



# CATALOG 2016

**PART 2** MICROSCOPES  
FOR LABORATORIES

 **euromex**  
microscopes holland

*Since 1966!*

Euromex  
**MICROSCOPE  
COLLECTION**  
2016

**PART 1** MICROSCOPES  
FOR EDUCATION

**PART 2** MICROSCOPES  
FOR LABORATORIES

**PART 3** MICROSCOPES  
FOR INDUSTRY



# Index

## Euromex Catalog 2016

<b>EDUCATION</b> Biological Microscopes	<b>1</b>
<b>EDUCATION</b> Stereo Microscopes	<b>2</b>
<b>EDUCATION</b> Digital Solutions	<b>3</b>
<b>LABORATORIES</b> Life Science Microscopes	<b>4</b>
<b>LABORATORIES</b> Stereo Microscopes	<b>5</b>
<b>LABORATORIES</b> Digital Solutions	<b>6</b>
<b>INDUSTRY</b> Stereo Microscopes	<b>7</b>
<b>INDUSTRY</b> Materials Science Microscopes	<b>8</b>
<b>INDUSTRY</b> Digital Solutions	<b>9</b>
<b>ACCESSORIES</b> for microscopy	<b>10</b>
<b>OTHER</b> Optical Instruments	<b>11</b>



1

**EDUCATION | BIOLOGICAL MICROSCOPES**

MicroBlue • EcoBlue • BioBlue • BioBlue.Lab • B and B+ series

2

**EDUCATION | STEREO MICROSCOPES**

EduBlue • StereoBlue • NexiusZoom • AP series

3

**EDUCATION | DIGITAL SOLUTIONS**

Digital microscopes • USB Cameras • Software • HD cameras  
WiFi camera • Tablet cameras • CCD camera • Adapters

4

**LABORATORIES | LIFE SCIENCE MICROSCOPES**

iScope • Oxion • BioBlue.Lab • B and B+ series • Oxion Inverso  
iScope (fluorescence) • Oxion (fluorescence) • B+ series (fluorescence)

5

**LABORATORIES | STEREO MICROSCOPES**

NexiusZoom • StereoBlue • DZ series • Z series • P series

6

**LABORATORIES | DIGITAL SOLUTIONS**

Digital microscope • USB Cameras • Software • HD cameras  
WiFi camera • Tablet camera • CCD cameras • Adapters

7

**INDUSTRY | STEREO MICROSCOPES**

NexiusZoom (ESD) • StereoBlue • DZ series • Z series • BE-50 series • P series

8

**INDUSTRY | MATERIALS SCIENCE MICROSCOPES**

iScope (material & polarization) • Oxion Inverso (material) • Oxion (material) • B series (material)

9

**INDUSTRY | DIGITAL SOLUTIONS**

USB Cameras • Software • HD cameras • WiFi camera • Tablet camera • CCD camera • Adapters

10

**ACCESSORIES | FOR MICROSCOPY**

Illumination solutions • Preparation accessories • Dissection kits  
Microscope prepared slides • Disposables • Stains

11

**OTHER | OPTICAL INSTRUMENTS**

Magnifiers & measuring microscopes • Refractometer • Polarimeter • Spectroscopes • PathoScan

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

The corporate office is based in Arnhem, The Netherlands. A facility with a 2,000 m2 conditioned logistics warehouse, an optomechanical workshop, an R&D department and a high-level quality control department

Around the world, 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 and a broad range of industrial customers are using Euromex microscopes

Euromex Microscopen bv is a subsidiary of Euromex Optics Group bv, a group holding company with active subsidiaries in the field of optical instruments and high level optical and opto-mechanical components

Choose the right  
**EuromexMicroscope**

We have made a guide to help you to find the right microscope for your specific application. A list of recommended models for most common applications in education, laboratories and industry can simplify your selection

[SEE PAGE 322](#)

# LifeScience

Laboratories



- ISCOPE PAGE 96
- OXION PAGE 102
- BIOBLUE.LAB PAGE 108
- B AND B+ SERIES PAGE 112
- OXION INVERSO PAGE 120
- ISCOPE (FLUORESCENCE) PAGE 128
- OXION (FLUORESCENCE) PAGE 134
- B+ SERIES (FLUORESCENCE) PAGE 140

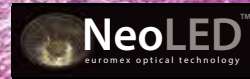


# LifeScience

## Laboratories

Euromex offers a broad range of microscopes for life sciences, which are used by many researchers and biologists worldwide

Within the next pages you will find details about our different models and we will get you introduced to new technologies in microscopy like the iCare sensor, CSS system and new LED technology, which brings Euromex users to the next level of microscopy



## iScope®

The iScope® is available in various configurations suitable for Life and Biomedical Sciences, high schools, universities but also for routine medical applications

Besides the brightfield contrast method, configurations for phase contrast, cardioid mirror dark field, basic polarization and several epillumination sources for fluorescence applications can be used. iScope® models with multiheads are also available for teaching purposes



IS.1153-PLi

<b>IS.1152-PLi</b>	
<b>Dimensions</b>	<b>Weight</b>
(h) 407 x (w) 210 x (d) 255 mm	9.0 kg



## HIGHLIGHTS

- EWF 10x/22 mm and EWF10x/20 mm eyepieces
- Binocular and trinocular models
- Optional multiheads
- Optional tilting head
- Quintuple reversed nosepiece
- E-plan, plan and plan phase objectives
- E-plan, plan and plan phase infinity corrected IOS objectives
- 140 mm x 160 mm stage
- 216 mm x 150 mm rackless stage
- Optional ceramic stage
- Height adjustable Abbe condenser N.A. 1.25
- Cardioid mirror dark field condenser with 5 W NeoLED™ illumination
- Diascopic intensity adjustable 3 W NeoLED™ Köhler illumination with internal 100-240 V power supply
- iCare sensor for energy saving
- CSS - Cable Storage System
- 10 years warranty



IS.1152-EPL

## TECHNICAL SPECIFICATIONS

### EYEPIECES

- Extended Wide Field EWF plan 10x eyepieces with 20 mm field of view and adjustable diopter on the left eyepiece for finity corrected systems (Ø 23.2 mm tube)
- Extended Wide Field HWF plan 10x 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 on the left tube for EPLi systems (Ø 30 mm tube)

### HEADS

Binocular and trinocular Siedentopf type heads with 30° inclined tubes. Interpupillary distance from 48 to 76 mm. ± 5 diopter adjustment(s). A unique rotating system allows the ergonomic positioning of both tubes in a high (431 mm) and in a low position (397 mm). The trinocular head comes with a Ø 23.2 mm photo port

### ERGONOMICAL TILTING HEAD

Optional ergonomic 5 to 35° tilting head, interpupillary distance 48-75 mm and optional photo attachment with standard Ø 23.2 mm tube (only infinity corrected models)  
*To order an iScope with tilting head use reference IS.1158-xxx*

### MULTIHEAD SYSTEM

The iScope® can be extended with a unique multihead system for in total 2, 3 or 5 heads allowing simultaneous observation of specimens.

The central attachment is equipped with a joystick to move a green and red laser pointer across the entire field of views of all heads. Configurations with one, two or four additional viewing binocular heads, 30° inclined tubes and plan 4x, 10x, S40, S100x oil immersion infinity corrected IOS objectives. Each extra viewing binocular head is equipped with extended wide field plan EWF 10x/20 mm eyepieces  
*(references: IS.1156-PLi-x, x = total number of heads)*

# TECHNICAL SPECIFICATIONS

## OBJECTIVES

E-Plan EPL	4x/0.10	10x/0.25	20x/0.40 <sup>(1)</sup>	S40x/0.65	S100x/1.25 oil
E-Plan EPLi IOS	4x/0.10	10x/0.25	20x/0.40 <sup>(1)</sup>	S40x/0.65	S100x/1.25 oil
Plan PLi IOS	4x/0.10	10x/0.25	20x/0.40 <sup>(1)</sup>	S40x/0.65	S60x/0.85 <sup>(1)</sup> S100x/1.25 oil
Plan phase PLPH		10x/0.25	20x/0.40	S40x/0.65	S100x/1.25 oil
Plan phase PLPHi IOS		10x/0.25	20x/0.40	S40x/0.65	S100x/1.25 oil

(1) optional

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

## NOSEPIECE

Revolving quintuple reversed nosepiece for max. 5 objectives

## STAGES

The iScope® can be equipped with three types of stages:

- 140 x 160 mm stage equipped with integrated 79 x 52 mm X-Y mechanical stage
- 216 x 150 mm rackless stage equipped with double slide holder and integrated 79 x 52 mm X-Y mechanical stage. The iScope® rackless stage has no protruding parts, enables more smooth movements and is safer
- 220 x 157 mm ceramic stage with integrated 75 x 50 mm X-Y mechanical stage protects with a very tough ceramic surface against marks and scratches. The surface also ensures stray light not to be reflected from the stage into the objective

The iScope® can be supplied with a heating stage which can be set up to 50° Celsius by a PID temperature controller. Only available with new purchased microscopes. Higher temperatures can be achieved on special request

## 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. A slider with a simple dark stop for dark field up to 400x magnification is also available

## CONDENSER FOR ZERNIKE PHASE CONTRAST

An optional height adjustable Zernike NA. 1.25 phase contrast disc condenser with plan phase 10/20/S40x and S100x oil immersion objectives and dark field stop position for dark field contrast up to 400x magnification

## CONDENSER FOR DARK FIELD

A state-of-the-art condenser equipped with reflective cardioid mirrors, a high powered 5 W LED and a S100x objective with built-in iris diaphragm enable a real 1000x magnification dark field solution

*Cardioid dark field condenser with integrated power supply is only available on models IS.1152-PLi/DF and IS.1153-PLi/DF. By using IS.9150 and 86.521 an existing brightfield microscope can be upgraded to dark field.*

## FOCUSING

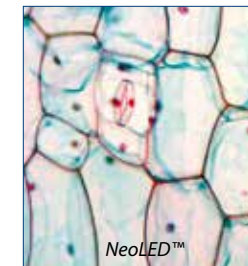
Coaxial coarse and fine adjustments, 200 graduations, 1 µm per graduation, 200 µm per rotation, total travel approximately 24 mm. Supplied with an adjustable rack stop to prevent damage to sample and objectives. The coarse adjustments are equipped with friction control

## ILLUMINATION

3 W adjustable Köhler NeoLED™ diasopic illumination with internal 100-240 V power supply  
The innovative NeoLED™ design offer 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™ is the 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. Also available for other models as option



## 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

## CSS – CABLE STORAGE SYSTEM

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

## PACKAGING

Supplied with power cord, dust cover, a spare fuse, user manual and 5 ml immersion oil for models with S100x objective. All packed in polystyrene boxes

## YOUTUBE

Check out the product video on YouTube and learn more about this microscope

YouTube channel: **Euromex Optics Group B.V.**



# ACCESSORIES AND SPARE PARTS

- IS.6099** Pair of eyecups for finity models
- IS.6299** Pair of eyecups for infinity models
- IS.9102** Standard Abbe condenser 1.25 NA with slot for dark field and phase contrast sliders
- IS.9105** Swing-out 0.9/1.25 NA condenser
- IS.9150** Cardioid dark field condenser with integrated 5 W LED light source and external 100-240 V mains adapter
- 86.521** Plan PL S100x/1.25 oil immersion objective with iris diaphragm
- IS.9600** Polarization filter for lamp house
- IS.9700** Blue opaque filter for lamp house
- IS.9702** Green opaque filter for lamp house
- IS.9704** Yellow opaque filter for lamp house
- IS.9710** White opaque filter for lamp house
- SL.5500** NeoLED™ replacement unit for iScope
- 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 = 1.482 (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



## SPECIFICATIONS (FINITY)

			IS.1152 -EPL	IS.1153 -EPL	IS.1152 -PLPH	IS.1153 -PLPH	Product number
<b>Models</b>	Binocular		•		•		
	Trinocular			•		•	
<b>Eyepieces</b>	EWF 10x/20 mm	Ø 23.2 mm tube	•	•	•	•	<b>IS.6010</b>
	EWF 10x/20 mm	with pointer	O	O	O	O	<b>IS.6010-P</b>
	EWF 10x/20 mm	with 10 / 100 micrometer and cross hair	O	O	O	O	<b>IS.6010-CM</b>
	EWF 15x/16 mm	Ø 23.2 mm tube	O	O	O	O	<b>IS.6015</b>
	EWF 20x/12 mm	Ø 23.2 mm tube	O	O	O	O	<b>IS.6020</b>
	Pair of eyecups		O	O	O	O	<b>IS.6099</b>
<b>Diopter</b>	Adjustment on left side		•	•	•	•	
<b>Objectives</b>	E- Plan EPL	4x / 0.10	•	•	•	•	<b>IS.7104</b>
	E- Plan EPL	10x / 0.25	•	•			<b>IS.7110</b>
	E- Plan EPL	20x / 0.40	O	O			<b>IS.7120</b>
	E- Plan EPL	S40x / 0.65	•	•			<b>IS.7140</b>
	E- Plan EPL	S60x / 0.85	O	O			<b>IS.7160</b>
	E- Plan EPL	S100x / 1.25	•	•			<b>IS.7100</b>
	Plan phase PLPH	10x / 0.25			•	•	<b>IS.7710</b>
Plan phase PLPH	20x / 0.40			•	•	<b>IS.7720</b>	
Plan phase PLPH	S40x / 0.65			•	•	<b>IS.7740</b>	
Plan phase PLPH	S100x / 1.25			•	•	<b>IS.7700</b>	
<b>Filter</b>	Polarization for lamp house	45 mm	O	O	O	O	<b>IS.9600</b>
	Yellow opaque for lamp house	45 mm	O	O	O	O	<b>IS.9704</b>
	White opaque for lamp house	45 mm	O	O	O	O	<b>IS.9710</b>
<b>Stage</b>	Mechanical stage	140 x 160 mm	•	•	•	•	
	Large ceramic stage	220 x 157 mm <small>Only with new purchased microscopes (add suffix /C)</small>	O	O	O	O	<b>IS.9503</b>
<b>Illumination</b>	3 W NeoLED™		•	•	•	•	
<b>iCare Sensor</b>			•	•	•	•	
<b>Köhler</b>			O	O	O	O	<b>IS.9880</b>
<b>Zernike phase contrast set</b>	With PLPH 10/20/40/100x objectives and rotating phase contrast condenser with bright and dark field position*		O	O	•	•	<b>IS.9124</b>
<b>Telescope for phase contrast</b>	Ø 23.2 mm tube		O	O	•	•	<b>IS.9149</b>
<b>Phase contrast slider set</b>	With PLPH 10/40x objectives and slider*		O	O			<b>IS.9160</b>
	With PLPH 20/100x objectives and slider*		O	O			<b>IS.9161</b>
<b>Slider</b>	With dark field stop		O	O			<b>IS.9170</b>

(• = standard, O = optional, \* With green opaque filter)

## MODELS FOR DARK FIELD

Special models for dark field observation IS.1152-PLi/DF and IS.1153-PLi/DF are supplied with a state-of-the-art condenser equipped with reflective cardioid mirrors and a high powered 5 W LED. Together with a S100x objective with built-in iris diaphragm real 1,000x magnification dark field solution can be achieved. All other specifications are identical to models IS.1152-PLi and IS.1153-PLi

## SPECIFICATIONS (INFINITY)

			IS.1152 -EPLi	IS.1153 -EPLi	IS.1152 -PLi	IS.1153 -PLi	IS.1152 -PLPHi	IS.1153 -PLPHi	Product number
<b>Models</b>	Binocular		•		•				
	Trinocular			•		•		•	
<b>Head</b>	Ergonomic tilting head IOS series								<b>IS.5700</b>
<b>Photo tube</b>	for IS.5700	Ø 23.2 mm tube							<b>IS.9800</b>
<b>Eyepieces</b>	EWF 10x/22 mm	Ø 30 mm tube	•	•	•	•	•	•	<b>IS.6210</b>
	EWF 10x/22 mm	with pointer	O	O	O	O	O	O	
	EWF 10x/22 mm	with 10 / 100 micrometer and cross hair	O	O	O	O	O	O	<b>IS.6210-CM</b>
	EWF 15x/ 16 mm	Ø 30 mm tube	O	O	O	O	O	O	<b>IS.6215</b>
	EWF 20x/ 12 mm	Ø 30 mm tube	O	O	O	O	O	O	<b>IS.6220</b>
<b>Diopter</b>	Adjustment on left side		•	•					
	Adjustment on both sides				•	•	•	•	
<b>Objectives IOS</b>	E- Plan EPLi	4x / 0.10	•	•					<b>IS.8804</b>
	E- Plan EPLi	10x / 0.25	•	•					<b>IS.8810</b>
	E- Plan EPLi	20x / 0.40	O	O					<b>IS.8820</b>
	E- Plan EPLi	S40x / 0.65	•	•					<b>IS.8840</b>
	E- Plan EPLi	S100x / 1.25 oil	•	•					<b>IS.8800</b>
	Plan PLi	4x / 0.10			•	•			<b>IS.7204</b>
	Plan PLi	10x / 0.25			•	•			<b>IS.7210</b>
Plan PLi	20x / 0.25			O	O			<b>IS.7220</b>	
Plan PLi	S40x / 0.65			•	•			<b>IS.7240</b>	
Plan PLi	S60x / 0.85			O	O			<b>IS.7260</b>	
Plan PLi	S100x / 1.25 oil			•	•			<b>IS.7200</b>	
	Plan phase PLPHi	10x/ 0.25					•	•	<b>IS.8910</b>
	Plan phase PLPHi	20x/ 0.40					•	•	<b>IS.8920</b>
	Plan phase PLPHi	S40x/ 0.65					•	•	<b>IS.8940</b>
	Plan phase PLPHi	S100x/ 1.25 oil					•	•	<b>IS.8900</b>
<b>Stage</b>	Mechanical rackless stage	216 x 150 mm	•	•	•	•	•	•	
	Large ceramic stage	220 x 157 mm <small>Only with new purchased microscopes (add suffix /C)</small>	O	O	O	O	O	O	<b>IS.9503</b>
<b>Illumination</b>	3 W NeoLED™		•	•	•	•	•	•	
<b>iCare Sensor</b>			•	•	•	•	•	•	
<b>Köhler</b>			O	O	•	•	•	•	<b>IS.9880</b>
<b>Zernike phase contrast set</b>	With PLPHi 10/20/40/100x IOS objectives and rotating phase contrast condenser with bright and dark field position*		O	O	O	O	•	•	<b>IS.9127</b>
<b>Telescope for phase contrast</b>	Ø 30 mm tube		O	O	O	O	•	•	<b>IS.9148</b>
<b>Phase contrast slider set</b>	With PLPH 10/40x IOS objectives and slider*		O	O	O	O			<b>IS.9162</b>
	With PLPH 20/100x IOS objectives and slider*		O	O	O	O			<b>IS.9163</b>
<b>Slider</b>	With dark field stop		O	O	O	O			<b>IS.9170</b>

(• = standard, O = optional, \* With green opaque filter)

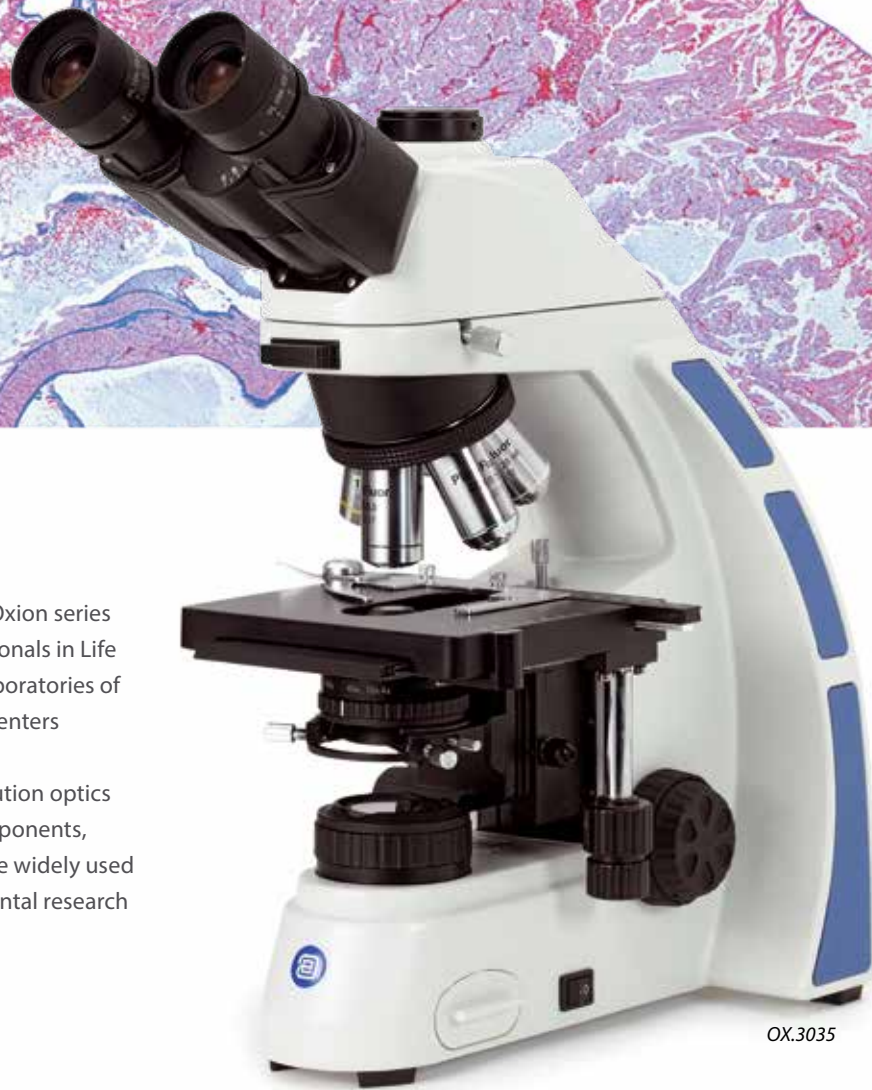


## LIFE SCIENCE MICROSCOPES

### Oxion

The microscopes of the Oxion series are dedicated to professionals in Life Sciences applications, laboratories of universities or research centers

Thanks to the high resolution optics and state-of-the-art components, these microscopes can be widely used from routine to fundamental research applications



OX.3035

<b>OX.3025 TO OX.3065</b>	
<b>Dimensions</b>	<b>Weight</b>
(h) 397 x (w) 185 x (d) 294 mm	7.5 kg



## HIGHLIGHTS

- HWF 10x/22 mm eyepieces
- Binocular, trinocular and multihead systems
- Optional tilting head
- Reversed nosepiece for maximum 5 objectives
- Semi plan, plan and plan phase contrast IOS objectives
- 150 x 140 mm stage
- Optional ceramic stage
- Abbe condenser and Zernike condenser for phase contrast
- 3 W LED illumination for brightfield and phase contrast
- 5 W LED illumination for dark field applications
- Ergonomical stand and head
- 10 years warranty



With ceramic stage - OX.3035

## TECHNICAL SPECIFICATIONS

### EYEPIECES

HWF 10X/22 mm eyepieces with  $\pm 5^\circ$  diopter adjustments on both eyepieces. The multihead systems OX.56xx are supplied with WF10x/20 mm eyepieces and a joystick for the positioning of a pointer in the field of view of the eyepieces. All eyepieces can be secured with an Allen screw

### HEAD

Binocular and trinocular Siedentopf type heads with  $30^\circ$  inclined tubes. Interpupillary distance from 50 to 75 mm. An unique rotating system allows an ergonomic positioning of both tubes in an upper (431 mm) and in a lower position (397 mm). The multihead systems are available with 2, 3 or 5 heads

### MULTIHEADS SYSTEM

The Oxion can be extended with a unique multihead system for in total 2, 3 or 5 heads that allow simultaneous observation of specimens

The central attachment is equipped with a joystick to move a green and red laser pointer across the entire field of views of all heads.

Configurations with one, two or four viewing binocular heads,  $30^\circ$  inclined tubes and plan 4x, 10x, S40, S100x oil immersion infinity corrected IOS objectives. Each extra viewing binocular head is equipped with high wide field plan HWF 10x/20 mm eyepieces

(reference models OX.5602, OX.5603 and OX.5605)

### NOSEPIECE

Reversed nosepiece for a maximum of 5 objectives on ball bearings

## OBJECTIVES – IOS INFINITY CORRECTED SYSTEM

- Semi plan 4x/0.10, 10x/0.25, S40x/0.65 and S100x/1.25 oil immersion IOS objectives
- Plan 4x/0.10, 10x/0.25, S40x/0.65 and S100x/1.25 oil immersion IOS objectives
- Plan phase contrast 4x/0.10, 10x/0.25, S40x/0.65 and S100x/1.25 oil immersion IOS objectives
- Plan semi apochromatic fluarex 4x/0.10, 10x/0.25, S40x/0.65 and S100x/1.25 oil immersion IOS objectives

All S40x, S60x and S100x oil immersion objectives are spring loaded. All optics have an anti-reflection coating for maximum light throughput and are anti-fungus treated

## STAGE

- 150 x 140 mm stage with integrated X-Y mechanical stage
- A ceramic stage is also available on request

The Oxion can be supplied with a heating stage which can be set up to 50° Celsius by a PID temperature controller. Only available for new microscopes. Higher temperatures can be achieved on special request

## CONDENSER FOR BRIGHTFIELD

Height adjustable Abbe condenser N.A. 1.25 with iris diaphragm. Phase contrast rings mounted in slider can be inserted in the condenser for 10x and S40x or 20x and S100x phase contrast objectives. A dark field stop in slider for the 10x, 20x and S40x objectives can also be inserted with magnification indication

## CONDENSERS FOR ZERNIKE PHASE CONTRAST

Two optional height adjustable Zernike NA. 1.25 phase contrast disc condensers are available:

- with plan phase 10/20/S40x and S100x oil immersion objectives
- with plan phase 10/S40x/S100x oil immersion objectives and dark field position for dark field contrast up to 400x magnification

## FOCUSING

Coaxial coarse and fine adjustments, 200 graduations, 1 µm per graduation, 200 µm per rotation, total travel approximately 28 mm. Supplied with an adjustable rack stop to prevent damage to sample and objectives.

The coarse adjustments are equipped with friction control

## ILLUMINATION FOR DARK FIELD

5 W NeoLED™ adjustable illumination (for model OX.3064)

## ILLUMINATION FOR BRIGHTFIELD AND PHASE CONTRAST

All models are supplied with a 3 W adjustable NeoLED™ illumination with integrated 100-240 V power supply. Köhler illumination with field diaphragm

## PACKAGING

Supplied with power cord, dust cover, a spare fuse, user manual and 5 ml immersion oil for models with a S100x objective. All packed in a polystyrene box

## 4 MODELS

	Bino	Trino	Semi plan 4x/10x/S40x/S100x IOS objectives	Plan 4x/10x/S40x IOS objectives	Plan S100x IOS objective	Plan semi apo 4x/10x/S40x/ S100x objectives	Plan semi apo S100x IOS objectives	Plan phase 10x/20x/S40x/S100x IOS objectives	Plan phase 10x/S40x/S100x IOS objectives
OX.3012	•		•						
OX.3015		•	•						
OX.3020	•			•					
OX.3025		•		•					
OX.3030	•			•	•				
OX.3035		•		•	•				
OX.3040	•							• (1)	
OX.3045		•						• (1)	
OX.3042	•								• (2)
OX.3047		•							• (2)
OX.3050	•					•			
OX.3055		•				•			
OX.3060	•					•	•		
OX.3065		•				•	•		
OX.3064	•			•	• (3)				
OX.5602		• (4)		•	•				
OX.5603		• (5)		•	•				
OX.5605		• (6)		•	•				

(1) Plan phase objectives supplied with AE.3184 condenser with 4 phase contrast rings

(2) Plan phase objectives supplied with AE.3183 condenser with 3 phase contrast rings and one stop for dark field

(3) Supplied with cardioid mirror dark field oil immersion condenser and S100x objective with built-in iris diaphragm

(4) Multihead system, supplied with a trinocular and one binocular head

(5) Multihead system, supplied with a trinocular and two binocular heads

(6) Multihead system, supplied with a trinocular and four binocular heads

## CARDIOID MIRROR CONDENSER FOR DARK FIELD

The OX.3064 model is supplied with a condenser with cardioid mirrors, a 5 W integrated NeoLED™ illumination and a S100x objective with built-in iris diaphragm for real 1,000x dark field observations. By using AE.3612-O and 86.521 an existing brightfield microscope can be upgraded to dark field



Oxion Multihead - OX.5605

# ACCESSORIES AND SPARE PARTS

- AE.3210** HWF10x/22mm eyepiece
- AE.3215** HWF15x/13mm eyepiece
- AE.3223** HWF10x/22mm eyepiece with 10mm/100 micrometer
- AE.3225** Pair of eyecups
  
- AE.3160** Semi plan 4x/0.10 infinity corrected IOS objective. Working distance 15 mm
- AE.3162** Semi plan 10x/0.25 infinity corrected IOS objective. Working distance 15 mm
- AE.3166** Semi plan S40x/0.65 infinity corrected IOS objective. Working distance 0.42 mm
- AE.3270** Semi plan S100x/1.25 oil immersion infinity corrected IOS objective. Working distance 0.19 mm
  
- AE.3102** Plan 2x/0.06 infinity corrected IOS objective Working distance 4.1 mm
- AE.3104** Plan 4x/0.10 infinity corrected IOS objective. Working distance 11.9 mm
- AE.3106** Plan 10x/0.25 infinity corrected IOS objective. Working distance 12.1 mm
- AE.3108** Plan 20x/0.40 infinity corrected IOS objective. Working distance 1.5 mm
- AE.3110** Plan S40x/0.65 infinity corrected IOS objective. Working distance 0.36 mm
- AE.3112** Plan S60x/0.85 infinity corrected IOS objective. Working distance 0.30 mm
- AE.3114** Plan S100x/1.25 oil immersion infinity corrected IOS objective. Working distance 0.18 mm
- 86.521** Plan S100x/1.25 oil immersion infinity corrected IOS objective with built-in iris diaphragm



AE.3184

- AE.3144** Plan semi apochromatic fluarex 4x/0.13 infinity corrected IOS objective. Working distance 18.5 mm
- AE.3146** Plan semi apochromatic fluarex 10x/0.30 infinity corrected IOS objective. Working distance 10.6 mm
- AE.3148** Plan semi apochromatic fluarex 20x/0.50 infinity corrected IOS objective. Working distance 2.33 mm
- AE.3152** Plan semi apochromatic fluarex S40x/0.75 infinity corrected IOS objective. Working distance 0.6 mm
- AE.3156** Plan semi apochromatic fluarex S100x/1.28 oil immersion infinity corrected IOS objective. Working distance 0.21 mm
  
- AE.3126** Plan phase 10x/0.25 infinity corrected IOS objective. Working distance 12.1 mm
- AE.3128** Plan phase 20x/0.45 infinity corrected IOS objective. Working distance 1.5 mm
- AE.3130** Plan phase S40x/0.65 infinity corrected IOS objective. Working distance 0.36 mm
- AE.3134** Plan phase S100x/1.25 oil immersion infinity corrected IOS objective. Working distance 0.18 mm
- AE.3180** Telescope for alignment of phase contrast rings
- AE.3183** Phase contrast Zernike condenser with 3 phase rings and one dark field stop and plan phase PLPH 10x, S40x, S100x oil objectives
- AE.3184** Phase contrast Zernike condenser with 4 phase rings and plan phase PLPH 10x, 20x, S40x, S100x oil objectives
- AE.3185** Slider with dark field stop (only for objectives 10x, 20x and S40x)
- AE.3186** Slider phase contrast kit with plan phase 10x/20x/40x/S100x oil objectives and 2 sliders with phase contrast rings for PLPH 10x/S40x and 20x/S100x objectives
- AE.3187** Slider with phase rings for 10x and S40x plan phase contrast objectives

