



MAGUS

CONTENTS

04 ABOUT MAGUS

08 BIOLOGICAL MICROSCOPES

10	MAGUS BIO 230 SERIES
16	MAGUS BIO 240 SERIES
22	MAGUS BIO 250 SERIES
28	MAGUS BIO 260 SERIES
34	MAGUS BIO 270T SERIES
40	MAGUS BIO 290T SERIES
46	MAGUS BIO V300 SERIES
52	MAGUS BIO V350 SERIES
58	MAGUS BIO V360
64	MAGUS LUM 400 AND LUM 400L SERIES
70	MAGUS LUM 450L
76	MAGUS LUM V500 AND V500L SERIES
84	BIOLOGICAL MICROSCOPE ACCESSORIES

88 INDUSTRIAL MICROSCOPES

90	MAGUS METAL 600 SERIES
96	MAGUS METAL 630 SERIES
102	MAGUS METAL 650 SERIES
108	MAGUS METAL V700 SERIES
114	MAGUS METAL V790 DIC
120	MAGUS POL 800 SERIES
126	MAGUS POL 850 SERIES
132	MAGUS POL 890
140	INDUSTRIAL MICROSCOPE ACCESSORIES

142 STEREOSCOPIC MICROSCOPES

144	MAGUS STEREO 7 8 SERIES
150	MAGUS STEREO 9T SERIES
156	MAGUS STEREO A6 A8 A10 SERIES
160	MAGUS STEREO A18T
166	STEREOMICROSCOPE ACCESSORIES

174 DIGITAL CAMERAS AND LCD MONITORS

ABOUT MAGUS



ABOUT US

An expert microscope brand that sets market standards. We develop premium solutions, offer training materials and comprehensive service to our customers and partners. We offer microscopes and accessories designed for achieving various goals. From academic research to industrial testing, our equipment is used where there is no place for compromise.

MAGUS — always an excellent choice!

WHAT WE DO

We guarantee price transparency, always in stock products, comprehensive support, and the opportunity to test microscopes. MAGUS is an international brand with a wide range of microscopes. It is actively represented in Europe, the US, and the Middle East covering 42 countries and 12 languages. MAGUS microscopes have a wide spectrum of uses and specializations in medicine, metallography, zoology, geology, botanics, and others.

Achieve effective results with MAGUS!



"THERE IS A PERFECT MICROSCOPE FOR EVERY SITUATION.
THE MARKET IS WAITING FOR A NEW LEADER"

MAGUS. OBJECTIVE EXCELLENCE

MAGUS ADVANTAGES

HIGH-STATUS PRODUCT

The optics and lighting system of MAGUS microscopes make it possible to achieve the maximum resolution with every lens. They also guarantee field of vision lighting homogeneity. These instruments have great ergonomics and premium service provided by our company.

With its precision, convenience, and reliability, MAGUS is the choice for those picky about even smallest details.

VARIETY OF CHOICE

We offer over a hundred models that include biological, fluorescence, inverted, metallurgical, polarizing, and stereoscopic microscopes along with their accessories and attachments. MAGUS microscopes are intended for professional users in medicine, metallography, geology, veterinary science, and other areas. Check out the model range online to find the best microscope for you. All of the models are available to order right now.

MAGUS – easy to choose.

WOW STYLE

Every aspect of the brand, from the idea to packaging, is designed to provide you with a product that performs efficiently and looks elegant and stylish.

MAGUS impresses and becomes an integral part of your achievements and results.

01 MICROSCOPE TEST DRIVE

MAGUS provides the opportunity to test out the microscopes, so you can experience their high quality first-hand.

02 COURTESY MICROSCOPE

During the repair of your microscope, we will provide you with another microscopy for free, so your work doesn't get interrupted.

03 FIXED PRICE

MAGUS will freeze your price for 6 months, so you can avoid the potential risks related to changes in the currency exchange rates.

04 SHOWROOMS

You can explore our microscope range in our offices in Europe, the US, and the Middle East.

05 STABLE STOCK

The stock maintained at our warehouses is refilled on a regular basis to guarantee constant availability of all microscopes and additional components.

06 EXPERT CONSULTATION

Our specialists will help you navigate the technical features and choose the model best fitted to your professional goals.





MAGUS

BIOLOGICAL MICROSCOPES

MAGUS BIO 230 SERIES
BIOLOGICAL MICROSCOPES



MAGUS



AREAS OF APPLICATION

Education, routine laboratory work, clinical research, and veterinary science.

PURPOSE

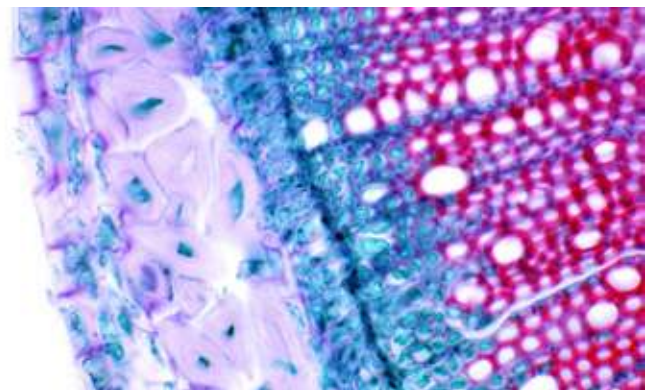
Observation and morphological examination of stained and unstained biological objects, such as smears and sections.

KEY FEATURES

- The Köhler illumination guarantees the highest resolution on each objective and the required contrast of the specimen image. Achromatic objectives correct field curvature by 65%.
- The eyepiece tubes are 360° rotatable, which allows adjusting the height of the eyepieces.
- The revolving nosepiece is turned "away from the observer", which frees more space above the stage. The user can see the objective introduced into the optical path.
- The fifth free slot of the revolving nosepiece is intended for an additional objective.
- The stage has no X-axis rack and pinion. The belt-driven mechanism allows for smooth movement and improves the comfort of use: You will not accidentally scratch your hand on the rack.
- The Abbe condenser is designed to install a darkfield or phase-contrast slider, which saves time when switching microscopy techniques.
- A variety of accessories expands the choice of microscopy techniques and the microscope magnification range.

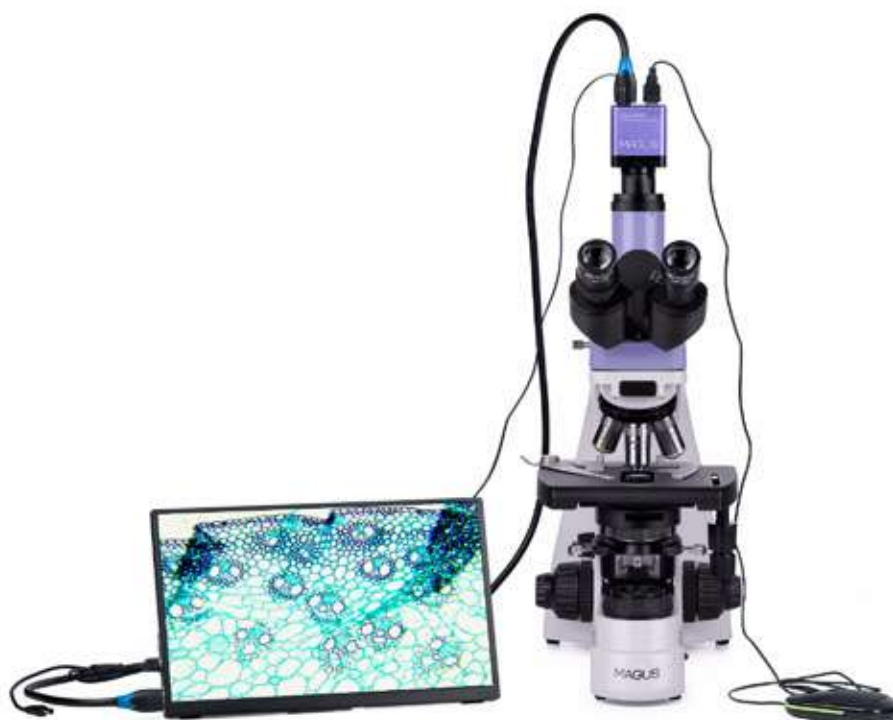
MODEL VARIATIONS

- Microscope head: binocular, trinocular, and trinocular with a camera or with a monitor.
- Light source: halogen bulb or LED.





MAGUS BIO 230 SERIES BIOLOGICAL MICROSCOPES





MAGUS BIO 240 SERIES
BIOLOGICAL MICROSCOPES



MAGUS



AREAS OF APPLICATION

Education (including higher education), routine research in clinical diagnostic laboratories, forensic medicine.

PURPOSE

Observation and morphological examination of stained and unstained biological objects, such as smears and sections.

KEY FEATURES

- The pre-configured condenser requires no further adjustment and simplifies the microscope operation, giving students more time for science and increasing the speed of the lab technician.
- Plan achromatic objectives correct field curvature by 90%, when eyepieces with 20mm field of view are used.
- The eyepiece tubes are 360° rotatable, which allows adjusting the height of the eyepieces.
- The user programs the revolving nosepiece during setup, which improves the comfort and saves time when switching objectives: The microscope remembers the brightness selected for each objective and automatically adjusts the value when the revolving nosepiece is rotated.
- The revolving nosepiece is turned "away from the observer", which frees more space above the stage. The user can see the objective introduced into the optical path.
- The stage has no X-axis rack and pinion. The belt-driven mechanism allows for smooth movement and improves the comfort of use: You will not accidentally scratch your hand on the rack.
- The microscope's intelligent mechanism controls the illumination: It automatically selects the brightness when objectives are changed, switches off the microscope by a timer, and displays the operation status on the LCD screen. The user can adjust the desired color temperature and lock the brightness adjustment, as necessary.
- The ergonomically designed stand allows you to carry the microscope securely and comfortably. Concealed placement of the power cord and power adapter enhances the aesthetics of the workstation and allows the convenient transportation of the microscope. The compact and lightweight design makes it easy to store the microscope on the classroom shelves.

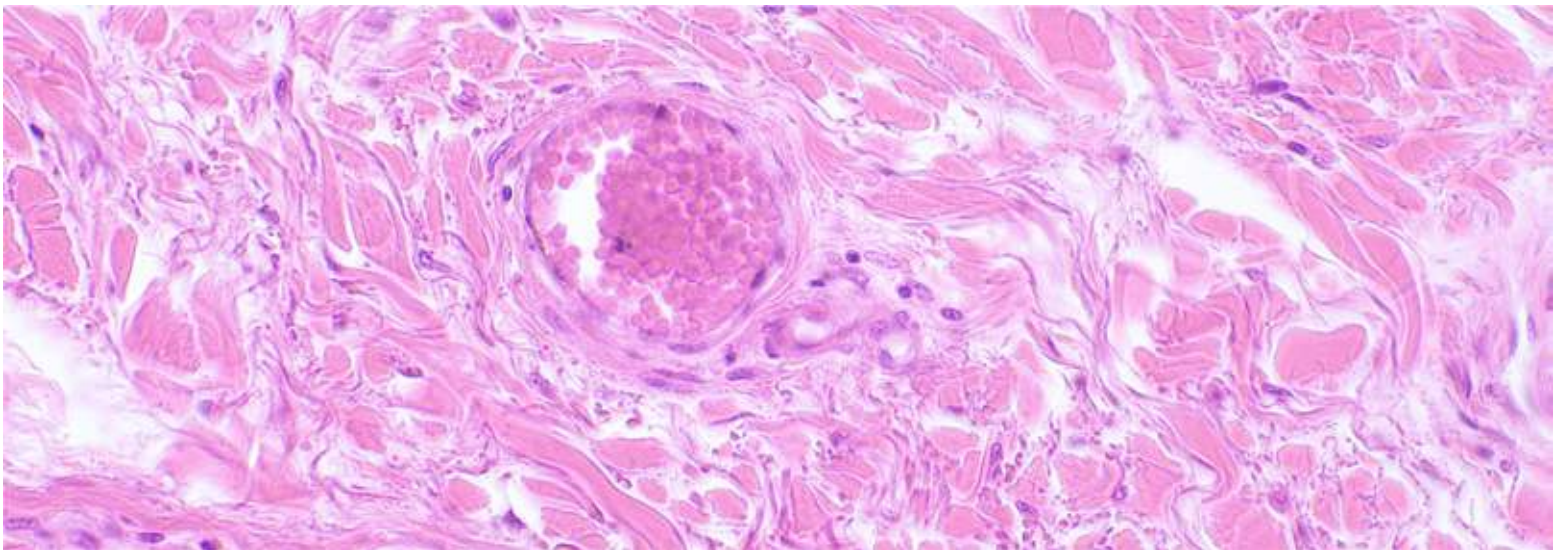


MODEL VARIATIONS

- Microscope head: binocular, trinocular, with an integrated camera (Wi-Fi connection available).

MAGUS BIO 240 BIOLOGICAL MICROSCOPES

SKU	83476	83478	83477
Model	BIO 240B 	BIO DH240 	BIO 240T 
SPECIFICATIONS			
Microscope head	Binocular	Binocular with an integrated 8MP digital camera	Trinocular
Magnification	40–1000x		
Eyepieces	10x/20mm (optional: 10x with a reticle, 10x with a scale)		
Revolving nosepiece	4 objectives, coded		
Optical design	Infinity achromatic objectives (∞), parfocal distance: 45mm		
Objectives	4x/0.10; 10x/0.25; 40x/0.65; 100x/1.25 oil (optional: 20x/0.40; 60x/0.80)		
Stage	Rackless XY mechanical stage Stage size: 180mm × 130mm, moving range: 74/30mm		
Condenser	Abbe NA 1.25 With an adjustable aperture diaphragm and magnification color coding		
Focusing mechanism	Coaxial coarse & fine, moving range: 17mm, with a coarse focusing tension adjusting knob and a coarse focusing lock knob		
Intelligent lighting control system	Automatic brightness adjustment during objective change, color temperature adjustment, LCD status screen, standby mode		
Camera connection	+	Integrated camera	+
Monitor connection	+	+	+
Light source	3W LED	3W LED	3W LED
MICROSCOPY TECHNIQUES			
	Transmitted light: brightfield		





MAGUS BIO 240 BIOLOGICAL MICROSCOPES





MAGUS BIO 250 SERIES
BIOLOGICAL MICROSCOPES



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AREAS OF APPLICATION

Clinical diagnostic, cytology and pathology laboratories, forensic medicine, veterinary laboratories, food quality control, and education.

PURPOSE

Observation and morphological examination of stained and unstained biological objects, such as smears and sections.

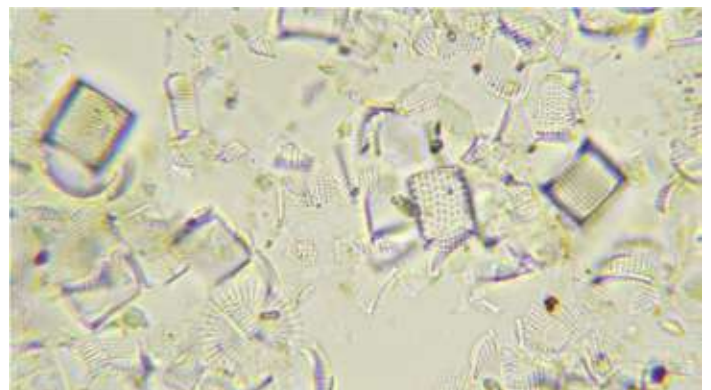
KEY FEATURES

- The Köhler illumination guarantees the highest resolution on each objective and the required contrast of the specimen image. Plan achromatic objectives correct field curvature by 90% when eyepieces with a 22mm field of view are used.
- The eyepiece tubes are 360° rotatable, which allows for the adjustment of the height of the eyepieces.
- The revolving nosepiece is turned "away from the observer", which frees more space above the stage. The user can see the objective introduced into the optical path.
- The fifth free slot of the revolving nosepiece is intended for an additional objective.
- The stage has no X-axis rack and pinion. The belt-driven mechanism allows for smooth movement and improves the comfort of use: You will not accidentally scratch your hand on the rack.
- The Abbe condenser is designed to install a darkfield or phase-contrast slider, which saves time when switching microscopy techniques.
- A variety of accessories expands the choice of microscopy techniques and the microscope magnification range.



MODEL VARIATIONS

- Microscope head: binocular, trinocular, trinocular with a camera or with a monitor.
- Light source: halogen bulb or LED.



SPECIFICATIONS						
Microscope head	Binocular	Trinocular				
Magnification	40–1000x (optional: 40–1200/1250/1500/1600/2000/2500x)					
Eyepieces	10x/22mm (optional: 10x, 12.5x, 15x, 20x, 25x)					
Revolving nosepiece	5 objectives					
Optical design	Infinity plan achromatic objectives (∞), parfocal distance: 45mm					
Objectives	4x/0.10; 10x/0.25; 40x/0.65; 100x/1.25 oil (optional: 20x/0.40; 60x/0.80)					
Stage	Rackless XY mechanical stage Stage size: 180mm x 150mm; moving range: 75/50mm					
Condenser	Abbe NA 1.25 Centerable, with an adjustable aperture diaphragm and a slot for the darkfield and phase-contrast slider					
Field diaphragm	Adjustable iris					
Focusing mechanism	Coaxial coarse & fine, moving range: 21mm, with a coarse focusing tension adjusting knob and a coarse focusing lock knob					
Camera connection	+	+	+	CDF50, USB 3.0 supplied	CDF50, USB 3.0 supplied	CHD10, HDMI supplied
Monitor connection	+	+	+	+	+	MCD20 supplied
Light source	12V/30W halogen bulb	3W LED	12V/30W halogen bulb	3W LED	12V/30W halogen bulb	3W LED
MICROSCOPY TECHNIQUES						
Basic configuration	Transmitted light: brightfield					
Optional equipment	Transmitted light: darkfield, polarization, phase-contrast Reflected light: fluorescence					



MAGUS BIO 250 SERIES BIOLOGICAL MICROSCOPES





MAGUS BIO 260 SERIES
BIOLOGICAL MICROSCOPES



MAGUS



AREAS OF APPLICATION

Education (including higher education), clinical diagnostic laboratories, forensic medicine, food quality control, and scientific research.

PURPOSE

Observation and morphological examination of stained and unstained biological objects, such as smears and sections.

