

Microscopes for Education, Life Science and Industry



25

# Discover. More.



### DISCOVER.

• Globe | Euromex premium quality microscopes are finally available in America!

10

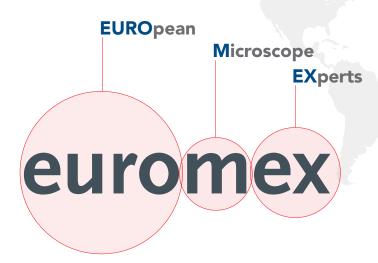
- Designed and engineered in The Netherlands for nearly 60 years, the Euromex product line enjoys a solid, well-established reputation for quality and reliability throughout Europe and around the world.
- The extensive line of microscopes and accessories includes solutions for all educational, clinical and research laboratories, as well as a broad range of industrial applications.
- Globe | Euromex microscopes are available to meet the needs of users at every level from entry level to professional grade.
- Proven designs are the microscopes of choice in laboratories in over 120 countries.
- Globe | Euromex microscopes boast an industry's best 10-year warranty and industry leading features at competitive prices.
- The Globe | Euromex commitment to quality control ensures every microscope is inspected after production to meet the highest standards of optical, mechanical, and electrical performance, as well as general appearance before shipment.

### MORE.

- With the Globe | Euromex product line now available in America, products are stocked locally and supported by the Globe Scientific logistics team in the U.S.A.
- The Globe | Euromex team provides VIP level pre-sales training and personal consultation.
- All Globe | Euromex products sold in America come with Globe Scientific's customer centric approach to customer service and after-sales technical support.
- Customers also enjoy access to Euromex Academy which includes online video tutorials, user manuals, educational blogs and more.



### What's in a name?



Originally founded 57 years ago in The Netherlands, Euromex Microscopen by is now recognized throughout the world as a trusted supplier of premium microscopes and related optical instruments. Today, Euromex microscopes are available in more than 120 countries through distributors, resellers and agents.

Globe Scientific | Euromex microscopes are finally available in America and backed by Globe Scientific's extensive pre-sale training programs, personal consultation, after-sales technical support, and responsive customer service.

### About APL (Antimicrobial Protection Layer)

#### What is APL?

Using the same technology already used extensively throughout the healthcare environment in wall coatings, patient lighting, air pressure stabilization and suction liners, APL helps prevent the growth of unwanted microbes that can cause degradation, discoloration, staining or odors on the Globe I Euromex microscopes. Independent laboratory testing demonstrated a reduction of up to 99.99% in microbes after 24 hours.

#### How does it work?

- 1. The technology binds to the cell wall, helping disrupt growth
- 2. The technology assists in interference with the enzyme production, stopping the cell producing energy
- 3. APL helps to interrupt the cells DNA, preventing replication

#### Why silver?

Silver is an element found naturally in the environment. Since ancient times silver has been highly regarded as a versatile antimicrobial tool. The additives we use are non-leaching and non-irritating.

#### Will APL wear off?

Once APL has been incorporated into a material it is essentially there to stay. Recent independent testing of a new paint range demonstrated no loss in antimicrobial performance even after 10 years of accelerated aging. Ionic silver based additives will not lose efficacy due to leaching or migration, and since they are evenly dispersed throughout the material even scratches and abrasion do not affect the antimicrobial performance.

#### Do cleaning products affect APL?

APL additives are embedded into the base material or coating and are therefore unaffected by abrasion or cleaning chemicals, such as chlorine bleach, disinfectants and alcohol. Even harsh industrial products, like MEK (methyl ethyl ketone), do not diminish the antimicrobial properties of products containing APL.

The antimicrobial technology does not protect the user or others against disease causing organisms. The technology is not a substitute for good hygiene/and or cleaning practices.



EBB-4220-LCD

0

Blue

### **BioBlue Series**

Clear and bright images at every magnification. The modern BioBlue compound microscopes are developed for educational purposes with a primary focus on ergonomics and today's quality

standards. These microscopes are supplied with secure eyepieces and adjustable rack stop to prevent damage to sample and objectives.

The DIN WF 10x/18 eyepieces and the Semi Plan achromatic corrected 45mm DIN objectives of the BioBlue models generate a crisp high-resolution image. When changing magnification, the image remains perfectly in focus and centered. The 130 x 130mm stage with double layered 70 x 28mm X-Y mechanical stage enable a  $2\mu$ m precision positioning of the specimen.



4

### FEATURES

- WF 10x/18mm eyepiece(s)
- Binocular and trinocular models
- Model with integrated 7-inch LCD screen
- Integrated X-Y mechanical stage
- Height adjustable Abbe condenser with iris diaphragm and filter holder
- LED models with rechargeable AA batteries and integrated power supply
- Reversed nosepiece for four Semi Plan objectives
- Coaxial coarse and fine adjustments with rack stop
- Binocular and trinocular models supplied with 1W NeoLED™ illumination for increased light output
- Ergonomic stand
- Provided with APL (Antimicrobial Protection Layer)
- CE certified
- 10-Year warranty

## SPECIFICATIONS

#### EYEPIECES

• WF 10x/18mm DIN eyepieces

#### HEAD

- Heads are 360° rotatable and secured with a set screw (except EBB-4220-LCD)
- Binocular and trinocular models have 30° inclined tubes, interpupillary distance is adjustable between 48 and 75mm 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
- Model EBB-4220-LCD supplied with a 7-inch LCD screen

#### NOSEPIECE

• Reversed quadruple nosepiece on ball bearings



#### **OBJECTIVES – 45MM PARFOCAL**

- Supplied with Semi Plan 4x/0.10, 10x/0.25, S40x/0.65, S100x/1.25 oil immersion objectives, configuration varies by model
- The S40x, S60x and S100x oil immersion objectives are spring loaded to prevent damage to sample and objectives (60x is optional)
- All optics are anti-fungus treated and anti-reflection coated for maximum light throughput

#### FOCUSING

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

#### STAGE

• 130 x 130mm with mechanical 70 x 28mm X-Y translation stage

#### 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 1W NeoLED<sup>™</sup> illumination system for increased light output

### 

- The innovative NeoLED<sup>™</sup> design is a combination of a custom LED and a specially designed thin lens with a short focal length in order to obtain three main benefits:
  - More oblique light from the LED light source can be captured, which increases the light output significantly
  - Less energy is required to achieve this level of light intensity
  - The larger aperture of NeoLED™ allows the optical systems of the microscope to produce images at higher resolutions, very close to the theoretical diffraction limit of the optics
- All BioBlue microscopes are supplied with rechargeable AA batteries and integrated 100-250 VAC power supply for cordless operation

#### ANTI-THEFT SLOT

• A Kensington Security Slot located at the back of the microscope can be used to help secure the instrument from theft

#### PACKAGE CONTENT

- Supplied with power cords, three rechargeable AA batteries, dust cover, a spare fuse, white filter, user manual and 5mL immersion oil for models with \$100x objective
- All packed in a polystyrene box



The ergonomic carrying grip enables easy transportation around the lab or between classrooms.





### **Models**

ltem #	EBB-4260	EBB-4253	EBB-4220-LCD
Head	Binocular 30°, 360° rotating, 48-75mm interpupillary, +/- 5mm diopter on left tube	Trinocular 30°, 360° rotating, 48-75mm interpupillary, +/- 5mm diopter on left tube	Digital head with LCD 7-inch LCD screen, 1920x1080 pixels, SD card for images and video
Eyepieces	WF10x	/18mm	None
Nosepiece	Reversed quadruple nosepiece on ball bearings		
<b>Objectives</b> (45mm parfocal)	Semi Plan 4x/0.10, 10x/0.25, S40x/0.65, S100x/1.25 oil immersion objectives		Semi Plan 4x/0.10, 10x/0.25, S40x/0.65
Stage	130x130mm, XY 70x28mm		
Condenser	Abbe A.N. 1.25 with iris diaphragm		
Illumination	1W NeoLED™, rechargeable batteries (cordless)		1W LED, rechargeable batteries (cordless)
LED			Yes
NeoLED	Ye	25	_

### **Camera Bundle**

 Item #
 Description

 EBB-4253-DC18
 EBB-4253 BioBlue trinocular microscope described above, plus CMEX-18 Pro digital camera (item #EDC-18000-PRO, see page 38)

# T E C H NOTES

### **ABOUT OBJECTIVES**

#### Most common microscope objectives come in the following types:

#### • Achromatic objectives

Usually contain one or a pair of lenses and correct for color and have a good flat field. If there are aberrations, they occur in the outer area of the image.

• Semi Plan objectives

Contain one or more (achromatic) lens elements and have an extended flat field. Semi Plan objectives have an improved resolution.

• Plan objectives

Correct even better for color and spherical aberration than semi plan objectives. Plan objectives have an excellent flat field and are recommended when used in conjunction with a camera.

• Apochromatic objectives

Designed for color and spherical aberration correction.



### **ANTI-FUNGUS TREATED**

Fungus spores are parasitic, travel in the air and can settle inside lenses. High temperatures, humidity and environments that are dark and unventilated encourage fungus growth.

The optical components of all Globe | Euromex microscopes are anti-fungus treated. However, to further minimize the possibility of fungus growth, store the microscopes in well-ventilated rooms with moderate temperatures and low humidity.

### **bScope®** Series

Ergonomic and evolutive, the bScope® compound microscope series is extensively used in secondary schools, universities, small and mid-sized laboratories and for veterinary applications.

With a compact and ergonomic structure, bScope® microscopes include height-adjustable eyepieces and low stage controls that minimize fatigue during long work sessions.

