



Specification
Sheet

Motic®
MORE THAN MICROSCOPY

28 Series

2802 LED Cordless





EDUCATION LINE - 28 Series

2802 LED Cordless

Optical System	Finite Optical System, 160mm
Observation Tube	Monocular
Inclination	45° inclined, 360° rotating
Eyepiece	WF10X/18mm with pointer, lockable
Nosepiece	Reversed quadruple revolving nosepiece with click stops
Objective classification	EA Achromatic, DIN
Objectives	4X/0.10, 10X/0.25, 40X/0.65/S
Objective mounting thread	W 4/5" x 1/36" (RMS standard)
Stage	Built-in low position coaxial mechanical stage with sample holder
Stage size	133x136mm
Mechanical stage X&Y range	77x31mm
Upper limit stop	Preset and adjustable
Condenser	Rack & pinion focusable 1.25 N.A. Abbe Condenser with iris diaphragm
Focus mechanism	Coaxial coarse and fine focusing system with tension adjustment
Fine focus precision	2 µm minimum increment
Z-axis movement	12mm
Filter	Built-in frosted glass
Illumination	LED 20mA, 3.5V, 70mW with intensity control
Transformer	External
Power supply	Charger 100-220V or rechargeable batteries
Accessories included	Dust cover, charger and batteries
Lenght X Width X Height	215x172x380mm
Weight	4,6Kg



B1 Series

B1-211E-SP





EDUCATION LINE - B1 Series

B1-211E-SP

Optical System	Finite Optical System, 160mm
Observation Tube	Monocular head
Inclination	45° inclined, 360° rotating
Eyepiece	Widefield WF10X/18mm, lockable
Nosepiece	Quadruple
Objective classification	SP Semi-Plan Achromatic, DIN
Objectives	4X/0.10 (WD 17.9mm), 10X/0.25 (WD 5.3mm), 40X/0.65/S (WD 0.61mm), 100X/1.25/S-Oil (WD 0.165mm)
Objective mounting thread	W 4/5" x 1/36" (RMS standard)
Stand type	Upright
Stage	Mechanical stage with built-in low position rackless coaxial stage control and sample holder
Stage size	140x135mm
Travel range X&Y	76x40mm
Condenser	Focusable Abbe Condenser N.A. 1.25
Diaphragm	Iris diaphragm
Focus mechanism	Coaxial coarse and fine focusing system with tension adjustment
Fine focus precision	2 µm
Focusing stroke	27mm
Upper limit stop	Upper limit stop preset but adjustable
Transmitted Illumination	LED 3W with intensity control
Transformer	External
Power supply	110-240V (CE)
Accessories included	Dust cover, immersion oil (5ml)
Dimensions LxWxH	245x190x380mm
Weight	6,8Kg



Specification
Sheet

Motic®
MORE THAN MICROSCOPY

BA210 Series

BA210 LED BINOCULAR





BA210 Series

BA210 LED BINOCULAR

Optical system	Colour Corrected Infinity Optical System (CCIS®)
Observation tube	Binocular head, Siedentopf type
Inclination	30° inclined, 360° rotating
Interpupillary distance	55-75mm
Diopter adjustment	On both eyepieces, +/- 5 diopter
Eyepieces	Widefield N-WF10X/20mm with diopter adjustment
Nosepiece	Reversed quadruple
Objective classification	CCIS® EC Plan Achromatic, DIN
Objectives	4X/0.10 (WD 15.9mm), 10X/0.25 (WD 17.4mm), 40X/0.65/S (WD 0.5mm), 100X/1.25/S-Oil (WD 0.15mm)
Objective mounting thread	W 4/5"x1/36" (RMS standard)
Stand type	Upright
Stage	Mechanical stage with built-in low position coaxial stage control and sample holder
Stage size	140x135mm
Travel range X&Y	76x50mm
Condenser	Focusable Abbe condenser N.A. 1.25 with slot for contrast sliders
Diaphragm	Iris diaphragm
Focus mechanism	Coaxial coarse and fine focusing system with tension adjustment
Fine focus precision	2µm
Focusing stroke	25mm
Upper limit stop	Upper limit stop preset but adjustable
Filter holder	On top of the illuminator
Transmitted illumination	LED 3W with intensity control
Transformer	Internal
Power supply	100-240V (CE)
Accessories included	Dust cover, power cord, Allen key, Immersion oil (5ml), spare fuse, cord hanger, thumb screw
Dimensions LxWxH	360x220x395mm
Net weight	7.2kg