KEY FEATURES

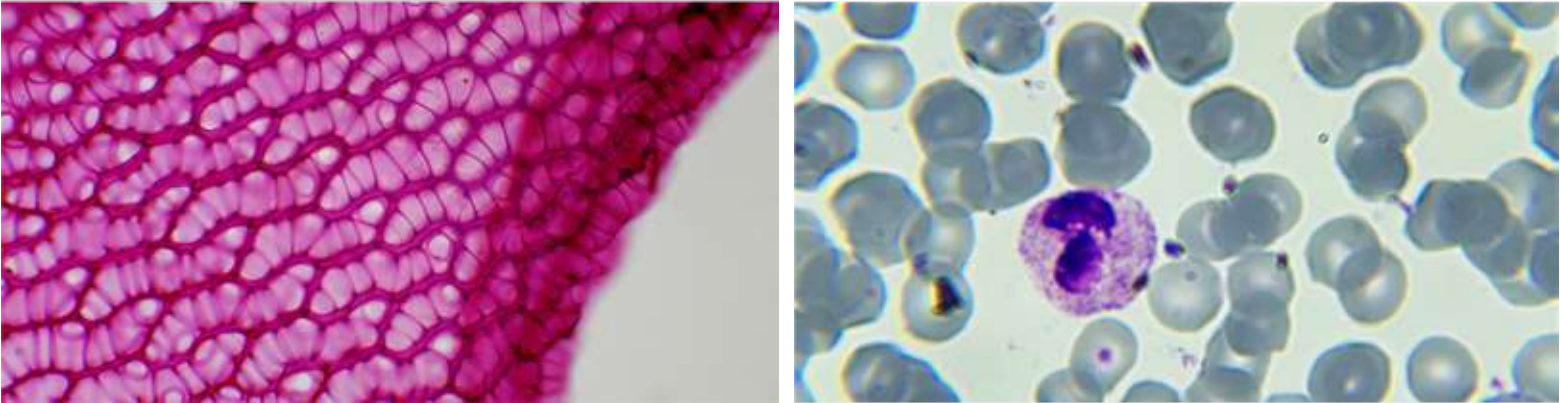
- The Köhler illumination guarantees the highest resolution on each objective and the required contrast of the specimen image. Plan achromatic objectives correct field curvature by 90% when eyepieces with a 22mm field of view are used.
- The microscope head can be adjusted to fit the user's eyepoint height for convenience.
- The user programs the revolving nosepiece during setup, which improves the comfort and saves time when switching objectives: The microscope remembers the brightness selected for each objective and automatically adjusts the value when the revolving nosepiece is rotated.
- The revolving nosepiece is turned "away from the observer", which frees more space above the stage. The user can see the objective introduced into the optical path.
- The fifth free slot of the revolving nosepiece is intended for an additional objective.
- The stage has no X-axis rack and pinion. The belt-driven mechanism allows for smooth movement and improves the comfort of use: You will not accidentally scratch your hand on the rack.
- The microscope's intelligent mechanism controls the illumination: It automatically selects the brightness when objectives are changed, switches off the microscope by a timer, and displays the operation status on the LCD screen. The user can lock the brightness adjustment, if required.
- The Abbe condenser is designed to install a darkfield or phase-contrast slider, which saves time when switching microscopy techniques.
- The hidden placement of the power cord enhances the aesthetics of the workstation and simplifies the storage. In combination with a special carrying handle, the microscope can be carried more easily and securely.
- A variety of accessories expands the choice of microscopy techniques and the microscope magnification range.

MODEL VARIATIONS

- Microscope head: trinocular, with an integrated camera (Wi-Fi connection available).

MAGUS BIO 260 SERIES BIOLOGICAL MICROSCOPES

SKU	83480	83479
MODEL	BIO DH260 	BIO 260T 
SPECIFICATIONS		
Microscope head	Binocular with an integrated 8MP digital camera	Trinocular
Magnification	40–1000x (optional: 40–1250/1500/2000x)	
Eyepieces	10x/22mm with eye relief (optional: 10X/22mm with a scale, 10X/22mm with a reticle, 10x/22mm with crosshairs, 12.5x/17.5mm, 15x/16mm; 20x/12mm)	
Revolving nosepiece	5 objectives, coded	
Optical design	Infinity plan achromatic objectives (∞), parfocal distance: 60mm	
Objectives	4x/0.10; 10x/0.25; 40x/0.65; 100x/1.25 oil (optional: 2x/0.06; 20x/0.40; 50x/0.95 oil; 60x/0.80)	
Stage	Rackless XY mechanical stage Stage size: 230mm × 150mm, moving range: 78/54	
Condenser	Abbe NA 1.25 Centerable, with adjustable aperture diaphragm and a slot with a plug for darkfield and phase-contrast sliders;	
Field diaphragm	Adjustable iris	
Focusing mechanism	Coaxial coarse & fine, moving range: 30 mm; with coarse focusing tension adjusting knobs	
Intelligent lighting control system	Automatic brightness adjustment during objective change, LCD status screen, standby mode	
Camera connection	Integrated camera	+
Monitor connection	+	+
Light source	3W LED	3W LED
MICROSCOPY TECHNIQUES		
Basic configuration	Transmitted light: brightfield	
Optional equipment	Transmitted light: darkfield, polarization, phase-contrast Reflected light: fluorescence	





MAGUS BIO 260 SERIES BIOLOGICAL MICROSCOPES





MAGUS BIO 270T
BIOLOGICAL MICROSCOPE



MAGUS



AREAS OF APPLICATION

Clinical diagnostic and pathology laboratories, veterinary science, forensic medicine, quality control of food products and raw materials, pharmaceutical industry and scientific research.

PURPOSE

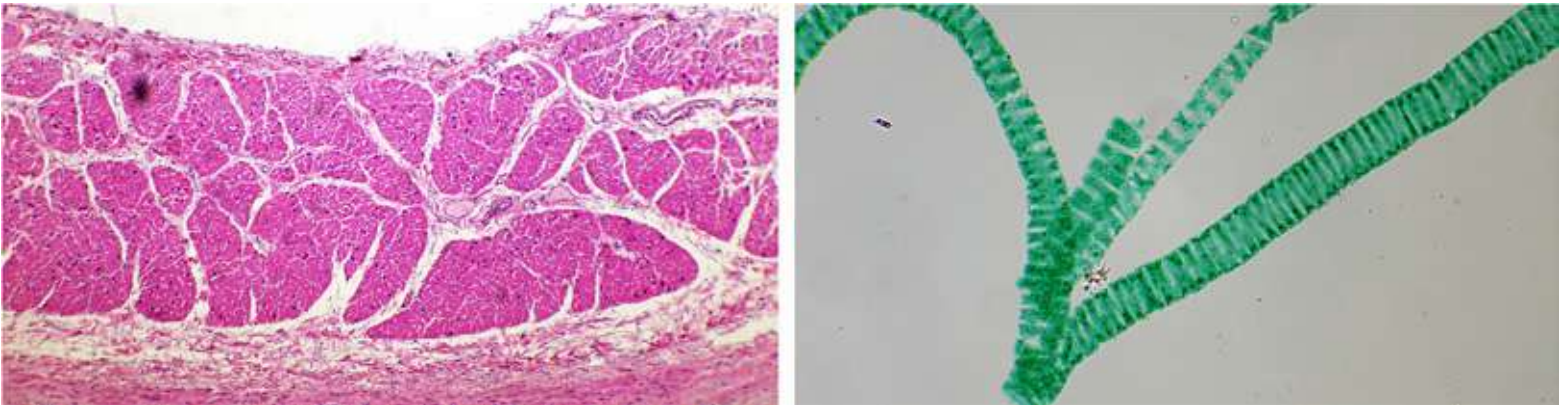
Research-grade microscope. Observation and morphological examination of stained and unstained biological samples, such as smears and sections.

KEY FEATURES

- In the conventional Köhler illumination design, the light source is brought out from underneath the collector; in this model, it is moved to the rear of the base. The design ensures even illumination, the highest resolution on each objective, and the required contrast of the specimen image. Plan achromatic objectives correct field curvature by 90% when eyepieces with a 22mm field of view are used.
- The eyepiece tubes are 360° rotatable, which allows the adjustment of the height of the eyepieces.
- The user programs the revolving nosepiece during setup, which improves the comfort and saves time when switching objectives: The microscope remembers the brightness selected for each objective and automatically adjusts the value when the revolving nosepiece is rotated.
- The revolving nosepiece is turned "away from the observer", which frees more space above the stage. The user can see the objective introduced into the optical path.
- The fifth free slot of the revolving nosepiece is intended for an additional objective.
- The stage has no X-axis rack and pinion. The belt-driven mechanism allows for smooth movement and improves the comfort of use: You will not accidentally scratch your hand on the rack.
- The microscope's intelligent mechanism controls the illumination: It automatically selects the brightness when objectives are changed, switches off the microscope by a timer, and displays the operation status on the LCD screen. The user can adjust the desired color temperature and lock the brightness adjustment, as necessary.
- The hidden placement of the power adapter and power cord enhances the aesthetics of the workstation and simplifies the storage. In combination with a special carrying handle, the microscope can be carried more easily and securely.
- A variety of accessories expands the choice of microscopy techniques and the microscope magnification range.

MAGUS BIO 270 BIOLOGICAL MICROSCOPE

SKU	83481
MODEL	BIO 270T 
SPECIFICATIONS	
Microscope head	Trinocular
Magnification	40–1000x (optional: 40–1250/1500/2000x)
Eyepieces	10x/22mm with eye relief (optional: 10X/22mm with a scale, 10X/22mm with a reticle, 10x/22mm with crosshairs, 12.5x/17.5mm, 15x/16mm, 20x/12mm)
Revolving nosepiece	5 objectives, coded
Optical design	Infinity plan achromatic objectives (∞), parfocal distance: 60mm
Objectives	4x/0.10; 10x/0.25; 40x/0.65; 100x/1.25 oil (optional: 2x/0.06; 20x/0.40; 50x/0.95 oil; 60x/0.80)
Stage	Rackless XY mechanical stage Stage size: 230mm × 150mm, moving range: 78/54
Condenser	Abbe NA 0.9 Centerable, height-adjustable, with adjustable aperture diaphragm
Field diaphragm	Adjustable iris
Focusing mechanism	Coaxial coarse & fine, moving range: 32mm, with a coarse focusing tension adjusting knob and a coarse focusing lock knob
Intelligent lighting control system	Automatic brightness adjustment during objective change, LCD status screen, standby mode
Camera connection	+
Monitor connection	+
Light source	3W LED
MICROSCOPY TECHNIQUES	
Basic configuration	Transmitted light: brightfield
Optional equipment	Transmitted light: darkfield, polarization, phase-contrast Reflected light: fluorescence





MAGUS BIO 270T BIOLOGICAL MICROSCOPE





MAGUS BIO 290T
BIOLOGICAL MICROSCOPE



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AREAS OF APPLICATION

Biomedical scientific research.

PURPOSE

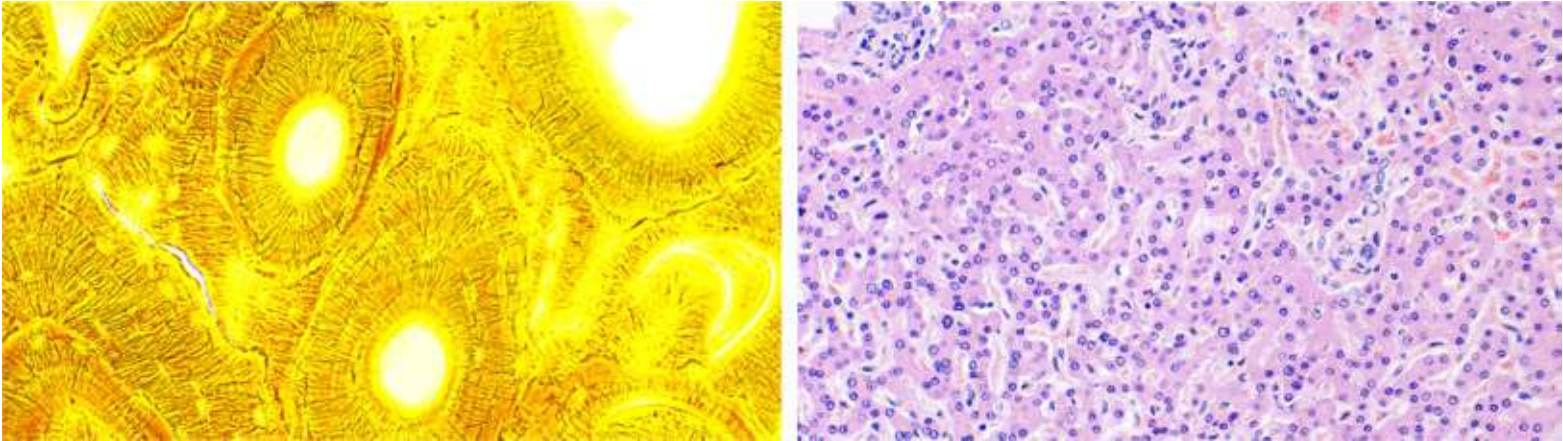
Motorized research-grade microscope. Observation and morphological examination of stained and unstained biological objects, such as smears and sections.

KEY FEATURES

- The motorized revolving nosepiece: The operating objective is changed not manually, but by pushing one of two buttons conveniently located on either side of the stand, or by using a remote control panel. The motorized condenser with a flip-down lens automatically removes the front lens from the optical path when low magnification objectives are used. The user does not get distracted by the settings and remains focused on observations.
- In the conventional Köhler illumination design, the light source is brought out from underneath the collector; in this model, it is placed on the rear of the stand. The design ensures even illumination, the highest resolution on each objective and the required contrast of the specimen image. Plan achromatic objectives correct field curvature by 90%, when eyepieces with a 25mm field of view are used. The microscope is equipped with five objectives.
- The user can choose the inclination angle of the microscope head in the range of 0 to 35°.
- The beam splitting ratio in the trinocular tube is 0/100, 100/0, and 80/20.
- The revolving nosepiece is turned "away from the observer", which frees more space above the stage. The user can see the objective introduced into the optical path. The sixth free slot of the revolving nosepiece is intended for an additional objective.
- The stage has no X-axis rack and pinion. The belt-driven mechanism allows for smooth movement and improves the comfort of use: You will not accidentally scratch your hand on the rack. The telescopic stage control knob allows the user to extend the knob to a comfortable length.
- A variety of accessories expands the choice of microscopy techniques and the microscope magnification range.

MAGUS BIO 290 BIOLOGICAL MICROSCOPE

SKU	83482
MODEL	BIO 290T 
SPECIFICATIONS	
Microscope head	Trinocular
Magnification	40–1000x (optional: 40–1250/1500/2000x)
Eyepieces	10x/25mm with eye relief (optional: 10X/22mm with a scale, 10X/22mm with a reticle, 10x/22mm with crosshairs, 12.5x/17.5mm, 15x/16mm, 20x/12mm)
Revolving nosepiece	6 objectives, motorized
Optical design	Infinity plan achromatic objectives (∞), parfocal distance: 60mmparfocal distance: 60mm
Objectives	4x/0.10; 10x/0.25; 20x/0.40; 40x/0.65; 100x/1.25 oil (optional: 2x/0.06; 20x/0.40; 50x/0.95 oil; 60x/0.80)
Stage	Two-axis mechanical stage with Gorilla Glass plate, size: 190mm × 152mm, moving range: 78/32mm
Condenser	NA 0.9/0.25 Motorized condenser with a flip-down lens; centerable, height-adjustable, with adjustable aperture diaphragm
Field diaphragm	Adjustable iris
Focusing mechanism	Coaxial coarse & fine, moving range: 32mm, with a coarse focusing tension adjusting knob and a coarse focusing lock knob
Camera connection	+
Monitor connection	+
Light source	3W LED
MICROSCOPY TECHNIQUES	
Basic configuration	Transmitted light: brightfield
Optional equipment	Transmitted light: darkfield, polarization, phase-contrast, DIC Reflected light: fluorescence





MAGUS BIO 290T BIOLOGICAL MICROSCOPE





**MAGUS BIO V300 SERIES
BIOLOGICAL INVERTED MICROSCOPES**



MAGUS



AREAS OF APPLICATION

Diagnostics and research in cell biology, bacteriology, biotechnology, virology, hydrobiology, agriculture, and pharmacology.

PURPOSE

Studying cell colonies and living cells, tissue cultures, liquid precipitates, and other stained and unstained specimens in laboratory glassware (Petri dishes, bottles, multi-well plates, roller bottles).

KEY FEATURES




- The inverted design of the microscope allows for the use of laboratory glassware up to 70mm.
- Plan achromatic objectives correct field curvature by 90%, when eyepieces with 22mm field of view are used. Objectives with a long working distance can be used for dishes with a bottom thickness of up to 1.2mm. The microscope kit includes four objectives: Three objectives are used for the brightfield observations and one objective is used for the phase-contrast observations.
- The light path in the trinocular microscope head does not change. The splitting ratio is fixed: 50% to eyepieces and 50% to the trinocular tube. The user observes the image in the eyepieces and on the screen at the same time.
- The condenser with the phase-contrast slider allows rapid changing of microscopy techniques: brightfield and phase-contrast.
- The mechanical attachment is secured on the fixed stage and, in combination with the dish holders, enables the smooth movement of specimens.

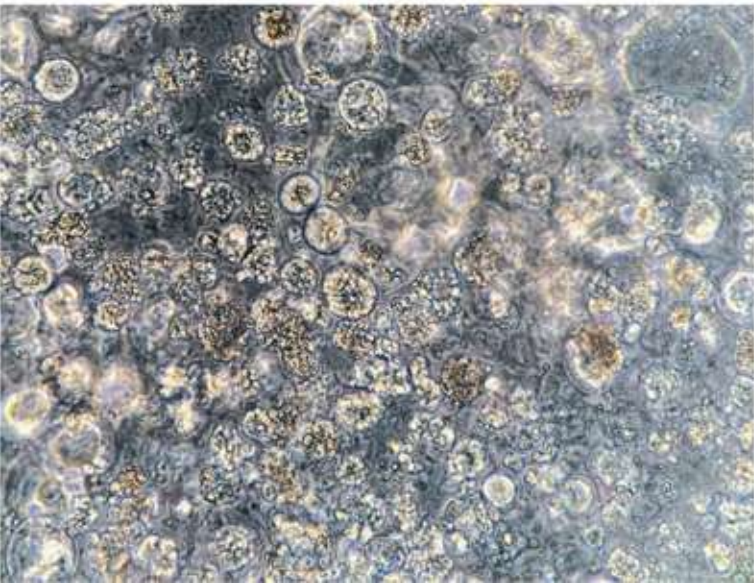


MODEL VARIATIONS

- Microscope head: trinocular, trinocular with a camera or with a monitor.

