2	BEL View
EUREKAM 5.0	5.0	2592x 1944	CMOS 1/2.5"	8 (2592x1944) 30 (640x480)	Rolling shutter	1.4 V/lux-sec	2.2x2.2	BEL View
EUREKAM 10.0	10.0	3856 x 2764	CMOS 1/2.3"	3 (3856x2764) 25 (1280x1024)	Rolling shutter	0.44 V/lux-sec	1.6x1.6	BEL View
EUREKAM PRO CMOS cameras								
EUREKAM PRO 1.3/M	1.3	1280 x 1024	CMOS 1/2.5"	30 @full resolution	Rolling shutter	2.1 V/lux-sec	5.2	BEL Eurisko
EUREKAM PRO 5.0/M	5.0	2592x 1932	CMOS 1/1.8"	7 @full resolution	Rolling shutter	1.64 V/lux-sec	2.2	BEL Eurisko
EUREKAM PRO 5.0	5.0	2592x 1944	CMOS 1/1.8"	4 @full resolution 12 @half resolution	Rolling shutter	0.53 V/lux-sec	2.2	BEL Eurisko

With EUREKAM and EUREKAM PRO cameras **are included** the following accessories: micrometric slide for measurements calibration, 0.5x adapter for eyepieces (Ø23mm and Ø30mm), camera drivers, acquisition and image analysis software.

EUREKAM and EUREKAM PRO cameras can be mounted on trinocular microscopes, binocular and monocular, both biological and stereo.



SEMICONDUCTOR INSPECTION - CYTOLOGY - DIC - INDUSTRIAL - IMAGE ANALYSIS



BLACKLIGHT CCD cameras

Main features:

- Resolutions: 5 Megapixel, 8 Megapixel
- Cameras also cooled for best contrast
- Long exposure
- USB 2.0 interface. C-mount

BLACKLIGHT series includes cameras for applications with low-medium light intensity. They are ideal for observations in fluorescence and metallography. Some models are equipped with Peltier cooling system (upto -30°C below environment temperature) to reduce to minimum the noise and obtain the maximum contrast also with low light.

Models:

BLACKLIGHT 55C - 5 Mpixel CCD , color, cooled

BLACKLIGHT 5000 - 5 Megapixel CCD, color, very good colors rendering, ideal for not-critical fluorescence applications.

BLACKLIGHT 8000 - 8 Megapixel CCD, color, very good colors and high-resolution.

Applications:

- Medium - low light Fluorescence
- FISH, FRET, GFP, Bioluminescence
- Bright field, dark field, DIC
- Live cell, Histology, Pathology
- Quality control, semiconductor industry
- Materials and surfaces inspection



>> CAMERA SPECIFICATIONS

	Mega Pixel	Resolution	Sensor	Frame/sec	Exposure	Notes	Dim. Pixel (µm)	Software
BLACKLIGHT CCD cameras								
BLACKLIGHT 55C	5.0	2580X1944	CCD 2/3" cooled	2.5	Max 24 min	Peltier cooled 30°C below ambient	3.46	BEL View
BLACKLIGHT 5000	5.0	2592X1944	CCD 1/1.8"	3.75	Max 375 sec	2.2 V/lux - sec	2.77	BEL Eurisko
BLACKLIGHT 8000	8.0	3280X2460	CCD 1/1.8"	3.33	Max 246 sec	2.2 V/lux - sec	2.22	BEL Eurisko

With BLACKLIGHT cameras **are included** the following accessories: micrometric slide for measurements calibration, 0.5x adapter for eyepieces (Ø23mm and Ø30mm), camera drivers, acquisition and image analysis software.

BLACKLIGHT cameras can be mounted on trinocular microscopes, binocular and monocular, both biological and stereo.

OTHER CAMERAS

	SD-CAM	can be connected directly to a LCD monitor, NO PC/software required
	Direct RGB (D-sub 15pin) output to connect the camera without help of a computer and software. Stores images directly in the 2GB memory card (included). High speed. Very good for quality control, observations with biological and stereo microscopes. White balance switchable: auto/manual. Automatic exposure. C-mount.	
	TV-CAM	can be connected directly to video-projectors or to external monitors
	CCD camera with good colors rendering and composite video output, easily connectable to video-projectors, external monitors or to computers (through optional USB adapter). White balance automatic/manual. Exposure control. Through a CCTV lens (optional) it is possible to use the camera for environment shoots.	