Motic®

MORE THAN MICROSCOPY



BA210E

BASIC TRANSMITTED LIGHT MICROSCOPE

BA210E

Motic's BA210E is dedicated to give an answer on basic demands from educational and biomedical laboratory work. The upgraded EC Plan Achromatic objectives in our CCIS® Infinity Concept deliver a fully corrected intermediate image for crisp and clear results within a 20mm Field of View. The rackless stage enables a safe x/y scanning even for the unexperienced user. The 30W Halogen light source



OPTIONAL INTERMEDIATE
Epi-LED S FLUORESCENCE
MODULE



QUADRUPLE
NOSEPIECE



EC PLAN
ACHROMATIC
OBJECTIVES



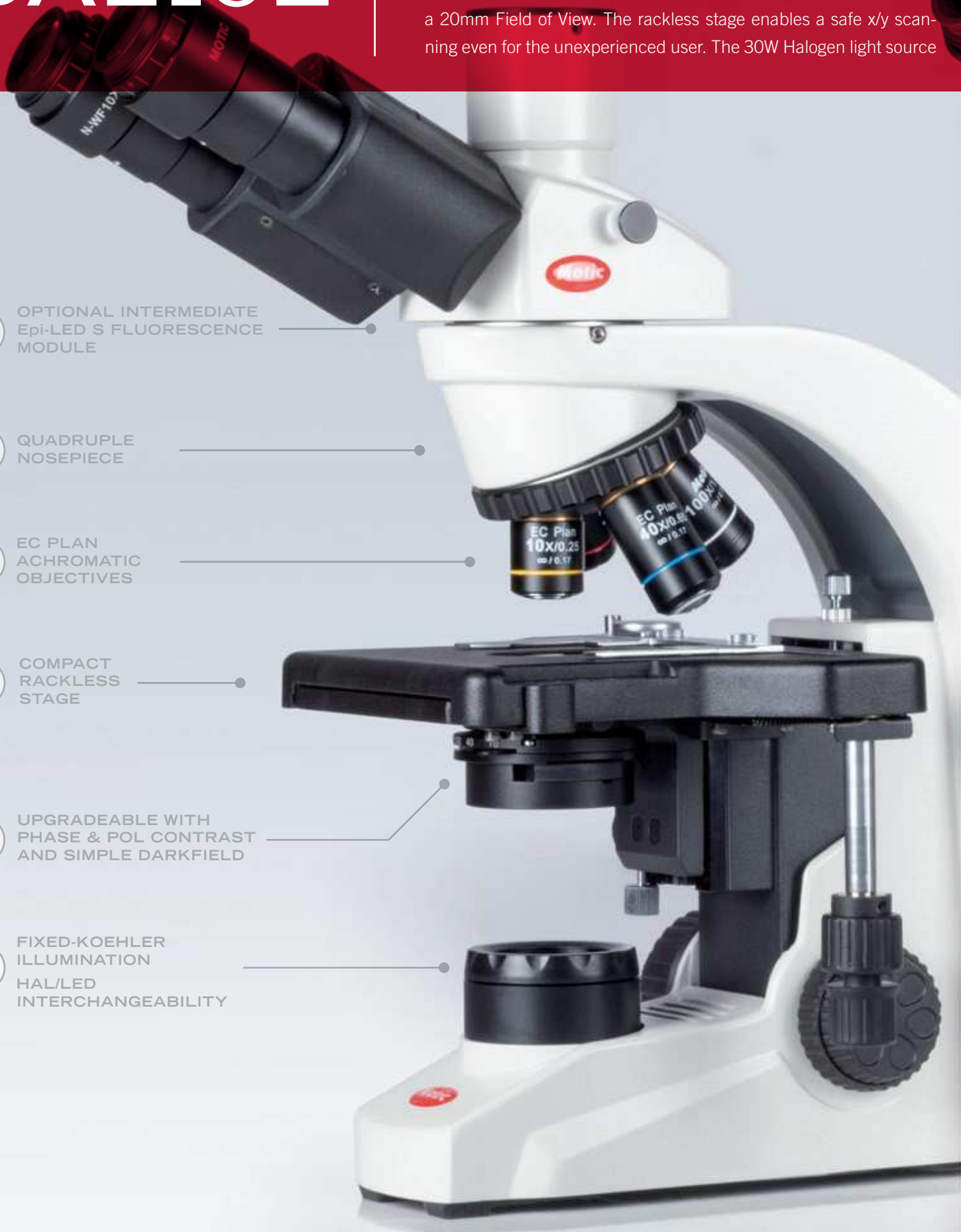
COMPACT
RACKLESS
STAGE



UPGRADEABLE WITH
PHASE & POL CONTRAST
AND SIMPLE DARKFIELD



FIXED-KOEHLER
ILLUMINATION
HAL/LED
INTERCHANGEABILITY



in a Fixed-Koehler setup can simply be replaced by LEDs of different color temperatures. The BA210E is ready to be upgraded with Phase contrast, Polarization, Darkfield and even LED Fluorescence. This robust upright microscope brings professional image results to all intended applications.



EC PLAN OPTICS FOR CRISP AND CLEAR IMAGES

The complete series of EC Plan Achromatic objectives, from 4X to 100X magnification, is achieving an improved image contrast both for human eye and digital cameras through the photo port. Especially in Phase contrast, the optional objectives (positive & negative Phase) show a remarkable performance for a wide range of applications. The N-WF eyepieces start with the standard 10X/20 mm Field of View and provide a diopter adjustment (+/-5dpt) for both eyes, ready for the use of optional reticles.



A STUDENT PROOF CONCEPT FOR ROUGH USE

