

# BioBlue

## HIGHLIGHTS

- WF10x/18mm eyepiece(s)
- BioBlue EVO models with WF 10x/20 mm eyepieces and Köhler NeoLED™ illumination
- Models with integrated 5.0 MP CMOS camera or with a 7" LCD screen
- Models for polarization applications
- Provided with APL (Antimicrobial Protection Layer)
- Reversed nosepiece for 4 semi plan objectives
- Integrated X-Y mechanical stage
- Coaxial coarse and fine adjustments with rack stop
- Height adjustable Abbe condenser with iris diaphragm and filter holder
- Monocular models with 1 W LED illumination
- Binocular and trinocular models supplied with 1 W NeoLED™ illumination for increased light output
- LED models with rechargeable AA batteries and integrated power supply
- Ergonomic stand
- Warranty 10 years



● BB.4240

## TECHNICAL SPECIFICATIONS

### EYEPIECE(S)

- WF10x/18 mm Wide field
- Secured and with pointer for monocular models
- The BioBlue EVO models are supplied with WF 10x/20 mm eyepieces

### HEAD

- All heads are 360° rotatable and secured
- Monocular models with 45° inclined tubes
- Binocular and trinocular models have 30° inclined tubes, interpupillary distance is adjustable between 48 and 75 mm and equipped with a ± 5 diopter adjustment on the left tube
- The trinocular head has a fixed light path beamsplitter (50:50) and generates an erect image
- Models with digital head are supplied with a integrated 5.0 MP 1/2" CMOS sensor with 2560 x 1920 pixel resolution USB 2.0 camera
- Models supplied with a 7" IPS LCD screen
- Optional discussion head available

### MONOCULAR MODEL BB.4200

320 (h) x 176 (w) x 227 mm (d) | 3.0 kg

### BINOCULAR MODEL BB.4260

360 (h) x 176 (w) x 227 mm (d) | 4.0 kg

### POLARIZATION MODEL BB.4200-P-HLED

360 (h) x 176 (w) x 227 mm (d) | 4.4 kg

### NOSEPIECE

Reversed quadruple nosepiece on ball bearings. Models for polarization are supplied with a swing-out analyzer



Monocular head



Binocular head



Trinocular head



Discussion head

### OBJECTIVES - 45 MM PARFOCAL

- Supplied with semi plan 4x/0.10, 10x/0.25, S40x/0.65, S60x/0.85, S100x/1.25 oil immersion objectives configuration is depending on model
- The S40x, S60x and S100x oil immersion objectives are spring loaded (to prevent damage to sample and objectives)

*All optics are anti-fungus treated and anti-reflection coated for maximum light throughput*

### FOCUSSING

- Coaxial coarse and fine adjustments with 200 graduations. Precision 2 µm per graduation, 0.4 mm per rotation
- Total travel approximately 23 mm
- Supplied with an adjustable rack stop to prevent damage to sample and objectives
- The coarse adjustment is equipped with friction control

### STAGE

- 130 x 130 mm with mechanical 70 x 28 mm X-Y translation stage except for models BB.4200 and BB.4205
- These models have a 120 x 120 mm plain stage supplied with two non-removable object clamps
- The models for polarization are supplied with 129 mm round stage, 360° rotatable and two object clamps

### POLARIZATION MODELS

- Equipped with analyzer, mounted in a slider under the head
- 360° Rotatable, graduated polarizer on the lamp house
- Standard supplied with H-LED illumination for correct color rendering (very similar to the halogen light spectrum) and an integrated 100-240 Vac power supply
- Polarisation attachments for standard microscopes are available optionally

### CONDENSER

Height adjustable Abbe condenser N.A. 1.25 with iris diaphragm and filter holder

### ILLUMINATION



- Binocular and trinocular models are supplied with an intensity adjustable 1 W NeoLED™ illumination system for increased light output
- Monocular models are supplied with an adjustable 1W LED illumination
- The models for polarization are supplied with H-LED illumination for correct color rendering (very similar to the halogen light spectrum) and an integrated 100-240 V power supply. However 20 W halogen illumination is also available for polarization models on special request
- The EVO models are equipped with Köhler NeoLED™ illumination
- All BioBlue microscopes are supplied with rechargeable AA batteries and integrated 100-240 V power supply for cordless operation. LCD versions do not run on batteries

### ANTI-THEFT SLOT

At the back of the microscope a Kensington Security Slot is placed, which can be used to secure the instrument from theft

### PACKAGE CONTENT

- Supplied with power cord, three rechargeable AA batteries, dust cover, a spare fuse, white filter, user manual and 5 ml immersion oil for models with S100x objective
- Polarisation models are supplied with a cross hair eyepiece for centering
- All packed in a polystyrene box