- AE.3189** Slider with phase rings for 20x and S100x oil plan phase contrast objectives
- AE.3190** Polarizer/Analyzer set
- AE.3192** Polarizer slider for nosepiece
- AE.3194** Polarizer for lamp house
  
- AE.3196** Frosted filter 45 mm, sits on lamp house
- AE.3198** Blue filter 45 mm, sits on lamp house
- AE.3200** Yellow filter 45 mm, sits on lamp house
- AE.3202** Green filter 45 mm, sits on lamp house
  
- OX.5120** Standard 23.2 mm diameter tube (for Oxion photo port)
- AE.5130** Universal SLR camera adapter for 23.2 mm tubus with built-in 2x magnification lens Needs T2 adapter and OX.5120
- AE.5025** T2 adapter for Nikon D digital SLR cameras
- AE.5040** T2 adapter for Canon EOS digital SLR cameras
  
- OX.9810** CS/C mount with 1.0x objective
- OX.9833** C-mount adapter with 0.33x objective for Oxion microscopes and 1/3" cameras
- OX.9850** C-mount adapter with 0.5x objective for Oxion and Oxion Inverso microscopes and 1/2" cameras



OX.3010

- AE.5168-O** Heating stage and temperature controller up to 50°C. Only supplied with new purchased microscopes
- AE.3612-O** Cardioid dark field condenser with integrated 5 W LED light source and external 100-240 V mains adapter
- SL.5511** LED replacement for Oxion
  
- AE.3199** Glass fuses 3.15 A 250 V, 10 pieces
  
- OX.3010** Aluminium transport case with flight case locks
- OX.3011** Aluminium transport case with classical locks
  
- 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 = 1.482 (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

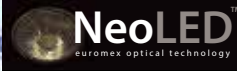


OX.3035

# LIFE SCIENCE MICROSCOPES



FEATURED



LABORATORIES  
LIFE SCIENCE MICROSCOPES  
4

## BioBlue.Lab

The BlueLine flagship BioBlue.Lab is the ideal laboratory instrument. With a very steady base, infinity corrected optical objectives, phase contrast possibilities it is a high quality all round microscope

All models are equipped with NeoLED™ illumination system for high resolution images and are available in binocular and trinocular versions



BB.1153-PLi

<b>BB.1152-PLi</b>	
<b>Dimensions</b>	<b>Weight</b>
(h) 378 x (w) 190 x (d) 260 mm	5.4 kg

For weight of other products see table



## HIGHLIGHTS

- Binocular and trinocular models
- Reversed quadruple nosepiece
- Plan and plan phase objectives
- Finity and infinity optical system
- Integrated rackless mechanical stage
- NeoLED™ illumination
- Ergonomic carrying grip
- 10 years warranty



BB.1152-PLi

LABORATORIES  
LIFE SCIENCE MICROSCOPES  
4

These ergonomic easy-to-use microscopes have specifically been designed for laboratory and university applications. The 150 x 140 mm mechanical stage has an integrated rackless X-Y stage with 75 x 30 mm travel

An important feature of the BioBlue.Lab is the rackless stage, which provides a smooth translation of the specimen and highly precise positioning. This plays an integral part in most demanding cytology and histopathology applications

The BioBlue.Lab microscope models offer great functionality and are equipped with WF10x/20 mm eyepieces, plan and IOS plan 4x/ 10x/ S40x/ S100x infinity corrected objectives

BioBlue.Lab microscopes can also be supplied with plan phase and IOS plan phase contrast objectives 10x / 20x / S40x / S100x, which are finity or infinity corrected. This enhancement is suitable for a wide variety of routine applications in laboratories and field microscopy

### YOUTUBE

Check out the product video on YouTube and learn more about the BlueLine YouTube channel: **Euromex Optics Group B.V.**



BioBlue

BioBlue.Lab

## TECHNICAL SPECIFICATIONS

### EYEPIECES

Wide field WF 10x/20 mm eyepieces

### HEAD

Binocular and trinocular models have 30° inclined Ø 30 mm tubes. The interpupillary distance is adjustable between 48 to 75 mm. All models have a ±5 diopter adjustment on left tube. All heads are 360° rotatable and secured with a screw

### NOSEPIECE

Reversed quadruple nosepiece on ball bearings

### OBJECTIVES

BioBlue.Lab microscopes are equipped with plan, plan IOS, plan phase and plan phase IOS objectives. Optional 20x/0.40 and S60x/0.85 objectives are also available. The S40x, S60x and S100x objectives are spring loaded.

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

### FOCUSING

Coaxial coarse and fine adjustments with 200 graduations. Precision 1.5 µm per graduation, 0.3 mm per rotation. Total travel approximately 28 mm. Supplied with an adjustable rack stop to prevent damage to sample and objectives.

The coarse adjustments are equipped with friction control

### STAGE

Rackless 150 x 140 mm stage with mechanical 75 x 30 mm X-Y translation stage

### CONDENSER

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

Height adjustable Zernike N.A. 1.25 phase contrast condenser with filter holder. Supplied with green filter

### ILLUMINATION

Binocular and trinocular models are supplied with an adjustable 3 W NeoLED™ illumination system for increased light output. Integrated 100-240V power supply

### PACKAGING

Supplied with power cord, dust cover, a spare fuse, user manual and 5 ml immersion oil and white filter.

All packed in a polystyrene box



### MODELS

	Bino	Trino	4x/10x/S40x/S100x plan objectives	4x/10x/S40x/S100x plan IOS objectives	10x/20x/S40x/S100x plan phase objective	10x/20x/S40x/S100x plan phase IOS objectives	Rackless mechanical stage	Neo LED	Weight (kg)
BB.1152-PL	•		•				•	•	5.4
BB.1153-PL		•	•				•	•	5.5
BB.1152-PLi	•			•			•	•	5.4
BB.1153-PLi		•		•			•	•	5.5
BB.1152-PLPH	•				•		•	•	5.6
BB.1153-PLPH		•			•		•	•	5.7
BB.1152-PLPHi	•					•	•	•	5.6
BB.1153-PLPHi		•				•	•	•	5.7

## ACCESSORIES AND SPARE PARTS

**BB.6010** WF 10x/20 mm eyepiece, Ø 30 mm tube

**BB.6015** WF 15x/15 mm eyepiece, Ø 30 mm tube

**BB.6110** WF10x/20 mm eyepiece, Ø 30 mm tube with micrometer reticle

**BB.6020** WF20x/11 mm eyepiece, Ø 30 mm tube

**BB.6099** Pair of eyecups

**BB.8804** Plan DIN 4x/0.10 objective. Working distance 17.92 mm

**BB.8810** Plan DIN 10x/0.25 objective. Working distance 2.04 mm

**BB.8820** Plan DIN 20x/0.40 objective. Working distance 1.20 mm

**BB.8840** Plan DIN S40x/0.65 objective. Working distance 0.65 mm

**BB.8860** Plan DIN S60x/0.80 objective. Working distance 0.19 mm

**BB.8800** Plan DIN S100x/1.25 oil immersion objective. Working distance 0.18 mm

**BB.7204** Plan DIN 4x/0.10 IOS objective. Working distance 7.18 mm

**BB.7210** Plan DIN 10x/0.25 IOS objective. Working distance 4.80 mm

**BB.7220** Plan DIN 20x/0.40 IOS objective. Working distance 5.27 mm

**BB.7240** Plan DIN S40x/0.65 IOS objective. Working distance 0.68 mm

**BB.7260** Plan DIN S60x/0.80 IOS objective. Working distance 0.50 mm

**BB.7200** Plan DIN S100x/1.25 oil immersion IOS objective. Working distance 0.20 mm

**BB.8910** Plan phase DIN 10x/0.25 objective. Working distance 2.04 mm

**BB.8920** Plan phase DIN 20x/0.40 objective. Working distance 1.20 mm

**BB.8940** Plan phase DIN S40x/0.65 objective. Working distance 0.65 mm

**BB.8900** Plan phase DIN S100x/1.25 oil immersion IOS objective. Working distance 0.18 mm

**BB.7710** Plan phase DIN 10x/0.25 IOS objective. Working distance 4.7 mm

**BB.7720** Plan phase DIN 20x/0.40 IOS objective. Working distance 1.75 mm

**BB.7740** Plan phase DIN S40x/0.65 IOS objective. Working distance 0.72 mm

**BB.7700** Plan phase DIN S100x/1.25 oil immersion objective. Working distance 0.50 mm

**BB.9880** Köhler attachment

**BB.9900** Aluminium case

**SL.5503** 3 W NeoLED™ replacement unit

**AE.5130** Universal SLR camera adapter with 2x projection lens for 23.2 mm tubes. Need T2 adapter

**AE.5040** T2 ring for Canon EOS SLR digital camera

**AE.5025** T2 ring for Nikon D SLR digital camera

**BB.9732** Polarization filter, 32 mm diameter. Fits in filter holder

**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 = 1.482 (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

## B and B+ series

The well-equipped microscopes of the B and B+ series are used intensively in the research field, at universities and for veterinary applications. In addition to an excellent ergonomic design, the microscopes of the B and B+ series are available in several configurations

<b>MONOCULAR MODEL</b> 86.010 / 86.019 / 86.060 / 86.069	
<b>Dimensions</b>	<b>Weight</b>
(h) 375 x (w) 210 x (d) 220 mm	4.75 kg

<b>BINOCULAR MODEL</b> 86.025 / 86.029 / 86.075 / 86.079	
<b>Dimensions</b>	<b>Weight</b>
(h) 375 x (w) 210 x (d) 220 mm	5.7 kg

<b>TRINOCULAR MODEL</b> 86.041 / 86.049 / 86.091 / 86.099	
<b>Dimensions</b>	<b>Weight</b>
(h) 375 x (w) 210 x (d) 220 mm	5.9 kg



86.041



## HIGHLIGHTS

- Monocular, binocular and trinocular models
- WF 10x/18mm or WF 10x/20mm eyepiece(s)
- Revolving reversed nosepiece for 4 or 5 objectives
- Semi plan, plan IOS, semi plan phase and plan phase objectives
- Integrated X-Y mechanical stage
- Coaxial coarse and fine adjustment with adjustable rack stop
- Height adjustable Abbe condenser N.A. 1.25 with iris diaphragm and filter holder
- 1 W LED illumination with rechargeable batteries and integrated power supply
- 20 W halogen illumination with integrated power supply

## TECHNICAL SPECIFICATIONS

### EYEPIECES

Standard models with wide field WF10x/18 mm eyepieces. The B+ series come with wide field WF10x/20 mm eyepieces. The eyepiece of monocular models can be supplied with a pointer

### HEAD

All heads are 360° rotatable and equipped with 30° inclined tubes. Tube length 160 mm. Binocular and trinocular models are equipped with a diopter ± 5 adjustment on the left eyepiece. The interpupillary distance is adjustable between 48 to 76 mm. The B series can also be supplied with a discussion head

### NOSEPIECE

Standard models with revolving and reversed quadruple nosepiece, the B+ series has a quintuple nosepiece

### OBJECTIVES

A large range of semi plan, plan, semi plan phase, plan phase or plan IOS 4x/0.10, 10x/0.25, S40x/0.65 and S100x



86.325

oil immersion objectives can be supplied with the B and B+ series. 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

### FOCUSING

Coaxial coarse and fine adjustments, 200 graduations, 1 µm per graduation, 200 µm per rotation, total travel approximately 23 mm. Supplied with an adjustable rack stop to prevent damage to sample and objectives. The coarse adjustments are equipped with friction control



Zernike phase contrast condenser

### STAGE

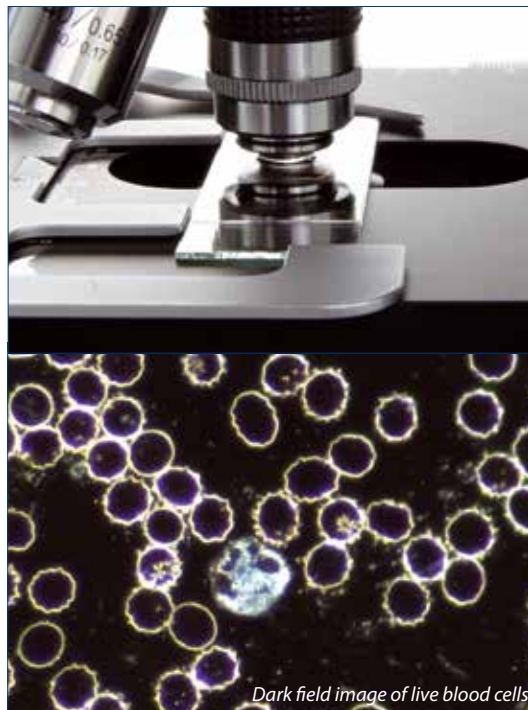
125 x 135 mm with mechanical 75 x 35 mm X-Y translation stage and Vernier scale. Removable specimen holder. Stages with heating elements and temperature PID controller are also available on request

### CONDENSER

Height adjustable Abbe condenser N.A. 1.25 with iris diaphragm and filter holder. Models for phase contrast with references 86.3xx are supplied with a Zernike disc condenser with phase contrast rings for 10/20/S40x and S100x phase contrast objectives. Models for phase contrast with references 86.4xx are supplied with a slider with phase ring for S40x phase contrast objective

### CARDIOID MIRROR CONDENSER FOR DARK FIELD

The 86.091-DFLED model is supplied with an oil immersion condenser with cardioid mirrors, a 5 W integrated NeoLED™ illumination and a S100x objective with built-in iris diaphragm for real 1000x dark field applications



Dark field image of live blood cells

### ILLUMINATION

The microscopes of the B and B+ series are equipped with either a 1 W LED adjustable illumination system for increased light output with 3 rechargeable batteries for cordless operation or a 20 W 6 V halogen adjustable illumination. All models have an integrated power supply. 110 and 230 V mains versions available for halogen models

### ILLUMINATION FOR DARK FIELD

5 W NeoLED™ adjustable illumination for model 86.091-DFLED. By using AE.3612 and 86.521 an existing brightfield microscope can be upgraded to dark field

### PACKAGING

Supplied with power cord, dust cover, a spare fuse, user manual and 5 ml immersion oil for models with S100x objective. Models with a 20W halogen illumination are supplied with a spare bulb and a blue filter, models with 1 W LED illumination are supplied with white filter. All packed in a polystyrene box

### DARK FIELD

Dark field contrast is typically used for unstained samples. The image seen has the appearance of a dark, almost black background with highlighted bright objects on it, producing very recognizable, often even called spectacular images. These objects, because they are unstained, are hard to see with brightfield contrast. The applications are mostly biological samples, smears from tissue culture or water-borne, single-celled organisms

In the past dark field microscopy was limited due low light levels seen in image. Euromex has overcome this issue by developing very strongly illumination methods, without causing damage to the samples. A 5 W build in high power LED is used to power the special designed cardioid-shaped lens condenser system. Combined with a special 100x objective with built-in iris diaphragm for extra contrast this system is unique in its class

### MODELS WITH SEMI PLAN OBJECTIVES

	Monocular	Binocular	Trinocular	WF 10 x 18 mm	WF 10 x 20 mm	4 objectives nosepiece	5 objectives nosepiece	Semi plan 4x/10x/S40x/S100x oil objectives	20 W halogen
86.010	•			•		•		•	•
86.025		•		•		•		•	•
86.041			•	•		•		•	•
86.010-LED	•			•		•		•	
86.025-LED		•		•		•		•	
86.041-LED			•	•		•		•	
86.019-LED	•				•	•		•	
86.029-LED		•			•	•		•	
86.049-LED			•		•	•		•	

### MODELS WITH PLAN OBJECTIVES

	Monocular	Binocular	Trinocular	WF 10x 18 mm	WF 10x 20 mm	4 objectives nosepiece	5 objectives nosepiece	Plan 4x/10x/S40x/S100x oil objectives	20 W halogen
86.060	•			•		•		•	•
86.075		•		•		•		•	•
86.091			•	•		•		•	•
86.060-LED	•			•		•		•	
86.075-LED		•		•		•		•	
86.091-LED			•	•		•		•	
86.069-LED	•				•		•	•	
86.079-LED		•			•		•	•	
86.099-LED			•		•		•	•	

### MODELS WITH PLAN IOS AND SEMI PLAN IOS INFINITY CORRECTED OBJECTIVES

	Binocular	Trinocular	WF 10x 18 mm	WF 10x 20 mm	4 objectives nosepiece	5 objectives nosepiece	Semi plan IOS 4x/10x/S40x/S100x oil objectives	Plan IOS 4x/10x/S40x/S100x oil objectives	20 W halogen
86.125	•		•		•		•	•	•
86.141		•	•		•		•	•	•
86.125-LED	•		•		•		•	•	
86.141-LED		•	•		•		•	•	
86.129-LED	•			•		•		•	
86.149-LED		•		•		•		•	

### MODEL WITH CARDIOID MIRROR DARK FIELD OIL IMMERSION CONDENSER

	Trinocular	WF 10x 18 mm	4 objectives nosepiece	Plan 4x/10x/S40x objectives	Plan S100x with iris built-in diaphragm	5 W high power LED (built-in)
86.091-DFLED	•	•	•	•	•	•

## MODELS WITH SEMI PLAN PHASE CONTRAST OBJECTIVES

	Monocular	Binocular	Trinocular	WF 10 x 18 mm	WF 10 x 20 mm	4 objectives nosepiece	5 objectives nosepiece	Semi plan phase 10x/20x/S40x/S100x oil objectives	20 W halogen
86.310	.			.		.		.	.
86.325		.		.		.		.	.
86.341			.	.		.		.	.
86.310-LED	.			.		.		.	.
86.325-LED		.		.		.		.	.
86.341-LED			.	.		.		.	.
86.319-LED	.			.		.		.	.
86.329-LED		.		.		.		.	.
86.349-LED			.	.		.		.	.

## MODELS WITH PLAN PHASE CONTRAST OBJECTIVES

	Monocular	Binocular	Trinocular	WF 10 x 18 mm	WF 10 x 20 mm	4 objectives nosepiece	5 objectives nosepiece	Plan phase 10x/20x/S40x/S100x oil objectives	20 W halogen
86.360	.			.		.		.	.
86.375		.		.		.		.	.
86.391			.	.		.		.	.
86.360-LED	.			.		.		.	.
86.375-LED		.		.		.		.	.
86.391-LED			.	.		.		.	.
86.369-LED	.			.		.		.	.
86.379-LED		.		.		.		.	.
86.399-LED			.	.		.		.	.

## MODELS WITH SEMI PLAN OBJECTIVES AND PLAN PHASE S40X OBJECTIVE

	Monocular	Binocular	Trinocular	WF 10 x 18 mm	4 objectives nosepiece	Semi plan 4x/10x/ S100x oil objectives	Plan phase S40x	20 W halogen
86.410	.			.	.	.	.	.
86.425		.		.	.	.	.	.
86.441			.	.	.	.	.	.
86.410-LED	.			.	.	.	.	.
86.425-LED		.		.	.	.	.	.
86.441-LED			.	.	.	.	.	.

## ACCESSORIES AND SPARE PARTS

- 86.572-P** Wide field eyepiece HWF 10x/18 mm with pointer
- 86.572** Wide field eyepiece HWF 10x/18 mm
- 86.575** Wide field eyepiece HWF 10x/20 mm
- 86.573** Wide field eyepiece WF 15x/12 mm
- 80.882** Wide field eyepiece WF 20x/10 mm
- 86.574** Micrometer eyepiece HWF 10x/18 mm, 10 mm/100, with adjustable eye lens
- AE.1110** Stage micrometer 1 mm, 100 parts
- AE.1111** Stage micrometer 2 mm, 200 parts
- 80.839** Eyecup with inner diameter 28 mm
- 86.812** Discussion head with one vertical and one oblique tube. Without eyepieces
- 86.891** Semi plan SMP 4x/0.10 objective. Working distance 23.13 mm
- 86.893** Semi plan SMP 10x/0.25 objective. Working distance 4.09 mm
- 86.894** Semi plan SMP 20x/0.40 objective. Working distance 1.97 mm
- 86.897** Semi plan SMP S40x/0.65 objective. Working distance 0.6 mm
- 80.899** Achromatic S60x/0.85 objective. Working distance 0.20 mm
- 86.900** Semi plan SMP S100x/1.25 oil immersion objective. Working distance 0.38 mm
- 86.511** Plan PL 4x/0.10 objective. Working distance 17.9 mm
- 86.513** Plan PL 10x/0.25 objective. Working distance 8.8 mm
- 86.514** Plan PL 20x/0.40 objective. Working distance 8.6 mm
- 86.517** Plan PL S40x/0.65 objective. Working distance 0.56 mm
- 86.519** Plan PL S60x/0.85 objective. Working distance 0.25 mm
- 86.520** Plan PL S100x/1.25 oil immersion objective. Working distance 0.33 mm
- 86.521** Plan PL S100x/1.25 oil-immersion objective with iris diaphragm. Working distance 0.33 mm
- 86.413** Semi plan phase PH 10x/0.25 objective. Working distance 6.61 mm
- 86.414** Semi plan phase PH 20x/0.40 objective. Working distance 1.85 mm
- 86.417** Semi plan phase PH S40x/0.65 objective. Working distance 0.64 mm
- 86.420** Semi plan phase PH S100x/1.25 oil immersion objective. Working distance 0.19 mm
- 86.313** Plan phase PLPH 10x/0.25 objective. Working distance 8.8 mm
- 86.314** Plan phase PLPH 20x/0.40 objective. Working distance 8.6 mm
- 86.317** Plan phase PLPH S40x/0.65 objective. Working distance 0.65 mm
- 86.320** Plan phase PLPH S100x/1.25 oil immersion objective. Working distance 0.33 mm



86.091-DFLED



## ACCESSORIES AND SPARE PARTS

- 86.560** Plan PL 4x /0.12 infinity corrected IOS objective.  
Working distance 19.75 mm
- 86.562** Plan PL 10x/0.25 infinity corrected IOS objective.  
Working distance 5 mm
- 86.564** Plan PL 20x/0.40 infinity corrected IOS objective.  
Working distance 8.8 mm
- 86.566** Plan PL S40x/0.65 infinity corrected IOS objective.  
Working distance 0.66 mm
- 86.567** Plan PL S60x/0.80 infinity corrected IOS objective.  
Working distance 0.26 mm
- 86.568** Plan PL S100x/1.25 oil immersion infinity corrected IOS objective. Working distance 0.36 mm
- 86.172** Dark field stop to be placed in filter holder.  
Suitable for objectives from 10x up to S40x
- 86.613** Simple 40x phase contrast set consisting of a N.A. 1.25 condenser with a plan phase PLPH S40x N.A. 0.65 objective and associated phase plate.  
Delivered with centering telescope and green filter
- 86.615** Zernike medium dark phase contrast set.  
The set consists of a disc phase N.A.1.25 condenser with rotating wheel of phase annuli and an aperture for brightfield illumination. Complete with semi plan phase DIN PH 10x/0.25, PH 20x/0.40, PH S40/0.65 and PH S100x/1.25 oil immersion objectives. Delivered with centering telescope and green filter
- 86.617** Zernike medium dark phase contrast set.  
The set consists of a disc phase N.A.1.25 condenser with rotating wheel of phase annuli and an aperture for brightfield illumination. Complete with plan phase DIN PLPH 10x/0.25, PH 20x/0.40, PH S40/0.65 and PH S100x/1.25 oil immersion objectives.  
Delivered with centering telescope and green filter

- 86.806** Mirror with adapter for B and B+ series with halogen illumination only
- AE.5168-B** Heating stage with PID controller up to 50°C.  
Only supplied with a new purchased microscope
- AE.3612** Cardioid dark field condenser with integrated 5 W LED light source and external 100-240 V mains adapter
- AE.5130** Universal SLR camera adapter with 2x projection lens for 23.2 mm tubes. Needs T2 adapter
- AE.5020** T2 adapter for Nikon D digital SLR cameras
- AE.5040** T2 adapter for Canon EOS digital SLR cameras  
*Other T2 adapters on request*
- 86.820** SLR camera adapter with 2.5x and 4x magnification lenses
- 86.851** Polarizing attachment for B or B+ series with a halogen illumination
- 86.852** Polarizing attachment for B or B+ series with a LED illumination
- 86.860** Attachable Köhler diaphragm to be mounted on lamp house. Only suitable for models with halogen illumination
- 86.961** Plastic case for polystyrene packaging of B and B+ series
- 86.970** Aluminium flight case
- 86.971** Aluminium case
- AE.5202** Blue filter, 32 mm diameter
- AE.5203** Yellow filter, 32 mm diameter
- AE.5204** Neutral grey filter, 32 mm diameter
- AE.5205** Green filter, 32 mm diameter

- AE.5207** Blue filter acrylic, 31.8 mm diameter
- 86.889** Spare halogen bulb 6 V 20 W
- 86.101** Spare LED module for B series
- AE.5227** Glass fuses 1 A 250 V, 10 pieces
- 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 = 1.482 (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



## Oxion Inverso

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

The Oxion Inverso series are available with brightfield and phase contrast as well as for fluorescence microscopy. Dedicated objectives are suitable for 1.2 mm thick glass bottoms of cell culture dishes and flasks

<b>BRIGHTFIELD</b> OX.2003-PL / OX.2053-PL	
<b>Dimensions</b>	<b>Weight</b>
(h) 488 x (w) 231 x (d) 555 mm	9.0 kg

<b>PHASE CONTRAST</b> OX.2203-PLPH / OX.2253-PLPH	
<b>Dimensions</b>	<b>Weight</b>
(h) 488 x (w) 231 x (d) 555 mm	9.0 kg



OX.2053-PLPH



## HIGHLIGHTS

- Life Science applications
- Observation of tissue cultures, living cells
- Brightfield, phase contrast and fluorescence
- Long working distance IOS plan achromatic objectives
- Revolving quintuple nosepiece
- 5 W LED transmitted illumination
- 100 W mercury vapor lamp for fluorescence
- 10 years warranty



OX.2453-PLPHF

## TECHNICAL SPECIFICATIONS

### EYEPIECES

Pair of DIN HWF plan 10x/22 mm eyepieces

### HEADS

Trinocular 45° inclined tubes with extended low and high positions for eyepieces. One diopter adjustment on left eyepiece. Interpupillary distance of 54 to 75 mm. Trinocular head with 100-0 % and 80-20 % positions

### NOSEPIECES

Revolving quintuple nosepiece on ball-bearings

### OBJECTIVES FOR BRIGHTFIELD

(models OX.2003-PL and OX.2053-PL)

Infinity color corrected long working distance plan 10x/0.25, 20x/0.40, 40x/0.60 IOS objectives. An optional 60x/0.70 IOS objective is also available

### OBJECTIVES FOR PHASE CONTRAST

(models OX.2003-PLPH and OX.2053-PLPH)

Infinity color corrected long working distance plan phase 10x/0.25, 20x/0.40, 40x/0.60 IOS objectives

### OBJECTIVES FOR BRIGHTFIELD AND FLUORESCENCE MICROSCOPY

(models OX.2253-PLF and OX.2453-PLF)

Infinity color corrected long working distance plan Fluorex 10x/0.30, 20x/0.45, 40x/0.65 IOS objectives. An optional plan Fluorex 60x/0.75 IOS objective is also available

### OBJECTIVES FOR PHASE CONTRAST AND FLUORESCENCE MICROSCOPY

(models OX.2253-PLPHF and OX.2453-PLPHF)

Infinity color corrected long working distance plan fluorex 10x/0.30 and plan phase fluorex 20x/0.45 and S40x/0.65 IOS objectives

All objectives corrected for 1.2 mm thickness.

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

# TECHNICAL SPECIFICATIONS

## STAGE

Stage 250 x 230 mm equipped with a coaxial mechanical 120 x 78 mm X-Y stage, delivered with:

- metallic insert for Ø 35 mm cell culture dish dishes
- 76 x 26 mm slide holder
- glass insert with hole
- optional universal cell culture dish holder

## CONDENSER

N.A. 0.30 condenser with iris diaphragm.

Working distance 72 mm

The models for the phase contrast OX.2003-PLPH, OX.2053-PLPH, OX.2253-PLPHF and OX.2453-PLPHF are delivered with a slider with 4x/10x and 20x/40x pre-centered phase rings

## FOCUSING ADJUSTMENT

Coaxial 25 mm coarse and fine adjustments, 2 µm precision and with friction adjustment

## ILLUMINATION

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

The fluorescence models are equipped with a reflected 100 W HBO mercury vapor light source with external 100-240 V power supply, fuse holder 3.15 A / 250 V, UV protection shield

## FILTERS FOR PHASE CONTRAST MODELS

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

## STANDARD FLUORESCENCE FILTERS

(for fluorescence models)

The fluorescence models OX.2253-PLF and OX.2453-PLF are standard supplied with 2 filter sets for excitation:

- in the blue spectrum, OX.9745, EX465-495 (BP) DM505 (LP) EM515-558 (BP)
- in the green spectrum, OX.9746, EX520-600 (BP) DM600 (LP) EM605-665 (BP)

The fluorescence models OX.2253-PLF and OX.2453-PLPHF equipped with a 4 positions filter rail equipped with 3 standard filter sets for excitation:

- in the blue spectrum, OX.9745, EX465-495 (BP) DM505 (LP) EM515-558 (BP)
- in the green spectrum, OX.9746, EX520-600 (BP) DM600(LP) EM605-665 (BP)
- in the UV spectrum, OX.9747, EX361-381 (BP) D415 (LP) EM435-495 (BP)

## PACKAGING

Supplied with power cord, dust cover and user manual.

Phase contrast models are supplied with green filter and centering telescope.