Accessories:

Cod.	Description
MB060012	C-mount 1x adapter for BEL Photonics Microscopes
MB060043	C-mount 0.5x adapter for for BEL Photonics Microscopes
MB060011	C-mount 0.4x adapter for for BEL Photonics Microscopes
MB060031	C-mount 1x adapter for OLYMPUS Microscopes (please request list of compatible models)
MB060032	C-mount 1x adapter for ZEISS Microscopes (please request list of compatible models)
MB060033	C-mount 1x adapter for LEICA Microscopes (please request list of compatible models)
MB060034	C-mount 1x adapter for NIKON Microscopes (please request list of compatible models)



FLUORESCENCE - HIGH RESOLUTION - LIVE CELL IMAGING - BRIGHTFIELD - DARKFIELD

SOFTWARE for acquisition and image analysis in Microscopy

BEL VIEW – Simple and easy to use

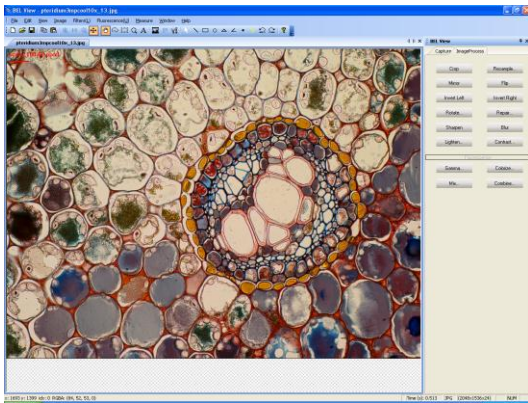


IMAGE ACQUISITION

- Camera auto-detect
- White balance
- Automatic exposure
- Gain control
- Intensity and saturation control
- Multiple and time capture
- Still image and Video

MEASUREMENTS

- Lines, angles, perimeters, areas.
- Measurements calibration and storing
- Manual counting
- Possibility to write notes on the image

IMAGE ANALYSIS

- Gamma correction

BEL EURISKO – Professional software

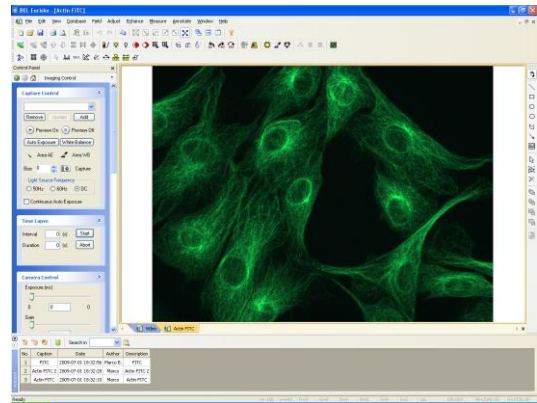


IMAGE ACQUISITION

- White balance. Automatic exposure
- Average of consecutive frames. Sub-sampling
- Intensity and saturation control
- Multiple and time capture
- Still image and video

MEASUREMENTS

- Lines, angles, perimeters, areas. Calibration and storing of measurements. Manual counting. Possibility to write notes on the image

IMAGE ANALYSIS

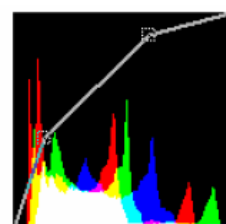
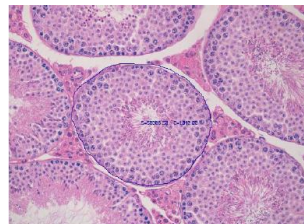
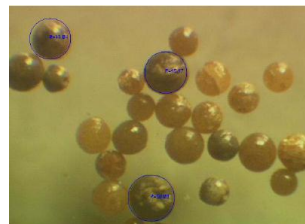
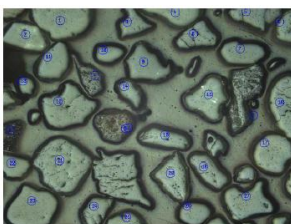
- Flat-Field Correction. Histogram and equalizer. Gamma correction. Channels separately composed. Contrast maximization. Wide choice of filters.