### APL (ANTIMICROBIAL PROTECTION LAYER)

Using the same technology already used extensively throughout the healthcare environment in wall coatings, patient lighting, air pressure stabilization and suction liners, APL prevents the growth of unwanted microbes that can cause degradation, discoloration, staining or odors of the Euromex microscopes



● Polarization model BB.4260-P-HLED

## DIGITAL MODELS

### CAMERA

- All the BioBlue digital microscopes are equipped with a 5.0 MP CMOS USB-2 camera
- Maximum resolution 2560 x 1920, 24 bits color depth, up to 30 frames per second
- Delivered with ImageFocus Plus software, USB-2 cable and a micrometer 1mm/100 slide
- Warranty for the camera is 2 years

### SOFTWARE

- The ImageFocus Plus software allows to save images in .jpg, .tif, .bmp or .dicom formats as well as .avi format videos.
- Images can be annotated and measurements can be performed in live or captured images
- Compatible with Windows 10 and higher, both 32 and 64 bits configurations
- Mac OS version is also available
- Updates can be downloaded on our website [www.euromex.com](http://www.euromex.com)

### MODELS WITH LCD SCREEN

- 7" IPS LCD screen
- Screen resolution 1920 x 1080 @ 30 fps
- Save images and videos directly to micro SD card
- Image resolution upto 1844 x 1080 in JPEG format
- Video resolution 1280 x 720 AVI format
- Basic measurement function (line) with calibration. Calibration slide available as option
- Warranty for the screen is two years



● BB.4225



● BB.4200-LCD



Digital monocular head



Digital binocular head



Digital LCD head

MODELS	Mono	Bino	Trino	4/10/40x SMP objectives	S60x SMP objective	S100x SMP objective	Mechanical X-Y stage	LED	NeoLED™	Köhler illumination <sup>(1)</sup>	Polarization <sup>(2)</sup>
BB.4200	•			•				•			
BB.4220	•			•			•	•			
BB.4240	•			•	•		•	•			
BB.4250	•			•		•	•	•			
BB.4260		•		•		•	•		•		
BB.4260-E		•		•		•	•		•	•	
BB.4263		•		•	•		•	•			
BB.4243			•	•	•		•		•		
BB.4253			•	•		•	•		•		
BB.4253-E			•	•		•	•		•	•	
BB.4220-P-HLED	•			•				•			•
BB.4240-P-HLED	•			•	•			•			•
BB.4250-P-HLED	•			•		•		•			•
BB.4261-P-HLED		•		•					•		•
BB.4263-P-HLED		•		•	•				•		•
BB.4260-P-HLED		•		•		•			•		•
BB.4241-P-HLED			•	•					•		•
BB.4243-P-HLED			•	•	•				•		•
BB.4253-P-HLED			•	•		•			•		•

<sup>(1)</sup> EVO models are supplied with WF 10x/20 mm eyepieces and Köhler NeoLED™ illumination

<sup>(2)</sup> Polarization models are supplied with H-LED illumination - very similar light spectrum to the halogen illumination - and an eyepiece with crosshairs for centering. 20 W halogen illumination is also available for polarization models on special request

## DIGITAL MODELS

MODELS	Mono	Bino	LCD*	4/10/40x SMP objectives	S60x SMP objective	S100x SMP objective	Mechanical X-Y stage	1W LED	NeoLED™	Weight (Kg)
BB.4205	•			•				•		2.9
BB.4225	•			•			•	•		3.4
BB.4245	•			•	•		•	•		3.4
BB.4255	•			•		•	•	•		3.4
BB.4267		•		•		•	•		•	4.1
BB.4269		•		•	•		•		•	4.1
BB.4200-LCD			•	•				•		2.9
BB.4220-LCD			•	•			•	•		3.4

\* Models with a 7" LCD screen, 1920x1080 pixels, SD card for images and video. LCD versions do not run on batteries

## ACCESSORIES AND SPARE PARTS

### EYEPIECES

<b>AE.5571</b>	Wide field eyepiece WF 5x/18 mm
<b>AE.5572</b>	Wide field eyepiece WF10x/18 mm
<b>AE.5572-E</b>	Wide field eyepiece WF 10x/20 mm for BB EVO
<b>AE.5573</b>	Wide field eyepiece WF15x/12 mm
<b>AE.5573-E</b>	Wide field eyepiece WF 15x/12 mm for BB EVO
<b>AE.5574</b>	Wide field micrometer eyepiece 10mm/100
<b>AE.5581</b>	Wide field eyepiece WF10x/18 mm with pointer
<b>AE.5581-E</b>	Wide field eyepiece WF 10x/20 mm with pointer for BB EVO
<b>AE.5582</b>	Wide field eyepiece WF20x/11.5 mm
<b>AE.5582-E</b>	Wide field eyepiece WF 20x/12.5 mm for BB EVO
<b>AE.5365</b>	Eyecup for 28 mm eyepieces
<b>AE.5365-E</b>	Pair of eyecups for eyepieces for BB EVO