OX.9599



OX.9190

## MODELS

	LWD Plan 10x/20x/40x objectives	LWD Plan phase 10x/20x/40x objectives	LWD Plan fluarex 10x/20x/40x objectives	LWD Plan fluarex 10x and plan phase fluarex 20x/40x objectives	2 position filter block	4 position filter block	Mechanical stage
OX.2003-PL	•						
OX.2053-PL	•						•
OX.2003-PLPH		•					
OX.2053-PLPH		•					•
OX.2253-PLF			•		•		•
OX.2453-PLF			•			•	•
OX.2253-PLPHF				•	•		•
OX.2453-PLPHF				•		•	•

Fluarex™ objectives are made of low-absorption glass for fluorescence applications

Fluarex™ is a trademark of Euromex microscopen bv

LWD = long working distance

# ACCESSORIES AND SPARE PARTS

## EYEPIECES

**OX.6010** HWF 10x/22 mm eyepiece

**OX.6015** HWF 15x/16 mm eyepiece

**OX.6110** HWF 10x/22 mm eyepiece with micrometer reticule

**OX.6099** Pair of eyecups

## OBJECTIVES FOR BRIGHT FIELD MICROSCOPY FOR INVERTED MODELS (\*)

**OX.8304** Plan LWD 4x/0.10 infinity corrected IOS objective, working distance 22 mm

**OX.8310** Plan LWD 10x/0.25 infinity corrected IOS objective, working distance 7.94 mm

**OX.8320** Plan LWD 20x/0.40 infinity corrected IOS objective, working distance 7.66 mm

**OX.8340** Plan LWD 40x/0.60 infinity corrected IOS objective, working distance 3.71 mm

**OX.8360** Plan LWD 60x/0.70 infinity corrected IOS objective, working distance 2.5 mm

## OBJECTIVES FOR BRIGHT FIELD AND FLUORESCENCE MICROSCOPY FOR INVERTED MODELS (\*)

**OX.8604** Plan fluarex LWD 4x/0.13 infinity corrected IOS objective, working distance 18.5 mm

**OX.8610** Plan fluarex LWD 10x/0.30 infinity corrected IOS objective, working distance 7.1 mm

**OX.8620** Plan fluarex LWD 20x/0.45 infinity corrected IOS objective, working distance 5.91 mm

**OX.8640** Plan fluarex LWD 40x/0.65 infinity corrected IOS objective, working distance 1.61 mm

**OX.8660** Plan fluarex LWD 60x/0.75 infinity corrected IOS objective, working distance 1.04 mm

## OBJECTIVES FOR PHASE CONTRAST (\*\*) MICROSCOPY FOR INVERTED MODELS (\*)

**OX.8404** Plan phase LWD 4x/0.13 infinity corrected IOS objective, working distance 10.4 mm (\*)

**OX.8410** Plan phase LWD 10x/0.25 infinity corrected IOS objective, working distance 7.94 mm (\*)

**OX.8420** Plan phase LWD 20x/0.40 infinity corrected IOS objective, working distance 7.66 mm (\*)

**OX.8440** Plan phase LWD 40x/0.60 infinity corrected IOS objective, working distance 3.71 mm (\*)

(\*) All objectives corrected for 1.2 mm cover glass thickness. All optical parts are anti-fungus treated  
 (\*\*) Phase contrast objectives require slider with phase contrast annuli OX.9163

# ACCESSORIES AND SPARE PARTS

## OBJECTIVES FOR FLUORESCENCE AND PHASE CONTRAST (\*\*) MICROSCOPY FOR INVERTED MODELS (\*)

- OX.8720** Plan phase fluarex LWD 20x/0.45 infinity corrected IOS objective. Working distance 5.91 mm (\*)
- OX.8740** Plan phase fluarex LWD 40x/0.65 infinity corrected IOS objective. Working distance 1.1 mm (\*)

## STANDARD GENERAL PURPOSE FLUORESCENCE FILTER SETS:

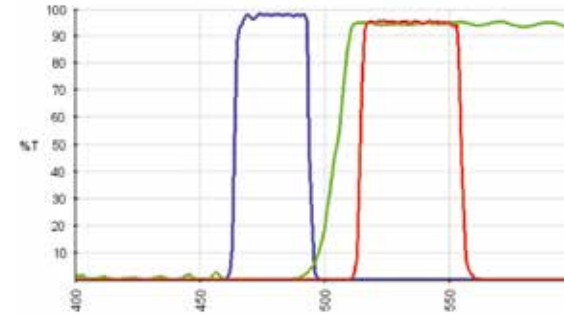
- OX.9745** Fluorescence filter block for Blue excitation 465-495 nm
- OX.9746** Fluorescence filter block for Green excitation 520-600 nm
- OX.9747** Fluorescence filter block for UV excitation 361-389 nm
- OX.9748** Fluorescence filter block for Violet excitation 361-389 nm

## ALL MODELS

- OX.9149** Telescope for phase contrast alignment
  - OX.9190** Slider with 4x/10x and 20x/40x phase contrast annuli
  - OX.9500** Mechanical coaxial X-Y 120 x 78 mm stage
  - OX.9506** Transparent glass insert with hole
  - OX.9512** Insert with 76 x 26 mm slide holder and Ø 54 mm cell culture dish holder
  - OX.9535** Metal insert for Ø35 mm cell culture dish holder
  - OX.9550** Stage extension plate
  - OX.9599** Universal cell culture dish holder
  - OX.9985** 5 W NeoLED™ replacement unit
- For transmitted illumination:*
- OX.9700** Blue filter
  - OX.9702** Green filter
  - OX.9703** IR cut-off filter
  - OX.9749** Empty Filter block
  - OX.9753** Filter block rail, 3 positions
  - OX.9754** Filter block rail, 4 positions
- OX.9810** CS/C mount with 1.0x objective
  - OX.9833** C-mount adapter with 0.33x objective for Oxion microscopes and 1/3" cameras
  - OX.9850** C-mount adapter with 0.5x objective for Oxion and Oxion Inverso microscopes and 1/2" cameras
- AE.5120** Standard 23.2 mm diameter tube for Oxion photo port
  - AE.5130** Universal SLR camera adapter with 2x projection lens for 23.2 mm tubes  
Need T2 adapter and AE.5120
  - AE.5025** T2 adapter for Nikon D digital SLR cameras
  - AE.5040** T2 adapter for Canon EOS digital SLR cameras
  - AE.3199** Glass fuses 3.15 A 250 V packed, per 10 pieces
  - 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 = 1.482 (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

(\*) All objectives corrected for 1.2 mm cover glass thickness. All optical parts are anti-fungus treated  
(\*\*) Phase contrast objectives require slider with phase contrast annuli OX.9163

## STANDARD GENERAL PURPOSE FLUORESCENCE FILTER SETS

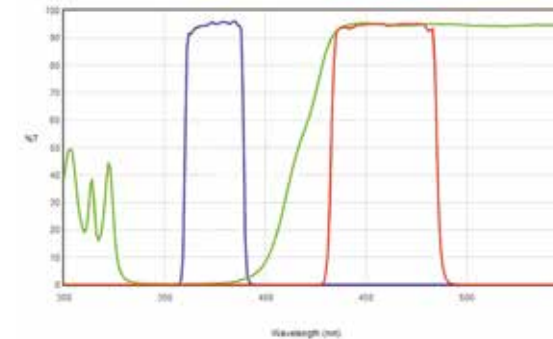


**OX.9745 Blue excitation 465-495 nm**

FITC

EX465-495 (BP) DM505 (LP) EM515-558 (BP)

Also suitable for: Acridine Orange + DNA, Alexa Fluor 488™, Atto 488, Azami Green, BODIPY FL/pH7.2, Calcein, Calcium Green™-1, Cy2™, DiO, DyLight 488, EGFP, Emerald GFP, FAM, FITC, Fluo-4, GFP LysoTracker Green/pH 5.2, MitoTracker Green FM/MeOH, mWasabi, Oregon Green™ 488, SYBR® Green I, SYTO 9/DNA, ZsGreen

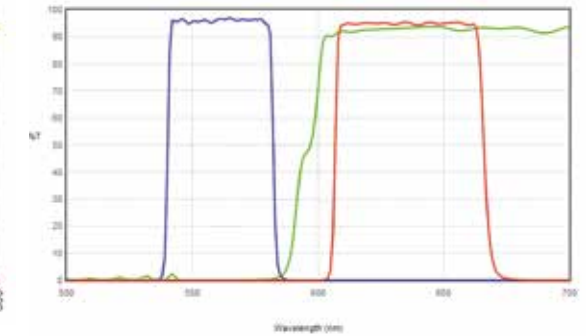


**OX.9747 UV excitation 361-381 nm**

DAPI / Hoechst / Alexa Fluor 350

EX361-381 (BP) D415 (LP) EM435-495 (BP)

Also suitable for: Alexa Fluor 350™, Biosearch Blue, Coumarin, DAPI, DyLight 350, Hoechst 33258, LysoTracker Blue/MeOH

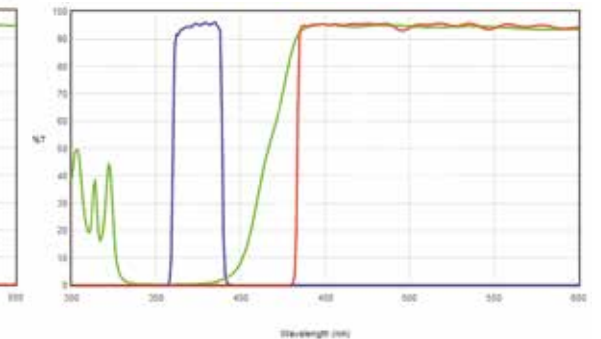


**OX.9746 Green excitation 520-600 nm**

Texas Red / mCherry / Alexa Fluor 594

EX520-600 (BP) DM600 (LP) EM605-665 (BP)

Also suitable for: Alexa Fluor 568™, Alexa Fluor 594™, CAL Fluor® Red 610, Cy3.5™, DyLight 594, FusionRed, Killer Red, mCherry, MitoTracker Red/MeOH, mKate2, mRFP1, ReAsH-CCPGCC, Rhodamine Red™-X, ROX, Sulforhodamine 101, Texas Red®, Texas Red®-X, X-rhod-1/Ca2+



**OX.9748 Violet excitation 361-389 nm**

UV / DAPI Longpass, Calcofluor White

EX 361-389 (BP) DM 415 (LP) EM 435 (LP)

The fluorescence microscopes can be equipped with more specific, optimized and application related fluorescence filters sets, see accessories section and/or separate fluorescence filter catalog

# ACCESSORIES AND SPARE PARTS

## OPTIMIZED FLUORESCENCE FILTERS SETS:

### OX.9750.39001

Filter set EX435 (BP20) DM455 (LP) EM480 (BP30) AmCyan, Atto 425, Cerulean, CFP, ECFP fluorophore.  
Needs empty filter block (OX.9749)

### OX.9750.39002

Filter set EX480 (BP30) DM505(LP) EM535 (BP40) Acridine Orange + DNA, Alexa Fluor 488™, Atto 488, Azami Green, BODIPY FL/pH7.2, Calcein, Calcium Green™-1, Cy2™, DiO, DyLight 488, EGFP, Emerald GFP, FAM, FITC, Fluo-4, GFP, LysoTracker Green/pH 5.2, MitoTracker Green, FM/MeOH, mWasabi, Oregon Green™ 488, SYBR® Green I, SYTO 9/DNA, ZsGreen fluorophore.  
Needs empty filter block (OX.9749)

### OX.9750.39003

Filter set EX495 (BP20) DM515 (LP) EM540 (BP30) Alexa Fluor 514™, Citrine, EYFP/pH 7, F/AsH-CCPFCC, mCitrine, Oregon Green™ 514, Rhodamine 123, Topaz.  
Needs empty filter block (OX.9749)

### OX.9750.39004

Filter set EX540 (BP25) DM565 (LP) EM605 (BP55) Alexa Fluor 546™, Alexa Fluor 555™, Atto 550, CAL Fluor® Red 590, Cy3™, Dil, DsRed, DyLight 549, MitoTracker Orange/MeOH, Resorufin, Rhod-2, TagRFP, TAMRA tdTomato, Tetramethylrhodamine isothiocyanate, TRITC.  
Needs empty filter block (OX.9749)

### OX.9750.39005

Filter set EX540 (BP25) DM565 (LP) EM 620 (BP60) TRITC-red-shifted, Ethidium homodimer-1/DNA, Propidium Iodide.  
Needs empty filter block (OX.9749)

### OX.9750.39007

Filter set EX620 (BP50) DM655 (LP) EM 690 (BP50) Alexa Fluor 647™, Allophycocyanin (APC), Atto 647N, Cy5™, DiD, Draq5, DyLight 649 MitoTracker Deep Red 633/MeOH, Nile Blue, Quasar® 670, SYTO® 60, TO-PRO™-3.  
Needs empty filter block (OX.9749)

### OX.9750.39008

Filter set EX420 (BP40) DM455 (LP) EM 535 (BP40) Lucifer Yellow/Tetracycline/AlexaFluor 430.  
Needs empty filter block (OX.9749)

### OX.9750.39009

Filter set EX480 (BP30) DM505 (LP) EM 620 (BP60) for Acridine Orange + RNA, Di-8-ANEPPS non-ratiometric, DiA, Ethidium Bromide, FM™ 1-43, LysoTracker Yellow HCK-123, Pulsar™ 650.  
Needs empty filter block (OX.9749)

## OPTIMIZED PREMIUM FLUORESCENCE FILTERS SETS:

### OX.9750.0401

Premium filter set EX440 (BP21), DM455 (LP), EM480 (BP30) for CFP, Cerulean, CyPet, SpectrumAqua.  
Needs empty filter block (OX.9749)

### OX.9750.0403

Premium filter set EX380 (BP50), DM410 (LP), EM450 (BP60) for BFP, BFP2, DAPI, Alexa Fluor 350, Hoechst 33342 & 33258, BFP.  
Needs empty filter block (OX.9749)

### OX.9750.0404

Premium filter set EX470 (BP40), DM500 (LP), EM535 (BP50) for Alexa Fluor 488, CoralHue Azami Green, Cy2, eGFP, FITC, GFP (sapphire), Emerald.  
Needs empty filter block (OX.9749)

### OX.9750.0407

Premium filter set EX635 (BP30), DM660 (LP), EM710 (BP80) Cy5, Alexa Fluor 647. Also compatible with TO-PRO-3, TOTO-3, Kodak, X-Sight 650.  
Needs empty filter block (OX.9749)

### OS.9750.0412

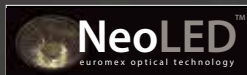
Premium filter set EX500 (BP25), DM252 (LP), EM545 (BP35) Acridine Orange (+DNA), Rhodamine Green, CL NERF, (hi pH), YFP.  
Also compatible with Alexa Fluor 532.  
Needs empty filter block (OX.9749)

### OX.9750.0414

Premium filter set EX560 (BP55), DM505 (LP), EM645 (BP75) Texas Red, Texas Red-X, CryptoLight CF-6.  
Also compatible with Cy3.5, HcRed, mRaspberry, MitoTracker Red.  
Needs empty filter block (OX.9749)

*On request, the microscope can also be equipped with more specific, optimized and application related fluorescence filters sets*

FEATURED



IS.3152 PLi-3

## iScope® fluorescence

The excellent optics and mechanical components make the iScope® a state-of-the-art microscope that is suitable for fluorescence applications in Life Science and Biotechnical fields

The iScope® fluorescence microscopy can be supplied with:

- 6-position rotating attachment with 100 W mercury vapor light source
- 3-position slider attachment with 100 W mercury vapor light source
- 1-position slider attachment with a 3 W NeoLED™ 465-475 nm blue light source
- 1-position slider attachment with a 3 W NeoLED™ 520-530 nm green light source

IS.3153-EPLi / IS.3153-PLi / IS.3153-PLFi	
<b>Dimensions</b>	<b>Weight</b>
(h) 407 x (w) 210 x (d) 255 mm	11.3 kg



## HIGHLIGHTS

- HWF 10x/22 mm eyepieces
- Binocular and trinocular models
- Optional ergonomic tilting head
- Quintuple revolving nosepiece
- E-Plan, plan and plan fluarex corrected IOS objectives
- 216 mm x 150 mm rackless stage with integrated X-Y stage
- Optional ceramic stage
- Height adjustable Abbe condenser
- N.A. 1.25
- Coarse and fine adjustment
- Diascopic intensity adjustable 3 W NeoLED™ Köhler illumination
- Epi-fluorescence 100 W HBO mercury vapor
- Epi-fluorescence 460-495 nm or 510-550 nm 3 W LED
- iCare sensor for energy saving
- CSS - Cable Storage System
- 10 years warranty



IS.315 PLFi-6

## TECHNICAL SPECIFICATIONS

### EYEPIECES

Extended EWF 10x/22 mm eyepieces, Ø 30 mm tubes. Eyepieces can be secured to the tubes

### HEADS

Binocular and trinocular Siedentopf type heads are with 30° inclined tubes, interpupillary distance from 48 to 76 mm and is equipped with diopter adjustment(s). An unique rotating system allows the ergonomical positioning of both tubes in a high (431 mm) and in a low position (397 mm). The trinocular head comes with a Ø 23.2 mm photo port. An optional ergonomic titling head and corresponding Ø 23.2 mm photo tube attachment are also available (only infinity corrected models)

To order an iScope with tilting head use reference IS.3158-xxx

### NOSEPIECE

Revolving and reversed nosepiece for maximum 5 objectives

### OBJECTIVES

See below

### STAGES

- 216 x 150 mm rackless stage equipped with double slide holder and integrated 79 x 52 mm mechanical stage. The iScope® rackless stage has no protruding parts, enabling more smooth movements and is safer
- 220 x 157 mm ceramic stage with integrated 75 x 50 mm mechanical stage protects with a very tough ceramic surface, against marks and scratches. The surface also ensures stray light not to be reflected from the stage into the objective

### OBJECTIVES

E-Plan EPLi IOS	4x/0.10	10x/0.25	20x/0.40 <sup>(1)</sup>	S40x/0.65	S100x/1.25 oil
Plan PLi IOS	4x/0.10	10x/0.25	20x/0.40 <sup>(1)</sup>	S40x/0.65	S60x/0.85 <sup>(1)</sup> S100x/1.25 oil
Plan PLFi IOS	4x/0.10	10x/0.25	20x/0.40 <sup>(1)</sup>	S40x/0.65	S100x/1.25 oil

(1) optional

The plan fluarex PLFi™ objectives are suitable for Violet and Ultra Violet excitation. All optics are anti-fungus treated and anti-reflection coated for maximum light throughput

# TECHNICAL SPECIFICATIONS

## 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. A slider with a simple dark stop for dark field up to 400x magnification is also available

## CONDENSER FOR ZERNIKE PHASE CONTRAST

An optional height adjustable Zernike NA. 1.25 phase contrast disc condenser with plan phase 10/20/S40x and S100x oil immersion objectives and dark field stop position for dark field contrast up to 400x magnification

## FOCUSING

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

## ILLUMINATION

3 W adjustable Köhler NeoLED™ diasopic illumination with internal 100-240 V power supply

The innovative NeoLED™ design offer 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™ is the 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. Also available for other models as an option

## ILLUMINATION FOR FLUORESCENCE

The 6-positions rotating or 3-positions slider fluorescence attachments are supplied with standard 100 W HBO mercury vapor light source for broad powerful light spectrum and 100-240 V external power supply with indication of the life time of 100 W HBO lamp. Supplied with standard fluorescence filters sets for blue and green excitation and a UV protection shield

The iScope® fluorescence microscopes equipped with a 100 W mercury vapor light source can be supplied with more specific, optimized and application related fluorescence filters sets

Two single position fluorescence attachments are supplied with 460-495 nm 3 W LED for blue excitation or 510-550 nm 3 W LED light source for green excitation and 100-240 Vac/7.5 Vdc external power supply. Supplied with standard fluorescence filters sets for blue and green excitation

## 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

## CSS-CABLE STORAGE SYSTEM

iScope® allows users to easily insert the power cable into the backside of the instrument, which enables easy storage

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

## PACKAGING

Supplied with power cord, dust cover, a spare fuse, user manual and 5 ml immersion oil for models with S100x objective. Models with 100 W mercury vapor light source have a UV protection shield. All packed in polystyrene boxes

## SPECIFICATIONS (INFINITY)

		IS.3152 -EPLi	IS.3153 -EPLi	IS.3152 -PLi	IS.3153 -PLi	IS.3152 -PLFi	IS.3153 -PLFi	Product number
<b>Models</b>	Binocular	•		•		•		
	Trinocular		•		•		•	
<b>Head</b>	Ergonomic tilting head IOS series							<b>IS.5700</b>
<b>Photo tube</b>	for IS.5700 Ø 23.2 mm tube							<b>IS.9800</b>
<b>Eyepieces</b>	WF 10x / 22 mm	•	•	•	•	•	•	<b>IS.6210</b>
	WF 15x / 16 mm	○	○	○	○	○	○	<b>IS.6215</b>
	WF 20x / 12 mm	○	○	○	○	○	○	<b>IS.6220</b>
<b>Dioptr</b>	adjustment on left side	•	•					
	adjustment on both sides			•	•	•	•	
<b>Objectives IOS</b>	E- Plan EPLi 4x / 0.10	•	•					<b>IS.8804</b>
	E- Plan EPLi 10x / 0.25	•	•					<b>IS.8810</b>
	E- Plan EPLi 20x / 0.40	○	○					<b>IS.8820</b>
	E- Plan EPLi S40x / 0.65	•	•					<b>IS.8840</b>
	E- Plan EPLi S100x / 1.25	•	•					<b>IS.8800</b>
	Plan PLi 4x / 0.10			•	•			<b>IS.7204</b>
	Plan PLi 10x / 0.25			•	•			<b>IS.7210</b>
	Plan PLi 20x / 0.25				○	○		<b>IS.7220</b>
	Plan PLi S40x / 0.65			•	•			<b>IS.7240</b>
	Plan PLi S60x / 0.85				○	○		<b>IS.7260</b>
	Plan PLi S100x / 1.25			•	•			<b>IS.7200</b>
	Plan PLF 4x/ 0.10					•	•	<b>IS.7404</b>
	Plan PLF 10x/ 0.25					•	•	<b>IS.7410</b>
Plan PLF 20x/ 0.40					○	○	<b>IS.7420</b>	
Plan PLF S40x/ 0.65					•	•	<b>IS.7440</b>	
Plan PLF S100x/ 1.25					•	•	<b>IS.7400</b>	
<b>Stage</b>	Mechanical rackless stage	•	•	•	•	•	•	
<b>Illumination</b>	Diasopic 3 W NeoLED™	•	•	•	•	•	•	
<b>Fluorescence attachment</b>	100 W HBO mercury vapor 6-positions	add / 6 suffix	add / 6 suffix	add / 6 suffix	add / 6 suffix	add / 6 suffix	add / 6 suffix	
	EX 460-490 DM 520 EM 500 L filter (blue)	•	•	•	•	•	•	<b>IS.9745-6</b>
	EX 510-550 DM 580 EM 570 LP filter (green)	•	•	•	•	•	•	<b>IS.9746-6</b>
	EX 400-410 DM 455 EM 455 LP filter (violet)	○	○	○	○	○	○	<b>IS.9747-6</b>
	EX 330-385 DM 420 EM 400 LP filter (UV)	○	○	○	○	○	○	<b>IS.9748-6</b>
	Empty filter block	○	○	○	○	○	○	<b>IS.9749-6</b>
<b>Fluorescence attachment</b>	100 W HBO mercury vapor 3-positions	add / 3 suffix	add / 3 suffix	add / 3 suffix	add / 3 suffix	add / 3 suffix	add / 3 suffix	
	EX 460-490 DM 520 EM 500 L filter (blue)	•	•	•	•	•	•	<b>IS.9745-3</b>
	EX 510-550 DM 580 EM 570 LP filter (green)	•	•	•	•	•	•	<b>IS.9746-3</b>
	EX 400-410 DM 455 EM 455 LP filter (violet)	○	○	○	○	○	○	<b>IS.9747-3</b>
	EX 330-385 DM 420 EM 400 LP filter (UV)	○	○	○	○	○	○	<b>IS.9748-3</b>
	Empty filter block	○	○	○	○	○	○	<b>IS.9749-3</b>
<b>Fluorescence attachment</b>	3 W NeoLED™ 465-475 nm blue. 1-position	add / LB suffix	add / LB suffix	add / LB suffix	add / LB suffix	add / LB suffix	add / LB suffix	
	EX 460-495 DM 505 EM 510-560 LP filter set	•	•	•	•	•	•	<b>IS.9745-1</b>
	100 - 240 Vac/ 7.5 Vdc 1 A power supply	•	•	•	•	•	•	<b>IS.9211</b>

		IS.3152 -EPLi	IS.3153 -EPLi	IS.3152 -PLi	IS.3153 -PLi	IS.3152 -PLFi	IS.3153 -PLFi	Product number
Fluorescence attachment	3 W NeoLED™ 520-530 nm green. 1-position	add / LG suffix	add / LG suffix	add / LG suffix	add / LG suffix	add / LG suffix	add / LG suffix	
	EX510-550DM580EM5170 LP filter set	•	•	•	•	•	•	<b>IS.9746-1</b>
	100 - 240Vac/ 7.5Vdc 1 A power supply	•	•	•	•	•	•	<b>IS.9211</b>
iCare Sensor		•	•	•	•	•	•	
Köhler		•	•	•	•	•	•	

## ACCESSORIES AND SPARE PARTS

### OPTIMIZED FLUORESCENCE FILTERS SETS

(Only for models with 100 W mercury vapor illuminations)

- For fluorescence filter sets for the 6-positions attachment, add /6 to the reference below
- For fluorescence filter sets for the 3-positions attachment, add /3 to the reference below

#### IS.9750.39001

Filter set EX435 (BP20) DM455 (LP) EM480 (BP30) AmCyan, Atto 425, Cerulean, CFP, ECFP fluorophore. Needs empty filter block

#### IS.9750.39002

Filter set EX480 (BP30) DM505(LP) EM535 (BP40) Acridine Orange + DNA, Alexa Fluor 488™, Atto 488, Azami Green, BODIPY FL/pH7.2, Calcein, Calcium Green™-1, Cy2™, DiO, DyLight 488, EGFP, Emerald GFP, FAM, FITC, Fluo-4, GFP, LysoTracker Green/pH 5.2, MitoTracker Green, FM/MeOH, mWasabi, Oregon Green™ 488, SYBR® Green I, SYTO 9/DNA, ZsGreen fluorophore. Needs empty filter block

#### IS.9750.39003

Filter set EX495 (BP20) DM515 (LP) EM540 (BP30) Alexa Fluor 514™, Citrine, EYFP/pH 7, F/IAsh-CCPFCC, mCitrine, Oregon Green™ 514, Rhodamine 123, Topaz. Needs empty filter block

#### IS.9750.39004

Filter set EX540 (BP25) DM565 (LP) EM605 (BP55) Alexa Fluor 546™, Alexa Fluor 555™, Atto 550, CAL Fluor® Red 590, Cy3™, Dil, DsRed, DyLight 549, MitoTracker Orange/MeOH, Resorufin, Rhod-2, TagRFP, TAMRA, tdTomato, Tetramethylrhodamine isothiocyanate, TRITC. Needs empty filter block

#### IS.9750.39005

Filter set EX540 (BP25) DM565 (LP) EM 620 (BP60) TRITC-red-shifted, Ethidium homodimer-1/DNA, Propidium Iodide. Needs empty filter block

#### IS.9750.39007

Filter set EX620 (BP50) DM655 (LP) EM 690 (BP50) Alexa Fluor 647™, Allophycocyanin (APC), Atto 647N, Cy5™, DiD, Draq5, DayLight 649, MitoTracker Deep Red 633/MeOH, Nile Blue, Quasar® 670, SYTO® 60, TO-PRO™-3. Needs empty filter block

#### IS.9750.39008

Filter set EX420 (BP40) DM455 (LP) EM 535 (BP40) Lucifer Yellow/Tetracycline/AlexaFluor 430. Needs empty filter block

#### IS.9750.39009

Filter set EX480 (BP30) DM505 (LP) EM 620 (BP60) for Acridine Orange + RNA, Di-8-ANEPPS non-ratiometric, DiA, Ethidium , Bromide, FM™ 1-43, LysoTracker Yellow HCK-123, Pulsar™ 650. Needs empty filter block

### OPTIMIZED PREMIUM FLUORESCENCE FILTERS SETS

(Only for models with 100 W mercury vapor illuminations)

#### IS.9750.0401

Premium filter set EX440 (BP21), DM455 (LP), EM480 (BP30) CFP, Cerulean, CyPet, SpectrumAqua. Needs empty filter block

#### IS.9750.0403

Premium filter set EX380 (BP50), DM410 (LP), EM450 (BP60) BFP, BFP2, DAPI, Alexa Fluor 350, Hoechst 33342 & 33258, BFP. Needs empty filter block

#### IS.9750.0404

Premium filter set EX470 (BP40), DM500 (LP), EM535 (BP50) Alexa Fluor 488, CoralHue Azami Green, Cy2, eGFP, FITC, GFP (sapphire), Emerald. Needs empty filter block

#### IS.9750.0407

Premium filter set EX635 (BP30), DM660 (LP), EM710 (BP80) Cy5, Alexa Fluor 647. Also compatible with TO-PRO-3, TOTO-3, Kodak, X-Sight 650. Needs empty filter block

#### IS.9750.0412

Premium filter set EX500 (BP25), DM252 (LP), EM545 (BP35) Acridine Orange (+DNA), Rhodamine Green, CL NERF, (hi pH), YFP. Also compatible with Alexa Fluor 532. Needs empty filter block

#### IS.9750.0414

Premium filter set EX560 (BP55), DM505 (LP), EM645 (BP75) Texas Red, Texas Red-X, CryptoLight CF-6. Also compatible with Cy3.5, HcRed, mRaspberry, MitoTracker Red. Needs empty filter block

**IS.9749-6** Empty filter cube for 6-positions fluorescence attachment

**IS.9749-3** Empty filter cube for 3-positions fluorescence attachment

**IS.9749-1** Empty filter cube for 1-position fluorescence attachment

**IS.9753** Filter rail, 3-positions

**IS.9102** Standard Abbe condenser 1.25 NA condenser with slot for dark field and phase contrast sliders

**IS.9105** Swing-out 0.9/1.25 NA condenser

**SL.5500** LED replacement unit for iScope

**AE.5130** Universal SLR camera adapter with 2x projection lens for 23.2 mm tubes. Needs T2 adapter

**AE.5025** T2 adapter for Nikon D digital SLR cameras

**AE.5040** T2 adapter for Canon EOS digital SLR cameras

**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 = 1.482 (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



## OXION fluorescence

The Oxion microscopes for fluorescence are equipped with an epi-illumination with a 100 W mercury vapor lamp. The fluorescence attachment have a rail for maximum 4 filter cubes. The FluoLed model is equipped with a 455 nm LED and one filter cube, especially developed for efficient and fast detection of tuberculosis by the Auramine-O fluorochrome. Other FluoLED wavelengths are also available. The Oxion fluorescence microscopes are dedicated to professionals in Life Sciences applications, laboratories of universities and research centers



OX.3230

<b>OX.3085</b>	
<b>Dimensions</b>	<b>Weight</b>
(h) 454 x (w) 276 x (d) 578 mm	12.2 kg

<b>OX.3230</b>	
<b>Dimensions</b>	<b>Weight</b>
(h) 454 x (w) 185 x (d) 294 mm	8.7 kg

## HIGHLIGHTS

- Binocular and trinocular models
- HWF 10x/22 mm eyepieces
- Reversed nosepiece for maximum 5 objectives
- Plan, plan fluarex and plan semi apochromatic fluarex IOS objectives
- Integrated mechanical stage
- Coaxial coarse and fine adjustments
- Height adjustable Abbe N.A. 1.25 condenser with iris diaphragm and filter holder
- 3 W LED transmitted illumination
- Fluorescence attachment for maximum 4 filter blocks and with 100 W mercury vapor incident illumination
- Fluorescence attachment with single filter block and 455 nm (Blue), 560 nm (Green) or 365 nm (UV) incident illumination
- Ergonomic stand and head
- 10 years warranty



OX.3085

## TECHNICAL SPECIFICATIONS

### EYEPIECES

HWF 10x/22 mm eyepieces. All eyepieces can be secured by an Allen screw

### HEADS

Binocular and trinocular Siedentopf type heads are with 30° inclined tubes. Interpupillary distance from 50 to 75 mm. Two ± 5 diopter adjustments. A unique rotating system allows the ergonomical positioning of both tubes in a high (431 mm) and in a low position (397 mm)