MAGUS BIO V300 BIOLOGICAL INVERTED MICROSCOPES

SKU	82906	83012	83013
MODEL	BIO V300 	BIO VD300 	BIO VD300 LCD 
SPECIFICATIONS			
Microscope head	Trinocular		
Magnification	100–400x (optional: 40–500/ 600/800/1000x)		
Eyepieces	10x/22mm with 10mm eye relief (optional: 10x/22mm with a scale, 12.5x/14mm, 15x/15mm, 20x/12mm, 25x/9mm)		
Revolving nosepiece	4 objectives		
Optical design	Infinity plan achromatic objectives (∞), parfocal distance: 45mm		
Objectives	10x/0.25; 20x/0.40; 40x/0.60, 10x/0.25 phase-contrast (optional: 4x/0.10; 20x/0.40 phase-contrast; 40x/0.60 phase-contrast)		
Stage	Fixed, with a mechanical XY stage attachment; dish holders of various diameters supplied: 3 pcs; moving range: 77/112		
Condenser	NA 0.6 Working distance: 70mm; with an adjustable aperture diaphragm and a slot for the phase-contrast slider		
Focusing mechanism	Coaxial coarse & fine, with a coarse focusing tension adjusting knob and a coarse focusing lock knob		
Camera connection	+	supplied CDF30, USB 3.0	supplied CHD30, HDMI
Monitor connection	+	+	MCD20 supplied
Light source	9W LED	9W LED	9W LED
MICROSCOPY TECHNIQUES			
Transmitted light: brightfield and phase contrast			





MAGUS BIO V300 SERIES BIOLOGICAL INVERTED MICROSCOPES





**MAGUS BIO V350 SERIES
BIOLOGICAL INVERTED MICROSCOPES**



MAGUS



AREAS OF APPLICATION

Diagnostics and research in cell biology, bacteriology, biotechnology, virology, hydrobiology, agriculture, and pharmacology.

PURPOSE

Studying cell colonies and living cells, tissue cultures, liquid precipitates, and other stained and unstained specimens in laboratory glassware (Petri dishes, bottles, multi-well plates, roller bottles).

KEY FEATURES




- The inverted design of the microscope allows for the use of laboratory glassware up to 55 mm. The stand tilts to the side to make room for dishes up to 165mm high.
- The Köhler illumination guarantees the highest resolution on each objective and the required contrast of the specimen image. Plan achromatic objectives correct field curvature by 90% when eyepieces with a 22mm field of view are used.
- Objectives with a long working distance can be used for dishes with a bottom thickness of up to 1.2mm. Three objectives are used for the brightfield observations and one objective is used for the phase-contrast observations.
- Four objectives from the microscope kit are simultaneously mounted in the five-slot revolving nosepiece. The fifth free slot of the revolving nosepiece is intended for an additional phase-contrast objective, which will allow for using one more magnification for the phase-contrast technique.
- The microscope head can be adjusted to fit the user's eyepoint height for convenience. Two independent ports enable the simultaneous connection of a monitor and a camera.
- The Zernicke condenser with three phase-contrast sliders allows rapid changing of microscopy techniques: brightfield and phase-contrast.
- The mechanical attachment is secured on the fixed stage and, in combination with three types of dish holders, enables the smooth movement of specimens.



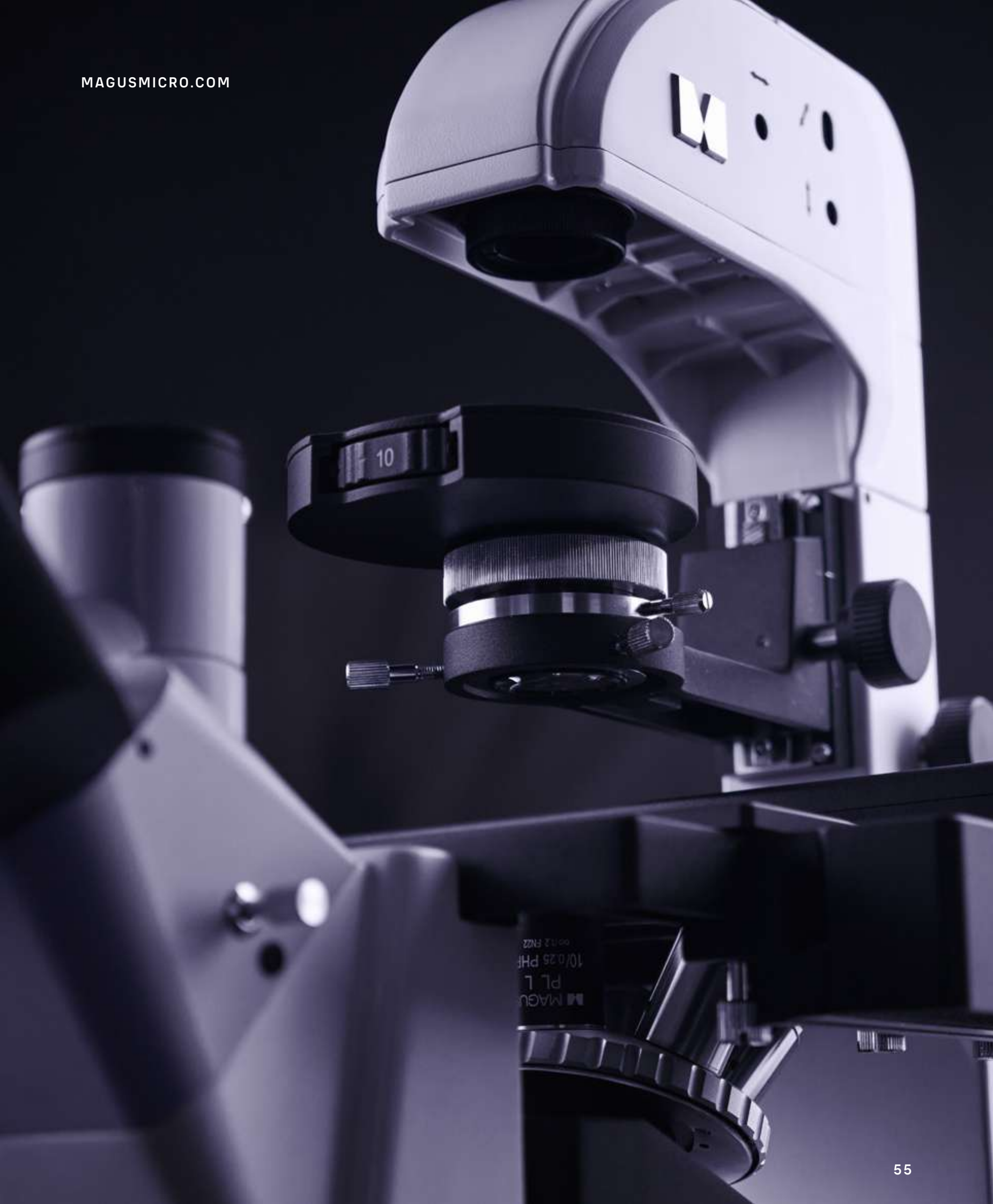
MODEL VARIATIONS

- Microscope head: trinocular, trinocular with a camera or with a monitor.

MAGUS BIO V350 SERIES BIOLOGICAL INVERTED MICROSCOPES

SKU	82907	83014	83015
MODEL	BIO V350 	BIO VD350 	BIO VD350 LCD 
SPECIFICATIONS			
Microscope head	Trinocular		
Magnification	100–400x (optional: 40–500/ 600/800/1000x)		
Eyepieces	10x/22mm with 10mm eye relief (optional: 10x/22mm with a scale, 12.5x/14mm, 15x/15mm, 20x/12mm, 25x/9mm)		
Revolving nosepiece	5 objectives		
Optical design	Infinity plan achromatic objectives (∞), parfocal distance: 45mm		
Objectives	10x/0.25; 20x/0.40; 40x/0.60; 10x/0.25 phase-contrast (optional: 4x/0.10; 20x/0.40 phase-contrast; 40x/0.60 phase-contrast)		
Stage	Fixed, with a ø118mm glass plate and a mechanical attachment for moving specimens; stage size: 227x208; dish holders of various diameters supplied: 4 pcs; specimen moving range: 77/114		
Condenser	Zernicke condenser NA 0.6 Working distance: 55mm		
Field diaphragm	Adjustable iris		
Focusing mechanism	Coaxial coarse & fine, with a coarse focusing tension adjusting knob and a coarse focusing lock knob		
Camera connection	+	supplied CDF30, USB 3.0	supplied CHD30, HDMI
Monitor connection	+	+	MCD20 supplied
Light source	12V/30W halogen bulb	12V/30W halogen bulb	12V/30W halogen bulb
MICROSCOPY TECHNIQUES			
Transmitted light: brightfield and phase contrast.			





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MAGUS BIO V350 SERIES BIOLOGICAL INVERTED MICROSCOPES





MAGUS BIO V360
BIOLOGICAL INVERTED MICROSCOPE



MAGUS



AREAS OF APPLICATION

Diagnostics and research in cell biology, bacteriology, biotechnology, virology, hydrobiology, agriculture, and pharmacology.

PURPOSE


Studying cell colonies and living cells, tissue cultures, liquid precipitates, and other stained and unstained specimens in laboratory glassware (Petri dishes, bottles, multi-well plates).

KEY FEATURES

- The inverted design of the microscope allows for the use of laboratory glassware up to 75mm with a bottom thickness of 1.2mm. The condenser can be removed to work with the flask up to 187 mm.
- Plan achromatic objectives correct field curvature by 90% when eyepieces with a 22mm field of view are used. The long working distance of the objectives makes it possible to use glassware with a bottom thickness up to 1.2mm. The microscope kit includes one objective for the brightfield observations and three objectives for the phase-contrast observations.
- The eyepiece tubes are 360° rotatable, which allows adjustment of the height of the eyepieces. The digital camera is mounted in the side camera port on the microscope head. The light beam is split in two positions: 100% to the eyepieces and 0% to the camera port or 0% to the eyepieces and 100% to the camera port. The beam splitting provides protection from unwanted light.
- The user programs the revolving nosepiece during setup, which improves the comfort and saves time when switching objectives: The microscope remembers the brightness selected for each objective and automatically adjusts the value when the revolving nosepiece is rotated.
- The fifth free slot of the revolving nosepiece is intended for an additional objective.
- The microscope's intelligent mechanism controls the illumination: It automatically selects the brightness when objectives are changed, switches off the microscope by a timer, and displays the operation status on the LCD screen. The user can lock the brightness adjustment, if required.
- The condenser with the phase-contrast slider allows for the rapid changing of microscopy techniques: brightfield and phase-contrast. A relief contrast slider and Hoffman modulation contrast slider can also be installed in the condenser slot.
- The mechanical attachment is secured on the fixed stage and, in combination with the dish holders, enables smooth movement of specimens.



MAGUS BIO V360 BIOLOGICAL INVERTED MICROSCOPE

SKU	83483
MODEL	BIO V360 
SPECIFICATIONS	
Microscope head	Binocular, with side camera port
Magnification	40–400 basic configuration (optional: 40–600/800/1200)
Eyepieces	10X/22mm with diopter adjustment ± 5dp, eye relief (optional: 15x/16mm, 20x/12mm)
Revolving nosepiece	5 objectives, coded
Optical design	Infinity plan achromatic objectives (∞), parfocal distance: 60mm
Objectives	4x/0.10; 10x/0.25 phase-contrast; 20x/0.40 phase-contrast; 40x/0.60 phase-contrast (optional: 4x/0.13 phase-contrast; 60x/0.70 phase-contrast)
Stage	Fixed, with a mechanical XY stage attachment, size: 250x170mm; universal dish holder
Condenser	NA 0.3 Working distance: 75 mm; with an adjustable aperture diaphragm and a slot for the relief contrast, phase contrast, and modulation contrast slider
Focusing mechanism	Coaxial coarse & fine, with a coarse focusing tension adjusting knob
Camera connection	+
Monitor connection	+
Light source	3W LED
MICROSCOPY TECHNIQUES	
Basic configuration	Transmitted light: brightfield and phase contrast
Optional equipment	Transmitted light: Hoffman modulation contrast, relief contrast





MAGUS BIO V360 BIOLOGICAL INVERTED MICROSCOPE





MAGUS LUM 400 AND LUM 400L SERIES
FLUORESCENCE MICROSCOPES



MAGUS



AREAS OF APPLICATION

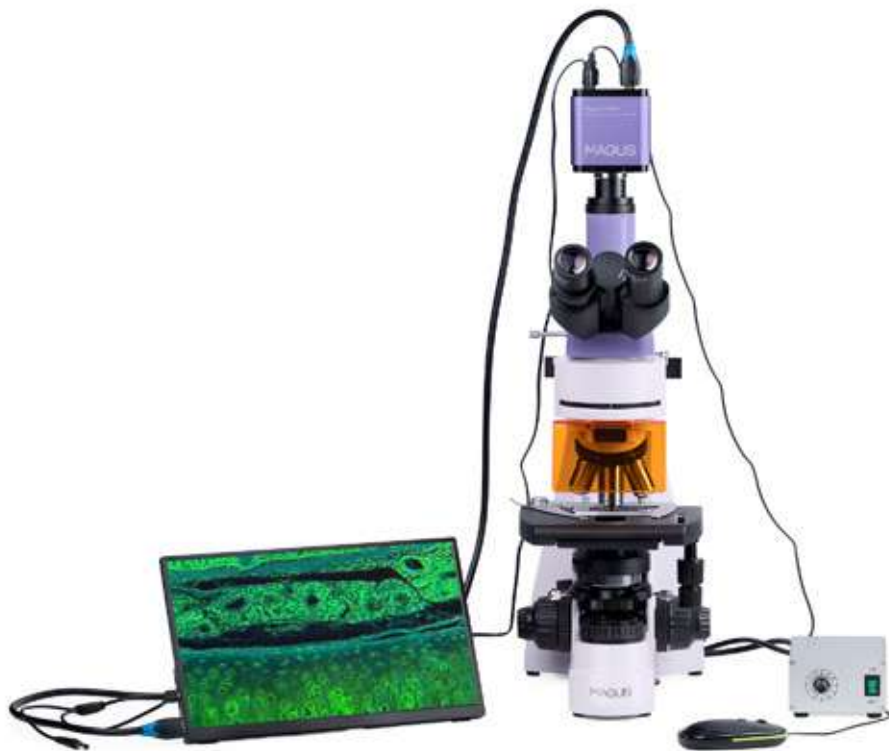
Diagnosis of infectious diseases, bacteriology, chromosome analysis, forensic examination, veterinary control, disease control and prevention, and scientific research.

PURPOSE

Observation and morphological examination of stained and unstained biological objects, such as smears and sections, and reflected light observations using the fluorescence technique. The fluorescence technique increases the resolving power of the microscope and enables visualizing smaller structures.

KEY FEATURES







- The Köhler illumination in the reflected and transmitted light guarantees the highest resolution on each objective and the required contrast of the specimen image. Plan achromatic objectives correct field curvature by 90% when eyepieces with a 22mm field of view are used. The numerical aperture of 0.85 in the 40x fluo objective increases the resolving power of the objective. The image in the eyepieces and through the digital camera is cleaner, more contrast and brighter, than with a regular objective.
- The reflected light illuminator has four excitation filters: ultraviolet (UV), violet (V), blue (B), and green (G).
- The eyepiece tubes are 360° rotatable, which allows for adjusting the height of the eyepieces.
- The revolving nosepiece is turned "away from the observer", which frees more space above the stage. The user can see the objective introduced into the optical path. The fifth free slot of the revolving nosepiece is used to mount an additional objective and adjust the reflected light source.
- The stage has no X-axis rack and pinion. The belt-driven mechanism allows for smooth movement and improves the comfort of use: You will not accidentally scratch your hand on the rack.
- The Abbe condenser is designed to install a darkfield or phase-contrast slider, which saves time when switching microscopy techniques.
- A variety of accessories expands the choice of microscopy techniques and the microscope magnification range.



MODEL VARIATIONS

- Transmitted light source: halogen bulb or LED.
- Reflected light source: mercury lamp of 4 LEDs of different wavelengths (blue, green, violet, ultraviolet).
- Microscope head: trinocular, trinocular with a camera or with a monitor.

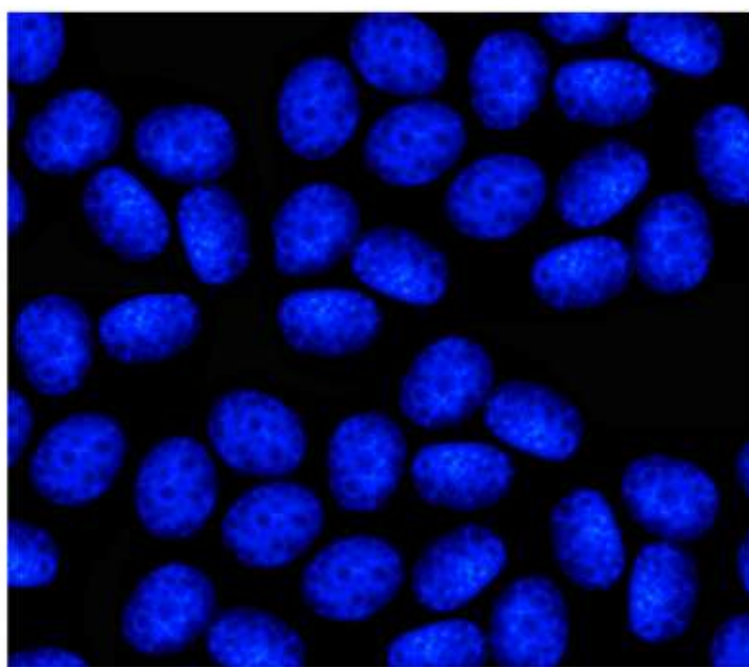
MAGUS LUM 400 AND LUM 400L
FLUORESCENCE MICROSCOPES

SKU	82904	82905	83016	83018	83017	83019
MODEL	LUM 400 	LUM 400L 	LUM D400 	LUM D400L 	LUM D400 LCD 	LUM D400L LCD 

SPECIFICATIONS						
Microscope head	Trinocular					
Magnification	40–1000x (optional: 40–1250/1500/2000/2500x)					
Eyeieces	10x/22mm, eye relief: 10mm (optional: 10x/22mm with a scale, 12.5x/14mm, 15x/15mm, 20x/12mm, 25x/9mm)					
Revolving nosepiece	5 objectives					
Optical design	Infinity plan achromatic and fluo objectives, parfocal distance: 45mm					
Objectives	4x/0.10; 10x/0.25; 40x/0.85 fluo; 100x/1.25 oil (optional: 10x/0.35 fluo; 20x/0.40; 60x/0.80)					
Stage	Rackless XY metal stage Stage size: 180mm × 150mm; moving range: 75/50					
Condenser	Abbe NA 1.25 Centerable, height-adjustable, with an adjustable aperture diaphragm and a slot for the darkfield and phase-contrast slider					
Field diaphragm	Adjustable iris					
Focusing mechanism	Coaxial coarse & fine, moving range: 21mm, with a coarse focusing tension adjusting knob and a coarse focusing lock knob					
Camera connection	+	+	CLM10, USB 3.0 supplied	CLM10, USB 3.0 supplied	CHD40, HDMI supplied	CHD40, HDMI supplied
Monitor connection	+	+	+	+	MCD40 supplied	MCD40 supplied
Transmitted light source	12V/30W halogen bulb	3W LED	12V/30W halogen bulb	3W LED	12V/30W halogen bulb	3W LED
Reflected light source	100W mercury lamp	Four 5W LEDs of different wavelengths	100W mercury lamp	Four 5W LEDs of different wavelengths	100W mercury lamp	Four 5W LEDs of different wavelengths
MICROSCOPY TECHNIQUES						
Basic configuration	Transmitted light: brightfield Reflected light: fluorescence					
Optional equipment	Transmitted light: darkfield, polarization, phase-contrast					