Motic's BA210E is designed for a demanding daily usage. The rackless stage allows a safe evaluation of samples without prominent gear rack. The standard eyepiece tubes feature a 30° viewing angle for maximum comfort, whereas the interpupillary distance of 55-75mm can easily be adjusted, following individual conditions. The trinocular tube option with a 100:0 / 20:80 light split allows the adaption of digital camera systems and the presentation of microscopic images to a larger public.



INTERCHANGEABLE HAL/LED ILLUMINATION

The BA210E microscope features an interchangeable illumination. It comes standard with a 30W Halogen illumination system in a Fixed Koehler setup, but the Halogen light source can easily be replaced by LED modules of different color temperatures. The importance of LED illumination as a safe and long-term light source has increased especially in teaching environments at the expense of Halogen bulbs, due to its long lifetime and reduced heat production. The high-quality condenser with NA 1.25 and aperture diaphragm guarantees the visualization of weakly or non-stained samples.



A MEMBER OF THE BA-MICROSCOPE LINE

The BA210E is an integral part of Motic's BA microscope concept. An upgrade with Phase contrast (positive & negative), Darkfield, Polarization and even LED Fluorescence can easily be performed. The BA210E exceeds the limits of a basic upright microscope, allowing to use contrast methods for specific application fields even in teaching environments with limited resources.



Our **MOTICAM** range offers the choice between several imaging options. Besides the standard USB cameras, we offer solutions like the Moticam Full HD cameras, tablet solutions, and Wi-Fi cameras working with our free "MotiConnect" App.