### NOSEPIECE

Revolving and reversed nosepiece for maximum 5 objectives. The fluorescence models with mercury vapor lamp are equipped with an orange UV protection shield

### OBJECTIVES

- Plan 4x/0.10, 10x/0.25, S40x/0.65 and S100x/1.25 oil immersion IOS objectives

- Plan fluarex 4x/0.10, 10x/0.25, S40x/0.65 and S100x/1.25 oil immersion IOS objectives
  - Plan semi apochromatic fluarex 4x/0.10, 10x/0.25, S40x/0.65 and S100x/1.25 oil immersion IOS 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

### FOCUSING

Coaxial coarse and fine adjustments, 200 graduations, 1 µm per graduation, 200 µm per rotation, total travel approximately 28 mm. Supplied with an adjustable rack stop to prevent damage to sample and objectives. The coarse adjustments are equipped with friction control

### STAGE

150 x 140 mm stage with integrated X-Y mechanical stage. A ceramic stage is also available on request

# TECHNICAL SPECIFICATIONS

## CONDENSER FOR BRIGHTFIELD

Height adjustable Abbe condenser N.A. 1.25 with iris diaphragm. Supplied with a white diffusion filter. Phase contrast rings mounted in slider can be inserted in the condenser for 10x and S40x or 20x and S100x phase contrast objectives. A dark field stop in slider for the 10x, 20x and S40x objectives can also be inserted with magnification indication

## CONDENSER FOR FLUORESCENCE

The fluorescence attachment is equipped with an integrated condenser with iris diaphragm and with a field diaphragm

## ILLUMINATION FOR BRIGHTFIELD AND PHASE CONTRAST

All models are supplied with a 3 W adjustable NeoLED™ illumination with built-in 100-240 V power supply. Köhler illumination with field diaphragm

## ILLUMINATION FOR FLUORESCENCE

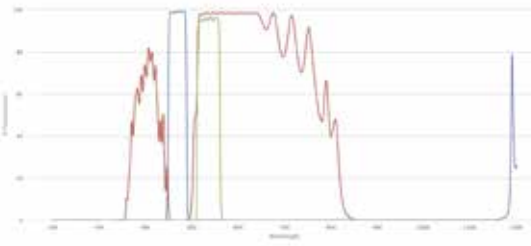
Fluorescence attachment with 100 W (HBO) mercury vapor incident epi-illumination and rail for maximum 4 filter blocks. Two general purpose filter sets are standard supplied with the attachment: AE.3245 (Blue excitation) and AE.3246 (Green excitation). Two other general purpose filter sets AE.3246 (UV excitation) and AE.3247 (Ultraviolet excitation) are also available. More specific filter sets are available on request

## ILLUMINATION OF FLUOLED ATTACHMENT

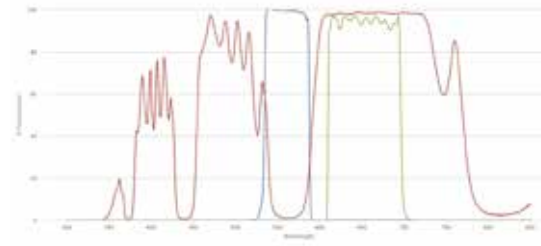
The FluoLed attachment is standard delivered with a 455 nm LED for efficient and fast detection of tuberculosis with Auramine-O fluorochrome. FluoLED attachments are also available with a 560 nm LED and Green filter set or a 365 nm LED together with an Ultraviolet filter set

## PACKAGING

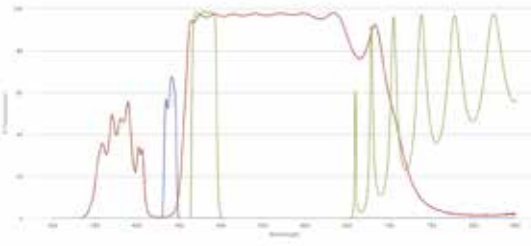
Supplied with power cord, dust cover, white filter, user manual and 5 ml immersion oil for models with S100x objective. All packed in a polystyrene box



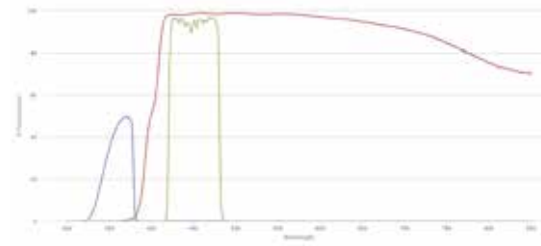
AE.3245 (Blue EX450-490, DM505LP, EM510-560)



AE.3246 (Green EX533-588, DM595LP, EM608-680)



AE.3247 (Violet EX430-450, DM455LP, EM465-495)



AE.3248 (UltraViolet EX348-381, DM400LP, EM420-480)

## MODEL

MODEL	Binocular	Trinocular	Plan 4x/10x/ S40x/S100x objectives	Plan fluarex 4x/10x/ S40x/S100x objectives	Plan semi apo fluarex 4x/10x/S40x/ objectives	Plan semi apo fluarex S100x objectives	100 W mercury vapor illumination	455 nm FluoLED illumination
OX.3067		•		•			•	
OX.3070	•				•		•	
OX.3075		•			•		•	
OX.3080	•				•	•	•	
OX.3085		•			•	•	•	
OX.3230	•		•					•
OX.3235		•	•					•
OX.3232	•				•	•		•
OX.3237		•			•	•		•

## ACCESSORIES AND SPARE PARTS

- AE.3210** HWF10x/22 mm eyepiece
- AE.3215** HWF15x/13 mm eyepiece
- AE.3223** HWF10x/22 mm eyepiece with 10mm/100 micrometer
- AE.3225** Pair of eyecups
- AE.3102** Plan 2x/0.06 IOS objective
- AE.3104** Plan 4x/0.10 IOS objective. WD 11.9 mm
- AE.3106** Plan 10x/0.25 IOS objective. WD 12.1 mm
- AE.3108** Plan 20x/0.40 IOS objective. WD 1.5 mm
- AE.3110** Plan S40x/0.65 IOS objective. WD 0.36 mm
- AE.3112** Plan S60x/0.85 IOS objective. WD 0.30 mm
- AE.3114** Plan S100x/1.25 oil IOS objective. WD 0.18 mm
- 86.550** Plan fluarex 4x /0.12 IOS objective. WD 19.75 mm
- 86.562** Plan fluarex 10x/0.25 IOS objective. WD 5 mm
- 86.564** Plan fluarex 20x/0.40 IOS objective. WD 8.8 mm
- 86.566** Plan fluarex S40x/0.65 IOS objective. WD 0.66 mm
- 86.568** Plan fluarex S100x/1.25 oil IOS objective. WD 0.36 mm
- AE.3144** Plan semi apochromatic fluarex 4x/0.13 IOS objective. Working distance 18.5 mm
- AE.3146** Plan semi apochromatic fluarex 10x/0.30 IOS objective. Working distance 10.6 mm
- AE.3148** Plan semi apochromatic fluarex 20x/0.50 IOS objective. Working distance 2.33 mm
- AE.3152** Plan semi apochromatic fluarex S40x/0.75 IOS objective. Working distance 0.6 mm
- AE.3156** Plan semi apochromatic fluarex S100x/1.28 oil immersion IOS objective. Working distance 0.21 mm
- AE.3190** Polarizer/Analyzer set
- AE.3192** Polarizer slider for nosepiece
- AE.3194** Polarizer for lamp house
- AE.3196** Frosted white filter 45 mm, sits on lamp house
- AE.3198** Blue filter 45 mm, sits on lamp house
- AE.3199** Glass fuses 3.15 A 250 V, 10 pieces
- AE.3200** Yellow filter 45 mm, sits on lamp house
- AE.3202** Green filter 45 mm, sits on lamp house
- AE.3240** Fluorescence attachment with 100 W mercury lamp and 100-240 V power supply
- AE.3249** Empty filter cube for models OX.3066/OX.3067/OX.3070/3075/3080/3085
- AE.3250.ND6** Neutral density set with 6 filters, 25 mm, T80%, T50%, T32%, T10%, T1%, T0.1%
- AE.3250.ND12** Neutral density set with 12 filters, 25 mm, T90%, T80%, T63%, T50%, T40%, T32%, T25%, T20%, T16%, T10%, T1%, T0.1%

WD = Working distance

# ACCESSORIES AND SPARE PARTS

## STANDARD FLUORESCENCE FILTERS SETS

**AE.3245** Cube with standard fluorescence filter set for blue excitation EX465-495, DM505LP, EM515-558. Compatible with EGFP FITC Cy2 Alexa Fluor 488. Also suitable for Acridine Orange + DNA, Alexa Fluor 488™, Atto 488, Azami Green, BODIPY FL/pH7.2, Calcein, Calcium Green™-1, Cy2™, DiO, DyLight 488, EGFP, Emerald GFP, FAM, FITC, Fluo-4, GFP LysoTracker Green/pH 5.2, MitoTracker Green FM/MeOH, mWasabi, Oregon Green™ 488, SYBR® Green I, SYTO 9/DNA, ZsGreen

**AE.3246** Cube with standard fluorescence filter set for green excitation EX520-600, DM600LP, EM605-665. Compatible with Texas Red / mCherry / Alexa Fluor 594. Also suitable for Alexa Fluor 568™, Alexa Fluor 594™, CAL Fluor® Red 610, Cy3.5™, DyLight 594, FusionRed, Killer Red, mCherry, MitoTracker Red/MeOH, mKate2, mRFP1, ReAsH-CCPGCC, Rhodamine Red™-X, ROX, Sulforhodamine 101, Texas Red®, Texas Red®-X, X-rhod-1/Ca2+

**AE.3247** Cube with standard fluorescence filter set for violet excitation EX361-381 D415LP EM435-495. Compatible with DAPI / Hoechst / Alexa Fluor 350. Also suitable for Alexa Fluor 350™, Biosearch Blue, Coumarin, DAPI, DyLight 350, Hoechst 33258, LysoTracker Blue/MeOH

**AE.3248** Cube with standard fluorescence filter set for ultraviolet excitation EX 361-389BP, DM 415LP, EM 435LP. Compatible with UV fluorophores and DAPI longpass

**AE.3249** Empty filter cube for fluorescence attachment of OX.3067/3070/3075/3080/3085 models

## OPTIMIZED FLUORESCENCE FILTERS SETS

**AE.3250.39001** Filter set EX435 (BP20) DM455 (LP) EM480 (BP30) AmCyan, Atto 425, Cerulean, CFP, ECFP fluorophore. Needs empty filter block

**AE.3250.39002** Filter set EX480 (BP30) DM505(LP) EM535 (BP40) Acridine Orange + DNA, Alexa Fluor 488™, Atto 488, Azami Green, BODIPY FL/pH7.2, Calcein, Calcium Green™-1, Cy2™, DiO, DyLight 488, EGFP, Emerald GFP, FAM, FITC, Fluo-4, GFP, LysoTracker Green/pH 5.2, MitoTracker Green, FM/MeOH, mWasabi, Oregon Green™ 488, SYBR® Green I, SYTO 9/DNA, ZsGreen fluorophore. Needs empty filter block

**AE.3250.39003** Filter set EX495 (BP20) DM515 (LP) EM540 (BP30) Alexa Fluor 514™, Citrine, EYFP/pH 7, F/AsH-CCPFCC, mCitrine, Oregon Green™ 514, Rhodamine 123, Topaz. Needs empty filter block

**AE.3250.39004** Filter set EX540 (BP25) DM565 (LP) EM605 (BP55) Alexa Fluor 546™, Alexa Fluor 555™, Atto 550, CAL Fluor® Red 590, Cy3™, Dil, DsRed, DyLight 549, MitoTracker Orange/MeOH, Resorufin, Rhod-2, TagRFP, TAMRA, tdTomato, Tetramethylrhodamine isothiocyanate, TRITC. Needs empty filter block

**AE.3250.39005** Filter set EX540 (BP25) DM565 (LP) EM 620 (BP60) TRITC-red-shifted, Ethidium homodimer-1/DNA, Propidium Iodide. Needs empty filter block

**AE.3250.39007** Filter set EX620 (BP50) DM655 (LP) EM 690 (BP50) Alexa Fluor 647™, Allophycocyanin (APC), Atto 647N,

Cy5™, DiD, Draq5, DayLight 649, MitoTracker Deep Red 633/MeOH, Nile Blue, Quasar® 670, SYTO® 60, TO-PRO™-3. Needs empty filter block

**AE.3250.39008** Filter set EX420 (BP40) DM455 (LP) EM 535 (BP40) Lucifer Yellow/Tetracycline/AlexaFluor 430. Needs empty filter block

**AE.3250.39009** Filter set EX480 (BP30) DM505 (LP) EM 620 (BP60) for Acridine Orange + RNA, Di-8-ANEPPS non-ratiometric, DiA, Ethidium , Bromide, FM™ 1-43, LysoTracker Yellow HCK-123, Pulsar™ 650. Needs empty filter block.

## OPTIMIZED PREMIUM FLUORESCENCE FILTERS SETS

**AE.3250.0401** Cube with optimized fluorescence filter set EX440/21, DM455LP, EM480/30 for CFP, Cerulean, et SpectrumAqua

**AE.3250.0403** Cube with optimized fluorescence filter set EX380/50, DM410LP, EM450/60 for DAPI, Alexa Fluor 350, Hoechst 33342 & 33258, BFP

**AE.3250.0404** Cube with optimized fluorescence filter set EX470/40, DM500LP, EM535/50 for Cy2, eGFP, FITC, Emerald. Also compatible with Alexa Fluor 488

**AE.3250.0407** Cube with optimized fluorescence filter set EX635/30, DM660LP, EM710/80 for Cy5, Alexa 647. Also compatible with TO-PRO-3, TOTO-3, Kodak X-Sight 650

**AE.3250.0412** Cube with optimized fluorescence filter set EX500/25, DM252LP, EM545/35 for Acridine Oragne (+DNA), Rhodamine Green, CL NERF (hi pH), YFP. Also compatible with Alexa Fluor 532

**AE.3250.0414** Cube with optimized fluorescence filter set EX560/55, DM505LP, EM645/75 for Texas Red, Texas Red-X, CryptoLight CF-6. Also compatible with Cy3.5, HcRed, mRaspberry, MitoTracker Red. Needs empty filter block

*On request, the microscope can also be equipped with more specific, optimized and application related fluorescence filters sets, see accessories section and/or separate fluorescence filter catalog*

**AE.5120** Standard 23.2 mm diameter tube for Oxion photo port

**AE.5130** Universal SLR camera adapter with 2x projection lens for 23.2 mm tubes. Needs T2 adapter and AE.5120

**AE.5025** T2 adapter for Nikon D digital SLR cameras

**AE.5040** T2 adapter for Canon EOS digital SLR cameras

**AE.5056** CS/C mount with 1.0x objective

**AE.5057** CS/C mount with 0.5x objective for 1/2" sensor cameras

**AE.5058** CS/C mount with 0.33x objective for 1/3" sensor cameras

**AE.5168-O** Heating stage and temperature controller up to 50°C. Only with new microscopes

**SL.5511** NeoLED™ replacement unit for Oxion

**OX.3010** Aluminium transport case with flight case locks

**OX.3011** Aluminium transport case with classical locks

**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 = 1.482 (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

## B+ series fluorescence

The B+ series microscope for fluorescence comes in two versions. Two models are equipped with 4 monochromatic LEDs and two other models are equipped with a 100 W mercury vapor illuminator

The microscopes are supplied with fluorescence filters and dichroic mirrors for excitation in the blue spectral region, green, violet and ultraviolet



86.179-LED

<b>86.179-LED</b>	
<b>Dimensions</b>	<b>Weight</b>
(h) 500 x (w) 210 x (d) 410 mm	8.0 kg



## HIGHLIGHTS

- Trinocular version
- WF10x/20 mm eyepieces
- Reversed nosepiece for maximum 5 objectives
- Plan and plan fluorex IOS DIN objectives
- Integrated X-Y mechanical stage
- Coaxial coarse and fine adjustment with adjustable rack stop
- Height adjustable Abbe condenser with iris diaphragm and filter holder
- Transmitted LED illumination with rechargeable batteries and integrated power supply
- Epi-fluorescence illumination with 4 LEDs or 100 W mercury vapor lamp
- Fluorescence filters and dichroic mirror for blue, green, violet and ultraviolet excitation

## TECHNICAL SPECIFICATIONS

### EYEPIECES

Wide field WF10x/20 mm eyepieces

### HEADS

Trinocular 360° rotatable head with 30° inclined tubes. One tube is equipped with diopter adjustment and the interpupillary distance is adjustable between 48 to 76 mm. Trinocular light split 100:0/0:100

### NOSEPIECE

Nosepiece for maximum 5 objectives and mounted on ball bearings

### OBJECTIVES

- The 86.179-LED and 86.178-LED models are supplied with plan 4x/0.10, 10x/0.25, S40x/0.65 and S100x/1.25 oil immersion infinity corrected IOS DIN objectives

- The 86.180-LED and 86.181-LED models are supplied with plan fluorex 4x/0.10, 10x/0.25, S40x/0.65 and S100x/1.25 oil immersion infinity corrected IOS DIN objectives.

These objectives allow observation in violet and ultraviolet excitation

All S40x and S100x oil immersion objectives are spring loaded. All optics have an anti-reflection coating for maximum light throughput and are anti-fungus treated

### FOCUSING

Coaxial coarse and fine adjustments, 200 graduations, 1 µm per graduation, 200 µm per rotation, total travel approximately 23 mm. Supplied with an adjustable rack stop to prevent damage to sample and objectives. The coarse adjustments are equipped with friction control

## TECHNICAL SPECIFICATIONS

### STAGE

125 x 135 mm stage with 75 x 35 mm X-Y mechanical stage. With Vernier 0.1 mm scale. Removable slide holder. Stages with heating elements and temperature PID controller are also available

### CONDENSER

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

### TRANSMITTED ILLUMINATION

Adjustable 3 W LED illumination with 3 rechargeable batteries. Batteries for cordless operation.

All models have an integration 100 - 240 V power supply

### FLUORESCENCE ATTACHMENT

- Epi-illumination with 4 LEDs for fluorescence excitation from 460 to 470 nm (blue), 520 to 530 nm (green), 390 to 400 (violet) and 360 to 370 nm (ultraviolet). External 100-240 V power supply
- Epi-illumination 100 W mercury vapor lamp. External 110 or 230 V power supply
- The fluorescence attachment are equipped with dichroic mirrors and fluorescence filters for blue, green, violet and ultra-violet excitation

### PACKAGING

Supplied with power cord, dust cover, a spare fuse, user manual and 5 ml immersion oil for models with S100x objective. Supplied with orange UV protection shield. All packed in a polystyrene box

### MODEL

	Plan PL 4x/10x/S40x/S100x IOS objectives	Plan fluarex PLF 4x/10x/S40x/S100x IOS objectives	Epi-fluorescence 4x NeoLED™ excitation	Epi-fluorescence 100 W Hg excitation
86.179-LED	•		•	
86.180-LED		•	•	
86.178-LED	•			•
86.181-LED		•		•

The Fluarex objectives are suitable for fluorescence excitation in the violet and ultraviolet region 4 NeoLED™ fluorescence: Blue (EX 460 to 470 nm, EM > 515 nm), Green (EX 520 to 530 nm, EM > 590 nm), Violet (EX 395 to 415 nm, EM 425 nm) and Ultraviolet (EX 355 to 375 nm, EM > 455 nm)

## ACCESSORIES AND SPARE PARTS

- 86.575** Wide field eyepiece WF 10x/20 mm
- 86.573** Wide field eyepiece WF 15x/12 mm
- 80.882** Wide field eyepiece WF 20x/10 mm
- 86.574** Micrometer eyepiece HWF10x/18, 10mm/100, with adjustable eye lens
- 80.839** Eyecup, ø 28 mm, one piece
- 86.550** Plan fluarex 4x /0.12 infinity corrected IOS objective. Working distance 19.75 mm
- 86.562** Plan fluarex 10x/0.25 infinity corrected IOS objective. Working distance 5 mm
- 86.564** Plan fluarex 20x/0.40 infinity corrected IOS objective. Working distance 8.8 mm
- 86.566** Plan fluarex S40x/0.65 infinity corrected IOS objective. Working distance 0.66 mm
- 86.568** Plan fluarex S100x/1.25 oil immersion infinity corrected IOS objective. Working distance 0.36 mm
- 86.560** Plan PL 4x /0.10 infinity corrected IOS objective. Working distance 19.75 mm
- 86.562** Plan PL 10x/0.25 infinity corrected IOS objective. Working distance 5 mm
- 86.564** Plan PL 20x/0.40 infinity corrected IOS objective. Working distance 8.8 mm
- 86.566** Plan PL S40x/0.65 infinity corrected IOS objective. Working distance 0.66 mm
- 86.567** Plan PL S60x/0.80 infinity corrected IOS objective. Working distance 0.26 mm
- 86.568** Plan PL S100x/1.25 oil immersion infinity corrected IOS objective. Working distance 0.36 mm
- AE.1111** Micrometer slide 76 x 26mm with 2mm/200 reticle
- AE.5130** Universal photo adapter with 2x projection lens. Need a T2 adapter
- AE.5020** T2 adapter for Nikon D digital SLR cameras
- AE.5040** T2 adapter for Canon EOS digital SLR cameras  
Other T2 adapters on request
- 86.860** Köhler diaphragm, pre-centered, to be placed on lamp house
- 86.101** LED replacement unit for 86.xxx-LED models
- 86.806** Mirror adapter for B and B+ series with halogen illumination only
- AE.5202** Blue filter ø 32 mm
- AE.5203** Yellow filter ø 32 mm
- AE.5204** Neutral density filter ø 32 mm
- AE.5205** Blue acrylic filter ø 32mm
- AE.5227** Spare fuses 250 V, 1A, box of 10 pieces
- PPB.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 = 1.482 (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

# StereoMicroscopes

## Laboratories



- NEXIUSZOOM PAGE 148
- STEREOBLUE PAGE 152
- DZ SERIES PAGE 156
- Z SERIES PAGE 162
- P SERIES PAGE 168



# StereoMicroscopes

## Laboratories

Euromex stereo microscopes enable you to examine and analyze your specimens in both two and three dimensions. Combined with crisp LED illumination, Euromex high-performance digital cameras and easy-to-use ImageFocus software, these imaging systems provide perfect solutions for precise analysis and documentation

# STEREO MICROSCOPES

FEATURED

## NexiusZoom

The NexiusZoom stereo microscopes are supplied with a large choice of objectives and stands. Large working distances enable comfortable working under the microscope

Ideal for dissection, sample preparation, morphology observation and more. With additional lenses and objectives magnifications from 3.3 up to 180 times can be achieved



NZ.1903-S

NZ.1903-S	
Dimensions	Weight
(h) 339 x (w) 256 x (d) 311 mm	5.1 kg

NZ.1903-P	
Dimensions	Weight
(h) 299 x (w) 256 x (d) 311 mm	5.3 kg

For weight of other products see table



## HIGHLIGHTS

- Binocular and trinocular heads with HWF 10x/22 mm eyepieces
- Zoom ratio 1 : 6.7, 6.7x to 45x standard
- Ergonomically designed stands
- Double 3 W LED illumination
- Configurations up to 180x magnification
- Large working distance
- 10 years warranty



NZ.1902-S / NZ.1902-P

## TECHNICAL SPECIFICATIONS

### EYEPIECES

- Pair of HWF 10x/22 mm eyepieces

### HEAD

- Binocular or trinocular heads are with 45° inclined tubes
- Both eyepieces have ± 5 diopter adjustments
- Interpupillary distance is adjustable between 54 mm and 75 mm

### OBJECTIVE

- Zoom 1:6.7 objective with 0.67x to 4.5x magnifications
- Field of view from 33 mm to 4.9 mm
- Working distance of 110 mm
- Auxiliary lenses 0.5x, 0.75x, 1.5x and 2.0x are available

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

### STAND

- Ergonomically designed pillar or rack & pinion stand with LED illumination and 2 object clamps
- Alloy metal cast, hardened off-white painted
- Ergonomically designed universal or boom stands, without illumination
- Articulated arm stand for table mounting, without illumination

### ILLUMINATION

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

### PACKAGING

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

### YOUTUBE

Check out the product video on YouTube and learn more about this microscope

YouTube channel: **Euromex Optics Group B.V.**



NZ.8907 / NZ.8905 / NZ.8915

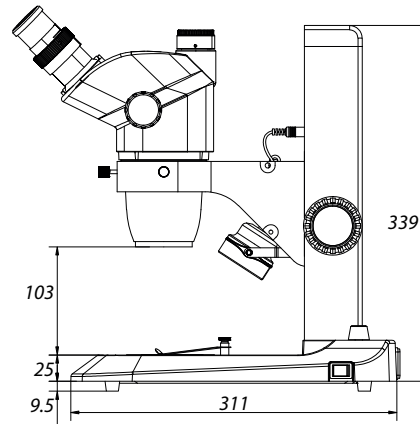


## MAGNIFICATIONS

Working distance and field of view with standard HWF 10x / 22 High Wide Field eyepieces

Zoom indication	Auxiliary lens 0.5x working distance 165 mm		Auxiliary lens 0.75x working distance 120 mm		Objective 1x (standard) working distance 110 mm		Auxiliary lens 1.5x working distance 45 mm		Auxiliary lens 2x working distance 30 mm	
	Total magnification	Field of view in mm	Total magnification	Field of view in mm	Total magnification	Field of view in mm	Total magnification	Field of view in mm	Total magnification	Field of view in mm
0.67	3.35	65.7	5.0	44.0	6.7	32.8	10.0	22.0	13.4	16.4
0.7	3.5	62.9	5.3	41.9	7.0	31.4	10.5	21.0	14.0	15.7
0.8	4.0	55.0	6.0	36.7	8.0	27.5	12.0	18.3	16.0	13.8
1.0	5.0	44.0	7.5	29.3	10.0	22.0	15.0	14.7	20.0	11.0
1.5	7.5	29.3	11.3	19.6	15.0	14.7	22.5	9.8	30.0	7.3
2.0	10.0	22.0	15.0	14.7	20.0	11.0	30.0	7.3	40.0	5.5
3.0	15.0	14.7	22.5	9.8	30.0	7.3	45.0	4.9	60.0	3.7
4.0	20.0	11.0	30.0	7.3	40.0	5.5	60.0	3.7	80.0	2.8
4.5	22.5	9.8	33.8	6.5	45.0	4.9	67.5	3.3	90.0	2.4

## DIMENSIONS



NZ.1902-S



NZ.1903-B

## MODELS

	Binocular	Trinocular	Pillar stand	Rack & pinion stand	Universal stand	Boom stand	Articulated arm stand	Weight (kg)
NZ.1902-P	•		•					5.0
NZ.1902-S	•			•				4.9
NZ.1902-U	•				•			15.6
NZ.1902-B	•					•		22.1
NZ.1902-A	•						•	8.6
NZ.1903-P		•	•					5.2
NZ.1903-S		•		•				5.1
NZ.1903-U		•			•			15.7
NZ.1903-B		•				•		22.2
NZ.1903-A		•					•	8.7

## ACCESSORIES AND SPARE PARTS

- NZ.5302** NexiusZoom binocular head with eyepieces
- NZ.5303** NexiusZoom trinocular head with eyepieces
- NZ.6010** Pair of HWF 10x / 22 mm eyepieces
- NZ.6015** Pair of HWF 15x / 16 mm eyepieces
- NZ.6020** Pair of HWF 20x / 12 mm eyepieces
- NZ.6110** HWF 10x / 22 mm eyepiece with micrometer
- NZ.6099** Pair of eyecups
- NZ.8905** Auxiliary lens 0.5x. Working distance 165 mm (not suitable for NZ.1902-S and NZ.1903-S)
- NZ.8907** Auxiliary lens 0.75x. Working distance 120 mm
- NZ.8915** Auxiliary lens 1.5x. Working distance 45 mm
- NZ.8920** Auxiliary lens 2.0x. Working distance 30 mm (not suitable for NZ.1902-S and NZ.1903-S)
- NZ.8950** Protection glass for NexiusZoom head
- NZ.9010** Ergonomic rack & pinion stand with transmitted and incident LED illuminators
- NZ.9015** Ergonomic pillar stand with transmitted and incident LED illuminators
- NZ.9020** Universal (single arm) stand without NexiusZoom head holder
- NZ.9030** Boom (double arm) stand without NexiusZoom head holder
- NZ.9090** NexiusZoom head holder (for NZ.9020 and NZ. 9030)
- NZ.9025** Articulated arm stand with table clamp (without NexiusZoom head holder)
- NZ.9081** NexiusZoom head holder (for articulated arm stand NZ.9025)
- AE.5168-NZ** Heating stage with PID controller up to 50°C
- NZ.9950** Standard opaque stage plate
- NZ.9956** Black/white stage plate
- NZ.9570** Pair of object clamps for stage
- NZ.9833** C-mount adapter with 0.33x lens for 1/3" cameras (suitable for trinocular models)
- NZ.9850** C-mount adapter with 0.5x lens for 1/2" cameras (suitable for trinocular models)
- AE.5130** Universal SLR camera adapter with 2x projection lens for 23.2 mm tubes. Need T2 adapter
- AE.5020** T2 adapter for Nikon D digital SLR cameras
- AE.5040** T2 adapter for Canon EOS digital SLR cameras  
*Other T2 adapters on request*
- LE.1972** Ring illuminator with 60 LEDs with adjustable light intensity. External mains adapter 100-240 V. With segment controller. Brightness of 8.500 Lux at height of 100 mm and color temperature of 6.400K. Max. internal mounting diameter 60 mm
- LE.1973** Ring illuminator with 144 LEDs with adjustable light intensity. External mains adapter 100-240 V. With segment controller. Brightness of 20.000 Lux at height of 100 mm and color temperature of 6.400K. Max. internal mounting diameter 60 mm
- AE.1112** Object micrometer 50 mm (divided in 500 parts on glass slide 76 x 26 mm)
- 50.876** Dark field attachment



NZ.5302 / NZ.5303

# STEREO MICROSCOPES

**BlueLine**  
MADE IN HOLLAND

**FEATURED**

LABORATORIES  
STEREO MICROSCOPES

5

## StereoBlue

These stereo (zoom) microscopes are especially developed for laboratory applications, education and are greatly appreciated by biologists, entomologists, geologists

Equipped with either a parfocaaal zoom system with 1:6.4 zoom ratio or a double magnification revolver both with LED illumination, the StereoBlue range guarantees crisp, high resolution images

### SB.1302/SB.1402

Dimensions	Weight
(h) 350 x (w) 220 x (d) 266 mm	4.0 kg

### SB.1302-P/SB.1402-P

Dimensions	Weight
(h) 299 x (w) 220 x (d) 266 mm	4.7 kg

For weight of other products see table 'Models'



SB.1903



## HIGHLIGHTS

- Designed for professional use
- Robust and sturdy
- Dual magnification or Zoom models
- Available in ergonomic rack & pinion, pillar and universal stands
- Double 3 W LED illumination
- Ergonomic carrying grip
- 5 years warranty



Universal stand model SB.1902-U

## TECHNICAL SPECIFICATIONS

### EYEPIECES

Pair of WF10x/20 mm secured eyepieces supplied with eyecups

### HEAD

- Binocular or trinocular 45° inclined tubes
- Diopter adjustment on both eyepieces, except the models SB.1302-P/1402-P and SB.1302-S/1402-S, which have diopter adjustment on one side
- Interpupillary distance adjustable between 55 mm and 75 mm

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

### DUAL MAGNIFICATION OBJECTIVES

- Nosepiece with dual 1x/3x or 2x/4x revolving objectives
- Magnifications 10x/30x or 20x/40x
- Field of view 20 mm/6.6 mm or 10 mm/5.0 mm
- Working distance 100 mm

### ZOOM OBJECTIVE

- Zoom Stereo 0.7x to 4.5x parfocal objective
- Magnification from 7x to 45x
- Field of view 28.5 mm to 4.4 mm
- Working distance 100 mm

### STANDS

The rack & pinion and pillar stands of the StereoBlue are equipped with ergonomically designed flat bases, complete with 2 object clamps and Ø 60 mm transparent and black/white stage plates. The coarse adjustment is equipped with tension control

The ergonomically designed universal single arm stand is ideal for looking at large samples or working under the microscope. Standard supplied without illumination. Suitable for e.g. ring illuminators LE.1972 and LE.1973. The stands are alloy metal casted with hardened off-white coating

More illumination options see chapter 10 (Accessories)

Built-in LED ringlight  
SB.3903



LABORATORIES  
STEREO MICROSCOPES

5

## TECHNICAL SPECIFICATIONS

### ILLUMINATION

With 3 W transmitted and incident LED illuminators which can be used simultaneously or with 3 W transmitted illuminator and built-in 30 LED ring light incident illuminator.