### OBJECTIVES 45 MM PARFOCAL

<b>AE.5591</b>	Semi plan objective 4x/0.10. Working distance 37.5 mm
<b>AE.5593</b>	Semi plan objective 10x/0.25. Working distance 6.54 mm
<b>AE.5594</b>	Semi plan objective 20x/0.40. Working distance 1.2 mm
<b>AE.5597</b>	Semi plan objective S40x/0.65. Working distance 0.68 mm
<b>AE.5599</b>	Semi plan objective S60x/0.75. Working distance 0.2 mm
<b>AE.5601</b>	Semi plan objective S100x/1.25 oil immersion. Working distance 0.22 mm

**MISCELLANEOUS**

- AE.1110** Stage micrometer 1 mm/ 100 parts
- AE.5511** Discussion head without eyepieces. Delivered with two eyepieces when the head is ordered mounted on microscope
- AE.5202** Blue filter, diameter 32 mm
- AE.5203** Yellow filter, diameter 32 mm
- AE.5204** Neutral grey filter, diameter 32 mm
- AE.5205** Green filter, diameter 32 mm
- AE.5207** Blue filter plexiglass, diameter 32 mm
- BB.4300** Aluminium case for BioBlue microscopes
- AE.9918** Nylon microscope bag (25 x 39 x 19 cm)
- AE.9912** Euromex dust cover medium (35 x 39 cm)
- BB.9602** Analyzer in slider
- AE.9981** 1 W LED replacement unit
- AE.9981-H** 1 W LED (halogen color type) replacement unit (only for monocular versions)
- AE.9991** 1 W NeoLED™ replacement unit
- AE.9991-H** 1 W NeoLED™ replacement unit (only for binocular and trinocular versions)
- SL.1379** Spare halogen 20 W 12 V bulb for BioBlue polarization models
- AE.5227** Glass fuses 1 A 250 V, 10 pieces



● BB.9602



● PB.5155



● PB.5165



● PB.5255



● PB.5245



**CAMERA ACCESSORIES**

- AE.5130** Universal SLR camera adapter with 2x projection lens for 23.2 mm tubes. Need T2 adapter
  - AE.5025** T2 adapter for Nikon D digital SLR cameras
  - AE.5040** T2 adapter for Canon EOS digital SLR cameras
- Other T2 adapters on request*

**DISPOSABLES**

- PB.5155** Microscope slides 76 x 26 mm, ground edges, 50 pieces
- PB.5165** Cover glasses 18 x 18 mm, thickness 0.13-0.17 mm, 100 pieces
- PB.5168** Cover glasses 22 x 22 mm, thickness 0.13-0.17 mm, 100 pieces
- PB.5245** Lens cleaning paper, 100 sheets per pack
- PB.5255** Immersion oil, n = 1.515 (25 ml)
- PB.5274** Isopropyl alcohol 99% (200 ml)
- PB.5275** Cleaning kit: lens cleaning fluid, lint free lens tissue, brush, air blower, cotton swabs



● PB.5275



● BB.4300



● AE.9918



● AE.9912



**POLARIZATION ATTACHMENTS**

*Not suitable for the BioBlue EVO models*

- AE.5150** Simple polarization attachment. Polarizer 18 mm diameter mounted in eyepiece, analyzer 32 mm diameter placed in filter holder
- AE.5151** Simple polarization attachment. Polarizer mounted over eyepiece and analyzer 32 mm diameter in filter holder
- AE.5152** Simple polarization attachment. Polarizer mounted over eyepiece and analyzer 32 mm diameter in filter holder
- AE.5153** Simple polarization attachment. Analyzer mounted over eyepiece and 360° rotatable polarizer on table
- AE.5154** Polarizer in mount, to place over eyepiece
- AE.5155** Polarization attachment with analyzer and slider, rotatable stage for X-Y mechanical stage and polarizer on lamp house
- AE.5155-P** Polarization attachment with analyzer and slider, rotatable stage for stage with clamps and polarizer on lamp house
- AE.5156** Polarization attachment with analyzer and slider, and polarizer on lamp house
- AE.5158** Polarization kit with analyzer in slider and small rotatable (75 x 50 mm) stage with two clamps to be mounted on X-Y stage. Rotatable 360° polarization filter to be mounted on lamphouse
- AE.5158-P** Polarization kit with analyzer in slider and small rotatable (100 x 65 mm) stage with two clamps to be mounted on plain stage. 360° Rotatable polarization filter to be mounted on lamphouse



● BioBlue with polarization kit



● AE.5158-P