Additional highlights include LED illumination, rackless mechanical stage, cable management system, and cordless functionality for ultimate portability (rechargeable batteries sold separately). The robust and compact size of the bScope® series with its cable storage system allows more working space, safe operation and easy storage.



With Antimicrobial Protection Layer

EBS-1153-PLI

8

### FEATURES

- Binocular and trinocular models
- HWF 10x/20mm eyepieces
- Reversed ball-bearing quadruple or quintuple nosepiece with slot for polarization filter
- E-Plan IOS, Plan IOS, Plan Phase IOS or Plan Fluarex IOS objectives
- All optics are anti-fungus treated and anti-reflection coated for maximum light throughput
- Coaxial coarse and fine adjustment with adjustable rack-stop
- Rackless integrated X-Y mechanical stage
- 3W NeoLED<sup>™</sup> adjustable illumination system
- Epi-fluorescence illumination (EBS-3153-PLFI model)
- 4 monochromatic LEDs (EBS-3153-PLFI model)
- Provided with APL (Antimicrobial Protection Layer)
- Cable Storage System and anti-theft system
- Integrated carrying grip
- CE certified
- 10-Year warranty

### **SPECIFICATIONS**

#### EYEPIECES

• High wide field HWF 10x/20mm secured eyepiece(s) with 20mm field of view

#### HEAD

- $\bullet$  Binocular or trinocular head Siedentopf type head, 360° rotatable, with 30° inclined Ø 23.2mm tubes
- Binocular and trinocular models are equipped with a diopter ± 5 adjustment on left eyepiece
- The interpupillary distance is adjustable between 48 to 76mm
- The models equipped with plan infinity corrected PLi objectives have a unique swiveling system of the eyepiece tubes for ergonomic positioning of both tubes in a high (431mm) and in a low position (377mm)
- The trinocular head comes with a Ø 23.2mm tube, ensuring a maximum of flexibility and has a fixed light path beam splitter (20:80) and generates an erect image

#### NOSEPIECE

• Revolving and reversed ball-bearing quintuple nosepiece

#### **OBJECTIVES – 45MM PARFOCAL**

- The state-of-the-art production techniques and multi-layer coatings used for the manufacturing of the objectives enable the bScope® to be used for the most demanding applications. World class spherical aberration correction and modern CNC and assembly technology ensure the perfect centering of the objectives
- All S40x, S60x and S100x oil immersion objectives are spring loaded
- All optics are anti-fungus treated and anti-reflection coated for maximum light throughput

#### CONDENSER FOR BRIGHTFIELD

• The standard in height adjustable Abbe N.A. 1.25 condenser for brightfield comes with an iris diaphragm

#### FOCUSING

• Double coaxial, low-positioned coarse and fine adjustments with 180

graduations. Precision  $1.11\mu m$ ,  $200\mu m$  per rotation, total travel approximately 19mm. Supplied with an adjustable rack stop to prevent damage to sample and objectives. The coarse adjustment is equipped with friction control

#### STAGE

- The bScope® is equipped with a scratch-resistant 152/197 x 131mm stage with integrated 75 x 36mm X-Y rackless mechanical stage, Vernier scale, soft-close removable specimen holder
- The rackless stage has no protruding parts, enables smoother movements and is safer to use.
   Low-positioned X-Y control knobs prevent fatigue during long working sessions



#### POLARIZATION

• The bScope® has an integrated slot above the nosepiece for an optional polarization filter

#### ILLUMINATION

 The microscopes of the bScope<sup>®</sup> are equipped with a 3W NeoLED™ adjustable illumination system for increased light output and a 100-240 VAC integrated power supply. Optional rechargeable batteries are also available

### 

- The innovative NeoLED<sup>™</sup> design is a combination of a custom LED and a specially designed thin lens with a short focal length in order to obtain three main benefits:
- More oblique light from the LED light source can be captured, which increases the light output significantly
- Less energy is required to achieve this level of light intensity
- The larger aperture of NeoLED™ allows the optical systems of the microscope to produce images at higher resolutions, very close to the theoretical diffraction limit of the optics

#### KÖHLER ILLUMINATION

 A Köhler illumination ensures all infinity corrected IOS models the highest possible contrast and the maximum achievable resolving power. It generates a uniform illumination of the sample and eliminates all interference from dust on lenses and side glare of the light source

The Köhler illumination is optional for non-IOS models

9



EBS-1153-EPLI

### **bScope® for Brightfield**

#### CORDLESS USE

 The optional rechargeable batteries turn the bScope<sup>®</sup> into a cordless system

#### CSS – CABLE STORAGE SYSTEM

• Allows users to easily stow away excess cable length into the back of the instrument during operation and to roll up the power cable for easy storage

#### CARRYING GRIP

• The integrated carrying grip at the back of the microscope ensures safe transportation of the microscope

#### ANTI-THEFT SLOT

• A Kensington Security Slot located at the back of the microscope can be used to help secure the instrument from theft

#### PACKAGE CONTENT

- Supplied with power cords, dust cover, a spare fuse, white filter, user manual and 5mL immersion oil
- Phase contrast models are supplied with green filter and alignment telescope



EVC-3024-HDS: HD-Mini

Either the CMEX-18 Pro digital camera or the HD-Mini camera can be bundled with the bScope® EBS-1153-EPLI to create a complete digital solution.

EDC-18000-PRO:

CMEX-18 Pro

### bScope® for Brightfield with E-Plan Objectives

ltem #	EBS-1152-EPLI	EBS-1153-EPLI	
Head	Binocular 30° Siedentopf, 360° rotating, 48-76mm interpupillary, +/-5mm diopter	Trinocular 30° Siedentopf, 360° rotating, 48-76mm interpupillary, +/-5mm diopter	
Eyepieces	HWF10x/2	HWF10x/20mm	
Nosepiece	Quintuple		
<b>Objectives</b> (45mm parfocal)	E-Plan IOS 4x/0.10, 10x/0.25, S40x/0.65 and S100x/1.25 oil immersion objectives		
Stage	152/197x131mm, XY 75x36mm, rackless		
Condenser	Height adjustable Abbe A.N. 1.25 iris diaphragm		
Illumination	3W NeoLED™ Koehler (Microscope can work with batteries. Batteries not included.)		

ltem #	Description
EBS-1153-EPLI-DC18	EBS-1153-EPLI bScope® trinocular microscope described above, plus CMEX-18 Pro digital camera (item #EDC-18000-PRO, see page 38)
EBS-1153-EPLI-HDS	EBS-1153-EPLI bScope® trinocular microscope described above, plus HD-Mini camera with 13-inch HD screen (item #EVC-3024-HDS, see page 40)



## bScope® for Brightfield with Plan Objectives

Item #	EBS-1152-PLI	EBS-1153-PLI	
Head	Binocular 30° Siedentopf, 360° rotating, 48-76mm interpupillary, +/-5mm diopter	Trinocular 30° Siedentopf, 360° rotating, 48-76mm interpupillary, +/-5mm diopter	
Eyepieces	HWF10x/2	HWF10x/20mm	
Nosepiece	Quintuple		
<b>Objectives</b> (45mm parfocal)	Plan IOS 4x/0.10, 10x/0.25, S40x/0.65 and S100x/1.25 oil immersion objectives		
Stage	152/197x131mm, XY 75x36mm, rackless		
Condenser	Height adjustable Abbe A.N. 1.25 iris diaphragm		
Illumination	3W NeoLED™ Koehler (Microscope can work with batteries. Batteries not included.)		

ltem #	Description
EBS-1153-PLI-HDS	EBS-1153-PLI bScope® trinocular microscope described above, plus HD-Mini camera with 13-inch HD screen (item #EVC-3024-HDS, see page 40)

### **bScope® for Phase Contrast**

### **SPECIFICATIONS**

#### OBJECTIVES

 Plan Phase IOS infinity corrected 10x/0.25, 20x/0.40, S40x/0.65 and S100x/1.25 oil immersion objectives

#### ZERNIKE CONDENSER FOR PHASE CONTRAST

• The height adjustable Zernike NA. 1.25 phase contrast disc condenser comes with phase annuli for 10/20/S40x and S100x phase contrast objectives, an iris diaphragm and a BF position for brightfield contrast. Supplied with alignment telescope and green filter





### **bScope® for Phase Contrast**

ltem #	EBS-1153-PLPHI
Head	Trinocular 30° Siedentopf, 360° rotating, 48-76mm interpupilar, +/-5mm diopter
Eyepiece	HWF10x/20mm
Nosepiece	Quintuple
<b>Objective</b> (45mm parfocal)	Plan Phase IOS 10x/0.25, 20x/0.40, S40x/0.65 and S100x/1.25 oil immersion objectives
Stage	152/197x131mm, XY 75x36mm, rackless
Condenser	Height adjustable Zernike A.N. 1.25 iris diaphragm
Illumination	3W NeoLED™ Koehler (Microscope can work with batteries. Batteries not included.)