DATABASE

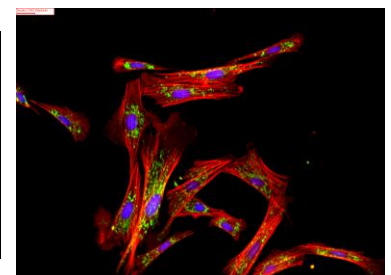
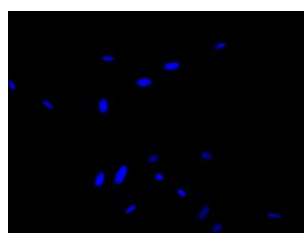
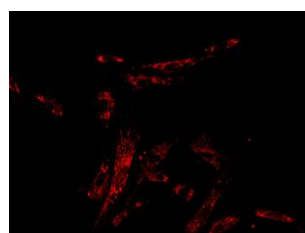
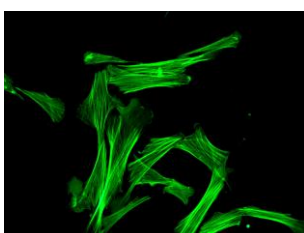
- Images can be organized in a database where it is possible to simply recall them from the hard disk, by a keyword or a comment

Software compatibility: 2000, XP, VISTA, Windows7 (32&64bit)

MEASURING, COUNTING, IMAGE ANALYSIS,....



COMBINE CHANNELS, CONTRAST MAXIMIZATION,....



ACCESSORIES FOR MICROSCOPES



V-6

Description	Cod.
ACCESSORIES FOR BIOLOGICAL MICROSCOPES	
Eyeiece 12.5x/14	MB010004
Eyeiece 16x/13	MB010005
Eyeiece 10x/18, with divisions (10x0.1mm)	MB010007
Eyeiece 10x/20, with divisions (10x0.1mm)	MB010009
Eyeiece WF 10X / 22 mm for SOLARIS/FLUO3/MPL/MTM3030/MTM20	MB010010
Dark field condenser, dry (0.77-0.91) and immersion (1.15-1.40)	MB030003
Phase contrast achromatic 40x set	MB050021
Phase contrast plan-achromatic 40x set	MB050022
Phase contrast achromatic complete set	MB050015
Phase contrast plan-achromatic complete set	MB050016
Phase contrast Infinity plan-achromatic complete set	MB050023
USB Kit, with converter Video-USB	MB060020
Photographic tube, 2.5x-4x, for Reflex cameras	MB060008
Adapter 0.4x with C-mount for 1/3" cameras	MB060011
Adapter 1x with C-mount for 1/2" cameras	MB060012
T-Adapter for Reflex cameras (Nikon, Canon)	MB060021
Micrometric slide (2mmx0.01mm)	MB120001
Eyeiece 0.5X adapter for cameras (C to 23mm and C to 30mm)	MB060022
ACCESSORIES FOR STEREO MICROSCOPES	
Eyeiece 10x with divisions (10x0.1mm) for STMPRO	MS010002
Eyeiece 15x for STMPRO	MS010003
Eyeiece 20x for STMPRO	MS010004
Eyeiece 25x for STMPRO	MS010005
Additional objective 0.5x for STMPRO	MS020001
Additional objective 0.75x for STMPRO	MS020002
Additional objective 1.5x for STMPRO	MS020003
Additional objective 2x for STMPRO	MS020004
Dark field condenser w/ gem holder for STMPRO	MS030005
Cold Light 150W illuminator w/annular Fiber optics guide	MS100013
Cold Light 150W illuminator w/Double arm Fiber optics guide	MS100012
LED annular digital illuminator, mod. LED-6T	MS100010
Micrometric slide for stereo, 10mm x 0,1mm	MB120002
Eyeiece WF10X for STMDLX	MS010012
Eyeiece WF15X for STMDLX	MS010013
Eyeiece WF20X for STMDLX	MS010014
Eyeiece WF30X for STMDLX	MS010015
Eyeiece WF10X with divisions for STMDLX	MS010016
Additional Objective 2X for Stereo STMDLX	MS020017
USB Kit, with converter Video-USB	MB060020
VARIOUS	
Box with 30 prepared HISTOLOGICAL slides	MB120003
Box with 30 prepared BOTANICAL slides	MB120004
Box with 30 prepared ZOOLOGICAL slides	MB120005
Hand Microtome, with blaze and box	MB120009

Many other accessories for Microscopes are available. Our Microscopes specialists will be happy to help you in the choice of the best Microscope configuration for your needs.

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