MAGUS LUM 400 AND LUM 400L SERIES FLUORESCENCE MICROSCOPES

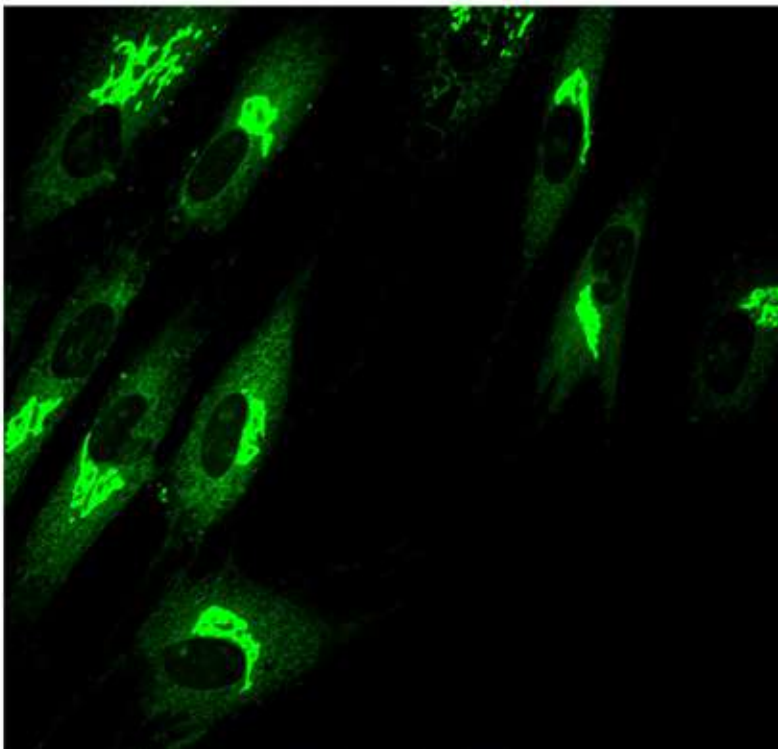




MAGUS LUM 450L
FLUORESCENCE MICROSCOPE



MAGUS



AREAS OF APPLICATION

Higher education, diagnosis of infectious diseases, bacteriology, chromosome analysis, forensic examination, veterinary control, disease control and prevention, and scientific research.


PURPOSE

Observation and morphological examination of stained and unstained biological objects, such as smears and sections, and reflected light observations using the fluorescence technique. The fluorescence technique increases the resolving power of the microscope and enables visualizing smaller structures.

KEY FEATURES

- The Köhler illumination in transmitted light guarantees the highest resolution on each objective and the required contrast of the specimen image. Plan achromatic objectives correct field curvature by 90% when eyepieces with a 22mm field of view are used.
- The reflected light illuminator has two excitation filters: blue (B) and green (G). The light source is LED.
- The microscope head can be adjusted to fit the user's eyepoint height for convenience.
- The user programs the revolving nosepiece during setup, which improves the comfort and saves time when switching objectives: The microscope remembers the brightness selected for each objective and automatically adjusts the value when the revolving nosepiece is rotated.
- The revolving nosepiece is turned "away from the observer", which frees more space above the stage. The user can see the objective introduced into the optical path. The fifth free slot of the revolving nosepiece is intended for an additional objective.
- The stage has no X-axis rack and pinion. The belt-driven mechanism allows for smooth movement and improves the comfort of use: You will not accidentally scratch your hand on the rack.
- The microscope's intelligent mechanism controls the illumination: It automatically selects the brightness when objectives are changed, switches off the microscope by a timer, and displays the operation status on the LCD screen. The user can lock the brightness adjustment, if required.
- The Abbe condenser is designed to install a darkfield or phase-contrast slider, which saves time when switching microscopy techniques.
- The hidden placement of the power cord enhances the aesthetics of the workstation and simplifies its storage. In combination with a special carrying handle, the microscope can be carried more easily and securely.
- A variety of accessories expands the choice of microscopy techniques and the microscope magnification range.

MAGUS LUM 450L FLUORESCENCE MICROSCOPE

SKU	83484
MODEL	LUM 450L 
SPECIFICATIONS	
Microscope head	Trinocular
Magnification	40–1000x (optional: 40–1250/1500/2000x)
Eyepieces	10x/22mm with eye relief (optional: 10X/22mm with a scale, 10X/22mm with a reticle, 10x/22mm with crosshairs, 12.5x/17.5mm, 15x/16mm, 20x/12mm)
Revolving nosepiece	5 objectives, coded
Optical design	Infinity plan achromatic objectives (∞), parfocal distance: 60mm
Objectives	4x/0.10; 10x/0.25; 40x/0.65; 100x/1.25 oil (optional: 2x/0.06; 20x/0.40; 50x/0.95 oil; 60x/0.80)
Stage	Rackless XY metal stage Stage size: 230x150; moving range: 78/54
Condenser	Abbe NA 1.25 Centerable, height-adjustable, with an adjustable aperture diaphragm and a slot with a plug for the darkfield and phase-contrast slider
Field diaphragm	Adjustable iris
Focusing mechanism	Coaxial coarse & fine, moving range: 30mm, with a coarse focusing tension adjusting knob and a coarse focusing lock knob
Intelligent lighting control system	Automatic brightness adjustment during objective change, LCD status screen, standby mode
Camera connection	+
Monitor connection	+
Transmitted light source	3W LED
Reflected light source	3W LED
MICROSCOPY TECHNIQUES	
Basic configuration	Transmitted light: brightfield Reflected light: fluorescence
Optional equipment	Transmitted light: Hoffman modulation contrast, relief contrast



MAGUS LUM 450L FLUORESCENCE MICROSCOPE





MAGUS LUM V500 AND V500L SERIES
FLUORESCENCE INVERTED MICROSCOPES



MAGUS



AREAS OF APPLICATION

Diagnostics and research in cell biology, immunology, bacteriology, biotechnology, virology, and pharmacology.

PURPOSE

Observation and morphological examination of cells and cell colonies in laboratory glassware (Petri dishes, bottles, well plates) as well as reflected light observations using the fluorescence technique. The fluorescence technique increases the resolving power of the microscope and enables visualizing smaller structures.

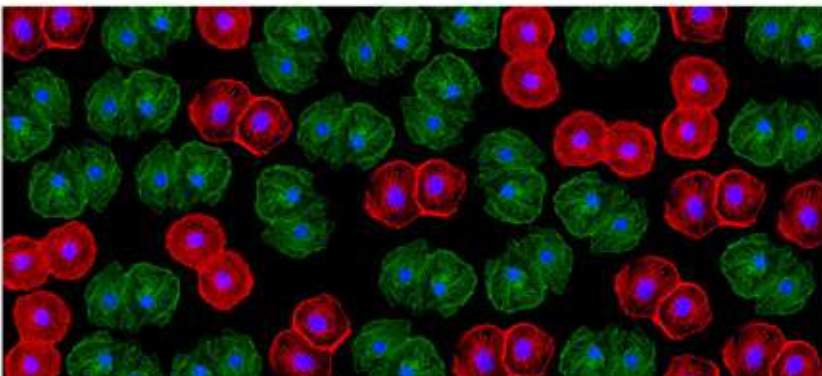
KEY FEATURES







- The inverted design of the microscope involves the use of Petri dishes, multi-well plates, bottles, roller bottles, and flasks up to 55mm. The stand tilts to the side to make room for dishes up to 165mm high.
- The Köhler illumination guarantees the highest resolution on each objective and the required contrast of the specimen image. Plan achromatic objectives correct field curvature by 90% when eyepieces with a 22mm field of view are used.
- The long working distance of the objectives makes it possible to use the glassware with a bottom thickness up to 1.2mm. The microscope kit includes six objectives: Three objectives for the brightfield and fluorescence observations and three objectives for the phase-contrast observations. All the objectives from the microscope kit are simultaneously mounted in the six-slot revolving nosepiece.
- The reflected light illuminator contains three narrowband or four broadband fluorescence excitation filters.
- The microscope head can be adjusted to fit the user's eyepoint height for convenience. Two independent ports enable simultaneous connection of a monitor and a camera.
- The Zernicke condenser with three phase-contrast sliders allows for the rapid changing of microscopy techniques: brightfield and phase-contrast.
- The mechanical attachment is secured on the fixed stage and, in combination with three types of dish holders, enables the smooth movement of specimens.



MODEL VARIATIONS

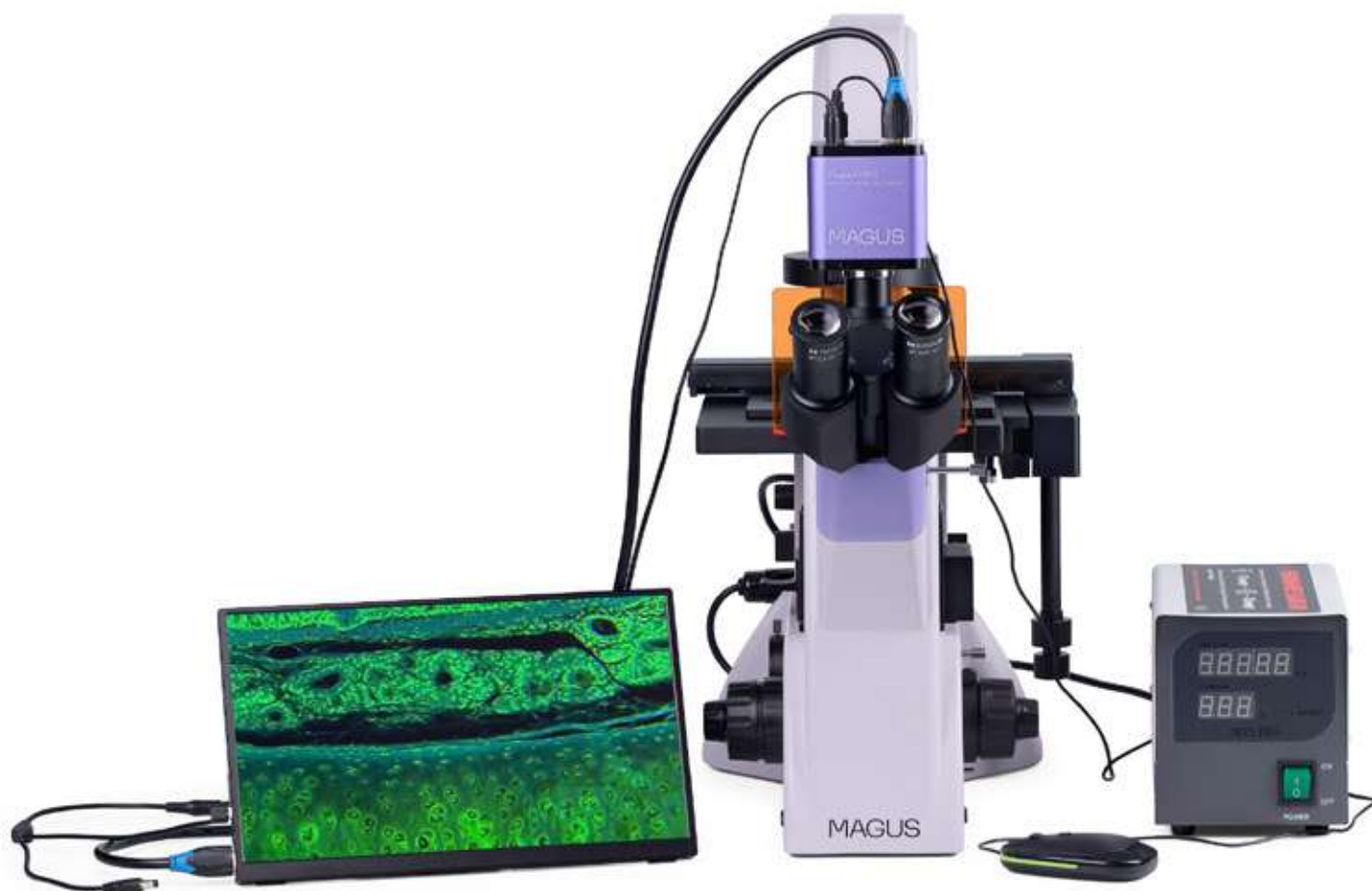
- Transmitted light source: halogen bulb or LED.
- Reflected light source: mercury lamp or 3 LEDs of different wavelengths.
- Microscope head: trinocular, trinocular with a camera or with a monitor.



SKU	82908	82909	83020	83022	83021	83023
Model	LUM V500 	LUM V500L 	LUM VD500 	LUM VD500L 	LUM VD500 LCD 	LUM VD500L LCD 
SPECIFICATIONS						
Microscope head	Trinocular					
Magnification	100–400x (optional: 40–500/600/800/1000x)					
Eyepieces	10x/22mm, eye relief: 10mm (optional: 10x/22mm with a scale, 12.5x/14mm, 15x/15mm, 20x/12mm, 25x/9mm)					
Revolving nosepiece	6 objectives					
Optical design	Infinity plan achromatic objectives (∞), parfocal distance: 45mm					
Objectives	10x/0.25; 20x/0.40; 40x/0.60 (optional: 4x/0.10) phase-contrast: 10x/0.25; 20x/0.40; 40x/0.60					
Stage	Fixed, with a mechanical device for moving specimens and a Ø118mm glass plate, stage size: 227x208mm; dish holders of various diameters supplied: 4 pcs; moving range: 77/134,5					
Condenser	Zernicke condenser NA 0.6, working distance: 55mm					
Field diaphragm	Adjustable iris					
Focusing mechanism	Coaxial coarse & fine, with a coarse focusing tension adjusting knob and a coarse focusing lock knob					
Camera connection	+	+	CLM90, USB 3.0 supplied	CLM90, USB 3.0 supplied	CHD40, HDMI supplied	CHD40, HDMI supplied
Monitor connection	+	+	+	+	MCD40 supplied	MCD40 supplied
Transmitted light source	12V/30W halogen bulb	5W LED	12V/30W halogen bulb	5W LED	12V/30W halogen bulb	5W LED
Reflected light source	100W mercury lamp	5W LED	100W mercury lamp	5W LED	100W mercury lamp	5W LED
MICROSCOPY TECHNIQUES						
Transmitted light: brightfield and phase contrast Reflected light: fluorescence						



MAGUS LUM V500 AND V500L FLUORESCENCE INVERTED MICROSCOPES





**"I WANT TO USE QUALITY AND RELIABLE MICROSCOPES
FOR MY PROFESSIONAL PURPOSES.**

I NEED A BRAND THAT WON'T LET ME DOWN."

MAGUS. OBJECTIVE EXCELLENCE



BIOLOGICAL MICROSCOPE ACCESSORIES

Eyepieces extend the magnification range of the microscope. Additional eyepieces will help achieve the highest useful magnification of the objective that is used more often.



Objectives extend the magnification range of the microscope or provide additional magnification within the magnification range.



Darkfield devices are used to obtain the image of unstained transparent samples. Such samples do not absorb much light and therefore not visible in the bright field. In the darkfield microscopy, microorganisms stand out brightly against a dark background, but the technique allows only the outline of the object to be viewed, while the internal structure remains invisible.



A phase-contrast device is used for studying low-contrast samples that differ from the environment only in the refractive index. Such samples introduce only phase changes and therefore not visible in the bright field. The phase-contrast microscopy converts invisible phase changes into amplitude changes that are eye detectable. The main benefit of the technique is the study of living unstained organisms in their natural state.



A **polarizer/analyzer set** is used in polarized light observations to study anisotropic biological specimens. Anisotropic properties are exhibited by some animal and plant tissues and cells, man-made and natural fibers.



A **C-mount adapter** connects a camera to a microscope. The adapter magnification is selected to match the camera sensor size.



Calibration slides are used for measuring specimens and combined with an eyepiece with a scale or camera with software. The scale value is 0.01mm.



INDUSTRIAL MICROSCOPES

MAGUS



MAGUS METAL 600 SERIES
METALLURGICAL MICROSCOPES



MAGUS



AREAS OF APPLICATION

Metallurgical, engineering, aerospace, nuclear, and energy industries, research laboratories, and technical universities.

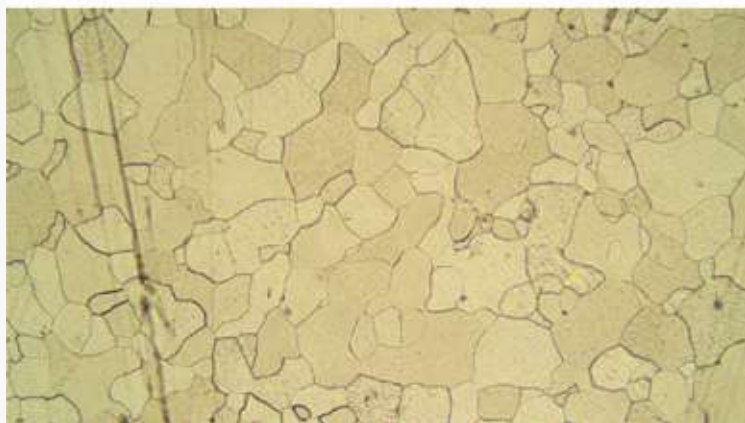
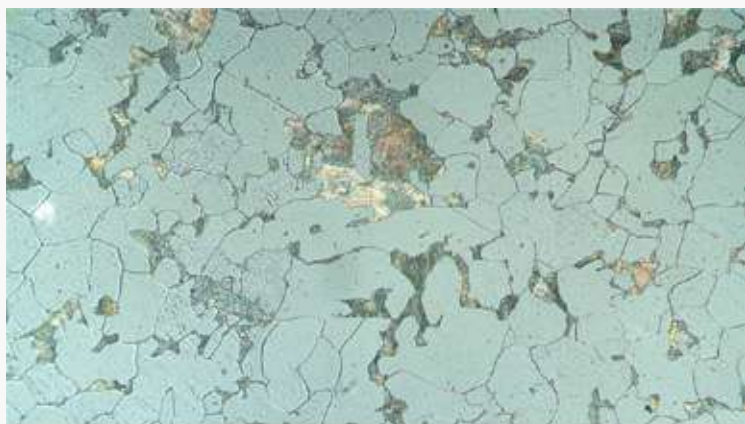
PURPOSE

Studying the microstructure of metals and alloys, semiconductor materials, paint coatings, and other opaque objects on flat and polished thin sections; studying translucent films and objects on filters: air, water, oil samples, etc.