### **bScope® with EPI-Fluorescence**

### **SPECIFICATIONS**

#### EYEPIECES

• Wide field HWF 10x/22mm secured eyepieces (Ø 30mm tube)

#### HEAD

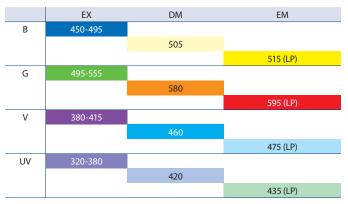
• The trinocular head comes with a Ø 23.2mm photo tube, ensuring maximum flexibility. The prisms inside the heads are designed to minimize the light absorption for perfect digital imaging. The trinocular head has a light path selector (100:0 / 0:100) and generates an erect image

#### **OBJECTIVES – 45MM PARFOCAL**

• Plan Fluarex infinity corrected PLFI 4x/0.10, 10x/0.25, 20x/0.40, S40x/0.65 and S100x/0.90 IOS objectives for applications where either higher resolving power or violet or ultra-violet excitation is needed

#### FLUORESCENCE ATTACHMENT

- Epi-illumination with four 5W LEDs for fluorescence excitation from 450 to 470nm (blue), 515 to 535nm (green), 390 to 400nm (violet) and 360 to 370nm (ultraviolet). External 100-240VAC power supply
- Supplied with UV protection shield
- Fluorescence filter sets:



### bScope<sup>®</sup> with EPI-fluorescence

ltem #	EBS-3153-PLFI
Head	Trinocular 30° Siedentopf, 360° rotating, 48-76mm interpupillary, +/-5mm diopter
Eyepieces	HWF10x/22mm
Nosepiece	Quintuple
<b>Objective</b> (45mm parfocal)	Plan Fluarex PLFI 4x/0.10, 10x/0.25, 20x/0.40, S40x/0.65 and S100x/0.90
Stage	152/197x131mm, XY 75x36mm, rackless
Condenser	Height adjustable Abbe A.N. 1.25 iris diaphragm
Illumination	3W NeoLED™ Koehler



Item #	Description
EBS-3153-PLFI-DC18	EBS-3153-PLFI bScope® trinocular flourescence microscope described above, plus CMEX-18 Pro digital camera <i>(item #EDC-18000-PRO, see page 38)</i>
EDC-	18000-PRO: CMEX-18 Pro Digital Camera

1 1

### iScope® Series

The iScope<sup>®</sup> microscopes exceed today's standard, as they provide more comfort and convenience for microscopists with ergonomic features such as height adjustable eye tubes and a large rackless stage with a double slide holder.

The modern design and compact size of the iScope<sup>®</sup> microscopes allow more working space, safer operation and enable easy storage. The iScope<sup>®</sup> series is available in various configurations, suitable for life and biomedical sciences, universities, high schools, and routine medical applications.

Packed with features including quintuple objective turret design, diascopic intensity adjustable 3W NeoLED<sup>™</sup> illumination, Abbe NA 1.25 condenser for brightfield, and cable storage management system, the iScope<sup>®</sup> series is an ideal solution to support demanding applications for fundamental analysis and research.





### FEATURES

- EWF 10x/22mm eyepiece
- Binocular and trinocular models
- Quintuple reversed nosepiece
- E-Plan, Plan and Plan Phase infinity corrected IOS objectives
- 156 x 138mm stage or 187/230 x 140mm rackless stage
- Intensity adjustable 3W NeoLED<sup>™</sup> Köhler illumination
- iCare sensor for energy saving
- Provided with APL (Antimicrobial Protection Layer)
- Cable Storage System
- CE certified
- 10-Year warranty

### **SPECIFICATIONS**

#### EYEPIECES

• Extended plan wide field EWF 10x/22mm eyepieces with 22 mm field of view and adjustable diopter on both eyepieces for infinity corrected IOS plan and plan phase systems and adjustable diopter for EPLI systems (Ø 30mm tube)

#### HEAD

- Binocular and trinocular Siedentopf type heads with 30° inclined tubes. Interpupillary distance from 48 to 76mm
- The trinocular head of the Plan infinity corrected models (EIS-1153-PLi) has an optical path selector (100:0 / 50:50) and ± 5 diopter adjustments on both Ø 30mm tubes
- The trinocular head of the E-Plan infinity corrected models (EIS-1153-EPLi) has a fixed built-in beamsplitter (50:50) and  $\pm$  5 diopter adjustment on the Ø 30mm left tube
- A unique rotating system allows the ergonomic positioning of both tubes in a high (431mm) and in a low position (397mm)
- The trinocular head comes with a Ø 23.2mm photo port

#### NOSEPIECE

• Revolving quintuple reversed nosepiece for up to five objectives

#### CONDENSER FOR BRIGHTFIELD

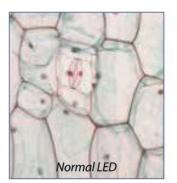
 The standard height adjustable Abbe N.A. 1.25 condenser for brightfield accepts sliders with phase annuli suitable for Plan Phase 10x/20x or S40x/S100x oil immersion IOS objectives for economical phase contrast. With magnification indication

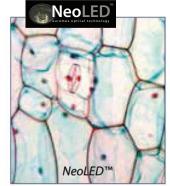
#### FOCUSING

 Coaxial coarse and fine adjustments, 200 graduations, 1µm per graduation, 200µm per rotation, total travel range is approximately 24mm. Supplied with an adjustable rack stop to prevent damage to sample and objectives. The coarse adjustments are equipped with friction control









#### ILLUMINATION

- 3W adjustable NeoLED<sup>™</sup> diascopic illumination with internal 100-240VAC power supply for brightfield
- The innovative NeoLED<sup>™</sup> design offers larger apertures, allowing the optical system of the iScope® microscope to produce images at higher resolutions, very close to the theoretical diffraction limit of the optics. Other benefits of the NeoLED<sup>™</sup> are low energy consumption, no heating and a long operating lifetime
- The Köhler illumination on models with IOS plan and plan phase infinity corrected system provides high contrast and a maximum achievable resolving power of the optics

### iScope® for Life Science (Infinity Models) with E-Plan Objectives

#### STAGE

• All iScope® stages are designed to accomodate 2 standard 25 x 75mm slides

#### **ICARE SENSOR**

• The unique iCare Sensor is developed to avoid unnecessary waste of energy. The illumination of the microscope automatically switches off shortly after microscopists step away from their position

#### CSS - CABLE STORAGE SYSTEM

iScope<sup>®</sup> allows users to easily insert the power cable into the back of the instrument, which enables easy storage. The integrated carrying grip at the back of the microscope ensures safe transportation of the microscope.



#### PACKAGE CONTENT

 Supplied with power cords, dust cover, a spare fuse, user manual and 5mL immersion oil.
 All packed in polystyrene boxes

EIS-1152-EPLI

EIS-1153-EPLI

### iScope® for Life Science (Infinity Models) with E-Plan Objectives

ltem #	EIS-1152-EPLI	EIS-1153-EPLI
Head	Binocular 30° Siedentopf, 360° rotating, Ø 30mm eyepiece tube, 48-76mm interpupillary, +/-5mm diopter on the left	Trinocular 30° Siedentopf, 360° rotating, Ø 30mm eyepiece tube, 48-76mm interpupillary, +/-5mm diopter on the left
Eyepieces	EWF10x/22mm	
Nosepiece	Quintuple	
<b>Objectives</b> (45mm parfocal)	E-Plan IOS 4x/0.10, 10x/0.25, S40x/0.65, S100x/1.25 oil immersion objectives	
Stage	187/230x140mm, with integrated 79x52mm X-Y mechanical stage	
Condenser	Height adjustable Abbe A.N. 1.25 iris diaphragm & slot for sliders (PH or DF)	
Illumination	3W NeoLED™	

#### **Camera Bundle**

 Item #
 Description

 EIS-1153-EPLI-HDS
 EIS-1153-EPLI iScope® trinocular microscope described above, plus HD-Mini camera with 13-inch HD screen (item #EVC-3024-HDS, see page 40)



### iScope® for Life Science (Infinity Models) with Plan Objectives

ltem #	EIS-1152-PLI	EIS-1153-PLI
Head	Binocular 30° Siedentopf, 360° rotating, Ø 30mm eyepiece tube, 48-76mm interpupillary, +/-5mm diopter on both tubes	Trinocular 30° Siedentopf, 360° rotating, Ø 30mm eyepiece tube, 48-76mm interpupillary, +/-5mm diopter on both tubes
Eyepieces	EWF10x/22mm	
Nosepiece	Quintuple	
<b>Objectives</b> (45mm parfocal)	Plan IOS 2x/0.05, 4x/0.10, 10x/0.25, S40x/0.65, S100x/1.25 oil immersion objectives	
Stage	187/230x140mm, with integrated 79x52mm X-Y mechanical stage	
Condenser	Height adjustable Abbe A.N. 1.25 iris diaphragm & slot for sliders (PH or DF)	
Illumination	3W NeoLED™ Koehler	

Item #	Description
EIS-1153-PLI-HDS	EIS-1153-PLI iScope® trinocular microscope described above, plus HD-Mini camera with 13-inch HD screen (item #EVC-3024-HDS, see page 40)



### iScope® for Phase Contrast with Plan Objectives

Item #	EIS-1152-PLPHI	EIS-1153-PLPHI
Head	Binocular 30° Siedentopf, 360° rotating, Ø 30mm eyepiece tube, 48-76mm interpupillary, +/-5mm diopter on both tubes	Trinocular 30° Siedentopf, 360° rotating, Ø 30mm eyepiece tube, 48-76mm interpupillary, +/-5mm diopter on both tubes
Eyepieces	EWF10x/22mm	
Nosepiece	Quintuple	
<b>Objectives</b> (45mm parfocal)	Plan PH IOS 10x/0.25, 20x/0.40, S40x/0.65, S100x/1.25 oil immersion objectives	
Stage	187/230x140mm rackless stage and integrated 79x52mm X-Y mechanical stage	
Condenser	Zernike A.N. 1.25 iris diaphragm, DF position	
Illumination	3W NeoLed™ Koehler	

#### **Camera Bundle**

ltem #

Description

EIS-1153-PLPHI-HDS

EIS-1153-PLPHI iScope<sup>®</sup> trinocular microscope for phase contrast described above, plus HD-Mini camera with 13-inch HD screen (*item #EVC-3024-HDS*, see page 40)