Model SB.3903 is equipped with a built-in LED ringlight illuminator in the head.

The light intensities can be adjusted separately

### CAMERAS

Euromex offers a wide range of industrial and education grade cameras, see chapter 3 (Digital Solutions)

### PACKAGING

Supplied with power cord, dust cover, a spare fuse, Ø 60 mm transparent and black/ white stage plates, user manual.

All packed in a polystyrene box

### YOUTUBE

Check out the product video on YouTube and learn more about the BlueLine

YouTube channel: **Euromex Optics Group B.V.**



MODELS	Binocular	Trinocular	1x/3x objective	2x/4x objective	0.7 - 4.5x zoom	Rack & pinion stand	Pillar stand	Universal stand	30 LED right light	Weight (kg)
SB.1302	•		•			•				3.3
SB.1302-P	•		•				•			4.2
SB.1402	•			•		•				3.3
SB.1402-P	•			•			•			4.2
SB.1902	•				•	•				3.6
SB.1902-P	•				•		•			4.4
SB.1902-U	•				•			•		15.4
SB.1903		•			•	•				3.7
SB.1903-P		•			•		•			4.5
SB.1903-U		•			•			•		15.5
SB.3903		•			•	•			•	3.7
SB.3903-P		•			•		•		•	4.5

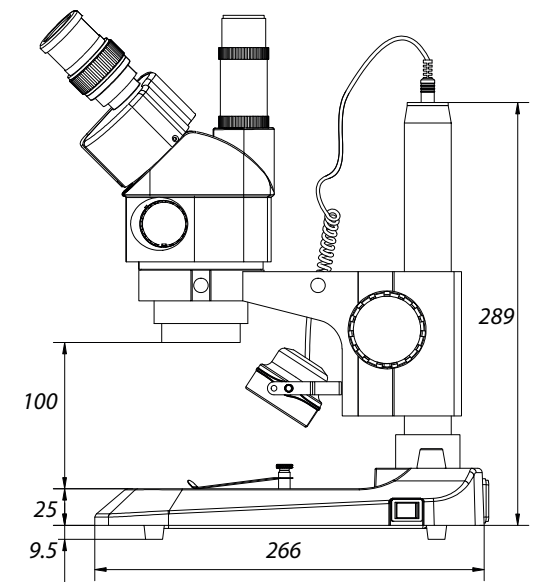
## ACCESSORIES AND SPARE PARTS

- SB.6010** Pair of HWF 10x/20 mm eyepiece
- SB.6015** Pair of HWF 15x/15 mm eyepiece
- SB.6020** Pair of HWF 20x/10 mm eyepiece
- SB.6110** HWF 10x/20 mm eyepiece with micrometer
- SB.6099** Pair of eyecups
  
- SB.8905** Auxiliary 0.5x lens, Working distance 170 mm. Advised only for zoom models with pillar or universal stands (with rack & pinion models the sample thickness is max. 2 cm)
- SB.8907** Auxiliary 0.75x lens for zoom models. Working distance 114 mm
- SB.8915** Auxiliary 1.5x lens for zoom models. Working distance 48 mm  
*(not suitable for models SB.3903/SB3903-P)*
  
- SB.9570** Pair of object clamps for stage
- SB.9833** C-mount adapter with 0.33x lens for 1/3" cameras. Only for trinocular models
- SB.9850** C-mount adapter with 0.5x lens for 1/2" cameras. Only for trinocular models
- SB.9952** Stage plate transparent, Ø 60 mm
- SB.9956** Stage plate black/white, Ø 60 mm
  
- AE.5130** Universal SLR camera adapter with 2x projection lens for 23.2 mm tubes. Need T2 adapter
- AE.5020** T2 adapter for Nikon D digital SLR cameras
- AE.5040** T2 adapter for Canon EOS digital SLR cameras

*Other T2 adapters on request*

- LE.1972** Ring illuminator with 60 LEDs with adjustable light intensity. External mains adapter 100-240 V. With segment controller. Brightness of 8.500 Lux at height of 100 mm and color temperature of 6.400K. Max. internal mounting diameter 60 mm
- LE.1973** Ring illuminator with 144 LEDs with adjustable light intensity. External mains adapter 100-240 V. With segment controller. Brightness of 20.000 Lux at height of 100 mm and color temperature of 6.400K. Max. internal mounting diameter 60 mm
  
- AE.1112** Micrometer 76 x 26 mm slide, 50 mm/50 divisions
- PB.5245** Lens cleaning paper, 100 sheets per pack
- PB.5274** Isopropyl alcohol 99% (200 ml)
- PB.5275** Cleaning kit: lens cleaning fluid, lint free lens tissue, brush, air blower, cotton swabs

### DIMENSIONS



# STEREO MICROSCOPES

## DZ series

The modular stereo microscopes of the DZ series combine ergonomics with very high resolution optics. Either standard versions or customized models are available thanks to the large choice of central zoom units, eyepieces, stands and accessories

A fluorescence illumination unit enables scientific research like for studies of vertebrate development and gene function, teratology, genetics and environmental sciences

DZ.1100 / DZ.1600 / DZ.1800	
Dimensions	Weight
(h) 305 x (w) 330 x (d) 285 mm	6.0 kg

DZ.1105 / DZ.1605 / DZ.1805	
Dimensions	Weight
(h) 305 x (w) 330 x (d) 285 mm	5.2 kg

For weight of other products see table 'Models'



*customized configuration model*  
(DZ.0800, 2x DZ.3010, DZ.2025, DZ.9005, DZ.9010, DZ.4010 and DZ.5020)



## HIGHLIGHTS

- Binocular and trinocular models
- 6 standard configurations or customized configuration
- Ergonomic tilting head from 5 to 35° tilting or fixed 20° inclined head, EWF10x/22mm eyepieces,
- Three central zoom units from 4 to 320x
- Field of views from 55 to 1.4 mm
- Working distances from 126 to 33 mm
- Ergonomical rack & pinion stands, universal stand or articulated arm stand
- Transmitted and incident LED illumination
- 100 W epi-fluorescence mercury vapor illuminator
- 10 years warranty



*Customized specification fluorescence model*

## TECHNICAL SPECIFICATIONS

### EYEPIECES

Pair of EWF 10x/22 mm eyepieces

### HEADS

- Ergonomic binocular 5-35° tilting head
- Binocular 20° tilted head
- Diopter ± 5 adjustment on both eyepieces
- Interpupillary distance from 55 to 75 mm
- Photo ports for one or two cameras

### CENTRAL ZOOM UNITS

Three central zoom units are available:

- 1:6.3 for total magnifications from 8 to 50x
- 1:8 for total magnifications from 8 to 64x
- 1:10 for total magnifications from 8 to 80x

### COMMON MAIN OBJECTIVE

Standard configurations are supplied with a plan apochromatic Common Main objective 1x, working distance 78 mm. Other plan apochromatic Common Main objectives 0.5x (working distance 126 mm) and 2x (working distance 33 mm) are also available

All optics have an anti-reflection coating for maximum light throughput and are anti-fungus treated

### STAND

Large ergonomic stand with ø 100 mm object plate and 2 object clamps. Coarse adjustment with adjustable friction. A universal stand and an articulated arm stand without illumination are also available for configurations built to customer's specifications

### ILLUMINATIONS

The transmitted and incident 3 W LED illuminations are supplied with a built-in 100-240 V power supply. Both illuminators can be used simultaneously and the light intensities can be adjusted separately

### PACKAGING

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

## STANDARD CONFIGURATIONS

All 6 standard configurations are equipped with EWF10x/22mm eyepieces, plan achromatic Common Main objective 1x and rack & pinion stand with incident and transmitted LED illumination

### MODELS (STANDARD)

	Binocular 20° head	Binocular Ergo 10 to 35° tilting	Magnifications from 8 to 50x	Magnifications from 8 to 64x	Magnifications from 8 to 80x
DZ.1100		•			•
DZ.1105	•				•
DZ.1800		•		•	
DZ.1805	•			•	
DZ.1600		•	•		
DZ.1605	•		•		

All equipped with EWF10x/22mm eyepieces

### MAGNIFICATIONS AND FIELD OF VIEWS FOR STANDARD CONFIGURATIONS

Model	Zoom indication	0.5x Objective Working distance 126 mm		1.0x Objective Working distance 78 mm		2.0x Objective Working distance 33 mm	
		Total magnification	Field of view	Total magnification	Field of view	Total magnification	Field of view
DZ1100 / DZ1105 DZ1800 / DZ1805 DZ1600 / DZ1605	0.8x	4x	55	8x	27.5	16x	13.7
	1.0x	5x	44	10x	22	20x	11
	1.5x	7.5x	29.3	15x	14.6	30x	7.3
	2.0x	10x	22	20x	11	40x	5.5
	3.0x	15x	14.6	30x	7.3	60x	3.6
	4.0x	20x	11	40x	5.5	80x	2.7
	5.0x	25x	8.8	50x	4.4	100x	2.2
	6.0x	30x	7.3	60x	3.6	120x	1.8
	6.4x	32x	6.8	64x	3.4	128x	1.7
	7.0x	35x	6.3	70x	3.1	140x	1.5
	8.0x	40x	5.5	80x	2.75	160x	1.4



## BUILD YOUR OWN MICROSCOPE

A customized DZ series stereo microscope can be configured to customer's specifications by choosing one of the three central zoom units DZ.0630, DZ.0800 or DZ.1000 and adding the necessary components for the application. Pair of eyepieces, an ergonomically 5 to 35° tilting head or fix 20° inclined head, a common 0.5x, 1x or 2x main objective, a large ergonomic LED stand, a boom or an articulated arm stand. Other accessories like a photo/camera unit or dual iris diaphragm can complete the configuration

### CENTRAL ZOOM UNITS

- DZ.0630** Central Zoom Unit 1:6.3 unit with magnifications from 8 to 50 times
- DZ.0800** Central Zoom Unit 1:8 unit with magnifications from 8 to 64 times
- DZ.1000** Central Zoom Unit 1:10 unit with magnifications from 8 to 80 times

### STANDS

- DZ.5020** Universal stand without illumination. Dimensions 460 (h) x 280 (l) x 400 (d) mm
- DZ.5040** Ergonomic stand with transmitted and incident LED illumination
- 65.890** Articulated arm stand for mounting on table without head holder (65.981)
- 65.981** Head holder 76 mm for DZ series and black universal stand 65.980

### HEADS

- DZ.2020** Ergonomically binocular 5-35° tilting head
- DZ.2025** Binocular 20° tilted head  
Interpupillary distance from 55 to 75 mm.

### FLUORESCENCE ATTACHMENT

- DZ.9050** Attachment for fluorescence with 100 W mercury vapor illumination with GFP-B and GFP-LP filter sets. Supplied with power supply
- DZ.9060** Filter cube with GFP-B for Blue excitation, EM band pass filter (EX 460-500, DM 505, EM 510-560)
- DZ.9061** Filter cube with GFP-L for Blue excitation, EM long pass filter (EX 460-500, DM 505, EM 510)  
*Other fluorescence filters available on request*

### EYEPIECES

- DZ.3010** EWF 10x/22 eyepiece, 1 piece
- DZ.3012** EWF 10x/22 eyepiece with crosshair, 1 piece
- DZ.3015** WF 15x/16 eyepiece, 1 piece
- DZ.3020** WF 20x/12 eyepiece, 1 piece

### DIAPHRAGMS

- DZ.9010** Double iris diaphragms for increased depth of field

### OBJECTIVES

- DZ.4005** Plan apochromatic Common Main objectives 0.5x. Working distance 126 mm
- DZ.4010** Plan apochromatic Common Main objectives 1.0x. Working distance 78 mm
- DZ.4020** Plan apochromatic Common Main objectives 2.0x. Working distance 33 mm

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

### ACCESSORIES

- DZ.9020** Large 185 x 145 mm stage with mechanical X-Y 50 x 50 mm stage, to be moved by hand
- DZ.9040** Dark field attachment for DZ.5040
- DZ.9045** Polarizer, 360° rotatable, to be mounted on Common Main objectives of DZ series
- DZ.9047** Polarizer, 360° rotatable, to be placed on the stage of DZ series

## ACCESSORIES

- DZ.9005** Photo port attachment with one 23.2 mm tube
- DZ.9007** Photo port attachment with two 23.2 mm tubes
- DZ.9009** Photo port attachment with one 23.2 mm tube to be used with fluorescence attachment
- DZ.9011** C-mount 0.4x objective for insertion into photo port attachments
- DZ.9013** C-mount 1x objective for insertion into photo port attachments
- AE.1900** Glass object-plate,  $\varnothing$  100mm
- AE.1903** Acrylic white/black object plate
- AE.5130** Universal SLR camera adapter with 2x projection lens for 23.2 mm tubes. Needs T2 adapter
- AE.5020** T2 adapter for Nikon D digital SLR cameras
- AE.5040** T2 adapter for Canon EOS digital SLR cameras  
*Other T2 adapters on request*
- AE.1385** 100 W HBO mercury vapor bulb for fluorescence
- SL.5520** LED replacement for incident LED illumination of DZ.5040 stand
- AE.1112** Micrometer slide, 50 mm/50 divisions
- PB.5245** Lens cleaning paper, 100 sheets per pack
- PB.5274** Isopropyl alcohol 99% (200 ml)
- PB.5275** Cleaning kit: lens cleaning fluid, lint free lens tissue, brush, air blower, cotton swabs



DZ.1100



# STEREO MICROSCOPES

## Z series

These versatile high-end stereo microscopes are highly appreciated by the professionals of Life Science research and industry because of the excellent optical and mechanical characteristics of this series

Extensively used in research laboratories

HEAD ZE.1624 + STAND ST.1740	
Dimensions	Weight
(h) 290 x (w) 160 x (d) 240 mm	6.9 kg



ZE.1624 and ST.1735



## HIGHLIGHTS

- Modular system
- Binocular and trinocular models
- Standard HWF10x/23 mm eyepieces
- Stereo zoom heads with fix 45°, 60° or 90° inclined tubes
- Zoom magnification objectives
- Superior resolution optics
- Multiple stands
- 10 years warranty



ZE.1659 and AE.1770

## TECHNICAL SPECIFICATIONS

### EYEPIECES

Pair of SWF 10x/23 mm eyepieces

### HEADS

- Binocular or trinocular heads with 45°, 60° or 90° inclined tubes
  - Diopter ± 6° adjustment on both tubes for Z series
- Interpupillary distance from 55 to 75 mm.

### ZOOM MAGNIFICATION OBJECTIVES

- Zoom objective with variable 0.4x to 2.5x magnifications
  - Zoom objective with variable 0.7x to 4.5x magnifications
  - Zoom objective with variable 1x to 7x magnifications
- Zoom objectives with click stops are also available on request*

All optics have an anti-reflection coating for maximum light throughput and are anti-fungus treated



ZE.1624 and ST.1735

### STANDS WITHOUT ILLUMINATION

- ST.1710** Pillar stand with ST.1790 head holder. Pillar height 210 mm, diameter ø 20 mm. Dimensions (h) 250 x (w)150 x (d) 240 mm
- ST.1715** Pillar stand with ST.1792 head holder. Pillar height 250 mm, diameter ø 20 mm. Dimensions (h) 290 x (w)150 x (d) 240
- ST.1717** Pillar ergonomically flat stand with ST.1790 head holder. Pillar height 250 mm, diameter ø 20 mm. Dimensions (h) 290 x (w) 250 x (d) 350
- ST.1770** Large pillar wooden stand with ST.1790 head holder. Pillar height 360 mm, diameter ø 29mm. Suitable for SMD inspection. Dimensions (h) 400 x (w) 580 x (d) 500

### STANDS WITH ILLUMINATION

- ST.1735** Rack & pinion stand with 3 W LED illumination and rotatable double-sided coated mirror (one frosted and one aluminium coated side). Especially developed for observation of transparent object. Very suitable equine or porcine embryo collection and transfer. Adjustable light intensity. Supplied with external power supply. Dimensions: 240 x 160 x 290 (D x W x H), min/max height 240-290

# TECHNICAL SPECIFICATIONS

## STANDS WITH ILLUMINATION

- ST.1740** Rack & pinion stand with 10 W halogen illumination. Supplied with frosted filter for transmitted illumination and a blue filter for incident illumination. Both illuminations are adjustable and can be simultaneously used. With integrated power supply. Dimensions: 240 x 160 x 290 (D x W x H), min/max height 240-290 mm
- ST.1750** Tilting rack & pinion stand for GEM observation. Round 260 mm base with object clamp AE.5446. Height 300 mm. Halogen 40 W 230 V incandescent illumination.
- ST.1760** Pillar flat stand for dark field. Supplied with AE.1878 dark field attachment and object clamp AE.5446. Cold light illumination by 100 W cold light source LE.5211 and flexible fiber light guide. Pillar height 210 mm, diameter  $\varnothing$  20mm. Supplied with blue filter. Dimensions: 240 x 150 x 260 (L x W x H). (Not suitable for ZE.1659)

## BOOM STANDS

- ST.1720** Articulated one arm boom stand with a 270 x 270 mm base, 610 mm and  $\varnothing$  29mm pillar, with orientable stereo head holder ST.1794. Vertical post 780 mm. Weight 19.5 kg
- 65.980/65.983** Articulated one arm stand to be mounted on a table with 85 mm diameter head holder. Depth positioning of stereo head between 33 and 100 cm. Working distance between 0 and maximum 295 mm

## HEAD HOLDERS

- ST.1790** Head holder with coarse adjustment
- ST.1796** Head holder with coarse and fine adjustment
- ST.1792** Head holder with coarse adjustment and opening for one fiber light guide
- ST.1794** Orientable head holder with coarse adjustment and opening for one fiber light guide
- ST.1798** Orientable head holder with coarse and fine adjustment and opening for one fiber light guide

*All head holders have an internal diameter of 84 mm and a friction adjustment*

## FOCUSING

Coarse adjustment and friction adjustment for head holders for ST.1790, St.1792, ST.1794, ST.1796. The head holders ST.1796 and ST.1798 are also equipped with a fine focusing adjustment

## PACKAGING

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

# ACCESSORIES AND SPARE PARTS

## EYEPIECES (without eyecups)

- AE.1835** Pair of SWF5x/26 mm eyepieces
- AE.1836** Pair of SWF10x/23 mm eyepieces
- AE.1834** Pair of SWF12.5x/20 mm eyepieces
- AE.1837** Pair of SWF15x/16 mm eyepieces
- AE.1838** Pair of SWF20x/11.5 mm eyepieces
- AE.1840** Pair of SWF30x/7.5 mm eyepieces
- AE.5439** Pair of eyecups
- AE.5425** Pair of eyecups, suitable when wearing for spectacles

## MICROMETER EYEPIECES (with adjustable lens)

- AE.1839** SWF10x/21mm with 10 mm/100 micrometer reticle and cross hair
- AE.1841** SWF10x/21mm with 10 x 10 mm reticle, 400 squares
- AE.1842** SWF10x/21mm with photo corners marks

# ZOOM STEREO HEADS

## MODELS

	Binocular	Trinocular	Tilt tubes	objective zoom	Magnifications	Working distance (mm)	Field of view (mm)
ZE.1624	•		45°	0.7 - 4.5x	7 - 45x	93	32/5.1
ZE.1654		•	45°	0.7 - 4.5x	7 - 45x	93	32/5.1
ZE.1657		• <sup>1</sup>	45°	0.7 - 4.5x	7 - 45x	104	32/5.1
ZE.1670	•		45°	1 - 7x	10 - 70x	104	23/3.3
ZE.1671		• <sup>1</sup>	45°	1 - 7x	10 - 70x	104	23/7.7
ZE.1626	•		60°	0.7 - 4.5x	7 - 45x	93	32/5.1
ZE.1629	•		90°	0.7 - 4.5x	7 - 45x	110	32/5.1
ZE.1659		• <sup>1</sup>	45°	0.4 - 2.5x	4 - 25x	185	57/12.8

<sup>1)</sup> When the trinocular tube is engaged, the image is still available in both other tubes  
All zoom stereo heads are supplied with SWF 10x/23 mm eyepieces without eyecups

# STANDS MODELS

	Column (mm)	Diameter (mm)	Rack & pinion	I x p base (mm)	Height (mm)	Head holder	Illumination
ST.1710	210	20		240x150	250	ST.1790	-
ST.1715	250	20		240x150	290	ST.1792	-
ST.1717	250	20		320x250	290	ST.1790	-
ST.1720	610	29		780x270	650	ST.1794	-
ST.1735	-		•	240x160	290		3 W LED
ST.1740	-		•	240x160	290		10 W Hal
ST.1750	-		•	$\varnothing$ 260	300		40 W <sup>1</sup>
ST.1760	210	20		240x160	260	ST.1790	100 W Hal <sup>2</sup>
ST.1770	360	29		500x580	400	ST.1790	-
65.980/65.983	-		•	$\varnothing$ 1000 <sup>3</sup>	0/295	65.983	-

<sup>1)</sup> With 40 W incandescent bulb. <sup>2)</sup> 100 W cold light illumination with fiber light guide. <sup>3)</sup> Length with the 2 arms totally extended  
The stand ST.1760 is not suitable for head holder ZE.1659



# ACCESSORIES AND SPARE PARTS

## MICROMETER SLIDES

- AE.1112** Object slide 76 x 26 mm with micrometer  
50mm/500, 100 µm/division

## ADDITIONAL LENSES

(for ZE.1659)

- AE.1850** Additional 0.7x lens. Working distance 233 mm  
**AE.1822** Additional 0.57x lens. Working distance 300 mm

## ADDITIONAL LENSES

(for ZE.1624, ZE.1654, ZE.1670, ZE.1671, ZE.1626)

- AE.1855** Additional 0.3x lens. Working distance 250 mm.  
Suitable with ST.1720, ST.1770, ST.1780 et ST.1785 stands
- AE.1870** Additional 0.44x lens. Working distance 180 mm.  
Suitable with ST.1715, ST.1720, ST.1770, ST.1780 and ST.1785 stands
- AE.1856** Additional 0.5x lens. Working distance 150 mm.  
Suitable with ST.1740. Maximum object size is 15 mm
- AE.1857** Additional 0.75x lens. Working distance 97 mm
- AE.1858** Additional 1.5x lens. Working distance 50 mm
- AE.1859** Additional 2.0x lens. Working distance 34 mm

## ADDITIONAL LENSES

(for ZE.1629)

- AE.1805** Additional 0.3x lens. Working distance 330 mm.  
Suitable with ST.1720, ST.1770, ST.1780 and ST.1785 stands
- AE.1806** Additional 0.5x lens. Working distance 198 mm.  
Suitable with ST.1715, ST.1720, ST.1770, ST.1780 and ST.1785 stands
- AE.1807** Additional 0.75x lens. Working distance 125 mm
- AE.1808** Additional 1.5x lens. Working distance 62 mm
- AE.1809** Additional 2.0x lens. Working distance 42 mm

## ADDITIONAL LENSES

(for ZE.1657)

- AE.1807** Additional 0.35x lens. Working distance 250 mm
- AE.1808** Additional 0.5x lens. Working distance 174 mm
- AE.1809** Additional 1.5x lens. Working distance 57 mm

## PROTECTION WINDOWS

(to be screwed under the objectives)

- AE.1845** Protection window for all heads of ZE series except ZE.1659
- AE.1825** Protection window for ZE.1659.  
Not suitable with additional lenses

## DARK FIELD

- AE.1878** Dark field attachment for all stands with transmitted illumination
- AE.1879** Iris diaphragm suitable with AE.1878
- AE.1871** Object table for AE.1878 with ST.1760 stand.  
Suitable to observe contact lenses or gems with an object slide

## POLARIZATION

- AE.1890** Analyser, in rotatable mount.  
Not suitable with ZE.1659
- AE.1891** Polarizer in mount.  
Suitable with ST.1740 and ST.1760
- AE.1892** Retardation plate gypsum 1st order red.  
Suitable with polarizer AE.1891

## MECHANICAL STAGES

- AE.1876** Plain stage 145 x 115 mm with 75 x 50 mm X-Y mechanical stage on ball bearings.  
Horizontal coaxial adjustment.  
Double Vernier with 0.1 mm graduations.  
Only with ST.1710, ST.1715 and ST.1740
- AE.1896** Stage 145 x 115 mm with central glass object plate and 75 x 50 mm X-Y mechanical stage on ball bearings.  
Horizontal coaxial adjustments.  
Double Vernier with 0.1 mm graduations.  
Only with ST.1740 and ST.1760
- AE.1877** Large stage 170 x 155 mm with 100 x 105 mm X-Y mechanical stage on ball bearings.  
For ST.1710, ST.1715 and ST.1740
- AE.1950** Large 390 x 390 mm stage with 360 x 360 mm X-Y mechanical stage.  
Only for ST.1720, ST.1770, ST.1780 and ST.1785

## OBJECT STAGES

- AE.1884** Round object high-profile table with frosted glass filter. Interchangeable with dark field ST.1760
- AE.1885** Round object low-profile table with frosted glass filter. Interchangeable with dark field ST.1740

## OBJECT PLATE - ø 94 mm

- AE.1880** Acrylic translucide object plate
- AE.1881** Glass transparent object plate
- AE.1882** Acrylic black/white object plate

## FILTERS - ø 40 mm

- AE.1897** Frosted glass filter
- AE.1898** Blue filter

## OBJECT HOLDER

- AE.5446** Orientable clamp for gems.  
Interchangeable with object plate clamp

## SPARE BULB AND FUSES

- SL.1868** 30 W 230 V incandescent bulb for ST.1750 stand
- SL.1869** 10 W 6 V halogen bulb for ST.1740 illumination
- AE.5252** Fuses for ST.1740 stand. Per 10 pieces

## ACCESSORIES

- AE.5059** Projection 0.45x objective with C-mount for cameras with 1/2" sensor. To be placed over a 23.2 mm tube of a ZE series photo tube.  
Optional reticle available
- AE.5063** Projection 0.7x objective with C-mount for cameras with 2/3" sensor. To be placed over a 23.2 mm tube of a ZE series photo tube.  
Optional reticle available
- DC.1320** Projection 1x objective with C-mount
- DC.1324** Projection 0.5x objective with C-mount for cameras with 1/2" sensor.  
To be inserted into a 23.2 mm tube
- DC.1326** Projection 0.33x objective with C-mount for cameras with 1/3" sensor.  
To be inserted into a 23.2 mm tube
- AE.5006** Projection 0.6x objective with C-mount
- AE.5130** Universal SLR camera adapter with 2x projection lens for 23.2 mm tubes. Need T2 adapter
- AE.5020** T2 adapter for Nikon D digital SLR cameras
- AE.5040** T2 adapter for Canon EOS digital SLR cameras  
*Other T2 adapters on request*



ZE.1629 and AE.1796

# STEREO MICROSCOPES

## P series

The microscopes of the P series are specifically designed for small lab purposes and come with both dual 10/30x and 20x/40x magnifications and by using optional eyepieces this can result in magnifications from 5x to 80x

The P series are compact and light weight, ideal for work in a lab or be taken to any location



P-20 (60.200)

60.100 / 60.200	
<b>Dimensions</b>	<b>Weight</b>
(h) 315 x (w) 120 x (d) 190 mm	2.5 kg



## HIGHLIGHTS

- Binocular models
- Easy to use
- 360° revolving rotatable head with 45° inclined tubes
- Secured WF 10x/20 mm eyepieces
- 10x/30x and 20x/40x magnification in revolving nosepiece
- Robust rack & pinion stand with powerful halogen or LED illumination
- LED illumination with rechargeable batteries for cordless use
- Incident and transmitted illuminations can be used simultaneously
- Light weight; easy to carry to any location
- 5 years warranty



P-10 (60.100)

## TECHNICAL SPECIFICATIONS

### EYEPIECES

Secured pair wide field eyepieces WF10x/20 mm. Supplied with eyecups

### HEAD

Binocular head with 45° inclined tubes. One tube supplied with diopter adjustment. Interpupillary distance from 55 to 75 mm

### OBJECTIVES

- The P-10 and P-10 LED models are supplied with revolving 1x/3x objectives for total magnification of 10 and 30 times with field of views from 20 to 6.7 mm
- The P-20 and P20-8 LED models are supplied with revolving 2x/4x objectives for total magnification of 20 and 40 times with field of views from 10 to 5 mm

Using additional eyepieces magnification range can be 5 to 80x

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

### STAND

Robust pillar stand with 35 mm coarse adjustment. Supplied with white/black object plate and 2 object clamps

### ILLUMINATION

The P-10 and P-20 models are supplied with 10 W 12 V halogen transmitted and incident illumination and internal power supply. Both illuminators can be operated independently or simultaneously

The P-10 LED and P-20 LED models are supplied with high power LED transmitted and incident illumination. With 3 rechargeable batteries for maximum 35 hours continuous cordless operation. Both illuminators can be operated independently or simultaneously. Comes with external mains adapter

# TECHNICAL SPECIFICATIONS

## CAMERAS

Euromex offers a wide range of industrial and laboratory grade cameras, see chapter 9 (Digital Solutions).

For P series, the camera replaces one of the eyepieces

## PACKAGING

Supplied with power cord, dust cover, a spare fuse and user manual (and spare bulb for halogen models).