KEY FEATURES

- The Köhler illumination in the reflected and transmitted light guarantees the highest resolution on each objective and the required contrast of the specimen image. Plan achromatic objectives correct field curvature by 90%, when eyepieces with a 22mm field of view are used.
- The stand is designed to observe specimens that have parallel support and observation surfaces; specimens can be up to 20mm high.
- There are two light splitting ratios in the trinocular head of the microscope. The ratio of 100% to eyepieces and 0% to the camera port ensures that the brightness of the light source is sufficient during observations with each objective. The splitting ratio of 0% to eyepieces and 100% to the camera port protects the image on the screen from unwanted light.
- The revolving nosepiece is turned "away from the observer", which frees more space above the stage. The user can see the objective introduced into the optical path. The fifth free slot of the revolving nosepiece is used to mount an additional objective and adjust the reflected light source.
- Polarized reflected light microscopy reveals polymers, dirt, and foreign materials, increases image contrast, and removes any glare from bright metal surfaces.
- The darkfield microscopy allows the user to observe the sample in scattered light and obtain high-contrast images of grain boundaries and surface defects not visible in the bright field.
- Models with DIC microscopy are available on request. Differential interference contrast is used for studying the sample surface topography. The coloring indicates the change in the height of the sample.
- Optional eyepieces and objectives extend the magnification range of the microscope.










MODEL VARIATIONS

- Available microscopy techniques.
- Microscope head: trinocular, trinocular with a camera or with a monitor.

MAGUS METAL 600 METALLURGIAL MICROSCOPES

SKU	82896	83024	83025	82897	83026	83027
MODEL	METAL 600	METAL D600	METAL D600 LCD	METAL 600 BD	METAL D600 BD	METAL D600 BD LCD
						

SPECIFICATIONS

Microscope head	Trinocular					
Magnification	50–600x (optional: 50–1000/1250/1500/2000/2500x)			50–400x (optional: 50–1000/1250/1500/2000/2500x)		
Eyepieces	10x/22mm, eye relief: 10mm (optional: 10x/22mm with a scale, 12.5x/14mm, 15x/15mm, 20x/12mm, 25x/9mm)					
Revolving nosepiece	5 objectives					
Optical design	Infinity plan achromatic objectives (∞), parfocal distance: 45mm					
Objectives	5x/0.12 WD 26.1; 10x/0.25 WD 20.2; 40x/ 0.60 WD 3.98; 60x/0.70 WD 2.08 (optional: 20x/0.40; 50x/0.70; 80x/0.80; 100x/0.85 (dry))			5x/0.12 WD 9.7 BD; 10x/0.25 WD 9.3 BD; 20x/0.40 WD 7.2 BD; 40x/0.60 WD 3.0 BD (optional: 50x/0.70 BD; 60x/0.70 BD; 80x/0.80 BD; 100x/0.85 BD (dry))		
Stage	210mm×140mm, XY mechanical stage with a rectangular glass stage plate Moving range: 75/50					
Focusing mechanism	Coaxial coarse & fine, moving range: 25mm, with a coarse focusing tension adjusting knob and a coarse focusing lock knob					
Transmitted light illumination	Built-in field diaphragm, centerable, height-adjustable Abbe condenser with NA 1.25, with an adjustable aperture diaphragm and a flip-down lens					
Reflected light illumination	Built-in field and aperture diaphragms, built-in analyzer and removable polarizer; color filters: matt, yellow, green, and blue			Darkfield device, built-in field and aperture diaphragms, built-in analyzer and removable polarizer; color filters: matt, yellow, green, and blue		
Camera connection	+	CBF30, USB 3.0 supplied	CHD20, HDMI supplied	+	CLM30, USB 3.0 supplied	CHD40, HDMI supplied
Monitor connection	+	+	MCD20 supplied	+	+	MCD40 supplied
Transmitted light source	12V/30W halogen bulb	12V/30W halogen bulb	12V/30W halogen bulb	12V/30W halogen bulb	12V/30W halogen bulb	12V/30W halogen bulb
Reflected light source	12V/30W halogen bulb	12V/30W halogen bulb	12V/30W halogen bulb	12V/50W halogen bulb	12V/50W halogen bulb	12V/50W halogen bulb

MICROSCOPY TECHNIQUES

	Transmitted light: brightfield Reflected light: brightfield, darkfield, polarization	Transmitted light: brightfield Reflected light: brightfield, darkfield, polarization
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MAGUS METAL 630 SERIES
METALLURGICAL MICROSCOPES



MAGUS



AREAS OF APPLICATION

Metallurgical, engineering, aerospace, nuclear, and energy industries, research laboratories, and technical universities.

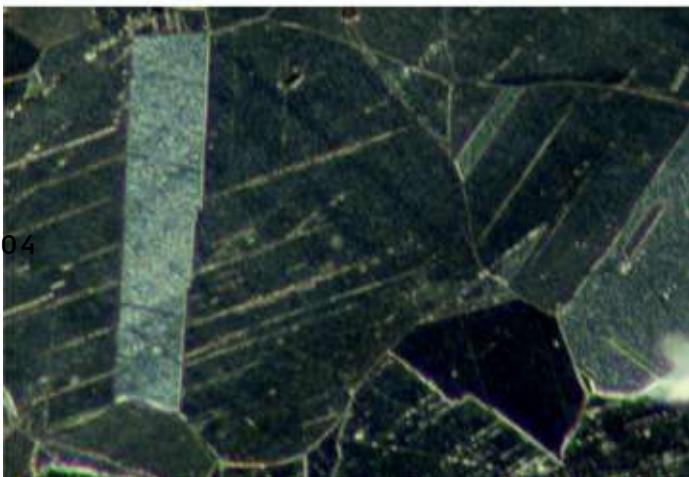
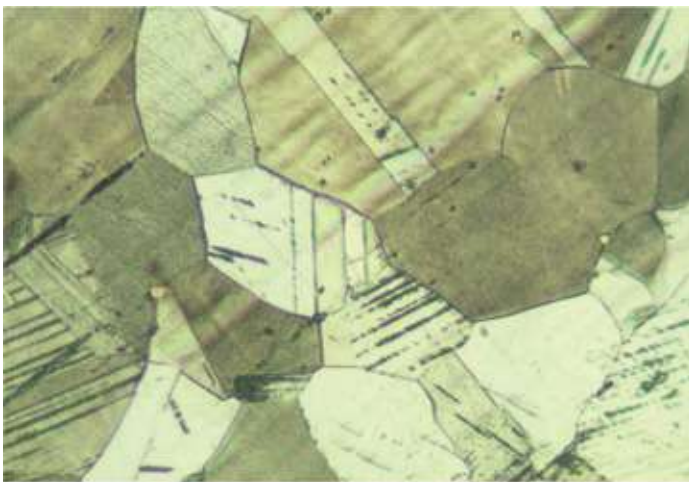
PURPOSE

Studying the microstructure of metals and alloys, semiconductor materials, paint coatings, and other opaque objects.



KEY FEATURES







- The Köhler illumination in reflected light guarantees the highest resolution on each objective and the required contrast of the specimen image. Plan achromatic objectives correct field curvature by 90% when eyepieces with a 22mm field of view are used.
- The design of the stand does not limit the height and size of the examined samples. The microscope can be employed in confined spaces and its height can be adjusted to meet the specific requirements of the production line.
- There are two light splitting ratios in the trinocular head of the microscope. The ratio of 100% to eyepieces and 0% to the camera port ensures that the brightness of the light source is sufficient during observations with each objective. The splitting ratio of 0% to eyepieces and 100% to the camera port protects the image on the screen from unwanted light.
- Polarized reflected light microscopy reveals polymers, dirt, and foreign materials, increases image contrast, and removes any glare from bright metal surfaces.
- The darkfield microscopy allows the user to observe the sample in scattered light and obtain high-contrast images of grain boundaries and surface defects not visible in the bright field.
- Models with DIC microscopy are available on request. Differential interference contrast is used for studying the sample surface topography. The coloring indicates the change in height of the sample.
- Optional eyepieces and objectives extend the magnification range of the microscope.



MODEL VARIATIONS

- Available microscopy techniques.
- Microscope head: trinocular, trinocular with a camera or with a monitor.

MAGUS METAL 630 METALLURGICAL MICROSCOPES

SKU	82898	83028	83029	82899	83030	83031
MODEL	METAL 630 	METAL D630 	METAL D630 LCD 	METAL 630 BD 	METAL D630 BD 	METAL D630 BD LCD 
SPECIFICATIONS						
Microscope head	Trinocular					
Magnification	50–500x (optional: 50–1000/1250/1500/2000/2500x)					
Eyepieces	10x/22mm, eye relief: 10mm (optional: 10x/22mm with a scale, 12.5x/14mm, 15x/15mm, 20x/12mm, 25x/9mm)					
Revolving nosepiece	5 objectives					
Optical design	Infinity plan achromatic objectives (∞), parfocal distance: 45mm					
Illumination technique	Brightfield			Brightfield and darkfield		
Objectives	5x/0.12 WD 26.1; 10x/0.25 WD 20.2; 20x/ 0.40 WD 8.80; 50x/0.70 WD 3.68 (optional: 40x/0.60; 60x/0.70; 80x/0.80; 100x/0.85 (dry))			5x/0.12 WD 9.7 BD; 10x/0.25 WD 9.3 BD; 20x/0.40 WD 7.2 BD; 50x/0.70 WD 2.5 BD (optional: 40x/0.60 BD; 60x/0.70 BD; 80x/0.80 BD; 100x/0.85 BD (dry))		
Stage	185mm×140mm, XY mechanical; moving range: 35/30mm Base size: 300mm×235mm					
Focusing mechanism	Coaxial coarse & fine, with a coarse focusing tension adjusting knob and a coarse focusing lock knob					
Reflected light illumination	Built-in field and aperture diaphragms, built-in analyzer and removable polarizer; color filters: matt, yellow, green, and blue			Darkfield device, built-in field and aperture diaphragms, built-in analyzer and removable polarizer; color filters: matt, yellow, green, and blue		
Camera connection	+	CBF30, USB 3.0 supplied	CHD20, HDMI supplied	+	CLM30, USB 3.0 supplied	CHD40, HDMI supplied
Monitor connection	+	+	MCD20 supplied	+	+	MCD40 supplied
Light source	12V/30W halogen bulb	12V/30W halogen bulb	12V/30W halogen bulb	12V/50W halogen bulb	12V/50W halogen bulb	12V/50W halogen bulb
MICROSCOPY TECHNIQUES						
	Reflected light: brightfield, polarization			Reflected light: brightfield, darkfield, polarization		



04

MAGUS METAL 650 SERIES
METALLURGICAL MICROSCOPES



MAGUS



AREAS OF APPLICATION

Metallurgical, engineering, aerospace, nuclear, and energy industries, research laboratories, and technical universities.

PURPOSE

Inspection microscope. Studying the microstructure of metals and alloys, semiconductor materials, paint coatings, and other opaque objects.



KEY FEATURES

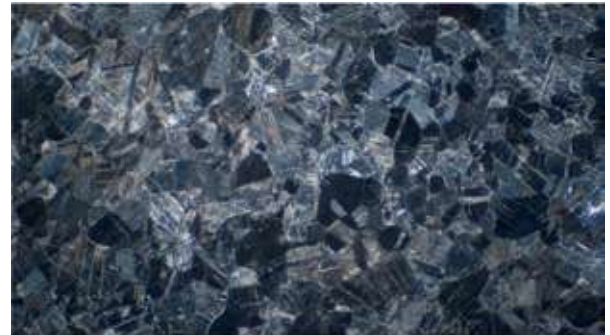
- The Köhler illumination in reflected light guarantees the highest resolution on each objective and the required contrast of the specimen image. Plan achromatic objectives correct field curvature by 90% when eyepieces with the 22mm field of view are used.
- The stand is designed to accommodate printed circuit boards, integrated circuits, silicon wafers, photomasks, high-precision molds, and other oversized thin-film specimens on the stage.

Fine focusing scale value of $0.7\mu\text{m}$ provides easy focusing at 60x, 80x, and 100x magnifications.

- The stage size is 280mm×270mm, while the moving range along both axes is 204mm. Such a design makes it easy to observe long and wide objects as well as examine the surface up to 204mm×204mm.
- There are two light splitting ratios in the trinocular head of the microscope. The ratio of 100% to eyepieces and 0% to the camera port ensures that the brightness of the light source is sufficient during observations with each objective. The splitting ratio of 0% to eyepieces and 100% to the camera port protects the image on the screen from unwanted light.
- The revolving nosepiece is turned "away from the observer", which frees more space above the stage. The user can see the objective introduced into the optical path. The fifth free slot of the revolving nosepiece is used to mount an additional objective and adjust the reflected light source.
- Polarized reflected light microscopy reveals polymers, dirt and foreign materials, increases image contrast, and removes any glare from bright metal surfaces.
- The darkfield microscopy allows the user to observe the sample in scattered light and obtain high-contrast images of grain boundaries and surface defects not visible in the bright field.
- Models with the DIC microscopy are available on request. Differential interference contrast is used for studying the sample surface topography. The coloring indicates the change in height of the sample.
- Optional eyepieces and objectives extend the magnification range of the microscope.







MODEL VARIATIONS

- Available microscopy techniques.
- Microscope head: trinocular, trinocular with a camera or with a monitor.





MAGUS METAL 650 METALLURGICAL MICROSCOPES

SKU	82900	83032	83033	82901	83034	83035
MODEL	METAL 650	METAL D650	METAL D650 LCD	METAL 650 BD	METAL D650 BD	METAL D650 BD LCD
						

SPECIFICATIONS

Microscope head	Trinocular					
Magnification	50–800x (optional: 50–1000/1250/1500/2000/2500x)					
Eyepieces	10x/22mm, eye relief: 10mm (optional: 10x/22mm with a scale, 12.5x/14mm, 15x/15mm, 20x/12mm, 25x/9mm)					
Revolving nosepiece	5 objectives					
Optical design	Infinity plan achromatic objectives (∞), parfocal distance: 45mm					
Illumination technique	Brightfield			Brightfield and darkfield		
Objectives	5x/0.12 WD 26.1; 10x/0.25 WD 20.2; 20x/0.40 WD 8.80; 50x/0.70 WD 3.68; 80x/0.80 WD 1.25 (optional: 40x/0.60; 60x/0.70; 100x/0.85 (dry))			5x/0.12 WD 9.7 BD; 10x/0.25 WD 9.3 BD; 20x/0.40 WD 7.2 BD; 50x/0.70 WD 2.5; 80x/0.80 WD 0.8 BD (optional: 40x/0.60 BD; 60x/0.70 BD; 100x/0.85 BD (dry))		
Stage	280mm×270mm, XY mechanical; moving range: 204/204mm					
Focusing mechanism	Coaxial coarse & fine, moving range: 30mm, with a coarse focusing tension adjusting knob and a coarse focusing lock knob					
Reflected light illumination	Built-in field and aperture diaphragms, built-in analyzer and removable polarizer; color filters: matt, yellow, green, and blue			Darkfield device, built-in field and aperture diaphragms, built-in analyzer and removable polarizer; color filters: matt, yellow, green, and blue		
Camera connection	+	CBF30, USB 3.0 supplied	CHD20, HDMI supplied	+	CLM30, USB 3.0 supplied	CHD40, HDMI supplied
Monitor connection	+	+	MCD20 supplied	+	+	MCD40 supplied
Light source	12V/30W halogen bulb	12V/30W halogen bulb	12V/30W halogen bulb	12V/50W halogen bulb	12V/50W halogen bulb	12V/50W halogen bulb

MICROSCOPY TECHNIQUES

	Reflected light: brightfield, polarization			Reflected light: brightfield, darkfield, polarization		
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MAGUS METAL V700 SERIES
METALLURGICAL INVERTED MICROSCOPES



MAGUS



AREAS OF APPLICATION

Metallurgical, engineering, aerospace, nuclear and energy industries, research laboratories, and technical universities.

PURPOSE

Studying the microstructure of metals and alloys, semiconductor materials, and other opaque objects.