Know more at www.moticamseries.com



SPECIFICATIONS

BA210E



Model

BA210E Binocular

BA210E Trinocular

Optical System	Colour Corrected Infinity Optical System (CCIS®)	
Observation tube	Binocular head, Siedentopf type	Trinocular head, Siedentopf type
Interpupillary distance	55-75mm	
Trinocular light split	-	100:0/20:80
Inclination	30° inclined, 360° rotating	
Eyepieces	N-WF10X/20mm with diopter adjustment, +/- 5 diopter	
Nosepiece	Reversed quadruple revolving nosepiece	
Objective classification	Infinity Corrected CCIS® EC Plan Achromat, DIN 45mm	
Objectives	4X/0.10 (WD 15.9mm), 10X/0.25 (WD 17.4mm), 40X/0.65/S (WD 0.5mm), 100X/1.25/S-Oil (WD 0.15mm)	
Objective mounting thread	W 4/5" x 1/36" (RMS standard)	
Stage	Rackless low position coaxial mechanical stage with sample holder	
Stage size	150x150mm	
Mechanical stage X&Y range	80x30mm	
Upper limit stop	Upper limit stop preset but adjustable	
Condenser	Focusable Abbe Condenser N.A. 1.25 with iris diaphragm and slot for contrast sliders	
Focus mechanism	Coaxial coarse and fine focusing system with tension adjustment	
Fine Focus precision	2 µm minimum increment	
Z-axis movement	20mm	
Filter holder	On top of the illuminator with fixing cap	
Illumination	Interchangeable 6V/30W Quartz halogen or 3W LED illumination with intensity control	
Transformer	Internal	
Power supply	100-240V (CE)	
Accessories included	Blue filter, immersion oil 5ml, power cord, cord hanger, dustcover, allen key, thumb screw and spare fuse	
Dimensions	360x220x398mm	
Weight	7,2kg	7,4kg
Contrast techniques		
Brightfield	Yes	
Phase contrast	Slider	
Simple Polarization	Yes	
Simple Darkfield	Slider	
Fluorescence	LED	

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Motic®

30⁺
YEARS



BA310E

ADVANCED BIOLOGICAL MICROSCOPE

BA310E

Motic's BA310E is designed specifically for the rigors of routine work in universities, clinics and science labs. The CCIS® Infinity optics presents the upgraded EC Plan Achromatic objectives for a fully corrected intermediate image. This model's Full Koehler configuration provides maximum illumination quality even for the most demanding samples. The 30W Halogen light source can be exchanged by LED