All packed in a polystyrene box

## ACCESSORIES AND SPARE PARTS

- |               |  |                |  |
|---------------|--|----------------|--|
| <b>50.805</b> | Pair of wide field eyepieces WF 5x/22 mm                             | <b>AE.1112</b> | Micrometer slide, 50 mm/50 divisions   |
| <b>50.810</b> | Pair of wide field eyepieces WF 10x/20 mm                            | <b>PB.5245</b> | Lens cleaning paper, 100 sheets per pack   |
| <b>50.811</b> | Micrometer eyepiece WF 10x/20 mm, 10 mm/100                          | <b>PB.5274</b> | Isopropyl alcohol 99% (200 ml)   |
| <b>50.815</b> | Pair of wide field eyepieces WF 15x/16 mm                            | <b>PB.5275</b> | Cleaning kit: lens cleaning fluid, lint free lens tissue, brush, air blower and cotton swabs |
| <b>50.820</b> | Pair of wide field eyepieces WF 20x/10 mm                            |                |  |
| <b>50.840</b> | Pair of eyecups  |                |  |
| <b>50.871</b> | Black/white stage plate 94 mm diameter                               |                |  |
| <b>50.873</b> | Glass stage plate 94 mm diameter                                     |                |  |
| <b>50.875</b> | Adjustable GEM object clamp for P series                             |                |  |
| <b>50.876</b> | Dark field attachment  |                |  |
| <b>50.882</b> | Spare halogen bulb 12 V 10 W for P series (transmitted illumination) |                |  |
| <b>50.961</b> | Plastic case for P series  |                |  |



## MODELS

	45° head	1x/3x objective	2x/4x objective	Transmitted halogen illumination	Incident halogen illumination	Transmitted LED illumination	Incident LED illumination
P-10 60.100	•	•		•	•		
P-10 LED 60.110	•	•				•	•
P-20 60.200	•		•	•	•		
P-20 LED 60.210	•		•			•	•

# About Microscope optics

TECHNICAL FACTS

## RESOLVING POWER

A human eye can not distinguish two points when these are closer than approximately 0.3 mm or 300 μm to each other. That is what is called “resolving power”, the capacity to resolve 2 two points which are close together or “optical resolution”, the ability of an imaging system to resolve detail

For details smaller than approximately 3 μm, one can better choose an optical compound microscope to resolve these details

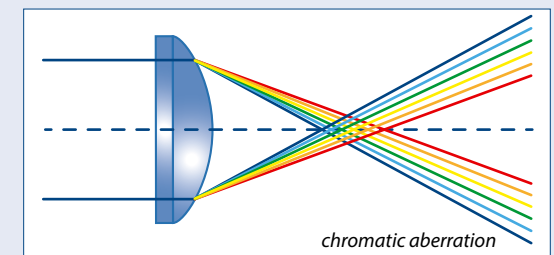
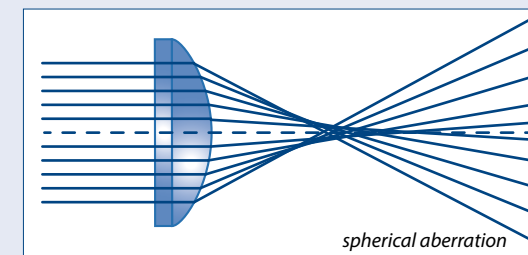
## MAGNIFICATION

If one need to detect details of 10 μm, one need at least 300 μm / 10 μm = 30x magnification in order to resolve this detail. Knowing that common stereo microscopes can magnify - without the help of additional lenses and without introducing additional optical aberrations – up to approximately max. 100 times, the smallest detail that a stereo microscope can resolve is 300 μm / 100 = 3 μm.

## OPTICAL RESOLUTION

The resolution of optical microscope can be defined as the shortest distance between two points that the microscope can reveal for a human eye or camera

The theoretical maximum resolution is limited by the diffraction laws of physics and is equal to  $r = 1.22 \lambda / (N.A. \text{ of objective} + N.A. \text{ condenser})$  with r = resolution, N.A. = numerical aperture, λ = imaging wavelength



## ABERRATIONS

In practice, the resolution of a microscope is lower than the theoretical resolution due to optical aberrations, Improper illumination or bad alignment of the optics and components of the microscope. Despite corrections for chromatic and spherical aberrations, coma, astigmatism and distortion, the real maximum resolution of a microscope with a 100x objective is about 0.25 μm for 550 nm light rays

- |                             |  |
|-----------------------------|--|
| <b>Chromatic aberration</b> | Difference in focus of different colors caused by difference in refractive indices for each wavelength |
| <b>Spherical aberration</b> | Difference in focus caused by defects or irregularities on the surface of a lens                       |
| <b>Astigmatism</b>          | Rays traveling through two perpendicular planes having different focus                                 |
| <b>Coma aberration</b>      | Variation in magnification over the entrance pupil   |
| <b>Distortion</b>           | Stretching of an image as a variation in magnification across the lens field                           |

# Digital Solutions

## Laboratories



- **DIGITAL MICROSCOPE** PAGE 176
- **USB CAMERAS** PAGE 180
- **SOFTWARE** PAGE 185
- **HD CAMERAS** PAGE 186
- **WIFI CAMERA** PAGE 189
- **TABLET CAMERA** PAGE 190
- **CCD CAMERA** PAGE 192
- **ADAPTERS** PAGE 194



# Digital Solutions

## Laboratories

Get ready to discover the digital world of microscopy with the newest Euromex digital laboratory products. The broad Euromex product range of digital cameras and digital microscopes with built-in camera offer the best suitable solutions for your specific application needs

Euromex digital laboratory products incorporate all latest available technology in this field like WiFi, HDMI and sCMOS sensors, specially designed for fluorescent microscopy. Our digital solutions package includes the powerful ImageFocus software for image analysis

**BioBlue**  
digital microscopes  
with integrated  
3.2 MP USB-2  
camera

The DIN WF 10x/18 eyepieces and the semi plan achromatic corrected 45 mm DIN objectives of the BioBlue models generate a crisp high-resolution image.

The 120 x 120 mm plain stage and 130 x 130 mm stage with double layered 70 x 28 mm mechanical X-Y stage enable precise and stable positioning of the specimen. With Abbe condenser, NeoLED™ or LED illumination with build in rechargeable batteries for corded and cordless use.

*Digital cameras come with 2 years warranty*



BB.4225

HIGHLIGHTS

- Monocular and binocular models
- Reserved quadruple nosepiece for semi plan objectives
- Integrated digital 3.2 MP USB-2 camera
- Integrated mechanical stage
- LED and NeoLED™ illumination
- Cordless operation
- 10 years warranty

TECHNICAL SPECIFICATIONS

CAMERA

All the BioBlue digital microscopes are equipped with a 3.2 MP CMOS USB-2 camera, maximum resolution 2048 x 1536, 24 bits color depth, up to 15 frames per second. Delivered with ImageFocus 4 software, USB-2 cable and a micrometer 1mm/100 slide. Warranty for the camera is 2 years

SOFTWARE

The capture and analysis ImageFocus 4 software allows to save images in .jpg, .tif or .bmp formats as well as .avi format videos. Images can be annotated and measurements can be performed in live of captured images. Compatible with Windows XP, Vista, 7, 8 and 10, both 32 and 64 bits configurations. Mac OS Light version is also available for capturing images

*Full microscope specifications and accessories see chapter 1: Biological microscopes*

MODELS

	Monocular	Binocular	Semi plan 4x, 10x and S40x objectives	Semi plan S60x objective	Semi plan S100x objective	Integrated X-Y stage	1 W 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



BioBlue digital (monocular head)



BioBlue digital (binocular head)

BB.4225 / BB.4245 / BB.4255	
Dimensions	Weight
(h) 340 x (w) 155 x (d) 230 mm	3.4 kg

BB.4267 / BB.4269	
Dimensions	Weight
(h) 360 x (w) 155 x (d) 230 mm	4.1 kg

## ACCESSORIES AND SPARE PARTS

- AE.5572** Wide field eyepieces WF10x/18 mm  
**AE.5573** Wide field eyepiece WF15x/12 mm  
**AE.5574** Wide field micrometer eyepiece 10mm/100  
**AE.5581** Wide field eyepiece WF10x/18 mm with pointer  
**AE.5582** Wide field eyepiece WF20x/11.5 mm  
**AE.5365** Eyecup for 28 mm eyepieces  
**AE.1110** Stage micrometer 1 mm/ 100 parts
- AE.5591** Semi plan objective 4x/0.10,  
working distance 37.5 mm  
**AE.5593** Semi plan objective 10x/0.25,  
working distance 6.54 mm  
**AE.5594** Semi plan objective 20x/0.40,  
working distance 1.2 mm  
**AE.5597** Semi plan objective S40x/0.65,  
working distance 0.68 mm  
**AE.5599** Semi plan objective S60x/0.75,  
working distance 0.2 mm  
**AE.5601** Semi plan objective S100x/1.25 oil immersion,  
working distance 0.22 mm
- AE.5511** Discussion head
- AE.5150** Simple polarization attachment.  
Polarizer 18 mm diameter mounted in eyepiece,  
analyzer 32 mm diameter placed 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.5202** Blue filter, 32 mm diameter  
**AE.5203** Yellow filter, 32 mm diameter  
**AE.5204** Neutral grey filter, 32 mm diameter  
**AE.5205** Green filter, 32 mm diameter  
**AE.5207** Blue filter plexiglass, 32 mm diameter
- BB.4300** Aluminium case for BioBlue microscopes  
**AE.9981** 1 W LED replacement unit  
**AE.9991** 1 W NeoLED™ replacement unit  
**SL.1379** Spare halogen 20 W 12 V bulb for BioBlue  
polarisation models  
**AE.5227** Glass fuses 1 A 250 V, 10 pieces
- 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 = 1.482 (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

# MicroscopeCameras

USB-2, USB-3 and WiFi cameras  
for microscopy



The several USB-2, USB-3 and WiFi cameras in combination with ImageFocus capture and analysis software offer the perfect solution for today's educational, laboratory and industrial microscopy needs. The cameras are suitable for Life and Materials Science microscopes as well as stereo microscopes

## USB CAMERAS

ENTRY LEVEL  
CAMERAS FOR  
LABORATORIES



### CMEX USB-2 cameras with CMOS sensor

The CMEX-1, CMEX-3 and CMEX-5 are equipped with a CMOS sensor with 10 bits grayscale conversion and a 24 bits color rendering. The CMEX cameras are equipped with USB-2 data interface and supplied with ImageFocus 4 software

Besides capturing of images and videos, the software allows measurements on still and live images and to perform annotations on captured images. Compatible with Windows XP, Vista, 7, 8 and 10, both 32 and 64 bits configurations

CMEX

#### MODELS

	Number of pixels (MP)	Sensor	Sensor size (inches)	Pixels size (µm)	Resolutions	Max. frames (p/sec)	Grayscale conversion	Color rendering	Signal/ Noise(db)	Dynamic (db)	Sensibility V/lux-sec (at 550 nm)	Product number
CMEX-1	1.3	CMOS	1/3"	3.6x3.6	1280x1024 640x480	15 30	10 bits	24 bits	55	72	1.3	DC.1300c
CMEX-3	3.2	CMOS	1/2"	3.2x3.2	2048 x 1536 1024 x 768 640 x 480	10 25 40	10 bits	24 bits	44	72	1.3	DC.3000c
CMEX-5	5.0	CMOS	1/2.5"	2.2x2.2	2592x1944 1280x960 1024x768 640x480	5 21 25 38	10 bits	24 bits	42	65	1.3	DC.5000c

The CMEX cameras are supplied in a carton box with USB-2 cable, 30.0 and 30.5 mm to 23.2 mm conversion adapters for use with stereo microscopes, 1mm/100 (10µm/division) calibration slide and a 0.45x C-mount objective, except the CMEX-1 (DC.1300c) that is supplied with a 0.35x C-mount objective

PROFESSIONAL  
CAMERAS FOR  
LABORATORIES



### CMEX Pro USB-2 cameras with CMOS sensor

The CMEX-3 Pro and CMEX-5 Pro are equipped with a CMOS sensor with 12 bits grayscale conversion and a 24 bits color rendering. The CMEX cameras are equipped with a USB-2 data interface and supplied with ImageFocus 4 software

Besides capturing of images and videos, the software allows measurements on still and live images and to perform annotations on captured images. Compatible with Windows XP, Vista, 7, 8 and 10, both 32 and 64 bits configurations

#### MODELS

	Number of pixels (MP)	Sensor	Sensor size (inches)	Pixels size (µm)	Resolutions	Max. frames (p/sec)	Grayscale conversion	Color rendering	Signal/ Noise(db)	Dynamic (db)	Sensibility V/lux-sec	Product number
CMEX-3 Pro	3.2	CMOS	1/2"	3.2 x 3.2	2048x1536 1024x768 640x480	10 25 40	12 bits	24 bits	45	72	1.5	DC.3000p
CMEX-5 Pro	5.0	CMOS	1/2.5"	2.2 x 2.2	2592 x 1944 1280 x 960 1024x 768 640 x 480	5 21 25 38	12 bits	24 bits	45	65	1.5	DC.5000p

The CMEX Pro cameras are supplied in a deluxe carrying case with USB-2 cable, 30.0 and 30.5 mm to 23.2 mm conversion adapters for use with stereo microscopes, 1mm/100 (10µm/division) calibration slide and a 0.45x C-mount objective





sCMEX

## sCMEX USB-2 cameras with Scientific sCMOS sensor

The sCMEX-1 and sCMEX-3 cameras are equipped with a scientific sCMOS sensor with 16 bits grayscale conversion and an outstanding 36 bits color rendering. Suitable for brightfield, darkfield and fluorescence. The sCMEX cameras are equipped with a USB-2.0 and supplied with ImageFocus 4 software

Besides capturing of images and videos, the software allows measurements on still and live images and to perform annotations on captured images. Compatible with Windows XP, Vista, 7, 8 and 10, both 32 and 64 bits configurations

### MODEL

	Number of pixels (MP)	Sensor	Sensor size (inches)	Pixels size (µm)	Resolutions	Max. frames (p/sec)	Grayscale conversion	Color rendering	Signal/ Noise(db)	Dynamic (db)	Sensibility V/lux-sec	Product number
sCMEX- 1	1.3	sCMOS	1/3"	3.6 x 3.6	1278 x 1038 664 x 512	25 39	16 bits	36 bits	55	72	1.5	DC.1300s
sCMEX- 3	3.0	sCMOS	1/2.8"	2.5 x 2.5	2048 x 1536 1024 x 768 684 x 512	11 27 38	16 bits	36 bits	55	69	1.5	DC.3000s

The sCMEX cameras are supplied in a carton box with USB-2 cable, 30.0 and 30.5 mm to 23.2 mm conversion adapters for use with stereo microscopes, 1mm/100 (10µm/division) calibration slide and a 0.35x C-mount objective



DC.5000i

## Euromex 5 Mpix camera CCD cooled color

The Euromex 2/3 inch CCD Peltier cooled camera is equipped with a Peltier cooling element that allows the camera to be suitable for fluorescence applications. The camera have a USB-2 interface for connection with a computer and is supplied with ImageFocus4 software

Besides capturing of images and videos, this software allows measurements on still and live images and to perform annotations on captured images. The software has specific functions for fluorescence like combining capture fluorescence images. Compatible with Windows XP, Vista, 7, 8 and 10, both 32 and 64 bits configurations

### MODEL

	Number of pixels (MP)	Sensor	Sensor size (inches)	Pixels size (µm)	Resolutions	Max. frames (p/sec)	Grayscale conversion	Color rendering	Signal/ Noise(db)	Dynamic (db)	Sensibility V/lux-sec	Product number
CCD cooled	5.0	CCD	2/3"	3.4 x 3.4	2580 x 1944 1280 x 932	3 12	16 bits	36 bits	55	74	0.5	DC.5000i

The Euromex CCD cooled camera (DC.5000i) is supplied in an aluminium box and with USB-2 cable, 30.0 and 30.5 mm to 23.2 mm conversion adapters for use with stereo microscopes, 1mm/100 (10µm/division) calibration slide and external 5 Vdc/4 A power supply

The Euromex CCD cooled camera (DC.5000i) is equipped with a female C-mount thread and can be directly mounted on microscopes with a C-mount adapter. For microscopes with a standard 23.2 mm tube, the 0.67x objective for 2/3" cameras is needed (reference DC.1328 sold separately)

USB CAMERAS

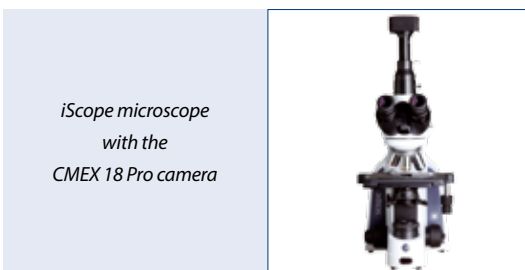
PROFESSIONAL  
CAMERAS  
FOR SCIENCE

FEATURED

## CMEX-10 PRO and CMEX-18 PRO USB-3.0 camera

The CMEX-10 Pro and CMEX-18 Pro cameras are equipped with a 10 or 18 MP CMOS sensor with 12 bits grayscale conversion and a 24 bits color rendering. This camera is equipped with a USB-3 data interface enabling fast frame rate and supplied with ImageFocus Alpha software

Besides capturing of images and videos, the software allows measurements on still and live images and to perform annotations on captured images. Compatible with Windows XP, Vista, 7, 8 and 10, both 32 and 64 bits configurations. A 2GB RAM 2.8 GHz computer and 17 inch display is recommended



DC.18000p

Sensor	Sensor size (inches)	Pixels size (µm)	Resolutions	Max. frames (p/sec)	Grayscale conversion	Color rendering	Signal/ Noise(db)	Dynamic (db)	Sensibility V/lux-sec	Product number	
CMEX-10 Pro	CMOS	1/2.3"	1.67x1.67	3584x2746	7.2	12 bits	24 bits	35.5	63.5	0.31	DC. 10000p
			1792x1372	24.5							
CMEX-18 Pro	CMOS	1/2.3"	1.25x1.25	4912x3684	6	12 bits	24 bits	42	65	1.3	DC. 18000p
			2456x1842	18							
			1228x922	32							

The CMEX-18 camera is supplied in a carton box with USB-3 cable, 30.0 and 30.5 mm adapters to use with stereo microscopes, 1mm/100 (10µm/division) calibration slide and a 0.45x C-mount objective

SOFTWARE

FREE UPDATES  
AVAILABLE ON  
EUROMEX.COM



## ImageFocus 4 software

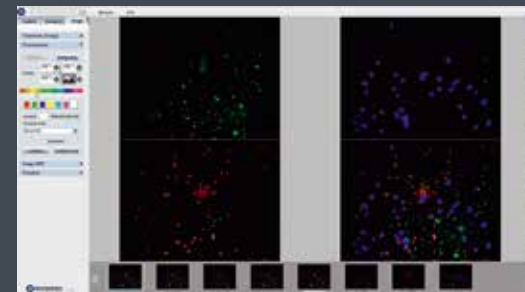
The software is compatible with all above mentioned USB-2 cameras.

Besides live imaging, the software captures images in Jpeg, Tiff or Bmp formats or video recording in Avi format

ImageFocus 4 has a wide range of functions like:

- Measurements can be done on still and live image
- The brightness, contrast and saturation of captured images can be adjusted
- Camera parameters for exposure time, white balance and color control are easily accessible
- The software also has specific functions for fluorescence like combining capture fluorescence images
- Compatible with Windows XP, Vista, Windows 7, 8 and 10, both 32 and 64 bits configuration

IMAGE FOCUS 4
DC.1300c / DC.3000c / DC.5000c
DC.3000p / DC.5000p
DC.1300s / DC.3000s
DC.5000i
VC.3036 / VC.3031



## ImageFocus Alpha software

The ImageFocus Alpha software is compatible with the mentioned USB-3 cameras.

Besides live imaging, the software captures images in several formats like Jpeg, Tiff or Bmp or video recording in Avi format

ImageFocus Alpha has a wide range of functions like:

- Measuring, segmentation & count, stitching of images, Extended Dept of Focus, stacking etc
- The brightness, contrast and saturation of captured images can be adjusted
- Camera parameters for exposure time, white balance and color control are easily accessible
- The software also has specific functions for fluorescence like combining capture fluorescence images
- Compatible with Windows XP, Vista, Windows 7, 8 and 10, both 32 and 64 bits configuration

IMAGE FOCUS ALPHA
DC.18000p / DC.10000p
DC.5000-WIFI

# High definition HD1080p and 720p CMOS color cameras with HDMI and USB-2 interfaces

VC.3036

The Euromex HD-Ultra, HD-Lite and HD-Mini cameras offers the perfect solution to modern microscopy for industry and laboratories where real time images are needed. These HD image quality cameras can be used for biological, metallurgical or stereo microscopes

The cameras are equipped with high sensitive sensors for low and intense light conditions and also suitable for coaxial illumination and machine vision applications

MODEL

	Sensor	Sensor size (inches)	Pixels size (µm)	Resolutions	Grayscale conversion	Color rendering	Signal/ Noise(db)	Dynamic (db)	Sensitivity (V)	Product number
HD-Ultra	Sony	1/2.8"	2.8 x 2.8	3264 x 1836	16 bits	36 bits	55	69	510mV	VC.3036
HDMI/USB2	CMOS			1920 x 1080 1080p video HDMI 60 fps						
HD-Lite	Aptina	1/2.5"	2.2 x 2.2	2592 x 1944	16 bits	24 bits	40.5	60	1V	VC.3031
HDMI/USB2	CMOS			1920 x 1080 1080p video HDMI 15 fps						
HD-Mini	CMOS	1/2.5"	5.7 x 4.28	1080 x 720	8 bits	24 bits	38	70	1.4V	VC.3030
HDMI				HDMI 30 fps						

## HIGHLIGHTS

- HD 1080p or 720p high definition color cameras
- Real time images directly on TV, monitor or beamer
- Stand alone or used via PC
- Built-in mouse-driven software
- C-mount interface
- HDMI, USB-2 and SD memory card
- Compatible with ImageFocus 4 software



Back panel of VC.3036

The real time images generated with these camera provide excellent color rendering with frame speeds up to 60 fps. All settings are done automatically and therefore very user friendly. Once connected directly to a HDMI screen, TV or beamer with HDMI input, one can use the mouse-driven onboard software of the HD-Ultra and HD-Lite to capture and save images and videos (.avi format) on the integrated SD memory card.

A menu can be displayed right on screen, for live viewing or capturing of images and videos. Captured images and videos can be very easily reviewed without any need of a computer and the HD-Ultra even offers a full range of measuring options. These key properties make the cameras ideal for real time inspection, education and live demonstrations

Cameras are supplied with a C-mount and can be connected to all Euromex microscopes using optional C-mount adapters. The HD-Mini camera is supplied with 0.45x C-mount adapter for standard 23.2 mm tube

Users can also connect the HD-Ultra and HD-Lite camera to a computer using the USB-2 interface. The supplied ImageFocus 4 software allows more camera and image controls, annotations and measuring functions on live and captured images. Compatible with Windows XP, Vista 7, 8 and 10, both 32 and 64 bits

The HD-Mini is solely connected via a HDMI input and controlled by buttons on the camera and comes without

software. Captured images and videos (.avi format) are saved to the on-board SD memory card

### PACKAGING

The HD-Ultra and HD-Lite 1080p cameras (ref. VC.3036 & VC.3031) are supplied with USB-2 (A-A type) cable, USB-2 mouse, 30.0 and 30.5 mm to 23.2 mm conversion adapters for use with stereo microscopes, 1mm/100 (10µm/division) calibration slide and external power supply

The HD-Ultra cameras need a 0.35x C-mount adapter and the HD-Lite cameras need a 0.45x C-mount adapter to connect them to microscopes. For microscopes with a standard 23.2 mm tube, the optional 0.33x objective for 1/3" cameras (reference DC.1326) is required. For other microscope tubes, please refer to our camera adapter guide. Supplied with Image Focus 4 software, Window XP and higher

The HD-Mini 720p camera (ref. VC.3030) is supplied in a carton box with USB-2 mouse 30.0 and 30.5 mm to 23.2 mm conversion adapters for use with stereo microscope and with 23.2mm tube C-mount adapter. Supplied without USB-2 cable

### COMPUTER CONTROLLED VERSUS STAND-ALONE

There are two ways to use the HD-Ultra (ref. VC.3036) and HD-Lite (ref. VC.3031) cameras, computer controlled or as stand-alone system

## STAND-ALONE

No need to open or start a computer or any computer knowledge to use a camera. This results in faster, more flexible and compact working conditions. Simply plug the camera to a high resolution HDMI monitor or TV and the system is ready to go. Ideal for quality control systems etc. Although most settings are done automatically by the camera, one can use the supplied mouse to control the camera via a user retrievable on-screen menu. The mouse is connected directly to the camera. Very intuitive controls allow users to capture and save images and to record videos on the integrated SD memory card

## COMPUTER CONTROLLED

Users who want more camera controls and more measurements functions, can connect the camera to a

computer and take benefit of the power of the Euromex ImageFocus v4 software. It runs on Windows XP, Vista 7, 8 and 10, both 32 and 64 bits and is supplied with the camera package. Euromex supplies free updates on [www.euromex.com](http://www.euromex.com). Besides live imaging and measuring functions on live and captured images, the software saves images in JPG, TIFF or BMP formats or recording videos in .avi format. The software allows measurements on linear sections, angles and surfaces, and also full control over the camera parameters like manual or automatic exposure time, white balance, adjustments of brightness, contrast and saturation on live and captured images. Specific functions for fluorescence like histogram adjustments and combining captured fluorescence images are also included in ImageFocus 4 software

	HD-Ultra	HD-Lite	HD-Mini
<b>Sensor</b>	Sony sensor	Aptina sensor	-
<b>Format</b>	1/2.8", HDTV 1080p (50/60 Hz)	1/2.5", HDTV 1080p (50/60 Hz)	1/2.5", HDTV 720p (50/60 Hz)
<b>Pixels</b>	3264 x 1836 (capture mode), 1920 x 1080 pixels (live view), HDMI 60 fps USB 30 fps	2592 x 1944 (capture mode), 1920 x 1080 pixels (live view), HDMI 15 fps USB 15fps	- 1080 x 1720 pixels - -
<b>Video</b>	1080p pixels video recording mode	1080p pixels video recording mode	720p pixels video recording mode
<b>Scan mode</b>	Progressive scan	Progressive scan	Progressive scan
<b>Noise</b>	3D Noise Reduction function	3D Noise Reduction function	Noise Reduction function
<b>White balance</b>	Automatic/manual	Automatic/manual	Automatic
<b>Interfaces</b>	Digital HDMI, USB 2	Digital HDMI, USB 2	Digital HDMI
<b>Storage</b>	Standard high speed 8 Gb SD memory card or to USB-2	Standard 4 Gb SD memory card or to USB-2	Standard high speed 4 Gb SD memory card
<b>Camera buttons</b>	On/Off	On/Off	Videostream/freeze, AEWB on/off, save image, cursor on/off
<b>Mounting</b>	C-mount interface	C-mount interface	C-mount interface
<b>Power supply</b>	External main adapter 100-240 Vac to 12Vdc/2A	External main adapter 100-240 Vac to 12Vdc/2A	External main adapter 100-240 Vac to 5Vdc/1A
<b>Operation</b>	0 – 60° C, 45-85 % humidity	0 – 60° C, 45-85 % humidity	-10 – 40° C, 30-80 % humidity
<b>Storage temperature</b>	-20 to 70° Celsius	-20 to 70° Celsius	-20 to 60° Celsius
<b>Product number</b>	<b>VC.3036</b>	<b>VC.3031</b>	<b>VC.3030</b>



WIFI CAMERAS  
FOR EDUCATION  
AND SCIENCE

FEATURED

## CMEX-WIFI 5.0 MP digital WiFi camera with 1/2.5 inch CMOS sensor

DC.5000-WIFI

The CMEX-WIFI 5 camera is equipped with a 5 MP CMOS sensor with 12 bits grayscale conversion and a 24 bits color rendering.

The CMEX camera streams H.264 encoded high resolution images simultaneously to several WiFi enabled smartphones, tablets or computers with iOS, Android and Windows operating systems

Power supply over USB charger or computer USB port. Standard C-mount mounting



Adding a WiFi camera to your microscope is ideal for wireless sharing/viewing microscope images. Ideal for demonstrations or placed where remote viewing is needed

Apps for Android for this camera are supplied on cd (Android) or can be downloaded from the App store (free of charge). ImageFocus Alpha software can be used for Windows based devices and WiFi connected PC. Also supplied with the camera on cd

The camera is powered by the included USB charger or a computers USB port. Standard C-mount mounting with 0.45x C-mount objective included

## MODEL

	Sensor	Sensor size (inches)	Pixels size (µm)	Resolutions	Grayscale conversion	Color rendering	Signal/ Noise(db)	Dynamic (db)	Sensibility V/lux-sec	Product number
CMEX-WIFI5	CMOS	1/2.5"	2.2 x 2.2	1280 x 720	12 bits	24 bits	43	61	1.0	DC. 5000-WIFI

The CMEX-WIFI 5 camera is supplied in a carton box with USB-2 cable, 30.0 and 30.5 mm adapters to use with stereo microscopes, and a 0.45x C-mount objective



## ProPad tablet with microscope camera and keyboard-docking station

The ProPad Full HD (1280x800) display reveals bright colours and crisp, microscopic images.