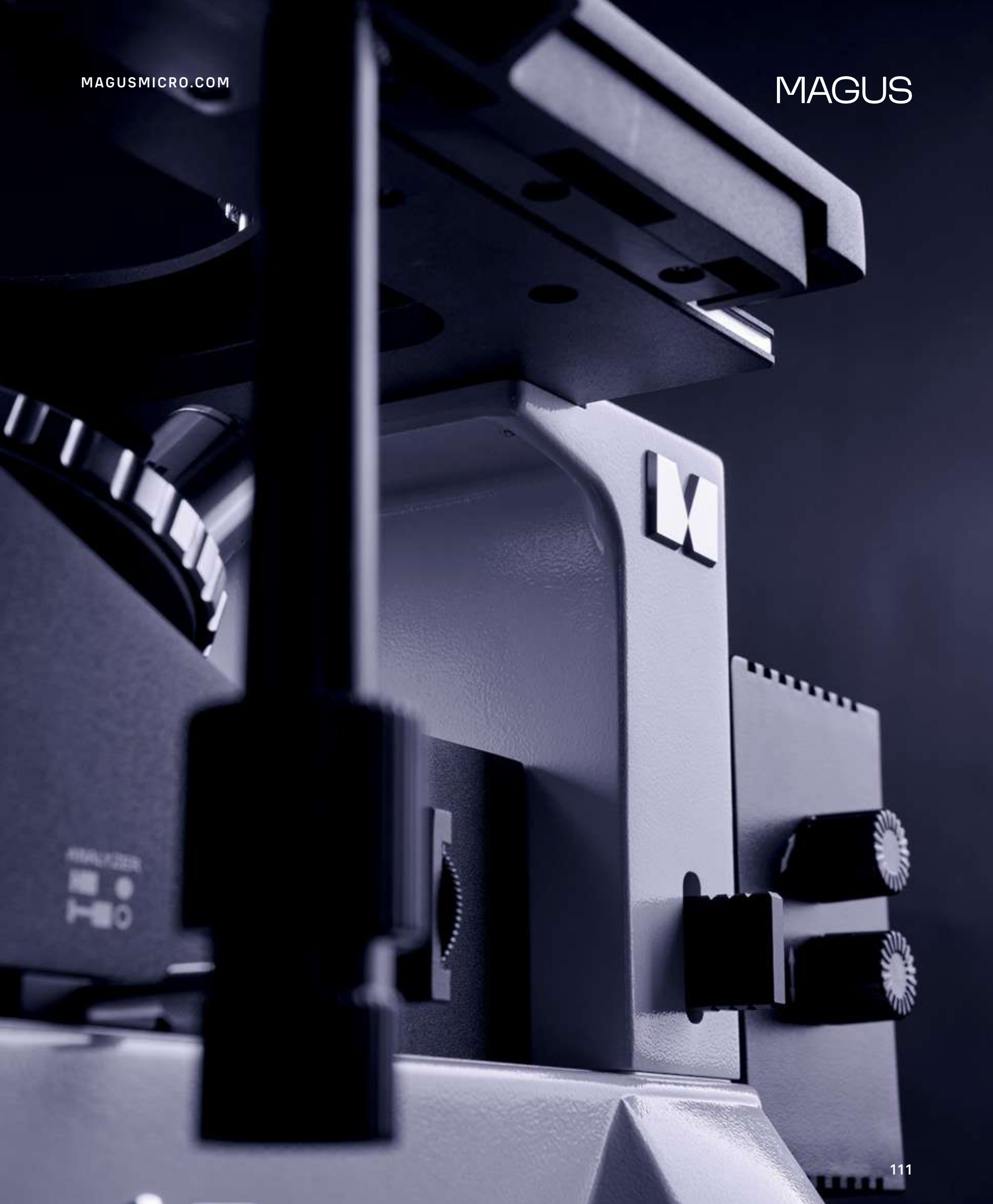
KEY FEATURES

- The Köhler illumination in reflected light guarantees the highest resolution on each objective and the required contrast of the specimen image. Plan achromatic objectives correct field curvature by 90% when eyepieces with a 22mm field of view are used.
- The inverted design of the microscope does not limit the size of the examined sample. Only its weight is limited up to 2kg. One face of the specimen undergoes special processing, and then the specimen is mounted on the stage with that surface down.
- When assembling the microscope, the user rotates the eyepiece tubes to adjust the height of the eyepieces. The trinocular tube and the side camera port enable the simultaneous connection of two image digitizers.
- The trinocular head of the microscope is equipped with a two-position beam splitter. Using the camera port, the user can view the image both in the eyepieces and on the screen. In the other position, all the light will go to the eyepieces.
- There is also a two-position beam splitter on the microscope body. The ratio of 100% to the eyepieces ensures that the brightness of the light source is sufficient during observations with each objective. The ratio of 100% to the camera port protects the image on the screen from unwanted light.
- The revolving nosepiece allows for the installation of five objectives.
- Polarized reflected light microscopy reveals polymers, dirt, and foreign materials, increases image contrast, and removes any glare from bright metal surfaces.
- The darkfield microscopy allows the user to observe the sample in scattered light and obtain high-contrast images of grain boundaries and surface defects not visible in the bright field.
- Models with DIC microscopy are available on request. Differential interference contrast is used for studying the sample surface topography. The coloring indicates the change in height of the sample.
- Optional eyepieces and objectives extend the magnification range of the microscope.










MODEL VARIATIONS

- Available microscopy techniques.
- Microscope head: trinocular, trinocular with a camera or with a monitor.



MAGUS METAL V700 METALLURGICAL INVERTED MICROSCOPES

SKU	82902	83036	83037	82903	83038	83039	83714
MODEL	METAL V700	METAL VD700	METAL VD700 LCD	METAL V700 BD	METAL VD700 BD	METAL VD700 BD LCD	METAL V700 DIC
							
SPECIFICATIONS							
Microscope head	Trinocular						
Magnification	50–1000x (optional: 50–1250/ 1500/2000/2500x)			50–500x (optional: 50–1000/1250/1500/2000/2500x)			
Eyepieces	10x/22mm, eye relief: 10mm (optional: 10x/22mm with a scale, 12.5x/14mm, 15x/15mm, 20x/12mm, 25x/9mm)						
Revolving nosepiece	5 objectives						
Optical design	Infinity plan achromatic objectives (∞), parfocal distance: 45mm						
Illumination technique	Brightfield			Brightfield and darkfield			Brightfield
Objectives	5x/0.12 WD 26.1; 10x/0.25 WD 20.2; 20x/0.40 WD 8.80; 50x/0.70 WD 3.68; 100x/0.85 WD 0.40 (dry) (optional: 40x/0.60; 60x/0.70; 80x/0.80)			5x/0.12 WD 9.7 BD; 10x/0.25 WD 9.3 BD; 20x/0.40 WD 7.2 BD; 50x/0.70 WD 2.5 BD (optional: 40x/0.60 BD; 60x/0.70 BD; 80x/0.80 BD; 100x/0.85 BD (dry))			5x/0.12 WD 26.1; 10x/0.25 WD 20.2; 20x/ 0.40 WD 8.80; 50x/0.70 WD 3.68 (optional: 40x/0.60; 60x/0.70; 80x/0.80; 100x/0.85 (dry))
Stage	242mm×200mm, XY mechanical; round rotating stage plates of various diameters included: 3 pcs; moving range 30/30mm						
Focusing mechanism	Coaxial coarse & fine, with a coarse focusing tension adjusting knob and a coarse focusing lock knob						
Reflected light illumination	Built-in field and aperture diaphragms, removable analyzer and polarizer; color filters: matt, yellow, green, and blue			Darkfield device, built-in field and aperture diaphragms, built-in analyzer and removable polarizer; color filters: matt, yellow, green, and blue			Built-in field and aperture diaphragms, removable analyzer and polarizer; color filters: matt, yellow, green, and blue
Camera connection	+	CBF30, USB 3.0 supplied	CHD20, HDMI supplied	+	CLM30, USB 3.0 supplied	CHD40, HDMI supplied	+
Monitor connection	+	+	MCD20 supplied	+	+	MCD40 supplied	+
Light source	12V/30W halogen bulb	12V/30W halogen bulb	12V/30W halogen bulb	12V/50W halogen bulb	12V/50W halogen bulb	12V/50W halogen bulb	12V/50W halogen bulb
MICROSCOPY TECHNIQUES							
	Reflected light: brightfield, polarization			Reflected light: brightfield, darkfield, polarization			Brightfield, DIC, polarization



**MAGUS METAL V790 DIC
METALLURGICAL INVERTED MICROSCOPE**



MAGUS



AREAS OF APPLICATION

Research laboratories, metallurgical, engineering, aerospace, nuclear, and energy industries.

PURPOSE

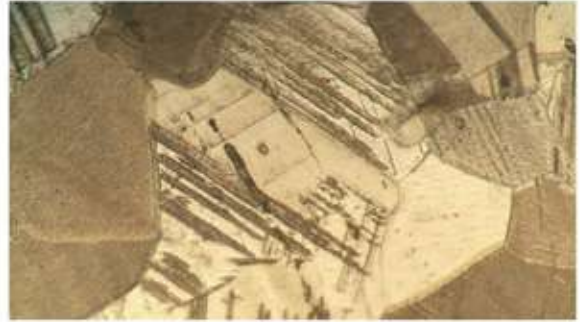
Research-grade microscope. Studying the microstructure of metals and alloys, semiconductor materials, and other opaque objects.



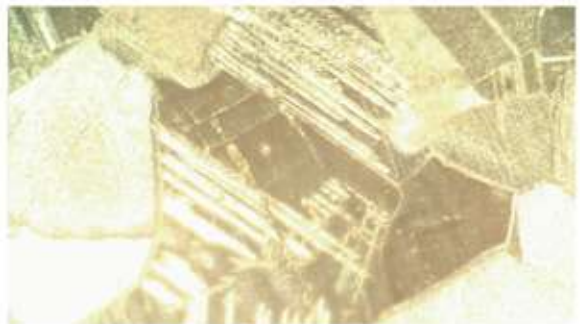
KEY FEATURES

- The Köhler illumination in reflected light guarantees the highest resolution on each objective and the required contrast of the specimen image. Plan semi-apochromatic and plan apochromatic objectives are corrected for field curvature by 90% when eyepieces with a 23mm field of view are used, and they are spherically and chromatically corrected for 3–5 wavelengths compared to plan achromats corrected for 1–2 wavelengths.
- The inverted design of the microscope does not limit the size of the examined sample. Only its weight is limited up to 30kg. One face of the specimen undergoes special processing, and then the specimen is mounted on the stage with that surface down.
- The stage moves along two axes. The long stage control knob is tilted for user comfort: The hand rests on the table with no strain. The knob is installed on the right or left side of the stage.
- An additional magnification lens increases the magnification of the microscope by 1.5x.
- Three independent options for mounting a digital camera and monitor: a trinocular tube and two side ports on the body; beam splitting on the trinocular head: 100/0, 50/50, 0/100, on the body: 100/0 and 20/80 (right photo port), 100/0 and 0/100 (left photo port).
- The microscope kit includes 5 objectives. The sixth free slot of the revolving nosepiece is intended for an additional objective.
- The Bertrand lens is used for conoscopic studies.
- The turret under the revolving nosepiece has 6 slots for installing contrast modules. The turret rotation changes the observation mode, switching from one contrast method to another is fast and it does not require complicated adjustment. The standard delivery includes 5 microscopy techniques: brightfield, darkfield, polarization, polarization with a λ compensator, and DIC. Objectives from the microscope kit support these microscopy techniques.
- Polarized reflected light microscopy reveals polymers, dirt and foreign materials, increases image contrast, and removes any glare from bright metal surfaces. The λ compensator is used to enhance the contrast of objects with weak birefringence.
- Darkfield microscopy allows the user to observe the sample in scattered light and obtain high-contrast images of grain boundaries and surface defects not visible in the bright field.
- Differential interference contrast (DIC) is used for studying the sample surface topography. The coloring indicates the change in the height of the sample.

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DIC





MAGUS METAL V790 DIC METALLURGICAL INVERTED MICROSCOPE

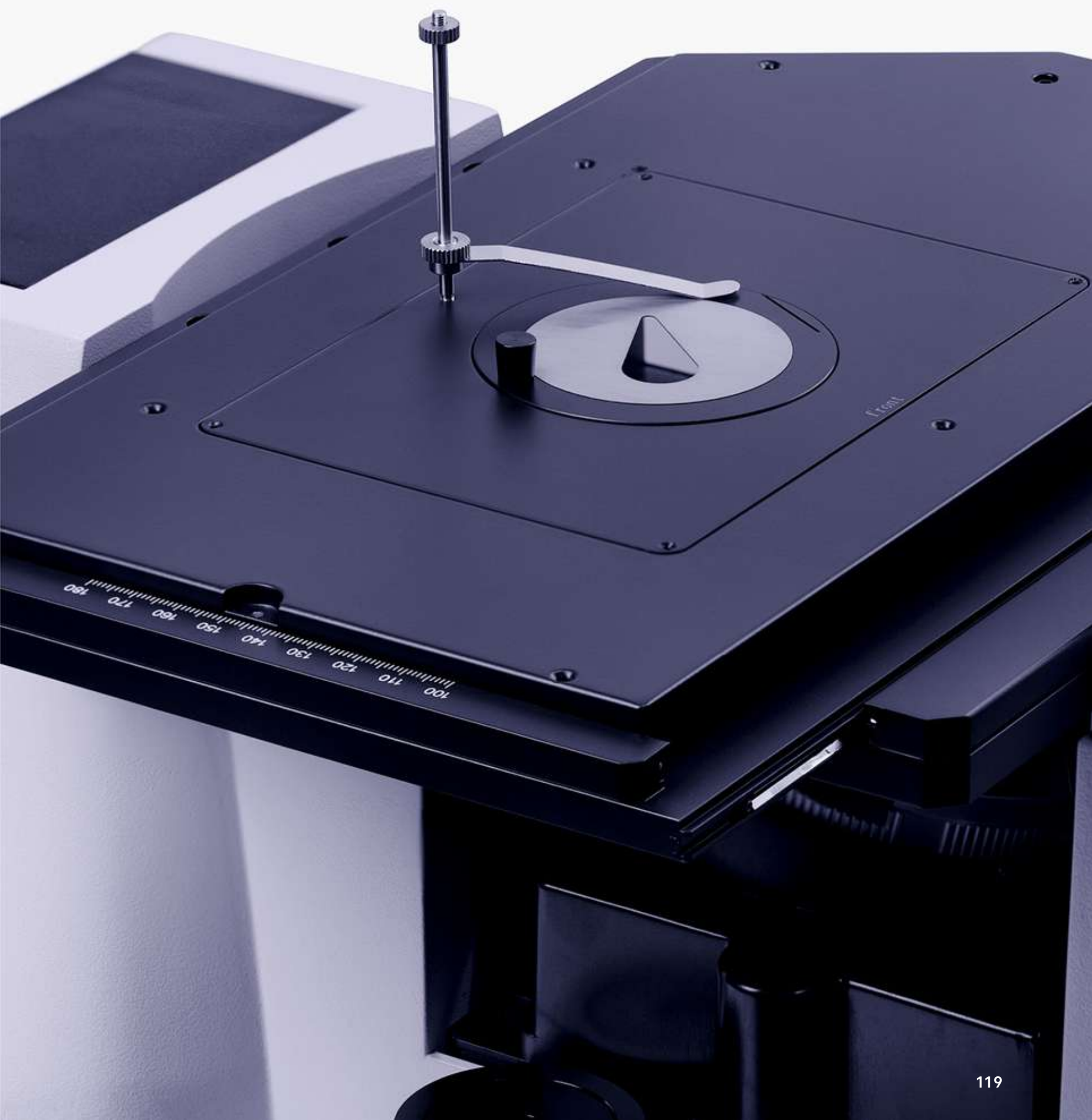
SKU	83485
MODEL	V790 DIC
	

SPECIFICATIONS

Microscope head	Trinocular
Magnification	50–1000X (50–1500 with intermediate 1.5x lens)
Eyepieces	10x/23mm, eye relief
Revolving nosepiece	6 objectives
Optical design	Infinity plan semi-apochromatic and plan apochromatic objectives, parfocal distance: 45mm
Illumination technique	Brightfield and darkfield
Objectives	5x/0.15 BD ∞ /- 10x/0.30 BD ∞ /- 20x/0.45 BD ∞ /0 50x/0.80 BD ∞ /0 100x/0.90 BD ∞ /0
Stage	340mm×230mm, XY three-layer mechanical, moving range: 130/85mm, with a coarse focusing tension adjusting knob and a coarse focusing lock knob
Reflected light illumination	Turret for contrast modules; field and aperture diaphragms; polarizer and analyzer; color filter set
Camera connection	+
Monitor connection	+
Light source	12V/100W halogen bulb

MICROSCOPY TECHNIQUES

Reflected light: brightfield, darkfield, polarization, polarization with a λ compensator, DIC



MAGUS POL 800 SERIES
POLARIZING MICROSCOPES



MAGUS



AREAS OF APPLICATION

Hematological research, urology, microbiology, histology, pathoanatomy, mineralogy, crystallography, petrography, forensics, geology, pharmaceuticals, pulp and paper industry, and archaeology.

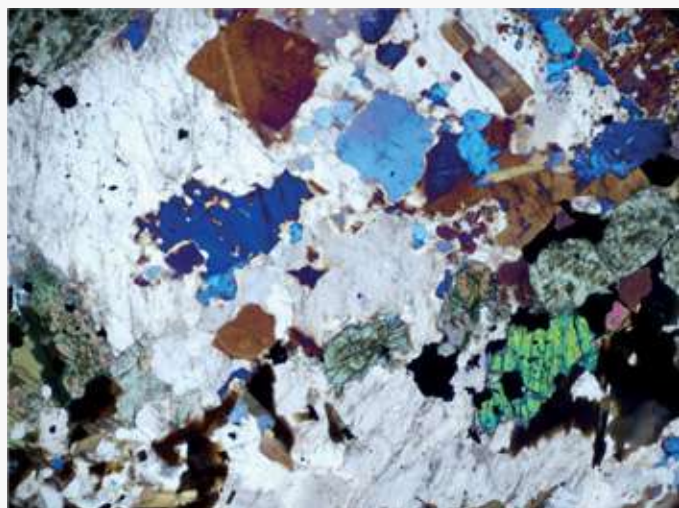
PURPOSE

Studying anisotropic geological, biological, and polymeric objects in polarized and regular transmitted light.



KEY FEATURES

- The Köhler illumination guarantees the highest resolution on each objective and the required contrast of the specimen image. Plan achromatic objectives correct field curvature by 90%, when eyepieces with a 22mm field of view are used.
- The analyzer is introduced into the optical path for polarized light observations. As the polarizer or analyzer is rotated, the polarization angle changes.
- The stage rotates 360° to view the color change of the sample when the polarizer and analyzer are in crossed orientation. The graduation and vernier scale are used to accurately measure the rotation angle. The stage design provides for centering with two screws, as polarized light observations of an anisotropic object require the precise alignment of the stage rotation axis with the optical axis of the microscope.
- The Bertrand lens is used for conoscopic studies.
- Compensators are used to enhance the contrast of objects with weak birefringence.
- The trinocular head of the microscope is equipped with a two-position beam splitter. The ratio of 100% to eyepieces and 0% to the camera port ensures that the brightness of the light source is sufficient during observations with each objective. The splitting ratio of 0% to eyepieces and 100% to the camera port protects the image on the screen from unwanted light.
- The revolving nosepiece is turned "away from the observer", which frees more space above the stage. The user can see the objective introduced into the optical path. The fifth free slot of the revolving nosepiece is intended for an additional objective. The slots of the revolving nosepiece are centered to align the optical axes of the objective and microscope.
- The microscope employs special polarizing objectives: Strain-free optics ensure that the double refraction is exhibited by the sample and not by the optical components.
- Optional eyepieces and objectives extend the magnification range of the microscope.





MODEL VARIATIONS

- Microscope head: trinocular, trinocular with a camera or with a monitor.