### iScope® for Polarization

### SPECIFICATIONS

#### EYEPIECES

 Polarization models are supplied with a pair of EWF 10x/22mm or EWF 10x/20mm (Ø 30mm tube) eyepieces, one eyepiece with crosshairs and one eyepiece with crosshairs and micrometer reticle

#### NOSEPIECE

• Revolving quadruple reversed nosepiece on ball bearings

#### OBJECTIVES

- Plan PLPOLRI IOS 5x/0.12, 10x/0.25, 20x/0.40, 50x/0.75 objectives
- Plan PLPOLRI strain free infinity corrected objectives for polarization applications. No cover glass correction. For models with reflected illumination



#### STAGE

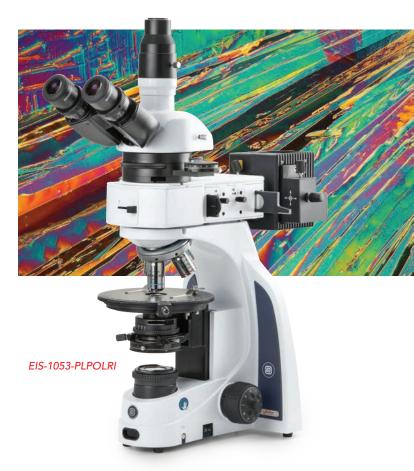
• Ø 160mm circular stage for polarization models, 360° rotatable with Vernier and two object clamps

#### CONDENSER FOR POLARIZATION

• Height adjustable Abbe N.A. 1.25 condenser with iris diaphragm and 360° rotatable polarizer

#### **REFLECTED ILLUMINATION (PLPOLRI models only)**

• Polarization models are equipped with a 50W 12VDC halogen epi-illumination and external 100-240VDC power supply. Supplied with 360° rotatable polarization filter, 360° rotatable analyzer with 180 increments and nonius for 0.2 degree readout, Bertrand lens (built-in), 1  $\lambda$  first red plate, 1/4  $\lambda$  retardation plate, a quartz wedge, sliders with green/blue and white/neutral density filter. 45mm green and blue filters for lamp house



### iScope<sup>®</sup> for Polarization

Item #	EIS-1053-PLPOLRI
Head	Trinocular 30° Siedentopf, Ø 30mm eyepiece tube, 48-76mm, interpupilar, +/-5mm diopter adjustment on both tubes
Eyepieces	EWF10x/20mm, EWF10x/20mm with crosshairs and EWF10x/20mm with crosshairs and micrometer reticle
Nosepiece	Quadruple
<b>Objectives</b> (45mm parfocal)	Plan PLPOLRI IOS 5x/0.12, 10x/0.25, 20x/0.40, S50x/0.75 objectives
Stage	360° Rotating Ø160mm graduated stage with two object clamps
Condenser	Height adjustment Abbe A.N. 1.25 with iris diaphragm and 360° swing out- rotatable polarizer
Illumination	50W 12VDC halogen epi-illumination and external 100-240VAC power supply

ltem #	Description
EIS-1053-PLPOLRI-HDS	EIS-1053-PLPOLRI iScope <sup>®</sup> trinocular microscope for polarization described above, plus HD-Mini camera with 13-inch HD screen ( <i>item #EVC-3024-HDS</i> , <i>see page 40</i> )

8

EDX-1053-PLI

### **Delphi-X Observer**

The Delphi-X Observer is a state-of-the-art microscope for advanced life science applications. Outstanding optical performance with 25mm field of view and high numerical aperture of the Plan 60mm parfocal EIS objectives enable perfect observations, color rendering at high resolving power.

The 200mm focal length tube lens reduces the angle of the light rays passing the optics resulting in a significantly improved chromatic aberration corrections and contrast. The larger diameter objectives enable higher numerical apertures improving the overall resolving power of the optical system.

### **FEATURES**

- Trinocular model
- Sextuple reversed nosepiece with slot for optional DIC prism(s)
- Super wide field SWF 10x/25mm eyepieces, Ø 30mm tubes
- Enhanced infinity corrected EIS optical system
- 60mm parfocal Plan EIS objectives
- M25 objective thread mounting
- 3W NeoLED<sup>™</sup> Koehler illumination
- Differential Interference Contrast (DIC)
- iCare sensor for energy saving
- Integrated carrying grip and tool holder
- CE certified
- 10-Year warranty

## **SPECIFICATIONS**

#### **EYEPIECES**

- Super Wide Field SWF 10x/25mm, Ø 30mm tubes
- Extended Wide Field EWF 10x/22mm, Ø 30mm tubes (optional)

#### STANDARD HEAD

• Siedentopf trinocular with 30° inclined tubes. Interpupillary distance adjustable between 47 and 78mm. The trinocular standard head has an optical path selector (100:0 / 80:20 / 0:100). Diopter adjustment on both eyepieces



#### **OPTIONAL ERGONOMIC TILTING HEAD**

• Optional ergonomic 0 to 35° tilting trinocular head supplied with SWF 10x/25mm eyepieces, interpupillary distance between 47-78mm and photo tube with standard Ø 23.2mm tube. The trinocular tilting head has an optical path selector (100:0 / 80:20 / 0:100). Diopter ± 5 adjustments on both eyepieces

#### NOSEPIECE

• Revolving sextuple reversed nosepiece on ball-bearings with M25 objectives mounting threads and with slot for optional DIC prism(s)

#### ENHANCED INFINITY SYSTEM (EIS)

• The enhanced infinity system (EIS) of the Delphi-X Observer consists of Super Wide Field SFWF 10x25mm eyepieces, high numerical aperture 60mm parfocal objectives and a 200mm focal length tube lens. The 200mm focal length tube lens reduces the angle of the light rays passing the optics resulting in a significantly improved chromatic aberration corrections and contrast. The larger diameter objectives enable higher numerical apertures improving the overall resolving power of the optical system

#### PLAN ACHROMATIC OBJECTIVES (CLINICAL ROUTINE LABORATORIES)

• The Delphi-X Observer is supplied with Plan Achromatic 4x/0.10, 10x/0.25, 20x/0.40 and S40x/0.65 oil immersion infinity corrected **EIS** objectives

#### **OPTIONAL PLAN PHASE CONTRAST OBJECTIVES**

• Plan Phase EIS 10x/0.25, 20x/0.40, s40x/0.65 and s100x/1.25 (oil immersion) infinity corrected EIS objectives



### **Delphi-X Observer**

#### STAGE

- 90 x 152mm stage with 78 x 32mm integrated right-handed mechanical stage
- Designed for 2 standard 25 x 75mm slides
- Supplied with robust and scratch-resistant Gorilla Glass

#### FOCUSING

 Coaxial coarse and fine adjustment, 100 graduations, 1µm precision, 100µm per rotation, total travel range is approximately 35mm



- Supplied with an adjustable rack stop to prevent damage to sample and objectives
- The coarse adjustments are equipped with friction control
- The focusing knobs can be switched from left to right according to the user's preference

#### CONDENSER (FOR BRIGHTFIELD)

• In height adjustable N.A. 0.90/1.25 Abbe swing-out condenser with numerical aperture identification marks.

#### DIASCOPIC ILLUMINATIONS

 Diascopic intensity adjustable 3W NeoLED™ Köhler illumination with internal 100-240VAC power supply



#### NEOLED™

- The innovative NeoLED<sup>™</sup> design is a combination of a custom LED and a specially designed thin lens with a short focal length in order to obtain three main benefits:
- More oblique light from the LED light source can be captured, which increases the light output significantly
- Less energy is required to achieve this level of light intensity
- The larger aperture of NeoLED™ allows the optical systems of the microscope to produce images at higher resolutions, very close to the theoretical diffraction limit of the optics



#### **iCARE SENSOR**

- The unique iCare Sensor is developed to avoid unnecessary loss of energy
- The illumination of the microscope automatically switches off shortly after microscopists step away from their position

#### CARRYING GRIP

• The carrying grip at the back of the microscope ensures safe transportation of the microscope and the integrated tool & holder makes sure the right tool is always available

#### PACKAGE CONTENT

• Supplied with power cords, dust cover, a spare fuse, user manual and 5mL immersion oil. All packed in a polystyrene box



Item #	EDX-1053-PLI
Head	Trinocular 30° Siedentopf, 47-78mm interpupillary, +/-5mm adjustment on both eyepiece tubes, vertical tuve light path 100/0 - 80/20 - 0/100
Eyepieces	SWF10x/25mm
Nosepiece	Sextuple
<b>Objective</b> (60mm parfocal)	Plan Achromatic 4x/0.10, 10x/0.25, 20x/0.40 and S40x/0.65 oil immersion infinity corrected EIS objectives
Stage	190x152mm, XY 78x32mm, scratch-resistant Gorilla Glass
Condenser	Height adjustment Abbe swing-out A.N. 0,90/1.25 iris diaphragm
Illumination	3W NeoLed™ Koehler and push-in/out neutral density filter

### Delphi-X Observer dual and multihead systems for simultaneous observaton of specimens

Hospitals, medical centers and universities appreciate the unique Delphi-X Observer multi head systems. The high quality images can be simultaneously observed by up to 10 colleagues or students at the same time.

All systems are equipped with a dual color (green or red) laser pointer that allows the main user to point out areas of interest across the entire field of view for all heads by using the built-in joystick.







#### FACE-TO-FACE DUAL HEAD SYSTEM

The Delphi-X Observer can be supplied with one trinocular and one binocular head in a face-to-face configuration allowing simultaneous observation by two operators. The main trinocular head is equipped with Super Wide Field SWF 10x/25mm eyepieces and the second head with Extended Wide Field EWF 10x/22mm eyepieces.