UPGRADEABLE
WITH
MULTI-VIEWING
DEVICES

Epi-LED
FLUORESCENCE
MODULE



EC PLAN ACHROMATIC
OBJECTIVES



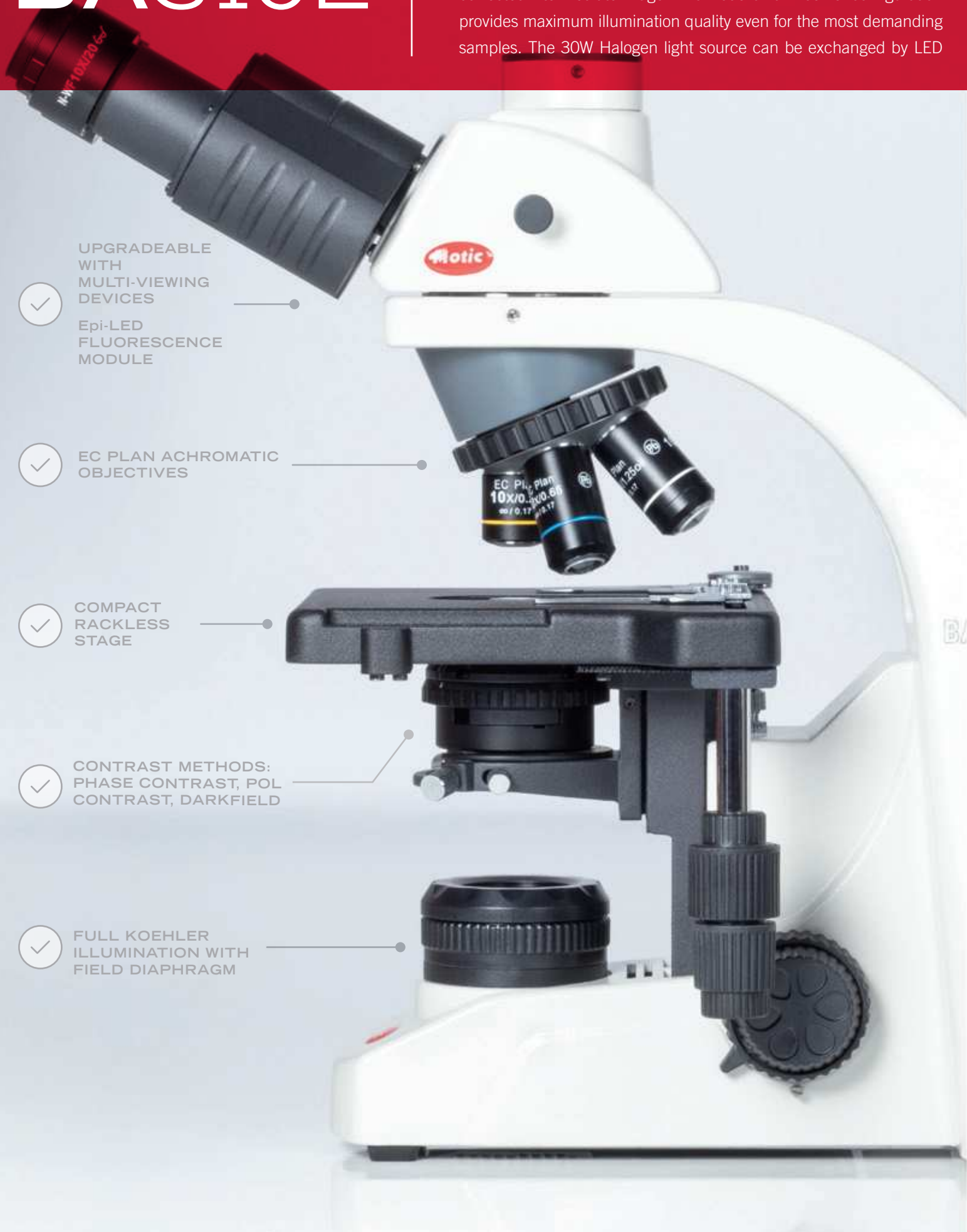
COMPACT
RACKLESS
STAGE



CONTRAST METHODS:
PHASE CONTRAST, POL
CONTRAST, DARKFIELD



FULL KOEHLER
ILLUMINATION WITH
FIELD DIAPHRAGM



modules of different color temperatures. It gives adequate power resources for upgrading the microscope with Phase contrast, Polarization, Darkfield or even Multi-Viewing devices. Adding Epi-LED modules facilitate the implementation of Fluorescence into the daily workflow. The Motic BA310E offers a long-term functionality to all user levels in a variety of biomedical applications.



RESISTANT TO ROUGH USE IN DAILY ROUTINE WORK

Motic's BA310E is designed for a rough work in daily routine. The rackless stage allows a safe evaluation of samples without prominent gear rack. The standard eyepiece tubes feature a 30° viewing angle for maximum comfort, whereas the interpupillary distance of 48-75mm can easily be adjusted, following individual conditions. The trinocular tube option with a 100:0 / 20:80 light split allows the adaption of digital camera systems and the presentation of microscopic images to a larger lab group.



EC PLAN OPTICS FOR SUPERB IMAGE RESULTS

The complete series of EC Plan Achromatic objectives, from 4X to 100X magnification, is targeting an improved image contrast both for human eye and digital camera sensor through the photo port. Especially in Phase contrast, the optional objectives (positive & negative) show a remarkable execution for a wide range of applications. The N-WF eyepieces start with the standard 10X/20 mm Field of View and provide a diopter adjustment (+/-5dpt) for both eyes, ready for the use of optional reticles.



INTERCHANGEABLE HAL/LED ILLUMINATION

The BA310E microscope features interchangeable illumination. It comes standard with a 30W Halogen illumination system in a Full Koehler setup with Field diaphragm, and the Halogen light source can easily be replaced by LED modules of different color temperatures. The importance of LED illumination as safe and long-term illumination sources has increased especially in teaching environments at the expense of Halogen bulbs, due to its long lifetime and reduced heat production. The high-quality condenser with NA 0.9/1.25 and aperture guarantees the visualization of weakly or non-stained samples.



INTEGRATED IN MOTIC'S LINE OF BA-MICROSCOPES

For further versatility in the use of optional accessories, the BA310E is integrated into Motic's concept of BA microscopes. Phase contrast (positive and negative version) can be carried out either with a slider solution or a turret condenser; Darkfield as well as Polarization contrast can easily be performed. Multi-Viewing devices allow a traditional teaching situation especially in pathology and histology applications. LED Fluorescence can be implemented by adding an Epi-LED module between tube and microscope stand. The BA310E offers adaptability and long-term functionality in universities, clinics and labs.