MAGUS POL 800 POLARIZING MICROSCOPES

SKU	82911	83040	83041
MODEL	POL 800	POL D800	POL D800 LCD
			
SPECIFICATIONS			
Microscope head	Trinocular		
Magnification	40–600x (optional: 40–1000/1250/1500/2000/2500x)		
Eyepieces	10x/22mm, eye relief: 10 mm; 10x/22mm with crosshairs (optional: 10x/22mm with a scale, 12.5x/14mm, 15x/15mm, 20x/12mm, 25x/9mm)		
Revolving nosepiece	5 objectives, with centerable sockets		
Objectives	4x/0.10 ∞/-; 10x/0.25 ∞/17; 40x/0.65 ∞/17; 60x/0.80 ∞/17 (optional: 5x/0.12; 20x/0.40; 100x/1.25 oil; 100x/0.80 (dry))		
Optical design	Infinity plan achromatic objectives (∞), strain-free, parfocal distance: 45mm, may be used with specimens with 0.17mm thick coverslips		
Stage	Ø150mm, 360° rotatable; centerable, 1° graduation of the rotation angle; vernier scale for measuring angles with an accuracy of 0.1°		
Condenser	Abbe NA 1.25 with adjustable aperture diaphragm and a flip-down lens		
Field diaphragm	Adjustable iris		
Transmitted light polarizer	With 0°, 90°, 180°, 270° marks on the scale; 360° rotatable		
Intermediate tube	Bertrand lens, built-in analyzer, vernier scale for measuring angles with an accuracy of 0.1°, and a slot for compensators		
Focusing mechanism	Coaxial coarse & fine, moving range: 21mm, with a coarse focusing tension adjusting knob and a coarse focusing lock knob		
Camera connection	+	CBF70, USB 3.0 supplied	CDH40, HDMI supplied
Monitor connection	+	+	MCD40 supplied
Light source	12V/30W halogen bulb	12V/30W halogen bulb	12V/30W halogen bulb
MICROSCOPY TECHNIQUES			
	Transmitted light: brightfield, polarization		



MAGUS POL 850 SERIES
POLARIZING MICROSCOPES



MAGUS



AREAS OF APPLICATION

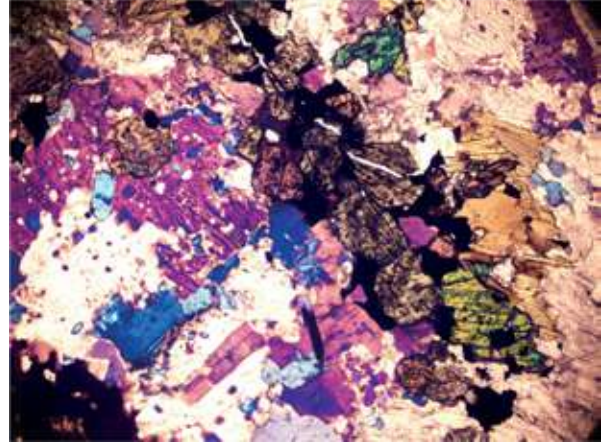
Hematological research, urology, microbiology, histology, pathoanatomy, mineralogy, crystallography, petrography, forensics, geology, pharmaceuticals, pulp and paper industry, archaeology.

PURPOSE

Studying transparent and opaque anisotropic geological, biological, and polymeric objects in polarized and regular light.

KEY FEATURES

- The Köhler illumination in transmitted and reflected light guarantees the highest resolution on each objective and the required contrast of the specimen image. Plan achromatic objectives correct field curvature by 90% when eyepieces with a 22mm field of view are used.
- In the transmitted light, you can study geological specimens as well as anisotropic biological and polymeric specimens in thin sections.
- In the reflected light you can study polished sections with one polished side. The thickness of the polished sections is within 5–10mm.
- The analyzer is introduced into the optical path for polarized light observations. As the polarizer or analyzer is rotated, the polarization angle changes.
- The stage rotates 360° to view the color change of the sample when the polarizer and analyzer are in crossed orientation. The graduation and vernier scale are used to accurately measure the rotation angle. The stage design provides for centering with two screws, as polarized light observations of an anisotropic object require the precise alignment of the stage rotation axis with the optical axis of the microscope.
- The Bertrand lens is used for conoscopic studies.
- Compensators are used to enhance the contrast of objects with weak birefringence.
- The trinocular head of the microscope is equipped with a two-position beam splitter. The ratio of 100% to eyepieces and 0% to the camera port ensures that the brightness of the light source is sufficient during observations with each objective. The splitting ratio of 0% to eyepieces and 100% to the camera port protects the image on the screen from unwanted light.
- The revolving nosepiece is turned "away from the observer", which frees up more space above the stage. The user can see the objective introduced into the optical path. The fifth free slot of the revolving nosepiece is used to mount an additional objective and adjust the reflected light source. The slots of the revolving nosepiece are centered to align the optical axes of the objective and microscope.
- The microscope employs special strain-free polarizing objectives that do not introduce optical errors into the image.
- Optional eyepieces and objectives extend the magnification range of the microscope.






MODEL VARIATIONS

- Microscope head: trinocular, trinocular with a camera or with a monitor.



MAGUS POL 850 POLARIZING MICROSCOPES

SKU	82912	83042	83043
MODEL	POL 850 	POL D850 	POL D850 LCD 
SPECIFICATIONS			
Microscope head	Trinocular		
Magnification	50–600x (optional: 25–1000/1600/2000x)		
Eyepieces	10x/20mm; 10x/20mm with crosshairs (optional: 10x/20mm with a scale, 16x/11mm; 20x/11mm)		
Revolving nosepiece	5 objectives, with centerable sockets		
Objectives	5x/0.12 ∞/- WD 26.1mm; 10x/0.25 ∞/0 WD 5.0mm; 40x/ 0.60 ∞/0 WD 3.98mm; 60x/0.70 ∞/0 WD 2.03mm (optional: 2.5/0.07; 50x/0.70; 80x/0.80; 100x/0.85)		
Optical design	Infinity plan achromatic objectives (∞), strain-free, parfocal distance: 45mm, may be used with specimens without a coverslip		
Stage	Ø150mm, 360° rotatable; centerable, 1° graduation of the rotation angle; vernier scale for measuring angles with an accuracy of 0.1°		
Condenser	Abbe NA 1.25 Centerable, with adjustable aperture diaphragm and flip-down lens		
Focusing mechanism	Coaxial coarse & fine, moving range: 21mm, with a coarse focusing tension adjusting knob and a coarse focusing lock knob Intermediate tube		
Intermediate tube	Bertrand lens, 360° rotatable built-in analyzer, vernier scale for measuring angles with an accuracy of 0.1°, and a slot for compensators		
Transmitted light polarizer	With 0°, 90°, 180°, 270° marks on the scale; 360° rotatable		
Reflected light illumination	Built-in field and aperture diaphragms, 360° rotatable removable polarizer; color filters: matt, yellow, green, and blue		
Camera connection	+	CBF70, USB 3.0 supplied	CDH40, HDMI supplied
Monitor connection	+	+	MCD40 supplied
Transmitted light source	12V/30W halogen bulb	12V/30W halogen bulb	12V/30W halogen bulb
Reflected light source	12V/30W halogen bulb	12V/30W halogen bulb	12V/30W halogen bulb
MICROSCOPY TECHNIQUES			
Transmitted light: brightfield, polarization Reflected light: brightfield, polarization			



MAGUS POL 890
POLARIZING MICROSCOPE



MAGUS



AREAS OF APPLICATION

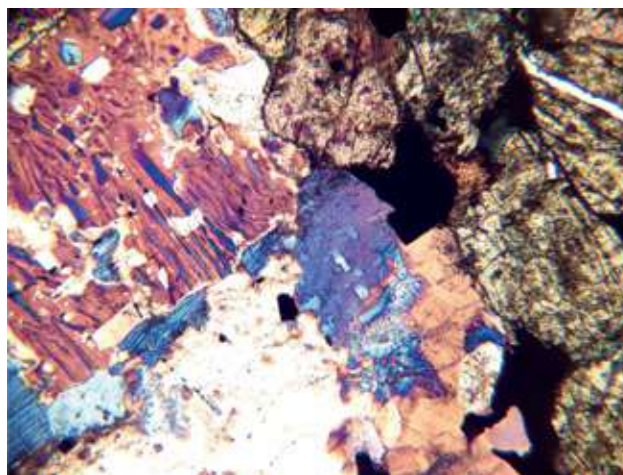
Hematological research, urology, microbiology, histology, pathoanatomy, mineralogy, crystallography, petrography, forensics, geology, pharmaceuticals, pulp and paper industry, and archaeology.

PURPOSE

Microscope for scientific research and industrial inspection. Studying transparent and opaque anisotropic geological, biological, and polymeric objects in polarized and regular light.

KEY FEATURES

- The Köhler illumination in transmitted and reflected light guarantees the highest resolution on each objective and the required contrast of the specimen image. Plan semi-apochromatic and plan apochromatic objectives are corrected for field curvature by 90%, when eyepieces with a 23mm field of view are used, and spherically and chromatically corrected for 3-5 wavelengths as compared to plan achromats corrected for 1-2 wavelengths.
- In the transmitted light, you can study geological specimens as well as anisotropic biological and polymeric specimens in thin sections.
- In the reflected light, you can study polished sections with one polished side. The thickness of the polished sections is within 30mm.
- The analyzer is introduced into the optical path for polarized light observations. As the polarizer or analyzer is rotated, the polarization angle changes.
- The stage rotates 360° to view the color change of the sample when the polarizer and analyzer are in crossed orientation. The graduation and vernier scale are used to accurately measure the rotation angle. The stage design provides for centering with two screws, as polarized light observations of an anisotropic object require the precise alignment of the stage rotation axis with the optical axis of the microscope.
- The Bertrand lens is used for conoscopic studies.
- Compensators are used to enhance the contrast of objects with weak birefringence.
- The user can choose the inclination angle of the microscope head in the range of 0 to 35°.
- The trinocular head of the microscope is equipped with a three-position beam splitter. The ratio of 100% to eyepieces and 0% to the camera port ensures that the brightness of the light source is sufficient during observations with each objective. The splitting ratio of 0% to eyepieces and 100% to the camera port protects the image on the screen from unwanted light. The microscope simultaneously displays the image in the eyepieces and on the screen when the light splitting is 80% to the eyepieces and 20% to the camera port.
- The revolving nosepiece is turned "away from the observer", which frees more space above the stage. The user can see the objective introduced into the optical path. The fifth free slot of the revolving nosepiece is used to mount an additional objective and adjust the reflected light source. The slots of the revolving nosepiece are centered to align the optical axes of the objective and microscope.
- The microscope employs special strain-free polarizing objectives that do not introduce optical errors into the image.
- Optional eyepieces and objectives extend the magnification range of the microscope.



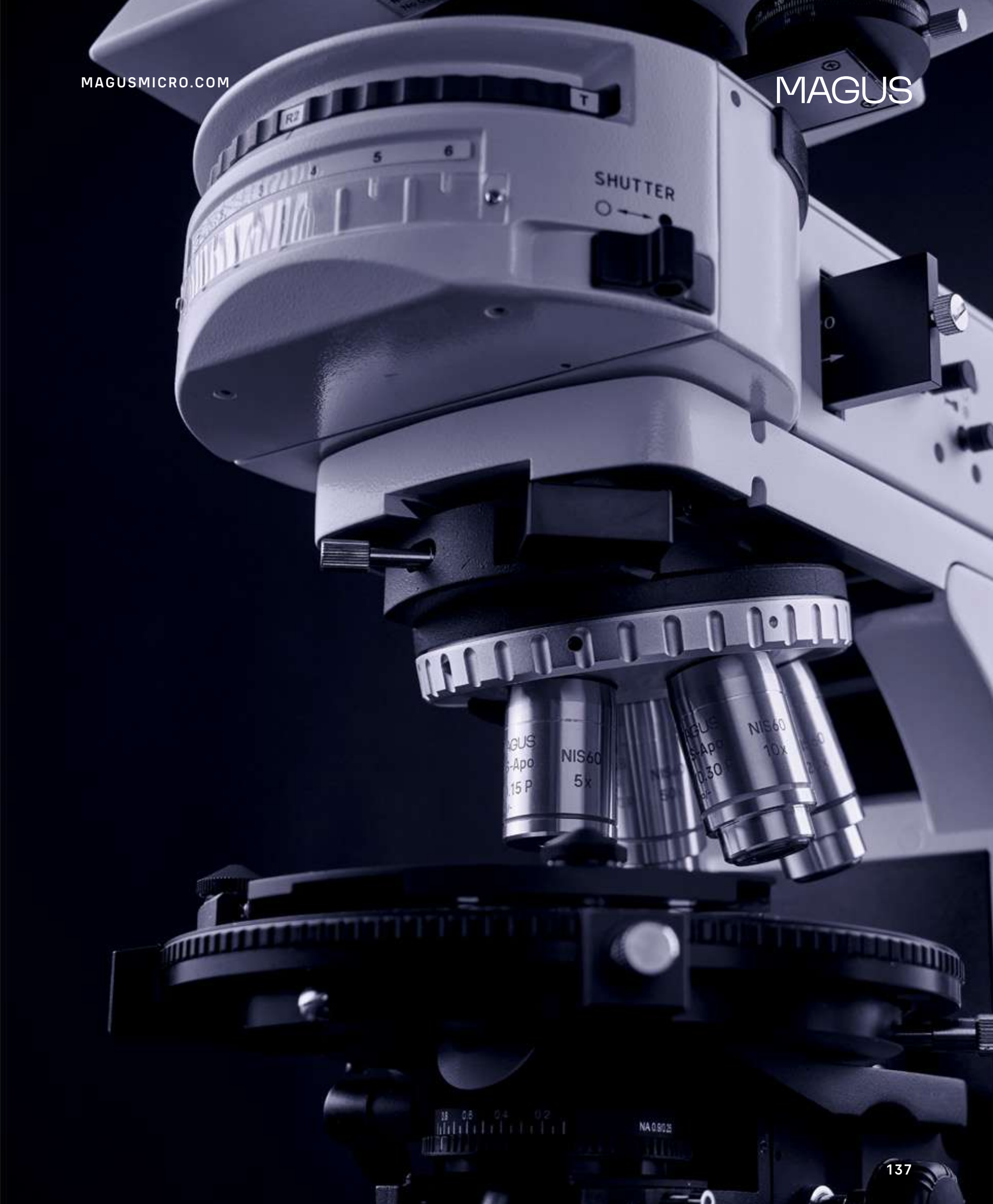


MAGUS POL 890 POLARIZING MICROSCOPE

SKU	83486
MODEL	POL 890
	

SPECIFICATIONS	
Microscope head	Trinocular
Magnification	50–500x (optional: 50–1000x)
Eyepieces	10X/22 with diopter adjustment ± 5dp, eye relief
Revolving nosepiece	5 objectives, with centerable sockets
Optical design	Infinity plan semi-apochromatic and plan apochromatic objectives, Strain-free, parfocal distance: 60mm
Objectives	5X/0.15 ∞/–; 10x/0.30 ∞/–; 20x/0.45 ∞/–; 50x/0.80 ∞/– (optional: 100x/0.90 ∞/0)
Stage	Ø190mm, 360° rotatable; centerable, fixable, 1° graduation of the rotation angle; vernier scale for measuring angles with an accuracy of 0.1°, moving range: 30/30mm
Focusing mechanism	Coaxial coarse & fine, moving range: 35mm, with a coarse focusing tension adjusting knob and a coarse focusing lock knob
Intermediate tube	Bertrand lens; analyzer with 0–360° rotation; slot for installing compensators; switching conoscopic/orthoscopic observations
Transmitted light illumination	Built-in field diaphragm, centerable, height-adjustable condenser with NA 0.9/0.25, with an adjustable aperture diaphragm and a flip-down lens; strain-free optics
Reflected light illumination	Built-in field and aperture diaphragms; polarization module in the turret; color filter set
Transmitted light polarizer	With 0°, 90°, 180°, 270° marks on the scale; 360° rotatable
Camera connection	+
Monitor connection	+
Transmitted light source	12V/100W halogen bulb
Reflected light source	12V/100W halogen bulb

MICROSCOPY TECHNIQUES	
Basic configuration	Transmitted light: brightfield, polarization Reflected light: brightfield, polarization
Optional equipment	Transmitted light: darkfield, phase contrast Reflected light: darkfield, fluorescence, DIC





**ANY SUFFICIENTLY ADVANCED TECHNOLOGY
IS INDISTINGUISHABLE FROM MAGIC.**

Arthur C. Clarke, English author, science writer,
futurolgist, and popularizer of science.



INDUSTRIAL MICROSCOPE ACCESSORIES

EYEPIECES

Extend the magnification range of the microscope. Additional eyepieces will provide the highest useful magnification of the objective that is used more often.



OBJECTIVES

Extend the magnification range of the microscope or provide additional magnification within the magnification range.



A MECHANICAL STAGE ATTACHMENT

For a polarizing microscope is used for the convenient X-Y movement of specimens.

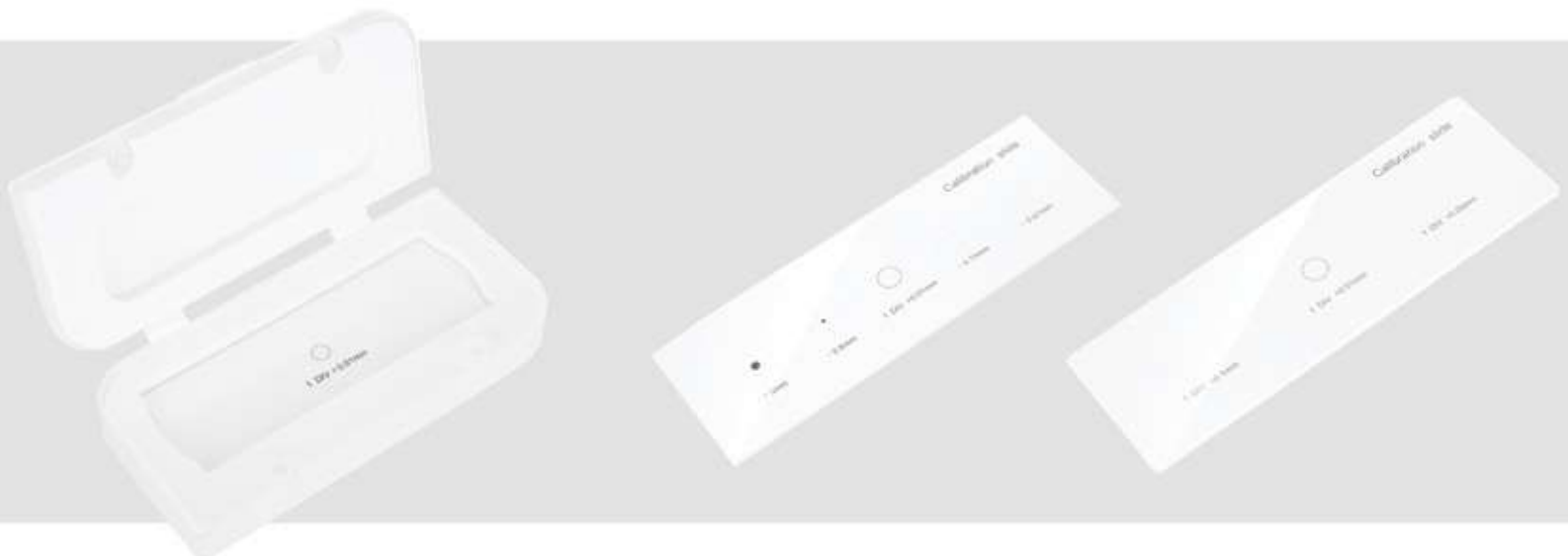


C-MOUNT ADAPTERS connect a camera with a microscope.