#### MULTIHEAD SYSTEM

The Delphi-X Observer can be extended even further with a unique multihead system for a total of 3, 5 or 10 heads.

The multihead systems with two, three or five heads are supplied with Super Wide Field SWF 10x/25mm eyepieces. The multihead systems with ten heads have the trinocular main head equipped with Super Wide Field SWF 10x/25mm eyepieces and the other nine binocular heads with Extended Wide Field EWF 10x/22mm eyepieces. The Delphi-X Observer multihead system with ten heads is supplied without the iCare sensor.

# **Inverted Microscopes**

2 0-- K--⊚

glader

Oeurome

• [

EOX-2053-PLPH

### **Oxion Inverso**

The inverted Oxion Inverso biological microscopes are available for phase contrast applications. Specific objectives compensate the 1.2mm thick bottoms of the petri dishes or culture dishes.

The Oxion Inverso inverted microscopes are useful for observation of living organisms and tissues cultures in cell culture dishes and flasks.

### FEATURES

- Life Science applications
- Phase contrast
- Revolving quintuple nosepiece
- Observation of tissue cultures, living cells
- Long working distance IOS
- 5W LED transmitted illumination
- CE certified
- 10-Year warranty

## **SPECIFICATIONS**

#### EYEPIECES

• Pair of DIN HWF plan 10x/22mm eyepieces

#### HEAD

- Trinocular 45° inclined tubes
- One diopter adjustment on left eyepiece
- Interpupillary distance of 54 to 75mm
- Trinocular head with 100-0% and 0-100% positions

#### NOSEPIECE

• Revolving quintuple nosepiece on ball-bearings

#### **OBJECTIVES FOR PHASE CONTRAST**

- Infinity color corrected long working distance plan phase 10x/0.25, 20x/0.40, 40x/0.60 IOS objectives
- All objectives corrected for 1.2mm thickness
- All optics are anti-fungus treated and anti-reflection coated for maximum light throughput

#### STAGE

- Stage 250 x 230mm equipped with a coaxial mechanical 120 x 78mm X-Y stage, delivered with:
  - Metallic insert for Ø 35mm cell culture dish dishes
  - 76 x 26mm slide holder
  - Glass insert with hole

#### CONDENSER

- N.A. 0.30 condenser with iris diaphragm. Working distance 72mm
- The model for the phase contrast OX.2053- PLPH is delivered with a slider with 4x/10x and 20x/40x pre-centered phase rings

(item #EDC-18000-PRO, see page 38)

#### FOCUSING ADJUSTMENT

 $\bullet$  Coaxial 25mm coarse and fine adjustments,  $2\mu m$  precision and with friction adjustment

#### ILLUMINATION

• Transmitted 5W LED Intensity adjustable with internal 100-240VAC power supply. Fuse holder 3.15 A / 250VAC.

#### FILTERS FOR PHASE CONTRAST MODELS

• Interference filter 550nm green and blue filter, 45mm diameter

#### PACKAGE CONTENT

- Supplied with power cord, dust cover and user manual
- Supplied with green filter and alignment telescope
- Microscope supplied in a transport case



Item #	EOX-2053-PLPH
Head	Trinocular 45° inclined, 54-75mm interpupillar, diopter adjustment on left eye tube
Eyepieces	HWF plan 10x/22mm
Nosepiece	Quintuple
Objective	Plan Phase 10x/0.25, 20x/0.40, 40x/0.60 IOS objectives
Stage	250x230mm, XY: 120x78mm, Includes: stage extension, metal insert Ø65mm stage, metal insert 76x26mm for slides
Condenser	A.N. 0,30 with iris diaphragm, slider with PH rings for 4x/10 and 20x/40x objectives
Illumination	5W NeoLed™
Camera Bundle	
ltem #	Description
EOX-2053-PLPH-DC18	EOX-2053-PLPH Oxion Inverso trinocular inverted microscope described above, plus CMEX-18 Pro digital camera

# **Inverted Microscopes**

Delphi-X

EDI-1053-PLPHFI

### **Delphi-X Inverso**

Delphi-X Inverso is an inverted microscope for professionals with demanding applications of living cell cultures and stained samples. It is available in two configurations:

- For phase contrast plus DIC (differential interference contrast) equipment
- For fluorescence applications

Super contrast Semi-Apochromatic objectives with collar adjustment ring (20x, S40x) assure perfect observation of cells or tissues in 1.2mm thick Petri dishes or flasks.

eurome

### **FEATURES**

- Observation of tissue cultures, living cells
- Brightfield, phase contrast
- Long working distance IOS plan semi apochromatic objectives
- 5W LED illumination
- Easy placement of large objects
- DIC (differential interference contrast, optional)
- Revolving sextuple nosepiece
- Backwards tilting condenser arm
- CE certified
- 10-Year warranty



HWF plan 10x/25mm eyepieces

### **SPECIFICATIONS**

#### EYEPIECES

• Pair of HWF plan 10x/25mm

#### HEAD

• Trinocular 45° inclined tubes. Interpupillary distance of 47 to 78mm. Trinocular head with 100-0, 80/20 and 0/100 positions

#### NOSEPIECE

 Revolving sextuple nosepiece on ball-bearings. The nosepiece can be equipped with DIC prisms for the 10x, 20x, 40x and 60x objectives

#### **OBJECTIVES – 45MM PARFOCAL**

- High numerical infinity semi-apochromatic long working distance Plan Phase Fluarex™ PLPHFi 10x/0.30, 20x/0.45, S40x/0.60 IOS objectives enable the sub-cellular structures
- The 20x and 40x objectives are equipped with collar adjustment ring for glass thicknesses from 0 to 1.2mm
- Fluarex™ objectives are made of low-absorption glass.
- All optics are anti-fungus treated and anti-reflection coated for maximum light throughput

Fluarex<sup>™</sup> is a trademark of Euromex.

Phase contrast brightfield & differential interference contrast condenser

#### STAGE

• Stage 340 x 230mm, equipped with a coaxial mechanical 130 x 85mm X-Y stage.

#### Stage supplied with:

- $\bullet$  Metal insert for Ø 38mm cell culture dish
- $\bullet$  Metal insert for Ø 54mm cell culture dish or 76 x 26mm slides
- Metal insert for Multiwell plates (127.76 x 85.48mm)
- Metal insert for Teraski plates (83.3 x 58.0mm)

#### CONDENSER

 Rotating N.A. 0.55 condenser with 6 positions, iris diaphragm and filter holders. Working distance is 26mm. Supplied with phase contrast annuli for 10x/20x, 40x and 60x objectives, brightfield position and slots for optional DIC prisms. Three filter holders allow the insertion of Ø 38mm filters in the optical path. The arm with condenser can be tilted backwards for convenient access to the stage. This allows easy placement of large objects like flasks and Petri dishes

#### MAGNIFICATION CHANGER

 A magnification changer with a 1.5x lens allows intermediary magnifications of 1.5 times the standard objective magnifications. For example, switching from 20x to 30x or from 60x to 90x magnification can be done without changing objectives

# **Inverted Microscopes**

### **Delphi-X Inverso**



6-Position fluorescence filter set wheel

#### FLUORESCENCE FILTER SET WHEEL

• The Delphi-X Inverso is supplied with a 6-position fluorescence filter set wheel

#### FOCUSING ADJUSTMENT

 $\bullet$  Coaxial 10mm coarse and fine adjustments,  $1\mu m$  precision and with friction adjustment

#### ILLUMINATION

 Transmitted 5W LED with internal 100-240VAC power supply. Fuse holder 5A/250VAC

#### CARRYING GRIP

• The carrying grip at the back of the microscope ensures safe transportation of the microscope and the integrated tool & holder makes sure the right tool is always available

#### PACKAGE CONTENT

• Supplied with metal insert for Ø 38mm cell culture dish and a metal insert for Ø 54mm cell culture dish with 76 x 26mm slides, metal insert for multiwell plates, metal insert for Teraski plates, blue and green interference Ø 38mm filters, power cords, dust cover, green filter and alignment telescope and user manual



Filters in sliders



Backwards tilting condenser arm



ltem #	EDI-1053-PLPHFI	
Head	Trinocular 45° inclined, 47-78mm interpupillary, diopter adjustment on both eye tubes	
Eyepiece	HWF plan 10x/25mm	
Nosepiece	Sextuple	
Objective	Plan Phase Fluarex™ PLPHFi 10x/0.30, 20x/0.45, S40x/0.60 IOS objectives	
Stage	340x230mm, XY 185x85mm, metal insert Ø38mm and Ø54mm, multiwell plates, slides plate, Teraski plate	
Condenser	r Rotating N.A. 0.55 condenser, iris diaphragm and PH rings for 10/20 and 40, three filter holders, tilting arm to backwards	
Illumination	10W LED	
Lens Changer	Extra lens changer to increase the magnification 1.5x	

# **Stereo Microscopes**

Ø

ESB-1903

ESB-1903-P

### **StereoBlue Series**

StereoBlue microscopes are designed for professional use. Available with ergonomic rack & pinion, or pillar stands, zoom magnification from 7x to 45x and incident and transmitted LED illuminations, the StereoBlue series exceeds the demands of laboratory and higher education. Recognized by biologists, entomologists, geologists, mechanical and electronic engineers and other professionals like jewelers and dental technicians, these microscopes are ergonomic for minimized fatigue and deliver crisp, high-resolution images.