The ProPad consists out of a high quality microscope camera system and a fully detachable tablet running the latest ImageFocus versions. You can take it anywhere

Together with the included attachable keyboard, you can use it as a microscope imaging system, tablet and laptop. The keyboard connects to the tablet using magnets to provide a latchless docking solution that lets you smoothly remove and re-attach the keyboard to the ProPad

### SOFTWARE

ProPad-1, ProPad-3 and ProPad-5 are supplied with ImageFocus 4. ProPad-WIFI is supplied with ImageFocus Alpha software for image and video capture and measuring



## HIGHLIGHTS

- 10.1" Tablet with microscope camera
- 1280 x 800 pixels HD touchscreen
- Full Windows 8.1, 32 bit system
- ImageFocus 4 capture software for PC
- ImageFocus Alpha for WiFi enabled PC and Android devices
- Tablet can be fully detached from camera
- Including keyboard
- The keyboard uses a magnetic docking solution so you can loosen it easily and snap on the ProPad



ProPad and keyboard-docking station



### SPECIFICATION

Processor	Quad Core 1.33 GHz with HD graphics processor
Screen	1280 x 800 (WGXA) touchscreen, LED backlight
Memory	2 GB DDR RAM, 2 MB cache
Storage	32 GB intern SDD, micro SD up to 32 GB
Webcam	2 MP, 1600 x 1200 pixels front and rear cameras
Connectivity	Micro USB 2.0, WiFi 802.11 b/g/n and Bluetooth 4.0
Audio	Stereo with 3.5 mm audio jack and internal microphone
Battery	Lithium, 4420 mAh, 17 Wh
Housing	Aluminium, white colour, 214 x 128 x 9.8 mm
Weight	788 gram
System	Windows 8.1, 32 bit
Supplied with	Keyboard-docking station

### MODELS

	Camera (MP)	Sensor size	Resolution	Pixels size (µm)	ADC	Color rendering	Signal/ Noise(db)	Dynamic (db)	Sensibility V/lux-sec	Interface	Product number
ProPad-1	1.3	1/3"	1280x1024	3.6 x3.6	10 bits	24 bits	55 db	72 db	1.3	USB-2	PP.1300c
ProPad-3	3.2	1/2"	2048x1536	3.2 x3.2	10 bits	24 bits	44 db	72 db	1.3	USB-2	PP.3000c
ProPad-5	5	1/2.5"	2592x1944	2.2 x 2.2	10 bits	24 bits	42 db	65 db	1.3	USB-2	PP.5000c
ProPad-WIFI	5	1/2.5"	2592x1944	2.2 x 2.2	12 bits	24 bits	40.5 db	66.5 db	0.53	WiFi	PP.5000-WIFI



VC.3032

## CCD color camera - 580 lines with composite and S-video output

The Euromex analogue camera VC.3032 offers the perfect solution to modern microscopy for industry and laboratories where real time images are needed. These high resolution cameras can be used with either biological or stereo microscopes. The cameras are equipped with very sensitive sensors for brightfield and dark field applications as well for phase contrast and with coaxial illumination

### DIGITAL

Digitizing the images of this analogue camera can be done using the VC.5491 frame grabber. Connected to PC using USB-2 this device allows storage of images and videos

### REALTIME

The real time images generated with this camera provide extremely well true- to-live colors without any delay. Most camera settings are done automatically and makes the cameras ideal for real time inspection, education and demonstrations. Connection is done using BNC(composite), SCART or S-video for connection to HDMI TV, monitors or beamers

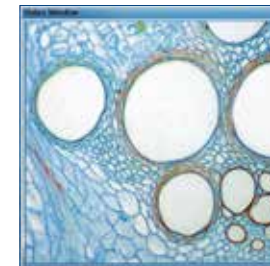
### MODEL

	Sensor	Sensor size (inches)	Number of pixels	Number of image lines	White balance	Sensitivity	Output	Connection
VC.3032	CCD	1/2"	297,984	580	auto/manual	auto/manual	Composite/S-Video	C-mount



## Mini USB-2 Video Grabber for CCD color camera

This mini VC.5491 USB-2 video grabber converts composite or a S-video signal from any analogue camera into digital images and sends them to a computer via a USB-2 connection



Video Window

### MODEL

Images	Saving in BMP, JPG, TIFF format
Image resolution	640 x 480 pixels (fixed image)
Video movies	Saving in AVI, MPEG-2, MPEG-4, VCD, SVCD, WMV format
Video resolution	730 x 480, 640 x 480, 640 x 240, 320 x 240 pixels
Video system	PAL, SECAM, NTSC
Settings	Brightness, contrast, hue and saturation
Video input	Composite and S-video (Y/C)
Audio input	Cinch connection - stereo left/right
Power supply	5 Vdc, max 330 mA via USB-port 2
Minimum requirements	PC Pentium 4, 1 GHz, 128 MB RAM internal memory, a free USB-2 port, soundcard
Operation system	Windows 2000 SP3, Windows XP SP 1 (or higher), Windows Vista, Windows 7 and 8
Product number	<b>VC.5491</b>

FOR ALL  
MICROSCOPE  
CAMERAS



AE.5130

NZ.9833



## Adapter Guide Microscope and camera

This comprehensive guide will help you select the right adapters for your camera and microscope. Most cameras are plug and play with most microscopes, if not the applicable adapter is indicated.

Simply order the adapter with your camera and the system is ready to use. Do you want to connect our cameras to another brand microscope? Euromex offers high quality adapters for most brands on the market, please contact us for models

### MODELS

		DC.1300c	DC.1300s / DC.3000s / DC.3000c / DC.5000c / DC.10000p / DC.3000p / DC.5000p / DC.18000p / DC.5000-WIFI / VC.3030	DC.5000i	VC.3032 / VC.3031	VC.3036	DSLR camera (need brand specific T2 adapter)
<b>B and B+ series</b>	<b>Monocular*</b>	Plug & Play	Plug & Play	DC.1323	DC.1324	DC.1326	AE.5130 + T2
<b>B and B+ series</b>	<b>Binocular*</b>	Plug & Play	Plug & Play	DC.1323	DC.1324	DC.1326	AE.5130 + T2
<b>B and B+ series</b>	<b>Trinocular</b>	Plug & Play	Plug & Play	DC.1323	DC.1324	DC.1326	AE.5130 + T2
<b>BioBlue.Lab</b>	<b>Binocular*</b>	Plug & Play**	Plug & Play**	DC.1330 + DC.1323	DC.1330 + DC.1324	DC.1330 + DC.1326	AE.5130 + DC.1330 + T2
<b>BioBlue.Lab</b>	<b>Trinocular</b>	Plug & Play	Plug & Play	DC.1323	DC.1324	DC.1326	AE.5130 + T2
<b>DZ series</b>	<b>Binocular*</b>	Plug & Play**	Plug & Play**	DC.1330 + DC.1323	DC.1330 + DC.1324	DC.1330 + DC.1326	AE.5130 + DC.1330 + T2
<b>DZ series</b>	<b>Trinocular</b>	Plug & Play	Plug & Play	DC.1323	DC.9011 or DC.1324	DC.9011 or DC.1324	AE.5130 + T2
<b>iScope</b>	<b>Binocular*</b>	Plug & Play	Plug & Play	DC.1323	DC.1324	DC.1326	AE.5130 + T2
<b>iScope</b>	<b>Trinocular</b>	Plug & Play	Plug & Play	DC.1323	DC.1324	DC.1326	AE.5130 + T2

\* Camera substitutes one eyepiece

\*\* Using the supplied 30/30.5 mm conversion adapters (DC.1330/DC.1335)

## ACCESSORIES AND SPARE PARTS

- DC.1320** C-mount adapter with 1x objective for standard Ø 23.2 mm tubes
- DC.1323** C-mount adapter with 0.67x objective for standard 23.2 mm tubus and 2/3" camera
- DC.1324** C-mount adapter with 0.45x objective for standard Ø 23.2 mm tubes and 1/2" camera
- DC.1326** C-mount adapter with 0.35x objective for standard Ø 23.2 mm tubes and 1/3" camera
- DC.1330** 30 mm to 23.2 mm conversion adapters for stereo microscopes
- DC.1335** 30.5 mm to 23.2 mm conversion adapters for stereo microscopes
- OX.5120** Standard 23.2 mm diameter tube for Oxion photo port
- AE.5130** Universal SLR camera adapter for 23.2 mm tubus with built-in 2x magnification lens. Needs T2 adapter
- AE.5025** T2 adapter for Nikon D digital SLR cameras
- AE.5040** T2 adapter for Canon EOS digital SLR cameras
- OX.9810** CS/C mount with 1.0x objective
- OX.9833** C-mount adapter with 0.33x objective for Oxion microscopes and 1/3" cameras
- OX.9850** C-mount adapter with 0.5x objective for Oxion and Oxion Inverso microscopes and 1/2" cameras
- NZ.9833** C-mount adapter with 0.33x objective for NexiusZoom microscopes and 1/3" cameras
- NZ.9850** C-mount adapter with 0.5x objective for NexiusZoom microscopes and 1/2" cameras
- SB.9833** C-mount adapter with 0.33x objective for StereoBlue microscopes and 1/3" cameras
- SB.9850** C-mount adapter with 0.5x objective for StereoBlue microscopes and 1/2" cameras
- AE.5059** C-mount adapter with 0.45x objective for Z series microscopes. To be placed over the Ø 23.2 mm tube
- AE.5063** C-mount adapter with 0.7x objective for Z series microscopes and 2/3" sensor cameras. To be placed over the Ø 23.2 mm tube

### MODELS

		DC.1300c	DC.1300s / DC.3000s / DC.3000c / DC.5000c / DC.10000p / DC.3000p / DC.5000p / DC.18000p / DC.5000-WIFI / VC.3030	DC.5000i	VC.3032 / VC.3031	VC.3036	DSLR camera (need brand specific T2 adapter)	other available items
<b>iScope IOS</b>	<b>Binocular*</b>	Plug & Play**	Plug & Play**	DC.1330 + DC.1323	DC.1330 + DC.1324	DC.1330 + DC.1326	AE.5130 + DC.1330 + T2	
<b>iScope IOS</b>	<b>Trinocular</b>	Plug & Play	Plug & Play	DC.1323	DC.1324	DC.1326	AE.5130 + T2	
<b>NexiusZoom</b>	<b>Binocular*</b>	Plug & Play**	Plug & Play**	DC.1330 + DC.1323	DC.1330 + DC.1324	DC.1330 + DC.1326	AE.5130 + DC.1330 + T2	AE.5132
<b>NexiusZoom</b>	<b>Trinocular</b>	Plug & Play	Plug & Play	NZ.9850 or DC.1323	NZ.9850 or DC.1324	NZ.9833 or DC.1326	AE.5130 + T2	NZ.9850
<b>Oxion</b>	<b>Binocular*</b>	Plug & Play**	Plug & Play**	DC.1330 + DC.1323	DC.1330 + DC.1324	DC.1330 + DC.1326	AE.5130 + DC.1330 + T2	AE.5132
<b>Oxion</b>	<b>Trinocular</b>	OX.9833	OX.9850	AE.5132 + DC.1323	OX.9850	OX.9833	AE.5120 + AE.5130 + T2	OX.9810
<b>Oxion Inverso</b>	<b>Trinocular</b>	OX.9833	OX.9850	AE.5132 + DC.1323	OX.9850	OX.9833	AE.5120 + AE.5130 + T2	OX.9810
<b>P series</b>	<b>Binocular</b>	Plug & Play**	Plug & Play**	DC.1335 + DC.1323	DC.1335 + DC.1324	DC.1335 + DC.1326	AE.5130 + DC.1335 + T2	
<b>StereoBlue</b>	<b>Binocular*</b>	Plug & Play**	Plug & Play**	DC.1330 + DC.1323	DC.1330 + DC.1324	DC.1330 + DC.1326	AE.5130 + DC.1330 + T2	
<b>StereoBlue</b>	<b>Trinocular</b>	Plug & Play	Plug & Play	DC.1323 or SB.9850	DC.1324 or SB.9850	DC.1326 or SB.933	AE.5130 + T2	
<b>Z series</b>	<b>Binocular*</b>	Plug & Play**	Plug & Play**	DC.1335 + DC.1323	DC.1335 + DC.1324	DC.1335 + DC.1326	AE.5130 + DC.1335 + T2	
<b>Z series</b>	<b>Trinocular</b>	Plug & Play	Plug & Play	DC.1323	DC.1324	DC.1326	AE.5130 + T2	

# Accessories

for microscopy



- ILLUMINATION SOLUTIONS PAGE 276
- PREPARATION ACCESSORIES PAGE 284
- DISSECTION KITS PAGE 286
- MICROSCOPE PREPARED SLIDES PAGE 288
- DISPOSABLES PAGE 300
- STAINS PAGE 301





# Accessories

for microscopy

Euromex offers a one-stop solution for all microscopy related accessories needed during microscopy sessions. From dissection instruments to stains, cold light sources to LED ring light illuminators, Euromex can provide a wide selection of product accessories

Extend the life of your microscope(s) with our dedicated tools to clean and maintain the mechanical and optical parts



# Illumination Solutions

for stereo microscopy



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, less energy consumption and less heating than halogen light sources

The major advantage of LED illumination is the constant light spectrum at all light intensity levels. These light sources are suitable for all kind of applications in industry, Life Sciences and Materials Sciences

## ILLUMINATION SOLUTIONS

The right light source solution can enhance and reveal the details you want to examine



### Multifunctional 150 W halogen or 30 W PowerLED cold light source

A powerful multifunctional 150 W halogen (LE.5211) and 30 W PowerLED cold light source is ideal for the advanced requirements of numerous applications in life and materials science. The intensity is adjustable and has a built-in forced air cooling. The LE.5211 and LE.5211-LED light sources require a light fiber conductor like the single LE.5213, dual LE.5214, triple LE.5215 or the LE.5239 or LE.5240 ring light fiber conductors

The LE.5213, LE.5214 and LE.5215 light conductors can be equipped with a lens holder (LE.5222) and a focusing lens (LE.5224)



LE.5211-LED/LE.5211 + LE.5214 + 2x LE.5222 + 2x LE.5224

Power	150 W halogen	30 W PowerLED (equivalent to 120 W halogen)
Color temperature	3,000 K	6,500 K
Operating voltage	100-240 V AC / 12 V DC (50/60 Hz)	00-240 V AC / 12 V DC (50/60 Hz)
Dimensions	(h) 150 x (w) 150 x (d) 230 mm	(h) 150 x (w) 150 x (d) 230 mm
Weight	2.8 kg	3.9 kg
Model	<b>LE.5211</b>	<b>LE.5211-LED</b>

### Multifunctional 100 W halogen cold light source

This popular multifunctional cold light source contains a 100 W halogen light source. The intensity is adjustable and it has a built-in forced air cooling. The LE.5210 light source requires a light fiber conductor like the single LE.5213, dual LE.5214, triple LE.5215 or the LE.5239 or LE.5240 ring light fiber conductors.

The LE.5213, LE.5214 and LE.5215 light conductors can be equipped with a lens holder (LE.5222) and a focusing lens (LE.5224).

Ideal for all kind of applications in Life- and Material Sciences, various industrial applications and for stereo microscopy



Power	100 W halogen
Color temperature	3,000 K
Operating voltage	100-240 V AC / 12 V DC (50/60 Hz)
Dimensions	(h) 115 x (w) 320 x (d) 215 mm
Weight	3.8 kg
Model	<b>LE.5210</b>

### Compact single 20 W light source

Compact cold light source with single 40 cm, 6 mm diameter fibre light conductor.

Equipped with a 20 W halogen lamp. Light intensity is factory preset and can not be adjusted



Power	20 W halogen
Color temperature	3,000 K
Operating voltage	110 V AC and 230 V AC versions (50/60 Hz)
Dimensions	(h) 80 x (w) 110 x (d) 165 mm
Weight	2.0 kg
Model	<b>LE.5209</b>

### Economical and compact dual 2 W LED light source

Economical dual LED intensity adjustable light source with two 44 cm flexible Gooseneck arms each mounted with a 1 W LED. Ideal for applications in Life and Materials Sciences, various industrial applications and for stereo microscopy



Power	22x 1 W LED = 2x 20 W halogen equivalent
Color temperature	6,500 K
Operating voltage	100-240 V AC / 12 V DC (50/60 Hz)
Dimensions	(h) 70 x (w) 120 x (d) 170 mm
Weight	1.6 kg
Model	<b>LE.5208</b>

## Fluorescence 40 Hz ring light source for Z serie zoom objective

Suitable for Z series stereo zoom objectives, except for ZE.1659. Integrated 240 V AC power supply



Ring illumination	Fluorescent 40 kHz ring, fixed intensity
Color temperature	5,200 K
Illuminance	6,500 Lux at 100 mm distance
Working distance:	35-160mm
Mounting	48 mm with adapter for ZE series microscopes
Power supply	230-250 V
External diameter	100 mm
Model	<b>LE.1863</b>

## Economical 56 LEDs ring light source

Entry-level 8,000 lux LED ring light source



Ring illumination	56 LEDs with adjustable intensity
Color temperature	6,500 K
Illuminance	12,000 Lux at 100 mm distance
Working distance:	from 55 and 120 mm
Mounting	for stereo head with diameter 25 to 60 mm
Power supply	100-240 V AC /12 V DC (50/60 Hz)
External diameter	100 mm
Model	<b>LE.1970</b>

## Professional high PowerLED ring light sources LE.1980/ LE.1981

LED ring light source with maximum illuminance and metal construction for professional usage. With adjustable intensity, optional power supply/ segment controller, diffuser, polarizers and fresnel focusing lenses for perfect illumination of objects



MODELS	Number of LEDs	Color temperature	Illuminance	For mounting diameters	Internal/ external diameter	Controls	Required power supply
LE.1980	48	6,000 K	17,000 lux	from 30 to 66 mm	45/90 mm	Analog controller, Intensity adjustable from 0-100 %	LE.1992
LE.1981	48	6,000 K	17,000 lux	from 30 to 66 mm	45/90 mm	Digital segments controller for 8, 4 or 1 segment, intensity adjustable from 0-100 %	LE.1993

## 144 LEDs ring light source with segment illumination

LED ring light source with high illuminance and segment illumination for all kind of demanding applications



Ring illumination	144 LEDs with adjustable intensity and 4 segment illumination
Color temperature	6,500 K
Illuminance	230,000 Lux at 100 mm distance
Working distance:	from 55 to 200 mm
Mounting	for stereo head with diameter from 25 to 61 mm
Power supply	100-240 V AC /12 V DC (50/60 Hz)
External diameter	100 mm
Model	<b>LE.1973</b>

## Compact 60 LEDs ring light source

Compact 20,000 lux LED ring light source



Ring illumination	60 LEDs with adjustable intensity and 4 segment illumination
Color temperature	6,500 K
Illuminance	20,000 Lux at 100 mm distance
Working distance:	from 50 to 180 mm
Mounting	for stereo head with diameter from 25 to 61 mm
Power supply	100-240 V AC /12 V DC (50/60 Hz)
External diameter	100 mm
Model	<b>LE.1972</b>

## Professional high PowerLED ring light sources LE.1990/ LE.1991

LED ring light source with maximum illuminance and metal construction for professional usage. With adjustable intensity, optional power supply/ segment controller, diffuser, polarizers and fresnel focusing lenses for perfect illumination of objects



MODELS	Number of LEDs	Color temperature	Illuminance	For mounting diameters	Internal/ external diameter	Controls	Required power supply
LE.1990	72	6,000 K	21,000 lux	from 40 to 66 mm	60/110 mm	Analog controller, Intensity adjustable from 0-100 %	LE.1992
LE.1991	72	6,000 K	21,000 lux	from 40 to 66 mm	60/110 mm	Digital segments controller for 8, 4 or 1 segment, intensity adjustable from 0-100 %	LE.1993

# ACCESSORIES AND SPARE PARTS

## FOR LE.5210, LE.5211 AND LE.5211-LED COLD LIGHT SOURCES

### FIBER LIGHT CONDUCTOR

- LE.5213** Single arm fiber light conductor, Gooseneck self-sustaining, 50 cm long, 4 mm diameter
- LE.5214** Dual arm fiber light conductor, Gooseneck self-sustaining, 50 cm long, 4 mm diameter
- LE.5215** Triple arm fiber light conductor, Gooseneck self-sustaining, 50 cm long, 4 mm diameter
- LE.5219** Dual arm fiber light conductor, Gooseneck self-sustaining, 70 cm long, 4 mm diameter
- LE.5239** Slit ring-shaped fiber light conductor 60 cm long, 8 mm diameter
- LE.5240** Slit ring shaped fiber light conductor 100 cm long, 8 mm diameter
- LE.5241** Flexible fiber light conductor, curved 90°, 60 cm long, 4 mm diameter
- LE.5216** Single arm flexible fiber light conductor, 100 cm long, 4 mm diameter
- LE.5235** Dual arm flexible fiber light conductor, 100 cm long, 4 mm diameter
- LE.5235-3** Dual arm flexible fiber light conductor, 300 cm long, 4 mm diameter
- LE.5217** Triple arm flexible fiber light conductor, 100 cm long, 4 mm diameter
- LE.5218** Single arm flexible fiber light conductor, 100 cm long, 8 mm diameter
- LE.5220** Single arm flexible fiber light conductor, 200 cm long, 8 mm diameter

- LE.5222** Focusing head for focusing lens LE.5224, LE.5228 or filters LE.5223, LE.5229 and LE.5231 *(for fiber light conductors)*
- LE.5224** Focusing lens. Requires LE.5222 or LE.5228 for mounting on LE.5213, LE.5214 and LE.5215
- LE.5228** Focusing head with iris diaphragm *(for fiber light conductors)*
- LE.5223** Set of 3 color filters (red, blue, green), suitable for LE.5222 and LE.5228
- LE.5229** Polarization filter
- LE.5231** Conversion KB12/80B filter

### HALOGEN BULBS AND FUSES

- SL.5208** Halogen 20 W 12 V bulb with reflector (3,000 hrs nominal), GU4 fits LE.5209
- SL.5219** Halogen 100 W 12 V bulb with reflector (50 hrs nominal), MR16 fits LE.5210
- SL.5230** Halogen 100 W 12 V 'Long Life' bulb (1,000 hrs nominal), MR16 fits LE.5210
- SL.5235** Halogen 150 W 15 V bulb (50 hrs nominal), MR16 fits LE.5211
- SL.5240** Halogen 150 W 15 V 'Long Life' bulb (500 hrs nominal), MR16 fits LE.5211
- AE.5227** Spare fuses 1A/250 V, 10 pieces

## FOR LE.1863

- SL.1864** Spare fluorescence lamp

## FOR LE.1980 AND LE.1981

- LE.1984-050** Fresnel lens, working distance from 40 to 80 mm
- LE.1984-100** Fresnel lens, working distance from 80 to 150 mm
- LE.1984-200** Fresnel lens, working distance from 150 to 240 mm

- LE.1984** Diffusing filter, for working distance from 40 to 300 mm
- LE.1985** Glass protection window
- LE.1887** Polarizing filter
- LE.1888** Rotatable polarizing filter
- LE.1992** 100-230 V power supply analog controller. Intensity adjustable from 0-100%
- LE.1993** 100-230 V power supply digital segment controller. Intensity adjustable from 0-100%

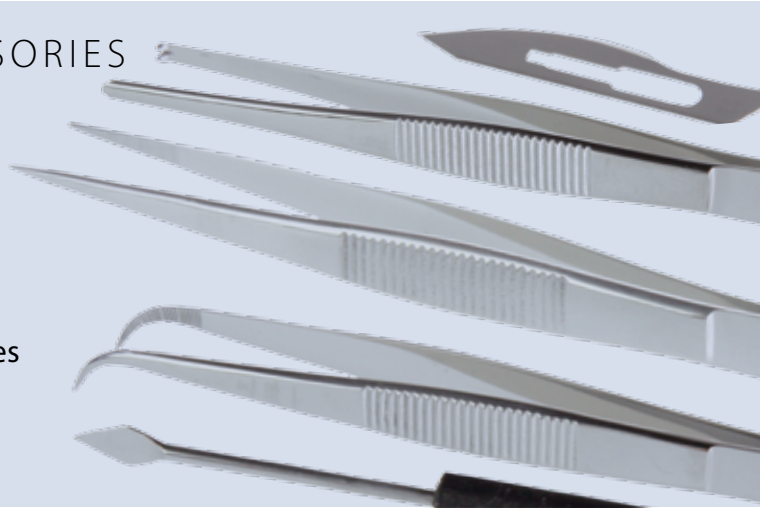
## FOR LE.1990 AND LE.1991

- LE.1994-050** Fresnel lens, working distance from 40 to 80mm
- LE.1994-100** Fresnel lens, working distance from 80 to 150 mm
- LE.1994-200** Fresnel lens, working distance from 150 to 240 mm

- LE.1994** Diffusing filter, for working distance from 40 to 300 mm
- LE.1995** Glass protection window
- LE.1897** Polarizing filter
- LE.1898** Rotatable polarizing filter
- LE.1992** 100-230 V power supply analog controller. Intensity adjustable from 0-100%
- LE.1993** 100-230 V power supply digital segment controller. Intensity adjustable from 0-100%

## PREPARATION ACCESSORIES

Euromex offers the right tools for preparing samples. Before using a microscope good samples are necessary to get the most accurate results



### DISSECTION INSTRUMENTS

- PB.5050** Dissecting needle, straight tip with plastic handle
- PB.5054** Dissecting needle, lancet-shaped with plastic handle
- PB.5056** Blunt-pointed probe, Ø2 mm, length 140 mm
- PB.5058** Section lifter with wooden handle
- PB.5060** Serrated thumb dressing forceps, length 13 mm
- PB.5062** Dressing forceps with blunt tips, length 13 cm
- PB.5064** Dressing forceps with blunt tips, length 20 cm
- PB.5067** Dissecting forceps with sharp tips, length 13 cm
- PB.5069** Dissecting forceps with finely curved sharp tips, length 13 cm
- PB.5077** Cover glass forceps, length 11 cm



### SCISSORS AND BLADES

- PB.5080** Dressing scissors with blunt/sharp tip, length 14 cm
- PB.5084** Dissecting scissors, sharp tips, length 11 cm
- PB.5092** Scalpel with blunt tip, length 15 cm
- PB.5094** Scalpel handle no. 4 (for blades PB.5095 and PB.5096)
- PB.5095** Scalpel blades with sharp tip, 5 pieces per set
- PB.5096** Scalpel blades with blunt tip, 5 pieces per set
- PB.5103** Strop, double sided for stropping of scalpels, microtome knives. Includes stropping paste
- PB.5105** Razor plano/concave, for sectioning. With plastic handle
- PB.5106** Microtome knife plano/concave. With fixed handle, length 17 cm



### HANDHELD MICROTOMES

- MT.5500** Cylinder microtome. Round stage Ø 70 mm with flat black glass top. Height adjustable with micrometer division 0.01 mm. Complete with plano-concave knife PB.5106 and wooden cabinet
- MT.5501** Cylinder microtome. Identical to MT.5500 but without knife and wooden cabinet
- MT.5503** Handheld microtome. Box type with table clamp and razor blade holder. Thickness adjustment by 0.025 mm intervals. Complete with wooden cabinet



## DISSECTION KIT

### 4-PC Dissection kit PB.5110 in imitation leather case

Kit with dissecting needle straight (PB.5050), dissecting forceps (PB.5067), dissecting scissors (PB.5084) and scalpel (PB.5092).  
Supplied with imitation leather case



PB.5110

### 6-PC Dissection kit PB.5111 in plastic case

Kit with dissecting needle straight (PB.5050), dissecting needle lancet-shaped (PB.5054), dissecting forceps (PB.5067), dissecting scissors (PB.5084), scalpel handle no. 4 (PB.5094) and blades (PB.5096). Supplied with plastic case



PB.5111

### 10-PC Dissection kit PB.5112 in imitation leather case

Kit with two dissecting needles straight (PB.5050), dissecting needle lancet-shaped (PB.5054), dressing forceps (PB.5062), dissecting forceps (PB.5067), scissors (PB.5080), dissecting scissors (PB.5084), 2 scalpels (PB.5094), 5 scalpel blades with straight tip and 5 blades with blunt tip (PB.5095/PB.5096).  
Supplied with imitation leather case



PB.5112

### 9-PC Dissection kit PB.5114 in wooden cabinet

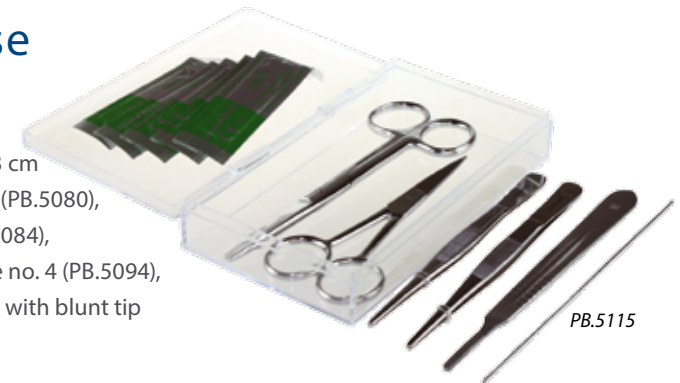
Kit with two dissecting needles straight (PB.5050), dissecting needle lancet-shaped (PB.5054), dressing forceps (PB.5062), dissecting forceps (PB.5067), scissors (PB.5080), dissecting scissors (PB.5084), 2 scalpels (PB.5094), 5 scalpel blades with straight tip and 5 blades with blunt tip (PB.5095/PB.5096).  
Supplied with wooden cabinet



PB.5114

### 6-PC Dissection kit for Koi fish PB.5115 in plastic case

Dissecting set for Koi fish.  
Consisting of plastic box with forceps with 1 x 2 points (PB.5060), forceps blunt points, 13 cm (PB.5062), scissors, blunt/ sharp points, 14 cm (PB.5080), microscope scissors, sharp points, 11 cm (PB.5084), blunt-pointed probe (PB.5056), scalpel handle no. 4 (PB.5094), 5 scalpel blades with straight tip and 5 blades with blunt tip (PB.5095/PB.5096)



PB.5115

### Professional slide preparation kit PB.5125 in plastic deluxe case

Kit with 3 prepared slides, 50 microscope slides (PB.5150) and 100 cover glasses (PB.5165). Two microscope slides with cavity. Canada balsam, dissecting needle (PB.5050 and PB.5054). Dissecting forceps (PB.5067), dissecting scissors (PB.5084) and scalpel (PB.5092).  
Supplied with plastic box



PB.5125

## MICROSCOPE PREPARED SLIDES

Euromex offers both teachers, students and microscopy amateurs a wide range of quality microslides, which can be used immediately in biology classes as introduction to zoology and botany



## 25 Slides set of human histology, zoology and botany PB. 5211 for education

Set with 25 microscopy slides for education: human histological samples of men and mammals, zoology and botany. All microscope slides supplied in a plastic box for 25 slides. The set contains:

### HISTOLOGY

- SH.1011** Hard bone grinding, human, section
- SH.1045** Skeletal muscle, dog, l.s and c.s.
- SH.1072** Skin section through hair follicle, human
- SH.1078** Stratified flat epithelium, dog, section
- SH.1150** Blood smear human, Giemsa stained

### ZOOLOGY

- SZ.1510** Amoeba proteus, w.m.
- SZ.1580** Hydra with bud, w.m.
- SZ.1640** Lumbricus - earthworm, c.s.
- SZ.1655** Daphnia sp., water flea, w.m.
- SZ.1715** Musca domestica, house fly, mouth parts
- SZ.1717** Musca domestica, house fly, leg with clinging pads
- SZ.1719** Musca domestica, house fly, wing w.m.

### BOTANY

- SB.2006** Allium cepa, onion, scale epidermis, w.m.
- SB.2009** Allium cepa, onion, mitosis root tip, l.s.
- SB.2055** Zea mays, corn, stem, cs.
- SB.2060** Triticum aestivum, wheat, stem, c.s.
- SB.2070** Helianthus, sunflower, young stem, c.s.
- SB.2130** Helianthus, sunflower, leaf, c.s.
- SB.2205** Monocot/dicot flower, ze a mays/ranunculus, c.s.
- SB.2212** Lilium, lily, ovary, c.s.
- SB.2335** Mnium, w.m.
- SB.2355** Rhizopus nigricans, bread mold, developed sporangia
- SB.2377** Diatoms, w.m.
- SB.2381** Spirogyra sp., vegetative mass, w.m.
- SB.2405** Dental plaque, smear

## 25 Slides set of human histology, zoology and botany PB. 5212 for education

Set with 25 microscopy slides for education: human histological samples of men and mammals, zoology and botany. All microscope slides supplied in a plastic box for 25 slides. The set contains:

### HISTOLOGY

- SH.1001** Loose connective tissue, rabbit
- SH.1005** Hyaline cartilage rabbit, section
- SH.1160** Lymph node, rabbit, section
- SH.1230** Small intestine, dog, c.s.
- SH.1250** Liver, pig, section
- SH.1430** Cerebrum section, dog

### ZOOLOGY

- SZ.1520** Paramecium, w.m.
- SZ.1625** Schistosoma Japonicum, fluke eggs, bilharziose
- SZ.1630** Taenia, tapeworm pig, mature proglottid, w.m.
- SZ.1635** Ascaris megalcephala, horse roundworm, female + male, c.s.
- SZ.1708** Apis mellifica, honey bee, mouth parts
- SZ.1725** Periplaneta, cockroach, mouth parts of chewing type
- SZ.1730** Pieres brassicae, cabbage-white butterfly, mouth, w.m.
- SZ.1750** Periplaneta, cockroach, spiracle of insect, w.m.