The adapter magnification is selected to match the camera sensor size.



CALIBRATION SLIDES are used for measuring specimens, and they are combined with an eyepiece with a scale or camera with software. The scale value is 0.01mm.



STEREOSCOPIC MICROSCOPES

MAGUS



MAGUS STEREO 7 | 8 SERIES
STEREOMICROSCOPES



MAGUS



AREAS OF APPLICATION

Zoology, botany, forensic science, material science, microelectronics, quality control, restoration, jewelry, and archaeology.

PURPOSE

Observing three-dimensional objects and the details of their structure as well as generating 3D virtual visualization and accurate details of the object surface with no loss of spatial orientation.





KEY FEATURES

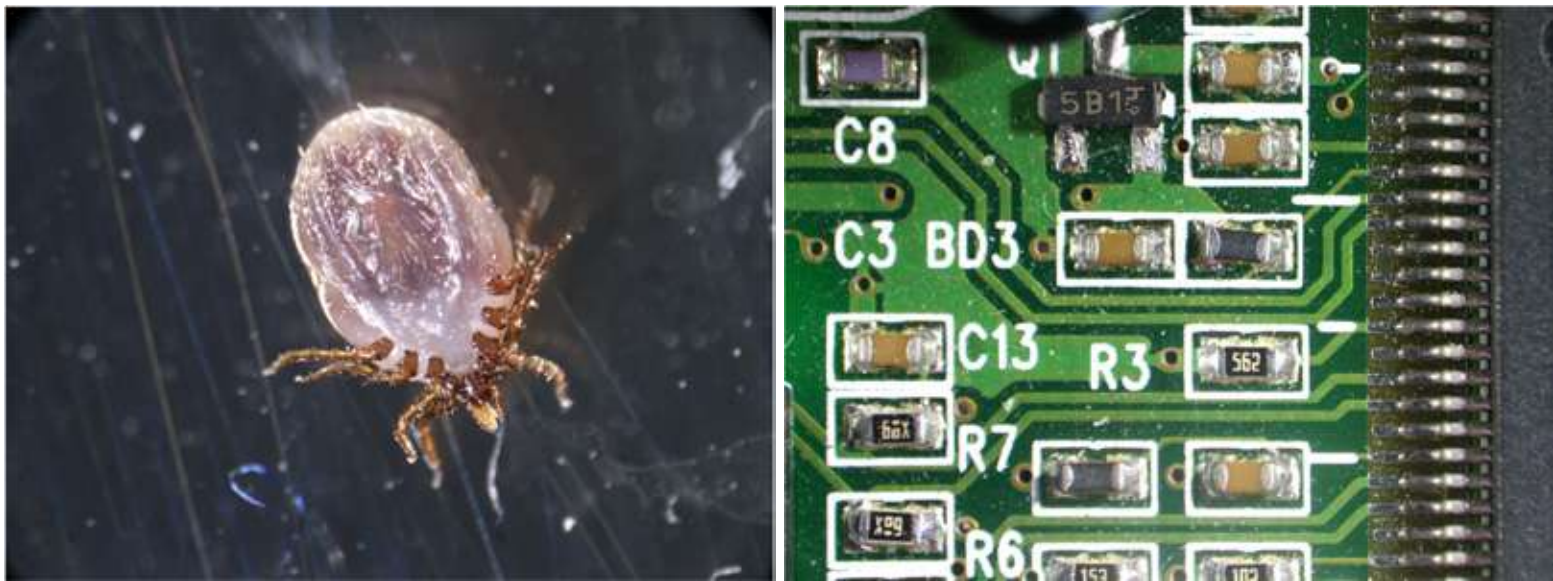
- The Greenough optical design provides a large depth of field and produces 3D visualization due to a 15° stereo angle. The zoom objective allows for the smooth change of magnification to 6.7 or 8.4 times maintaining a large working distance of 105mm. The microscope magnifies an image with no loss of spatial orientation. The user can study the sample in a comfortable workspace.
- The models feature a compact design and an affordable price.
- The focusing knobs are located on both sides of the stand for right- and left-handed use. Fine focusing of the MAGUS Stereo 8 series will make it easy to adjust the microscope when using magnifications above 40x.
- In trinocular models, the digital camera is mounted in the trinocular tube of the microscope head. The light path does not change. The splitting ratio is fixed: 80% to an eyepiece and 20% to the trinocular tube. The user observes the image in the eyepieces and on the screen at the same time.
- LED illuminators for transmitted and reflected light will ensure bright illumination for observing translucent and opaque objects. The LED lifetime is 50,000 hours.
- A variety of accessories expands the choice of illumination methods and the microscope magnification range. Universal stands will allow you to enlarge the working area, thereby giving you more freedom in choosing the position of the microscope head above the workstation.

MODEL VARIATIONS

- The microscope head: binocular, trinocular.
- The objective zoom ratio: 6.7:1 and 8.4:1.

MAGUS STEREO 7 | 8 SERIES STEREOMICROSCOPES

SKU	83511	83512	83514	83513
MODEL	STEREO 7B 	STEREO 7T 	STEREO 8B 	STEREO 8T 
SPECIFICATIONS				
Microscope head	Binocular	Trinocular	Binocular	Trinocular
Optical design	Greenough			
Magnification	6.7–45x (optional 3.4–270x)		6.5–55x (optional: 3.25–330x)	
Eyepieces	10x/22mm with eye relief (optional: 10x/22mm with a scale, 15x, 20x, 25x, 30x)			
Zoom objective	0.67–4.5x		0.65–5.5x	
Stage plate	Black-and-white plate Ø95, frosted glass plate			
Zoom ratio	6.7:1		8.4:1	
Focusing mechanism	Coarse, with a coarse focusing tension adjusting knob, moving range: 106mm		Coaxial coarse & fine, with a coarse focusing tension adjusting knob, moving range: 45mm	
Camera connection	+	+	+	+
Monitor connection	+	+	+	+
Transmitted light source	3W LED	3W LED	3W LED	3W LED
Reflected light source	3W LED	3W LED	3W LED	3W LED
MICROSCOPY TECHNIQUES				
Basic configuration	Brightfield			
Optional equipment	Darkfield, polarization			





MAGUS STEREO 7 | 8 SERIES STEREOMICROSCOPES





MAGUS STEREO 9T SERIES
STEREOMICROSCOPES



MAGUS



AREAS OF APPLICATION

Zoology, botany, agricultural studies, forensic science, material science, microelectronics, quality control, restoration, jewelry, archaeology, and pharmaceutical manufacturing.

PURPOSE

Observing three-dimensional objects and the details of their structure as well as generating 3D virtual visualization and accurate details of the object surface with no loss of spatial orientation.

KEY FEATURES

- The Greenough optical design provides a large depth of field and delivers three-dimensional image due to a 15° stereo angle. The zoom objective allows for the smooth change of magnification up to 9 times maintaining a large working distance of 110mm. The microscope magnifies an image of the specimen with no loss of spatial orientation. The user can study the sample in a comfortable workspace.
- The coarse and fine focusing knobs are located on both sides of the stand for right- and left-handed use. The fine focusing will make it easy to adjust the microscope when using the magnifications above 40x.
- The digital camera is mounted in the trinocular tube of the microscope head. The light beam from the right eyepiece is switched to the trinocular tube.
- LED illuminators for transmitted and reflected light will ensure bright illumination for observing translucent and opaque objects. The LED lifetime is 50,000 hours.
- Optional eyepieces and auxiliary objective lenses extend the magnification range of the microscope. The 0.5x auxiliary objective lens increases the working distance. A digital camera outputs images from the microscope to a monitor. Calibration slides are used for measuring specimens. The scale value on the calibration slide of stereomicroscopes is 0.1mm. A polarization device removes any glare from the image of polished metal surfaces.

MODEL VARIATIONS

Microscope head: trinocular, trinocular with a camera or with a monitor.

MAGUS STEREO 9T SERIES STEREOMICROSCOPES

SKU	82910	83044	83045
MODEL	STEREO 9T 	STEREO D9T 	STEREO D9T LCD 
SPECIFICATIONS			
Microscope head	Trinocular		
Optical design	Greenough		
Magnification	7–63x (optional: 3.5–315x)		
Eyepieces	10x/22mm with eye relief (optional: 15x, 16x, 20x, 25x)		
Zoom objective	0.7–6.3x		
Stage plate	Black-and-white plate Ø90mm, white plate Ø90mm, frosted glass plate Ø90mm		
Zoom ratio	9:1		
Focusing mechanism	Coaxial coarse & fine, with coarse focusing tension adjusting knobs, moving range: 83mm		
Camera connection	+	supplied CBF10, USB 3.0	supplied CHD10, HDMI
Monitor connection	+	+	supplied MCD20
Transmitted light source	5W LED	5W LED	5W LED
Reflected light source	3W LED	3W LED	3W LED
MICROSCOPY TECHNIQUES			
Basic configuration	Brightfield		
Optional equipment	Polarization		





MAGUS STEREO 9T SERIES STEREOMICROSCOPES





MAGUS STEREO A6 | A8 | A10 SERIES
STEREOMICROSCOPES



MAGUS



AREAS OF APPLICATION

Research-grade stereomicroscope. Medicine, zoology, botany, forensic examination, material science, and archaeology.

PURPOSE

Studying three-dimensional objects and the details of their structure and generating 3D virtual visualization and accurate details of the object surface with no loss of spatial orientation.

KEY FEATURES

- The Abbe optical design provides a large field of view, and so the microscope comes with 10x eyepieces with a 24mm field of view.
- The 1x plan achromatic objective corrects field curvature, spherical and chromatic aberrations, provides high resolution and accurate color reproduction.
- The zoom objective allows for the smooth change of magnification to 6, 8, and 10 times with no loss of quality and maintaining a large working distance of 78mm. The microscope magnifies an image with no loss of spatial orientation.
- The focusing knobs are located on both sides of the stand for right- and left-handed use. Fine focusing of MAGUS Stereo A10 will make it easy to adjust the microscope when using the magnifications above 40x.
- LED illuminators for transmitted and reflected light will ensure bright illumination for observing translucent and opaque objects. The LED lifetime is 50,000 hours.
- A variety of accessories expands the choice of illumination methods and the microscope magnification range. Universal stands will allow you to enlarge the working area, giving you more freedom in choosing the position of the microscope head above the workstation.

MODEL VARIATIONS

- The objective zoom ratio: 6:1, 8:1, and 10:1.
- The fine focusing function is available in the Stereo A10 model.

MAGUS STEREO A6 | A8 | A10 SERIES STEREOMICROSCOPES

SKU	83487		83488	83489
MODEL	STEREO A6 		STEREO A8 	STEREO A10 
SPECIFICATIONS				
Optical design	Common Main Objective system			
Microscope head	Binocular			
Magnification	8–50x (optional: 2.4–200x)	8–64x (optional 2.4–256x)	8–80x (optional 2.4–320x)	
Eyepieces	10x/22mm, 10x/24mm (optional: 15x/16mm, 20x/12mm):			
Common main objective	Plan achromatic 1x (optional: achromatic 0.3x, plan achromatic 0.5x, plan achromatic 2x)			
Zoom objective	0.8–5x	0.8–6.4x	0.8–8x	
Zoom ratio	6:1	8:1	10:1	
Working distance:	79mm			
Stage plate	Black-and-white plate, glass plate			
Focusing mechanism	Coaxial coarse, with a coarse focusing tension adjusting knob			Coaxial coarse & fine, with a coarse focusing tension adjusting knob
Camera connection	+	+	+	
Monitor connection	+	+	+	
Transmitted light source	6W LED	6W LED	6W LED	
Reflected light source	3W LED	3W LED	3W LED	
MICROSCOPY TECHNIQUES				
Basic configuration	Brightfield			
Optional equipment	Darkfield, polarization			



Plan 1x

MAGUS STEREO A18T
STEREOMICROSCOPE



MAGUS



AREAS OF APPLICATION

The research-grade stereomicroscope with plan apochromatic optics. The microscope is used in microbiology, zoology, botany, agriculture studies, forensic science, material science, pharmacology, and archaeology.

PURPOSE


Studying three-dimensional objects and the details of their structure and generating 3D virtual visualization and accurate details of the object surface with no loss of spatial orientation.

KEY FEATURES

- The Abbe optical design provides a large field of view, and so the microscope comes with 10x eyepieces with a 23mm field of view.
- The plan apochromatic main objective corrects field curvature, spherical and chromatic aberrations, and forms a bright and contrast image at the 2- μ m resolution limit.
- The zoom objective allows for the smooth change of magnification to 18 times with no loss of quality and while maintaining a large working distance of 60mm. The microscope magnifies an image with no loss of spatial orientation.
- The digital camera is mounted in the trinocular tube. The light beam from the right eyepiece is switched to the trinocular tube.
- The eyepiece tubes are rotated to adjust the height of the eyepieces to the user's height. The diopter adjustment is on the eyepieces.
- The coarse and fine focusing knobs are located on both sides of the stand for right- and left-handed use. Fine focusing will make it easy to adjust the microscope when using the magnifications above 40x.
- The 10W transmitted light LED illuminator provides bright illumination for the brightfield, darkfield, and polarized light observations. The LED lifetime is 50,000 hours.
- The switchable shutter in the base of the microscope enables the technique of oblique illumination in transmitted light.



MAGUS STEREO A18T STEREOMICROSCOPE

SKU	83490
MODEL	STEREO A18T 
SPECIFICATIONS	
Microscope head	Trinocular
Optical design	Common Main Objective system
Magnification	7.3–135x
Eyepieces	10x/23mm
Common main objective	Plan apochromatic 1x (NA 0.15, field of view: 31.4mm)
Zoom objective	0.75–13.5x
Zoom ratio	18:1
Working distance	60mm
Stage plate	Glass plate
Focusing mechanism	Coaxial coarse & fine, moving range: 60mm + 90mm
Camera connection	+
Monitor connection	+
Light source	10W LED
MICROSCOPY TECHNIQUES	
Basic configuration	Brightfield
Optional equipment	Transmitted light: darkfield, polarization Reflected light: fluorescence





MAGUS STEREO A18T STEREOMICROSCOPE



 **MAGUS**

PlanApo **1X** WD:60

STEREOMICROSCOPE ACCESSORIES

Eyepieces and auxiliary objective lenses extend the magnification range of the microscope.

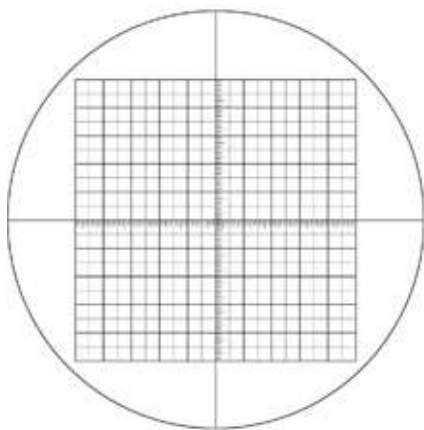


MAGUS

A **C-mount adapter** connects a camera to a microscope.
The adapter magnification is selected to match the camera sensor size.



Calibration slides are used for measuring specimens.
The scale value on the calibration slide of stereomicroscopes is 0.1mm.



A **darkfield condenser** produces the illumination required for studying precious and semi-precious stones.



A **gem clip** is used to fix the stone on the surface relative to the condenser.



MAGUS

A **mechanical stage** enables the smooth movement of specimens, with no jerks, along two axes and offers additional convenience to the user when magnifications above 20x are used.



A **polarizer/analyzer set** is used to study anisotropic samples.



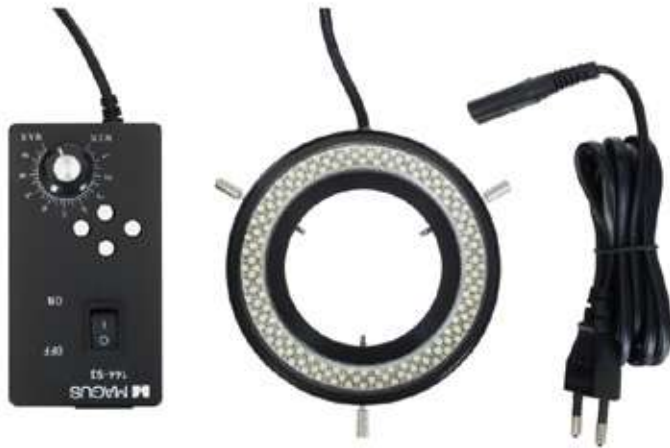
A **ring light** is used to provide shadow-free lighting in the working area in reflected light.



A **ring light with a polarizer** removes glare from the image of polished metal surfaces.



A ring light with sector control and a gooseneck light are used to fine-tune the illumination in the working area. The user selects an angle of illumination and creates the light shadows required for the study.



Universal stands enlarge the working area and provide more freedom in choosing the position of the microscope head above the workstation.



Focusing mechanisms allow for mounting a microscope head on a stand.



DIGITAL CAMERAS AND LCD MONITORS

MAGUS



DIGITAL CAMERAS AND LCD MONITORS



MAGUS



PURPOSE

A digital microscope camera displays the observed sample on a computer screen or monitor. It is used to take photos and record videos, store information for archiving and visual presentation as well as for online streaming.

CHOOSING A MICROSCOPE CAMERA

When choosing a digital camera, focus on what tasks the camera will be used for and then match them with the microscope's offered techniques. Some of the typical tasks that the camera can be used for include documenting or the online presentation of the observation results, photo or video shooting, image processing or only output onto a screen. The microscope techniques include manipulation under the microscope or only observation, low magnification or a 100x objective, brightfield or darkfield, fluorescence or phase-contrast techniques as well as observation of moving or stationary objects.



MODEL VARIATIONS

- The USB 3.0 interface is recommended for professional laboratory work, research, and university education, and the HDMI interface is used for stereomicroscopic manipulations or online presentations.
- The sensor resolution varies from 1.7MP, for use with high-magnification objectives, to 21MP, for use with 4x–10x objectives and a stereomicroscope.
- The sensor size varies from 1/2.8", for routine work and education, to 4/3", for scientific research.
- The physical pixel size is from 1.25x1.25µm to 9.0x9.0µm. The larger the pixel is, the more light it will absorb. That means there will be less image noise and higher light sensitivity of the camera.
- A color camera is suitable when color is important for highlighting or classifying the object being observed. A monochrome camera is used for low-light applications, especially in fluorescence microscopy.







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