### **FEATURES**

- WF10x/21mm wide field eyepieces with eyecups
- Trinocular head with 45° inclined tubes
- 0.7x to 4.5x zoom objective, magnification from 7x to 45x. Field of view from 28.5mm to 4.4mm. Working distance 100mm
- Incident and transmitted 3W LED illumination with internal power supply. Both illumination intensities can be adjusted separately
- Available with ergonomic rack & pinion and pillar stands that are equipped with ergonomically designed flat bases
- Zoom models
- Ergonomic carrying grip
- Provided with APL (Antimicrobial Protection Layer)
- CE certified
- 10-year warranty



30

## **SPECIFICATIONS**

#### EYEPIECES

• Pair of WF10x/21mm eyepieces supplied with eyecups

#### HEAD

- Trinocular 45° inclined tubes
- Diopter adjustment on both eyepieces
- Interpupillary distance adjustable between 55mm and 75mm
- Trinocular head is supplied with a fixed light path beamsplitter (50:50)
- All optics are anti-fungus treated and anti-reflection coated for maximum light throughput

#### ZOOM MODELS

- Zoom Stereo 0.7x to 4.5x parfocal objective
- Magnification from 7x to 45x
- Field of view 29.9mm to 4.6mm
- Working distance 100mm

#### MAGNIFICATIONS

• Working distance and field of view specifications:

#### EYEPIECES - 10x/21mm

#### STANDS

- The rack & pinion and pillar stands of the StereoBlue are equipped with ergonomically designed flat bases, complete with two object clamps and Ø 60mm transparent and black/white stage plate
- The coarse adjustment is equipped with tension control
- The stands are alloy metal casted with hardened coating

#### ILLUMINATION

• With 3W transmitted and incident LED illuminators which can be used simultaneously or adjusted separately

#### PACKAGE CONTENT

 Supplied with power cords, dust cover, eyecups, a spare fuse\*, Ø 60mm transparent and black/ white stage plates and user manual. All packed in a polystyrene box

1								
	Magnification additional lens	Working distance	Minimum magnification	Maximum magnification	Minimum field of view	Maximum field of view		
	0.5	170.0	3.5	22.5	9.3	59.9		
	0.75	114.0	5.3	33.8	6.2	40.0		
	Standard	100.0	7.0	45.0	4.6	30.0		
	1.5	48.0	10.5	67.5	3.1	19.9		

### Models

ltem #	ESB-1903-P	ESB-1903		
Head	Trinocular 45° incline, 55-75mm interpupilar, +/-5mm diopter adjustment on both eyepiece tubes	Trinocular 45° incline, 55-75mm interpupilar, +/-5mm diopter adjustment on both eyepiece tubes		
Eyepiece	WF10x/21mr	n with eyecups		
Focusing	Macro on both sides of the head holder			
Objective	0.7x-4.5x zoom (7x – 45x)			
Stage	Plain with clips, black/white and translucent plates			
Illumination	3W LED incident and transmitted simultaneously			
Stand	Pillar, WD:100mm	Rack and pinion, WD:100mm		

ltem #	Description
ESB-1903-P-DC18	ESB-1903-P StereoBlue trinocular stereo microscope described above, plus CMEX-18 Pro digital camera (item #EDC-18000-PRO, see page 38)
ESB-1903-DC18	ESB-1903 StereoBlue trinocular stereo microscope described above, plus CMEX-18 Pro digital camera (item #EDC-18000-PRO, see page 38)

# **Stereo Microscopes**

VexiusZoom

globe

ENZ-1703-S

### **NexiusZoom EVO Series**

The NexiusZoom EVO stereo microscopes allow you to examine your specimen with high precision, generating three-dimensional images, suitable for your highest demanding applications. These top-level zoom microscopes are perfect for analyzing all kinds of material surfaces or observing and preparing biological samples.

These stereo microscopes can be supplied with a choice of stands, with or without LED illumination. They are ideal for a wide variety of applications.

### **FEATURES**

- Binocular and trinocular heads with HWF 10x/23mm eyepieces
- Double 3W LED illumination
- Large working distance
- Zoom ratio 1:8.4, 6.5x to 55x
- Ergonomic stands
- Configurations up to 220x magnification
- CE certified
- 10-year warranty



## SPECIFICATIONS

#### EYEPIECE(S)

• The NexiusZoom EVO series microscopes are supplied with a pair of HWF 10x/23mm eyepieces

#### HEAD

- $\bullet$  Trinocular heads with 45° inclined tubes. Both eyepieces with  $\pm 5$  diopter adjustments
- Interpupillary distance adjustable between 54mm and 75mm. The trinocular head is supplied with a fixed light path beamsplitter (50:50)
- The NexiusZoom EVO models are equipped with click-stops

#### OBJECTIVES

- The NexiusZoom EVO is supplied with a 1:8.4 Plan Achromatic zoom objective with 0.65x to 5.5x magnifications, a field of view from 35.4mm to 4.2mm, WD 110mm
- All optics are anti-fungus treated and anti-reflection coated for maximum light throughput

#### STANDS

- Ergonomically designed pillar or rack & pinion stand with 3W incident and 3W transmitted LED illuminations (-P and -S stands)
- Ergonomically designed pillar stand with two 3W gooseneck type incident LED illuminations on each side and a 3W transmitted LED illumination (-PG stand)
- All pillar and rack & pinion stands are supplied with two object clamps. Alloy metal cast, hardened coating

#### ILLUMINATION

 The 3W transmitted and incident LED illuminators with internal power supply 100-240VAC operation. Both illuminators can be used simultaneously, and the light intensities can be adjusted separately

#### MAGNIFICATIONS

• Working distance and field of view with standard HWF 10x / 23 high wide field eyepieces of the NexiusZoom Evo:

#### PACKAGE CONTENT

• Supplied with power cords, dust cover, a spare fuse, user manual. All packed in a polystyrene box



Zoom Indication	Auxiliary LensAuxiliary LensAuxiliary Lens0.3x0.4x0.5xWD 278mmWD 220mmWD 183mm		.5x	Auxiliary Lens Objective 1x 0.75x (Standard) WD 105mm WD 110mm		Auxiliary Lens 1.5x WD 53mm		Auxiliary Lens 2x WD34mm						
	Total Mag.	FoV in mm	Total Mag.	FoV in mm	Total Mag.	FoV in mm	Total Mag.	FoV in mm	Total Mag.	FoV in mm	Total Mag.	FoV in mm	Total Mag.	FoV in mm
0.65	1.95	117.9	2.6	88.5	3.25	70.8	4.9	47.2	6.5	35.4	9.8	23.6	13	17.7
1	3	76.7	4	57.5	5	46	7.5	30.7	10	23	15	15.3	20	11.5
1.5	4.5	51.1	6	38.3	7.5	30.7	11.3	20.4	15	15.3	22.5	10.2	30	7.7
2	6	38.3	8	28.8	10	23	15	15.3	20	11.5	30	7.7	40	5.8
2.5	7.5	30.7	10	23	12.5	18.4	18.8	12.3	25	9.2	37.5	6.1	50	4.6
3	9	25.6	12	19.2	15	15.3	22.5	10.2	30	7.7	45	5.1	60	3.8
3.5	10.5	21.9	14	16.4	17.5	13.1	26.3	8.8	35	6.6	52.5	4.4	70	3.3
4	12	19.2	16	14.4	20	11.5	30	7.7	40	5.8	60	3.8	80	2.9
4.5	13.5	17	18	12.8	22.5	10.2	33.8	6.8	45	5.1	67.5	3.4	90	2.6
5	15	15.3	20	11.5	25	9.2	37.5	6.1	50	4.6	75	3.1	100	2.3
5.5	16.5	13.9	22	10.5	25.5	8.4	41.3	5.6	55	4.2	82.5	2.8	110	2.1

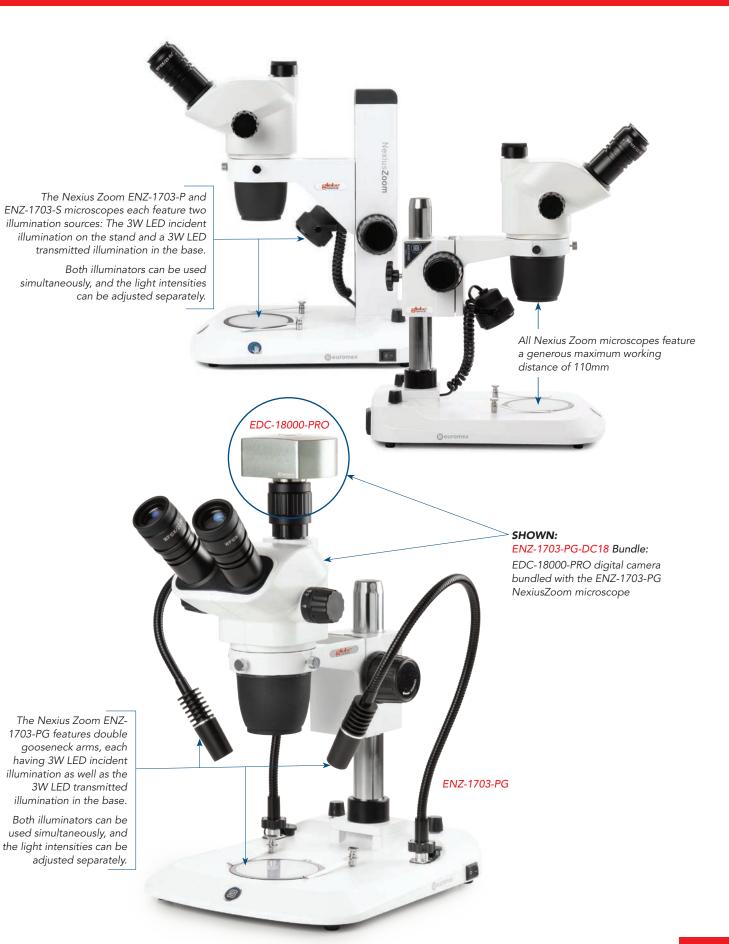
### NexiusZoom (EVO) Series



### **Models**

ltem #	ENZ-1703-P	ENZ-1703-PG	ENZ-1703-S				
Head	Trinocular 45° inclined, 54-75mm interpupillary, +/-5mm diopter adjustment on both eyepiece tubes						
Eyepiece		HWF10x/23mm					
Focusing		Macro on both sides of the head holder					
Objective	0.65x – 5.5x zoom with clip stop (6.5x – 55x)						
Stage	Plain with clips, black/white and plexiglass translucent plate						
Illumination	3W LED incident and transmitted simultaneously	3W LED incident by two gooseneck arms and transmitted simultaneously	3W LED incident and transmitted simultaneously				
Stand	Pillar W	Rack and pinion. WD:110mm					