Our **MOTICAM** range offers the choice between several imaging options. Besides the standard USB cameras, we offer solutions like the Moticam Full HD cameras, tablet solutions, and Wi-Fi cameras working with our free "MotiConnect" App.

Know more at www.moticamseries.com

SPECIFICATIONS

BA310E



Model

BA310E Binocular

BA310E Trinocular

Optical System	Colour Corrected Infinity Optical System (CCIS®)	
Observation tube	Binocular head, 360° Swiveling	Trinocular head, 360° Swiveling
Interpupillary distance	48-75mm	
Trinocular light split	-	100:0/20:80 (optional 100:0/0:100)
Inclination	30° inclined, 360° rotating	
Eyepieces	N-WF10X/20mm with diopter adjustment, +/- 5 diopter	
Nosepiece	Reversed quintuple revolving nosepiece	
Objective classification	Infinity Corrected CCIS® EC Plan Achromatic DIN 45mm	
Objectives	4X/0.10 (WD 15.9mm), 10X/0.25 (WD 17.4mm), 40X/0.65/S (WD 0.5mm), 100X/1.25/S-Oil (WD 0.15mm)	
Objective mounting thread	W 4/5" x 1/36" (RMS standard)	
Stage	Rackless built-in low position coaxial mechanical stage with tension adjustment and 2-sample holder	
Stage size	180x170mm	
Mechanical stage X&Y range	80x55mm	
Upper limit stop	Upper limit stop preset but adjustable	
Condenser	Focusable Abbe Condenser N.A. 0.90/1.25 with iris diaphragm and slot for contrast sliders	
Focus mechanism	Coaxial coarse and fine focusing system with tension adjustment	
Fine Focus precision	2 µm minimum increment	
Z-axis movement	20mm	
Filter holder	On top of the illuminator with fixing cap	
Illumination	Interchangeable 6V/30W Quartz Halogen or 3W LED Koehler illumination with intensity control	
Transformer	Internal	
Power supply	100-240V (CE)	
Accessories included	Blue filter, immersion oil 5ml, power cord, cord hanger, dustcover, allen key, thumb screw and spare fuse	
Dimensions	400x220x400mm	
Weight	8,6kg	8,8kg
Contrast techniques		
Brightfield	Yes	
Phase contrast	Slider & Turret	
Simple Polarization	Yes	
Simple Darkfield	Slider & Turret	
Fluorescence	LED	

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BA310 Series

BA310 LED BINOCULAR





BA310 Series

BA310 LED BINOCULAR

Optical system	Colour Corrected Infinity Optical System (CCIS®)
Observation tube	Binocular head, Siedentopf type, 360° swiveling
Inclination	30° inclined, 360° rotating
Interpupillary distance	48-75mm
Diopter adjustment	On both eyepieces, +/- 5 diopter
Eyepieces	Widefield N-WF10X/20mm with diopter adjustment
Nosepiece	Reversed quintuple
Objective classification	CCIS® EC Plan Achromatic, DIN
Objectives	4X/0.10 (WD 15.9mm), 10X/0.25 (WD 17.4mm), 40X/0.65/S (WD 0.5mm), 100X/1.25/S-Oil (WD 0.15mm)
Objective mounting thread	W 4/5"x1/36" (RMS standard)
Stand type	Upright
Stage	Mechanical stage with built-in low position coaxial stage control with tension adjustment and 2-sample holder
Stage size	175x140mm
Travel range X&Y	76x50mm
Condenser	Focusable and centerable Abbe condenser N.A. 0.90/1.25 with slot for contrast sliders
Diaphragm	Iris diaphragm
Focus mechanism	Coaxial coarse and fine focusing system with tension adjustment
Fine focus precision	2µm
Focusing stroke	20mm
Upper limit stop	Upper limit stop preset but adjustable
Filter holder	On top of the illuminator
Transmitted illumination	Koehler LED 3W with intensity control
Transformer	Internal
Power supply	100-240V (CE)
Accessories included	Dust cover, power cord, Allen key, Immersion oil (5ml), spare fuse, cord hanger, thumb screw
Dimensions LxWxH	400x220x400mm
Net weight	8.6kg