ltem #	Description
ENZ-1703-P-DC18	ENX-1703-P NexiusZoom EVO trinocular stereo microscope described above, plus CMEX-18 Pro digital camera (item #EDC-18000-PRO, see page 38)
ENZ-1703-PG-DC18	ENX-1703-PG NexiusZoom EVO trinocular stereo microscope described above, plus CMEX-18 Pro digital camera (item #EDC-18000-PRO, see page 38)
ENZ-1703-S-DC18	ENX-1703-S NexiusZoom EVO trinocular stereo microscope described above, plus CMEX-18 Pro digital camera (item #EDC-18000-PRO, see page 38)







### **LED Ring Illuminator**

The LED Ring Illuminator produces intense white light for long microscopy observation sessions. The 144 LED intensity direction adjustable ring light has a mounting size up to 2-1/2-inch (64mm) in diameter. The light ring consists of 4 individual lighting zones that can be turned on and off independently.

You may use the feature to change lighting directions and obtain the best illumination for your application. The ring light has 2-1/2-inch (64mm) inside and 4-inch (100mm) outside diameters. It works with a 110-220VAC power supply and comes with a 1-7/8-inch (48mm in diameter) ring adapter.

With variable intensity control, it provides cool, even, intense and focused shadow-free illumination. It is an ideal durable cool light source for all stereo microscopes, especially for gemological, coin and gem/jewelry microscopes. This kit comes with one year warranty against manufacturing defects.

### **FEATURES**

- High-power LED ring light
- 144 bright white LED bulbs with adjustable intensity
- 4 Segment illumination
- 55-200mm working distance
- Lighting direction changeable
- Color temperature 6,500K
- Illuminance 23,000 Lux at 100mm
- Intense and focused shadow-free illumination
- Long life and low energy consumption
- Including mounting ring
- Remote control included
- 1-year warranty

Item #	ELE-1973
Ring illumination	144 LEDs with adjustable intensity and 4 segment selection
Color temperature	6,500K
Illuminance	23,000 Lux at 100mm distance
Working distance	55-200mm
Mounting diameter	25-61mm (for stereo microscopes)
Power supply	100-240VAC/12VDC (50/60 Hz)
External diameter	100mm

Includes mounting ring (suitable for StereoBlue and NexiusZoom EVO models).

For stereo microscopy, choosing the right illumination is essential to obtain a perfect image with maximum resolution. LED light sources have a much longer lifetime, consume less energy and produce less heat than halogen light source alternatives.

## **Dual LED Illuminator Cold Light Source**

The Dual LED Illuminator is a compact and highly portable LED light source.

### FEATURES

- Ideal for life and materials sciences, various industrial applications and for stereo microscopy
- Light source with two self-sustaining gooseneck-type guides, equipped with 2x 3W white 6500K power LED.
- Each self-sustaining gooseneck-type LED guide is equipped with a 3-lens focusing head and has a length of 56cm
- The light source version does not require bulb changing like halogen light sources and has a long-life span and low energy consumption
- The light source produces white light and there is no color temperature shifting when dimming
- Evenly illuminates specimen without heating
- 2-year warranty



ltem #	ELE-5207
Power	2x 3W LED (equivalent to 2x 28W halogen)
Color temperature	6,500K
Luminous flux	25,000 lux max.
Operation voltage	100-240VAC / 5VDC (50/60Hz)
Dimensions (HxWxD)	70 x 106 x 140mm
Weight (kg)	1.5

# **Digital Cameras**

EDC-18000-PRO

# **CMEX Pro High-Speed Cameras**

The high-speed USB-3 cameras with ImageFocus Alpha capture and analysis software are the perfect solutions for today's educational, laboratory and industrial microscopy needs. The cameras are suitable for life science, material science and stereo microscopes.

The CMEX-5 Pro, CMEX-10 Pro and CMEX-18 Pro cameras are equipped with relatively 5.1, 10 or 18MP CMOS sensors with 12-bits grayscale conversion and a 24-bits color rendering. These cameras are equipped with a USB-3 data interface enabling fast frame rates.

Besides taking images and videos, the ImageFocus Alpha software allows measurements on still and live images and to perform annotations on captured images. Compatible with Windows 10 and 11, both 32- and 64-bits configurations. A 2GB RAM 2.8GHz computer and 17-inch display is recommended as a minimum requirement.

### **FEATURES**

- High speed cameras
- ADC 12-bits, color depth 24-bits
- Excellent software
- USB 3.0 interface (USB 2.0 compatible)
- 5.1 to 18MP CMOS sensors
- Great color reproduction
- Low signal/noise ratio



# TECHNICAL SPECIFICATIONS

### Models

viodels			
ltem #	EDC-5000-PRO	EDC-10000-PRO	EDC-18000-PRO
Sensor	CMOS 1/2.5-inch	CMOS 1/2.3-inch	CMOS 1/2.3-inch
Pixels	2560 x 1922 pixels, 5.1MP	3584 x 2746 pixels, 10.0MP	4912 x 3684 pixels, 18.0MP
Scan mode		Progressive, rolling shutter	
Pixel size	2.2µm x 2.2µm	1.67µm x 1.67µm	1.25µm x 1.25µm
Filter	RGB		
Mount		C-mount	
Max frames (p/sec)	14 39 100	8 25	6 18 32
Resolution	(2560 x 1922 pixels) (1280 x 960 pixels) (640 x 480 pixels)	(3584 x 2746 pixels) (1792 x 1372 pixels)	(4912 x 3684 pixels) (2546 x 1842 pixels) (1228 x 922 pixels)
Exposure time	0.1ms – 2000ms	0.1ms – 2000ms	0.1ms – 2000ms
Exposure		Automatic or manual	
White balance	Automatic or manual		
Grayscale conversion	12-bits		
Color rendering		24-bits	
Dynamic range	68dB	63.5db	65db
Signal / Noise (db)	39dB	35.5db	42db
Sensibility V/lux-sec	1.76	0.31	1.3
Data interface	USB 3.0 high speed		
Operation	-10 – 50°C, 30 – 80% humidity 0 – 50°C, 30 – 80% humidity		
Storage temperature	-20 to 60° Celsius		
Power supply	5VDC over PC USB Port		
Housing	Integrated CNC aluminum alloy		
Supplied with:	0.5x objective with C-mount, USB 3 cable, 30 and 30.5mm adapters for stereo microscopes, 76x24mm calibration slide (1mm/100), carton box		
Software	ImageFocus Alpha capture and measuring software for Win 10/11 (32- and 64-bit configurations). A Mac OS version is available		
PC requirements	Compatible with Intel Core 2, 2.8GHZ or higher, 2GB, USB-3 high-speed		



### HD-Mini Color Camera

This HD-Mini camera with tablet is the perfect solution for modern microscopy in industrial and laboratory applications where real time images are needed. This HD image quality camera can be used for biological, metallurgical or stereo microscopes.

The real-time images generated with this camera provide excellent color rendering at high frame rates and is user friendly.

When ready to operate, all camera settings are adjusted automatically which creates a fast and flexible working condition. Simply connect the camera to a high-definition HD screen, TV-HD or HD-beamer with an HDMI input and the system is ready to go. The mouse-driven embedded software of the camera enables capturing images on the integrated SD memory card.

### **FEATURES**

- High definition 1080P color camera
- C-mount interface with c-mount lens (23.2) included
- HDMI and SD memory card
- Real time images directly on screen
- Built-in mouse-controlled software
- Wide array of measurement functions
- 13-inch HD screen included

### STAND-ALONE CAPABILITIES

No need for a computer or any computer knowledge to use this camera. Most camera settings are performed automatically for user friendly operation.

Simply connect the camera to a high-definition HD screen, TV-HD or HD-beamer with an HDMI input and the system is ready to go. The mouse-driven built-in software of the cameras enables capturing 1920 x 1080 pixels jpg images on the integrated SD memory card.

The embedded software of the camera features functions including:

- image and video capture
- white balance
- auto/manual exposure
- zoom in/out
- horizontal/vertical flip
- video freeze/cancel video freeze
- grid
- display/hide camera control panel
- color adjustment: sharpness/de-noise/saturation/gamma/contrast
- wide array of measurement functions

These key features make the camera an ideal choice for real time inspections, educational purposes and live demonstrations.



### **TECHNICAL SPECIFICATIONS**

#### SENSOR

• HDMI 2.0 Mega pixels CMOS high sensitive sensor (Sony)

#### PIXELS

- 920 x 1080 pixels (capture mode)
- 1920 x 1080 pixels (live mode)
- HDMI 60fps

#### PIXEL SIZE

• 2.9 x 2.9µm

#### SENSITIVITY Lux/sec

• 1300mv

#### SIGNAL/NOISE (DB)

• 42

- WHITE BALANCE
- Automatic/manual/ROI

MOUNTING

• C-mount interface

#### DATA STORAGE

(Recommend using SD card of class 4 or higher and ≤128GB)

**OPERATION TEMP.** 

• -10 - 50 Celsius, 30 - 80%RH

#### STORAGE TEMP.

-20 – 60 Celsius, 10 – 60%RH

#### POWER SUPPLY

• 12VDC/1A adapter

#### FEATURES INCLUDED IN THE ON-SCREEN SOFTWARE

• Image and video capture, white balance, auto/manual exposure, noise reduction/saturation/gamma/contrast), measurement functions

#### COMPATIBILITY

#### PACKAGE CONTENT

• HD-Mini color camera, 13-inch HD screen, HDMI cable, DC 2VDC/1A power supply, 32GB SD Card, USB mouse, 0.5x c-mount adapter, 23.2 – 30.0 / 30.5mm adapter rings

#### Item #

EVC-3024-HDS HD-Mini camera with 13-inch HD screen, 32GB SD card, and built-in software

FORMAT

• 1/2.8-inch, HDTV 1080p

#### SCAN MODE

Progressive scan

#### NOISE

• 3D Noise reduction function

#### COLOR RENDERING

• 12 Bits

DYNAMIC (DB) • 69

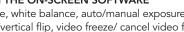


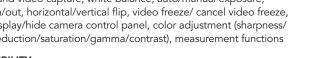
• HDMI

#### HD SCREEN • 13-inch HD screen

• Images are saved to a standard high speed 32GB SD memory card

zoom in/out, horizontal/vertical flip, video freeze/ cancel video freeze, grid, display/hide camera control panel, color adjustment (sharpness/





• Suitable for all HDMI screens, monitors and beamers

Description

#### EIS-1153-PLI-HDS Bundle:

EIS-1153-PLI iScope with EVC-3024-HDS HD-Mini Color Camera (see page 17 for details)



# **Digital Cameras**



### **UHD-4K Camera**

The 4K Sony Ultra HD CMOS color camera offers a new solution to modern microscopy for industry and laboratories where more spatial detail and contrast is needed. With the latest horizontal display resolution of 3,840 pixels (2,160p) and new 4K screens, this UHD image guality camera can be used for biological, metallurgical or stereo microscopes.

This standalone camera provides excellent color rendering at high frame rates, with up to 60 frames per second.

The 4K UHD ultra-high-definition camera can be used in two modes, as stand-alone with its embedded mouse-driven software or in a computer-controlled mode. A Wi-Fi dongle is provided to connect the camera to the computer (ImageFocus Alpha software).

### **FEATURES**

- Ultra HD 2160p, 8.3 MP, 1/8-inch color 4K Sony sensor
- 3840 x 2160 pixels, 30 fps, H264 codec
- Real time images directly on TV, monitor or beamer
- Built-in mouse-driven software
- 4K HDMI 2.0 standard
- Interface: HDMI, USB-2, Ethernet, Wi-Fi
- Works with ImageFocus Alpha software
- ADC 16 bits, color depth 36 bits
- Stand alone or used via PC
- C-mount interface
- 2061p/1080p automatic switching
- SD memory card included

### **TECHNICAL SPECIFICATIONS**

FORMAT

PIXEL SIZE

• 2.0 x 2.0µm

SCAN MODE

shutter

• 505mV

• 40.5

EXPOSURE

• 1/1.8-inch, HDTV 2160p

• Progressive scan, rolling

SENSITIVITY Lux/sec

Automatic/ manual

SIGNAL /NOISE (db)

• High-speed 32GB SD memory

card (larger capacity SD are optional, max 128GB)

**OPERATION TEMPERATURE** 

DATA STORAGE

MOUNTING

- SENSOR
- 4K Sony
- PIXELS
- 3840 x 2160 (capture mode)
- HDMI 30fps, USB 30fps

#### VIDEO

• 2160 pixels video recording mode

#### NOISE

• Standard noise reduction

#### COLOR RENDERING • 36 Bits

#### WHITE BALANCE

Automatic/manual/ROI

#### **INTERFACES**

• HDMI, USB-2.0, Ethernet, WiFil

#### **CAMERA BUTTONS**

• On/Off

#### POWER SUPPLY

- 100-240VAC to 12VDC/1A
- STORAGE TEMPERATURE
- -20 60° Celsius

#### POWER SUPPLY

• 12VDC/1A adapter

#### FEATURES INCLUDED IN THE ON-SCREEN SOFTWARE

#### • 0.5x objective with C-mount, 30mm and 30.5mm adapters for stereo microscopes, 12VDC/1A power adapter, 32GB SD card, Micro USB Synchronous cable 1.5M, HDMI cable, USB mouse, WiFi dongle, 76 x 24mm calibration slide (1mm/100), carton box

#### PC SOFTWARE

• Works with ImageFocus Alpha imaging and measuring software for Windows 10/11 (32 and 64-bit configurations) and Linux. A macOS version is also available (with a few differences in features)

#### PC REQUIREMENTS

• Compatible with Intel Core 2, 2.8GHZ or higher, 2GB, USB-2

#### PACKAGE CONTENT

• HDMI cable, DC 12VDC/1A power supply, 32GB SD Card, USB mouse, 0.5x c-mount adapter, 23.2 – 30.0/ 30.5mm adapter rings

Item #	Description
EVC-3042	Ultra HD/4K high-definition camera with 1/1.8-inch Sony 4K sensor, micro-SD card, 0.5x objective, HDMI cable and USB mouse

 -10 – 50 ° Celsius MEASUREMENT

• C-mount interface

- Supported

### **Camera Adapters**

All Globe | Euromex cameras are supplied with photo port c-mount adapters, which means they can be connected to any Globe | Euromex trinocular microscope\*.

\* Except for the Delphi-X Inverso series. These microscopes need an additional adapter.

### **Digital SLR Adapters**

Digital single lens reflex cameras with an APS-C sensor can be mounted on a standard 23.2mm trinocular tube. Choose the universal EAE-5130 adapter with built-in 2x objective, together with a brand-specific T-2 adapter.



### **Photo Port Adapters**

Suitable for Globe I Euromex microscopes with a photo port such as Oxion Inverso, NexiusZoom, StereoBlue and Delphi-X Observer.



ltem #	Description
EAE-5130	Universal SLR adapter with built-in 2x lens for standard 23.2mm tube. (Requires T2 ring)
EAE-5025	T2 ring for Nikon D SLR digital camera
EAE-5040	T2 ring for Canon EOS SLR digital camera
EOX-9850	Photo port adapter with 0.5x lens for Oxion (revision 2) microscopes and 1/2-inch camera with C-mount, for use with EOX-2053-PLPH and cameras EDC-5000-PRO / EDC-10000-PRO / EDC-18000-PRO / EVC-3042
EAE-5120-2	Standard 23.2mm tube for Oxion upright (revision 2) and Oxion Inverso inverted microscopes, for use with EOX-2053-PLPH and camera EVC-3024-HDS



Globe Scientific is an ISO 9001:2015 certified worldwide supplier of laboratory plasticware, glassware and benchtop equipment.

Founded in 1983 by the Diamond Family, Globe Scientific is built on a foundation of quality, honesty, integrity and hardwork. Today, we are well known and respected throughout the industry for our high quality products, competitive pricing and exceptional customer support.

Our innovative ideas and outstanding technical capabilities allow us to continually update and expand our product line. We offer one of the broadest selections of laboratory products from any one source with over 4,500 items available for immediate shipment.

Globe Scientific has proudly served the clinical, research, hospital, veterinary, kit manufacturing, education and specialty markets for more than 39 years.

- Analyzer Consumables
- Bags
- Balances
- Beakers
- Bench Top Equipment
- Biohazard Specimen Bags
- Blood Collection Products
- Bottles
- Bottle Top Dispensers
- Capillary Tubes
- Carboys, Jerricans
- Centrifuges
- Centrifuge Tubes
- Coolers, Chillers, Ice Buckets
- Containers
- Cryogenic Vials
- Cylinders
- Drug Test Containers
- Drying Racks
- ESR Systems
- Formalin Filled Containers
- Formalin Neutralization
- Funnels

- Glassware
- Inoculation Loops
- Microhematocrit Tubes
- Microcentrifuge Tubes
- Microscopes
- Microscope Slides
- Microtitration Plates
- Pathology Containers
- PCR Products
- Pipettors
- Pipette Tips
- Racks, Dispensers, Boxes
- Reagent Reservoirs
- Serological Pipettes
- Slide Mailers
- Syringe Filters
- Tapes and Labels
- Test Tubes
- Transfer Pipets
- Urinalysis Products
- Vortex Mixers
- Weighing Dishes



Euromex Microscopen by is a leading manufacturer of microscopes and related optical instruments. Founded in 1966, Euromex has become a world-class supplier of biological, stereo and metallurgical microscopes

Euromex is headquartered in The Netherlands with multiple locations that include warehousing, an optomechanical workshop for product customizations, an extensive R&D facility, and a dedicated quality control department. Euromex operates with ISO 9001:2015 and ISO 13485:2016 quality systems.

Euromex operates in more than 120 countries through distributors, resellers and agents. A wide variety of customers such as schools and educational institutes, clinical and research laboratories as well as a broad range of industrial customers rely on Euromex microscopes every day.





#### www.globescientific.com

1 (800) 394-4562 • 1 (201) 599-1400 Phone 1 (201) 599-1406 Fax E-mail mail@globescientific.com