### BOTANY

- SB.2095** Monocot/dicot stem, ze a mays/pumpkin, c.s.
- SB.2105** Hibiscus, young stem, c.s.
- SB.2110** Cucurbita, pumpkin, stem, l.s.
- SB.2115** Sambucus, elderberry or Morus Alba, mulberry, stem with cork cambium + lenticels, c.s.
- SB.2160** Lilium, lily leaf, c.s.
- SB.2225** Zea mays, corn, corn seed with embryo, l.s.
- SB.2235** Pirus, pear, stone cells, section
- SB.2240** Triticum aestivum, wheat, kernel, l.s.
- SB.2305** Cyrtomium, holly fern, c.s. of rhizom
- SB.2310** Cyrtomium, holly fern, section
- SB.2386** Oscillatoria, blue-green algae

### USED ABBREVIATIONS

<b>c.s.</b>	cross section
<b>l.s.</b>	longitudinal section
<b>w.m.</b>	whole mount

## 25 Slides set of human histology, zoology and botany PB. 5213 for education

Set with 25 microscopy slides for education: human histological samples of men and mammals, zoology and botany. All microscope slides supplied in a plastic box for 25 slides. The set contains:

### HISTOLOGY

- SH.1006** Elastic cartilage, rabbit
- SH.1040** Smooth muscle, teased preparation, rabbit, l.s.+c.s.
- SH.1110** Lung with injected blood vessels, rabbit, c.s.
- SH.1130** Artery and vein, rabbit, c.s.
- SH.1410** Nerve, rabbit, c.s. and l.s.



## ZOOLOGY

- SZ.1535** Euglena virides, a flagellate with eyespot  
**SZ.1586** Hydra, w.m. of tentacles  
**SZ.1620** Schistosoma Japonicum, female, w.m.  
**SZ.1705** Apis mellifica, honey bee, posterior leg, w.m.  
**SZ.1733** Pieris brassicae, cabbage-white butterfly, part of wing  
**SZ.1738** Locusta, grasshopper, mouth parts, w.m.  
**SZ.1780** Insects - four types of legs, honey bee, house fly, house mosquito, spider  
**SZ.1877** Rana sp, frog, blood smea

## 25 Slides set of human histology, zoology and botany PB. 5214 for education

Set with 25 microscopy slides for education: human histological samples of men and mammals, zoology and botany. All microscope slides supplied in a plastic box for 25 slides. The set contains:

### HISTOLOGY OF HUMAN AND MAMMALS

- SH.1060** Tendon l.s. (Dense connective tissue), dog  
**SH.1075** Skin section with sweat gland, human  
**SH.1330** Testis rabbit, c.s.  
**SH.1340** Ovary rabbit with developed eggs  
**SH.1360** Sperm human, smear  
**SH.1490** Retina, rabbit, sec.

### ZOOLOGY

- SZ.1522** Paramecium conjugation w.m.  
**SZ.1524** Paramecium in fission, w.m.  
**SZ.1540** Trachelomonas, a free swimming type euglena  
**SZ.1585** Hydra with endoderm + ectoderm, c.s.  
**SZ.1710** Apis mellifica - honey bee compound eye, w.m.  
**SZ.1720** Culex pipiens - house mosquito, larva w.m.  
**SZ.1724** Giant chromosomes of salivary gland, w.m.  
**SZ.1810** Mya arenaria, clam gill, c.s.  
**SZ.1860** Section through gonads and gills, l.s.

## BOTANY

- SB.2011** Zea mays, corn root tip with hairs, l.s.  
**SB.2020** Helianthus, sunflower, old root, c.s.  
**SB.2025** Monocot/dicot plant roots, ze mays/helantius, c.s.  
**SB.2040** Solanum tuberosum, potato, starch grains  
**SB.2075** Tilia, lime tree, one year stem, c.s.  
**SB.2091** Ceratophyllum Demersum, hornwort, leave with air stomas, c.s.  
**SB.2100** Pelargonium hortorum, geranium, stem c.s.  
**SB.2337** Mnium, antheridial branch, l.s.  
**SB.2339** Mnium, archegonial branch, l.s.  
**SB.2373** Coprinus, ink caps mushroom, section of pleus  
**SB.2380** Spirogyra sp. in conjugation  
**SB.2420** 3 types of bacteria, cocci, bacilli, spirelli

### BOTANY

- SB.2015** Ranunculus, buttercup, root c.s.  
**SB.2076** Tilia, lime tree, 1, 2 & 3 year stem, c.s. on one slide  
**SB.2080** Pinus - pine tree, stem l.s.  
**SB.2140** Triticum, wheat, leaf, c.s.  
**SB.2150** Monocot/dicot leaves, ze mays/ligustrum lucidum, c.s.  
**SB.2230** Pinus, pine tree, male (cone) globose fruit l.s.  
**SB.2232** Pinus, pine tree, female (cone) globose fruit l.s.  
**SB.2315** Sporophyt w.m.  
**SB.2320** Cyrtomium, fern, leaf with sporangia  
**SB.2384** Volvox sp. w.m.

## 25 Slides set of human histology, zoology and botany PB. 5215 for education

Set with 25 microscopy slides for education: human histological samples of men and mammals, zoology and botany. All microscope slides supplied in a plastic box for 25 slides. The set contains:

### HISTOLOGY

- SH.1043** Cardiac muscle, dog, l.s.  
**SH.1070** Squamous epithelium, human, isolated cells from mouth, smear  
**SH.1315** Kidney rat, sec. cortex & medulla  
**SH.1420** Cerebellum section, dog  
**SH.1450** Spinal cord, rabbit, c.s.  
**SH.1470** Taste buds, rabbit, l.s.

### ZOOLOGY

- SZ.1610** Planaria, flat worm, injected intestinal tube, w.m.  
**SZ.1636** Ascaris megalcephala, horse roundworm, mitosis eggs  
**SZ.1760** Ctenocephalus canis, dog flea, w.m.  
**SZ.1770** Tetranychus, red spider mite, w.m.  
**SZ.1930** Bird, wing and down feather, section  
**SZ.1940** Chicken, embryo 48 hours, sagittal section

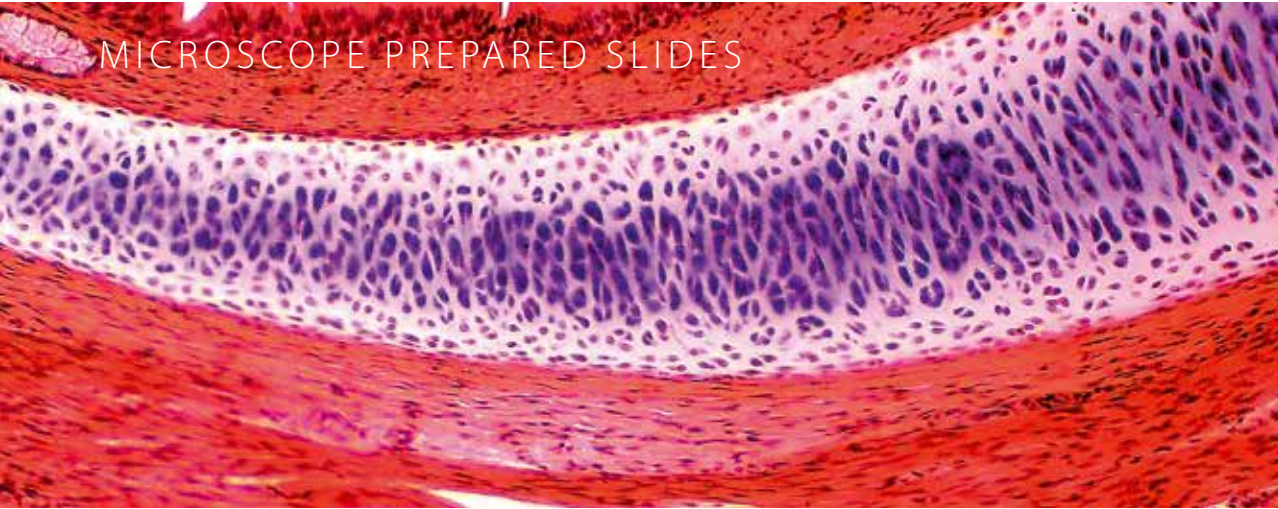
### BOTANY

- SB.2090** Hydrilla verticillata, hydrilla stem tip, l.s.  
**SB.2112** Cucurbita, pumpkin, stem, c.s.  
**SB.2135** Nerium oleander, leaf with sunken stomata, c.s.  
**SB.2210** Lilium, lily, anther with mature pollen, c.s.  
**SB.2214** Lilium, lily, pollen, different stages of meiosis  
**SB.2220** Capsella, shepherds' purse, ovary w. embryo in pre-cotyledon stadium, l.s.  
**SB.2222** Capsella, shepherds' purse, ovary w. embryo in cotyledon stadium, l.s.  
**SB.2234** Pinus, pine tree, pollen, w.m.  
**SB.2330** Marchantia, liverworts, thallus with gemma cup, c.s.  
**SB.2360** Saccaromyces sp., yeast, budding, w.m.  
**SB.2365** Penicillium sp., w.m.  
**SB.2410** Streptococcus lactis, milk bacteria, smear  
**SB.2415** Bacillus subtilis, hay bacteria, smear

#### USED ABBREVIATIONS

<b>c.s.</b>	cross section
<b>l.s.</b>	longitudinal section
<b>w.m.</b>	whole mount

## MICROSCOPE PREPARED SLIDES



## 23 Slides of human and mammal histology PB. 5221 set for education

Set with 23 microscopy slides for education: human histological samples of men and mammals.  
All microscope slides supplied in a plastic box for 25 slides. The set contains:

### EPITHELIUM AND CONNECTIVE TISSUES

- SH.1001** Loose connective tissue, rabbit
- SH.1005** Hyaline cartilage rabbit, section
- SH.1011** Hard bone grinding, human, section
- SH.1049** Muscle types, striated, smooth, heart muscle, dog, l.s.
- SH.1060** Tendon, dog, l.s.
- SH.1070** Squamous epithelium, human, isolated cells from mouth, smear
- SH.1072** Skin section through hair follicle, human
- SH.1078** Stratified flat epithelium, dog, section

### RESPIRATORY, BLOOD CIRCULATION AND ENDOCRINE SYSTEM

- SH.1120** Trachea rabbit, c.s.
- SH.1130** Artery and vein, rabbit, c.s.
- SH.1150** Blood smear human, Giemsa stained

### DIGESTIVE SYSTEM

- SH.1210** Stomach wall, dog, section
- SH.1230** Small intestine, dog, c.s.
- SH.1250** Liver, pig, section

### URINARY AND GENITAL SYSTEM

- SH.1310** Injected kidney rabbit, sec.
- SH.1330** Testis rabbit, c.s.
- SH.1340** Ovary rabbit with developed eggs
- SH.1376** Human chromosomes in blood, female

### NERVOUS SYSTEM AND SENSORY ORGANS

- SH.1410** Nerve, rabbit, c.s. and l.s.
- SH.1430** Cerebrum section, dog
- SH.1450** Spinal cord, rabbit, c.s.
- SH.1470** Taste buds, rabbit, l.s.
- SH.1490** Retina, rabbit, sec.



## 23 Slides of human and mammal histology PB. 5222 set for education

Set with 23 microscopy slides for education: human histological samples of men and mammals.  
All microscope slides supplied in a plastic box for 25 slides. The set contains:

### EPITHELIUM AND CONNECTIVE TISSUES

- SH.1006** Elastic cartilage, rabbit
- SH.1012** Hard bone grinding of rabbit, tooth, de-calcium
- SH.1040** Smooth muscle, teased preparation, rabbit, l.s.+c.s.
- SH.1043** Cardiac muscle, dog, l.s.
- SH.1045** Skeletal muscle, dog, l.s and c.s.
- SH.1075** Skin section with sweat gland, human
- SH.1080** Ciliated epithelium, trachea, rabbit

### RESPIRATORY, BLOOD CIRCULATION AND ENDOCRINE SYSTEM

- SH.1110** Lung with injected blood vessels, rabbit, c.s.
- SH.1140** Pancreas, rabbit, section
- SH.1160** Lymph node, rabbit, section
- SH.1170** Thyroid gland, rabbit, section
- SH.1180** Adrenal gland, rabbit, section

### DIGESTIVE SYSTEM

- SH.1220** Oesophagus dog, c.s.
- SH.1235** Large intestine, dog, c.s.
- SH.1260** Gall bladder, dog, section
- SH.1280** Golgi apparatus in epithelial cells of intestine, dog

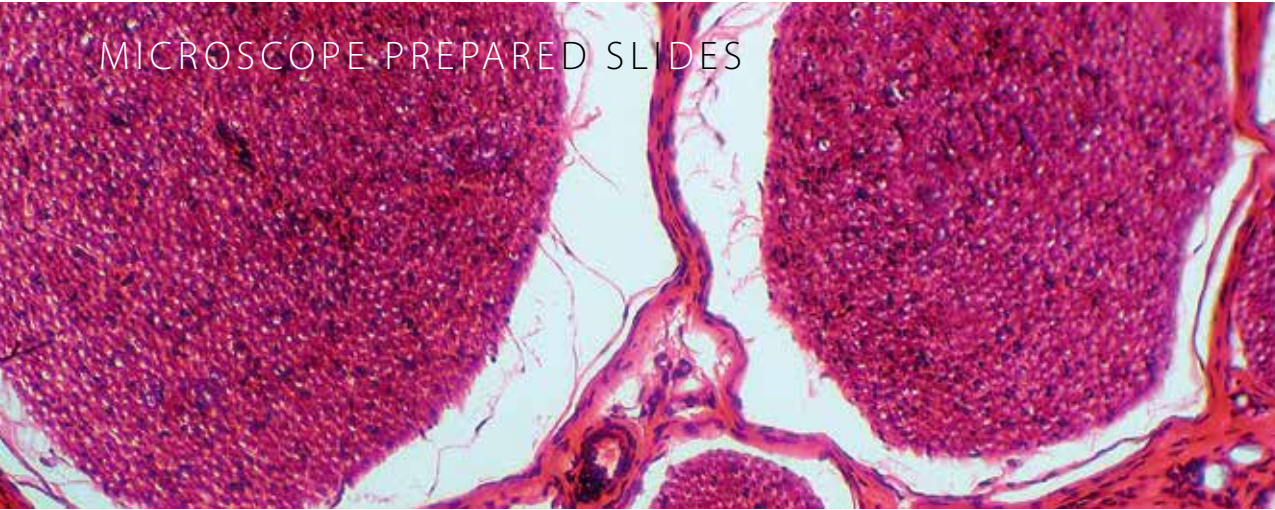
### URINARY AND GENITAL SYSTEM

- SH.1315** Kidney rat, sec. cortex & medulla
- SH.1360** Sperm human, smear
- SH.1375** Human chromosomes in blood, male
- SZ.1724** Fruitfly, drosophila, giant chromosomes of salivary gland, w.m.

### NERVOUS SYSTEM AN SENSORY ORGANS

- SH.1415** Motor nerve cells with end plates, rabbit, w.m.
- SH.1420** Cerebellum section, dog
- SH.1480** Eyeball section, rabbit, sagittal section

## MICROSCOPE PREPARED SLIDES



### 10 Prepared slides of zoology and botany slides

#### PB. 5204 set for hobby

Set with 10 prepared microscopy slides for hobby: zoology and botany.

All microscope slides supplied in a plastic box with transparent cover for 25 slides. The set contains:

#### ZOOLOGY

- SH.1040** Smooth muscle, teased preparation, rabbit, l.s. and c.s.
- SH.1110** Lung with injected blood vessels, rabbit, c.s.
- SZ.1708** *Apis mellifica*, honey bee, mouth parts
- SZ.1733** *Pieris brassicae*, cabbage-white butterfly, part of wing
- SZ.1877** *Rana* sp, frog, blood smear
- SB.2015** *Ranunculus*, buttercup, root, c.s.

#### BOTANY

- SB.2160** *Lilium*, lily leaf, c.s.
- SB.2222** *Capsella*, shepherds' purse, ovary w. embryo in cotyledon stadium, l.s.
- SB.2374** *Aspergillus*, brown mold, w.m.
- SB.2384** *Volvox* sp., w.m.

USED ABBREVIATIONS	
<b>c.s.</b>	cross section
<b>l.s.</b>	longitudinal section
<b>w.m.</b>	whole mount



### 25 Prepared slides of zoology and botany slides

#### PB. 5218 set for hobby

Set with 25 prepared microscopy slides for hobby: zoology and botany.

All microscope slides supplied in a plastic box with transparent cover for 25 slides. The set contains:

#### HISTOLOGY OF HUMAN AND MAMMALS

- SH.1072** Skin section through hair follicle, human
- SH.1150** Blood smear human, Giemsa stained
- SH.1415** Motor nerve cells with end plates, rabbit w.m.
- SH.1470** Taste buds, rabbit, l.s.

#### BOTANY

- SB.2009** *Allium cepa*, onion, mitosis root tip, l.s.
- SB.2055** *Zea mays*, corn, stem, c.s.
- SB.2075** *Tilia*, lime tree, one year stem, c.s.
- SB.2100** *Pelargonium hortorum*, geranium, stem c.s.
- SB.2112** *Cucurbita*, pumpkin, stem, c.s.
- SB.2130** *Helianthus*, sunflower, leaf, c.s.
- SB.2135** *Nerium oleander*, leaf with sunken stomata, c.s.
- SB.2210** *Lilium*, lily, anther with mature pollen, c.s.
- SB.2225** *Zea mays*, corn, corn seed with embryo, l.s.

#### ZOOLOGY

- SZ.1520** *Paramecium*, w.m.
- SZ.1535** *Euglena virides*, a flagellate with eyespot
- SZ.1580** *Hydra* with bud, w.m.
- SZ.1630** *Taenia*, tapeworm pig, mature proglottid, w.m.
- SZ.1635** *Ascaris megaloccephala*, horse roundworm, female and male, c.s.
- SZ.1640** *Lumbricus*, earthworm, c.s.
- SZ.1655** *Daphnia* sp., water flea, w.m.
- SZ.1705** *Apis mellifica*, honey bee, posterior leg, w.m.
- SZ.1710** *Apis mellifica*, honey bee compound eye, c.s.
- SZ.1719** *Musca domestica*, house fly, wing w.m.
- SZ.1722** *Culex pipiens*, house mosquito, female, mouth parts
- SZ.1724** Fruitfly, *Drosophila*, giant chromosomes of salivary gland, w.m.

## MICROSCOPE PREPARED SLIDES



## Individual EuroSlides Prepared slides

Euromex supplies complete sets and individual prepared microscope slides for educational use as well as for the hobby market

These high quality microscope slides are usually supplied directly from stock, at the very best prices. The following slides are available separately



### HOW TO ORDER INDIVIDUAL EUROSLIDES

- Minimum purchase quantity is 10 pieces of the same slide
- The individual slides always have to be ordered together with a box.  
Available is: plastic box PB.5181 (for 25 slides)

## Individual EuroSlides for Histology

These histology microscope slides consist of sample of epithelium and connective tissues, the respiratory system, blood circulation, endocrine system, digestive system, urinary and genital systems, nervous system and sensory organs

### EPITHELIUM AND CONNECTIVE TISSUES

- SH.1001** Loose connective tissue, rabbit
- SH.1005** Hyaline cartilage rabbit, section
- SH.1006** Elastic cartilage, rabbit
- SH.1011** Hard bone grinding, human, section
- SH.1012** Hard bone grinding of rabbit, tooth, decalcium
- SH.1040** Smooth muscle, teased preparation, rabbit, l.s. and c.s.
- SH.1045** Skeletal muscle, dog, l.s. and c.s.
- SH.1049** Muscle types, striated, smooth, heart muscle, dog, l.s.
- SH.1060** Tendon dog, l.s.
- SH.1072** Skin section through hair follicle, human
- SH.1078** Stratified flat epithelium, dog, section
- SH.1080** Ciliated epithelium, trachea, rabbit

### RESPIRATORY, BLOOD CIRCULATION AND ENDOCRINE SYSTEM

- SH.1110** Lung with injected blood vessels, rabbit, c.s.
- SH.1120** Trachea rabbit, c.s.
- SH.1130** Artery and vein, rabbit, c.s.
- SH.1140** Pancreas, rabbit, section
- SH.1150** Blood smear human, Giemsa stained
- SH.1160** Lymph node, rabbit, section

### DIGESTIVE SYSTEM

- SH.1220** Oesophagus dog, c.s.
- SH.1230** Small intestine, dog, c.s.
- SH.1250** Liver pig, section

### URINARY AND GENITAL SYSTEM

- SH.1310** Injected kidney rabbit, section
- SH.1330** Testis rabbit, c.s.
- SH.1340** Ovary rabbit with developed eggs
- SH.1360** Sperm human, smear

### NERVOUS SYSTEM AND SENSORY ORGANS

- SH.1410** Nerve rabbit, c.s. and l.s.
- SH.1415** Motor nerve cells with end plates, rabbit, w.m.
- SH.1420** Cerebellum section, dog
- SH.1450** Spinal cord, rabbit, c.s.
- SH.1470** Taste buds, rabbit, l.s.
- SH.1490** Retina rabbit, section

### USED ABBREVIATIONS

<b>c.s.</b>	cross section
<b>l.s.</b>	longitudinal section
<b>w.m.</b>	whole mount

# Individual EuroSlides for Zoology

This serie of zoology microscopy slides consists of samples with single-cell organisms (protozoa), coelenterate, worms (helminthes), Crustaceans (crustaceae), insects and amphibians

## PROTOZOA

**SZ.1510** Amoeba proteus, w.m.

**SZ.1520** Paramecium, w.m.

**SZ.1522** Paramecium in conjugation w.m.

**SZ.1535** Euglena virides, a flagellate with eyespot

**SZ.1540** Trachelomonas, a free swimming type euglena

## COELENTERATA

**SZ.1580** Hydra with bud, w.m.

## HELMINTHES

**SZ.1630** Taenia, tapeworm pig, mature proglottid, w.m.

**SZ.1635** Ascaris megalcephala, horse roundworm, female + male c.s.

**SZ.1636** Ascaris megalcephala, horse roundworm, mitosis eggs

**SZ.1640** Lumbricus, earthworm, c.s.

## CRUSTACEANS

**SZ.1655** Daphnia sp., water flea, w.m.

## INSECTS

**SZ.1705** Apis mellifica, honey bee, posterior leg, w.m.

**SZ.1708** Apis mellifica, honey bee, mouth parts

**SZ.1710** Apis mellifica, honey bee compound eye, c.s.

**SZ.1719** Musca domestica, house fly, wing, w.m.

**SZ.1720** Culex pipiens, house mosquito, larva, w.m.

**SZ.1722** Culex pipiens, house modquito, female, mouth parts

**SZ.1724** Drosophila, fruit fly, giant chromosomes of salivary gland, w.m.

**SZ.1730** Pieres brassicae, cabbage-white butterfly, mouth, w.m.

**SZ.1733** Pieres brassicae, cabbage-white butterfly, part of wing

**SZ.1738** Locusta, grasshopper, mouth parts, w.m.

**SZ.1760** Ctenocephalus canis, dog flea, w.m.

**SZ.1780** Insects- four types of legs, honey bee, house fly, house modquito, spider

## AMPHIBIANS

**SZ.1877** Rana sp, frog, blood smear

**SZ.1880** Frog uncleaved egg, c.s.

**SZ.1881** Frog egg, two cells stadium, c.s.

**SZ.1883** Frog egg, advanced cleavage c.s.

**SZ.1885** Frog egg, blastula phase, c.s.

**SZ.1887** Frog egg, early gastrula phase, c.s.

**SZ.1889** Frog egg, advanced gastrula phase, c.s.

# Individual EuroSlides for Botany

This serie of botanic microscopy slides consists of samples of sections of roots, stems, leaves, flowers, fruits and seeds, ferns and mosses, fungi, algae and bacteria

## ROOTS

**SB.2006** Allium cepa, onion, scale epidermis, w.m.

**SB.2009** Allium cepa, onion, mitosis root tip, l.s.

**SB.2015** Ranunculus, buttercup, root, c.s.

**SB.2020** Helianthus, sunflower, old root, c.s.

**SB.2025** Monocot/dicot plant roots, zea mays/helantius, c.s.

**SB.2040** Solanum tuberosum, potato, starch grains

## STEMS

**SB.2055** Zea mays, corn, stem, c.s.

**SB.2060** Triticum aestivum, wheat, stem, c.s.

**SB.2070** Helianthus, sunflower, young stem, c.s.

**SB.2076** Tilia, lime tree, 1, 2 and 3 year stems on one slide, c.s.

**SB.2095** Monocot/dicot stem, corn/pumpkin, c.s.

**SB.2100** Pelargonium hortorum, geranium, stem, c.s.

**SB.2105** Hibiscus, young stem, c.s.

**SB.2115** Sambucus, elderberry or Morus Alba, mulberry, stem with crok cambium and lenticels, c.s.

## LEAVES

**SB.2130** Helianthus, sunflower, leaf, c.s.

**SB.2135** Nerium oleander, leaf with sunken stomata, c.s.

**SB.2140** Triticum, wheat, leaf, c.s.

**SB.2150** Monocot/dicot leaves, zea mays/ligustrum lucidum, c.s.

**SB.2160** Lilium, lily leaf, c.s.

## FLOWERS, FRUITS AND SEEDS

**SB.2205** Monocot/dicot flower, zea mays/ranunculus, c.s.

**SB.2210** Lilium, lily, anther with mature pollen, c.s.

**SB.2212** Lilium, lily, overy, c.s.

**SB.2214** Lilium, lily, pollen, different stages of meiosis

**SB.2220** Capsella, shepherds' purse, ovary w. embryo in pre-cotyledon stadium, l.s.

**SB.2222** Capsella, sheperd's purse, ovary w. embryo in cotyledon statium, l.s.

**SB.2225** Zea mays, corn seed with embryo, l.s.

**SB.2232** Pinus, pine tree, female (cone) globose fruit, l.s.

**SB.2240** Triticum aestivum, wheat, kernel, l.s.

## FERNS AND MOSSES

**SB.2315** Cyrtomium, holly fern, prothallium with young sporophyt, w.m.

**SB.2337** Mnium, antheridial branch, l.s.

**SB.2339** Mnium, archegonial branch, l.s.

## FUNGI

**SB.2360** Saccaromyces sp., yeast, budding, w.m.

**SB.2365** Penicillium sp., w.m.

**SB.2373** Coprinus, ink caps mushroom, section of pileus

**SB.2374** Aspergillus, brown mold, w.m.

## ALGAE

**SB.2377** Diatoms, w.m.

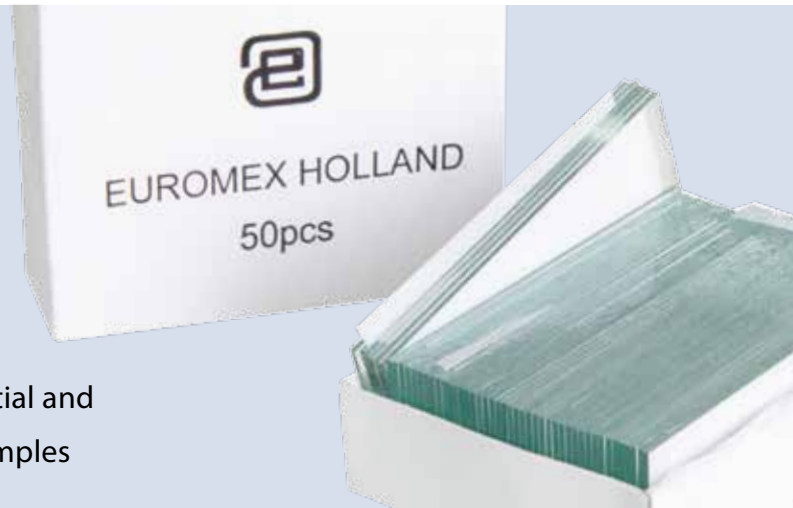
**SB.2380** Spirogyra sp. in conjugation

**SB.2384** Volvox sp., w.m.

## BACTERIA

**SB.2420** 3 types of bacteria, cocci, bacilli, spirelli

## DISPOSABLES



Microscope slides are essential and are the platform for your samples

### MICROSCOPE SLIDES AND COVER GLASSES

- PB.5150** Microscope slides 76 x 26 mm, half white glass, cut edges. 50 pieces per pack
- PB.5155** Microscope slides 76 x 26 mm white glass, grinded edges. 50 pieces per pack
- PB.5160** Microscope slides 76 x 26 mm with concavity, grinded edges. 10 pieces per pack
- PB.5165** Cover glasses 18 x 18 mm, thickness 0.13-0.17 mm. 100 pieces per packs
- PB.5168** Cover glasses 22 x 22 mm, thickness 0.13-0.17 mm. 100 pieces per pack
- PB.5170** Cover glasses Ø18 mm, thickness 0.13-0.17 mm. 100 pieces per pack

### MICROSCOPE SLIDE BOXES

- PB.5180** Wooden slide box for 25 slides. White interior with index
- PB.5185** Wooden slide box for 100 slides. White interior with index
- PB.5181** Black plastic slide box for 25 slides



PB.5150



PB.5180



PB.5168 / PB.5170

## STAINS

Staining samples/cells enables better visualization under the microscope. Euromex offers a range of common stains



### MISCELLANEOUS ACCESSORIES

- PB.5200** Staining trough for 10 slides
- PB.5210** Fine pointed brush
- PB.5245** Lens paper. 100 sheets per pack
- PB.5250** Solid paraffin. Melting point 60°C, 200 gram packed
- PB.5255** Immersion oil, refractive index nD = 1.482. In bottle (25 ml)
- PB.5256** Entellan, quick drying Canada balsam. In bottle (25 ml)
- PB.5270** Xylol (bottle), lens cleaner, intermediate agent for section slide preparation. In bottle (100 ml)
- PB.5274** Isopropyl alcohol 99%. In bottle (200 ml)
- PB.5277** Formalin 40%, fixing agent. In bottle (200 ml)
- PB.5275** Cleaning kit: lens cleaning fluid, lint free lens tissue, brush, air blower, cotton swabs



PB.5275

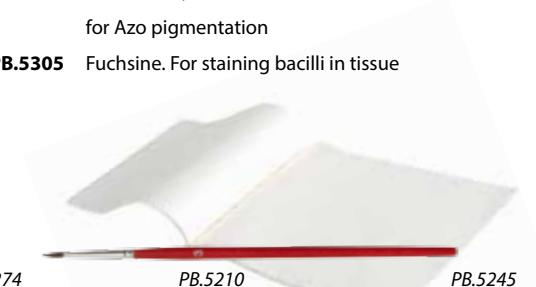


PB.5280 / PB.5274

### (DISSOLVED) STAINS

Supplied in 25 ml bottles

- PB.5280** Azo carmine-G. Biological stains for animal tissues. Also suitable for bacteria pigmentation
- PB.5283** Eosin yellow. Stain for general overall-view colouring
- PB.5286** Haematoxylin according to Ehrlich. General purpose nuclear stain
- PB.5289** Astra Blue. Stain for vegetal cells. To be used in combination with safranin
- PB.5292** Orange-G, stain for most elementary structures of animal tissues
- PB.5295** Safranin. A general stain for showing nuclei and cellulose walls. To be used in combination with Astra Blue
- PB.5297** Methylene Blue. Biological and bacteriological stain
- PB.5300** Analin Blue, to be used as third colour for Azo pigmentation
- PB.5305** Fuchsin. For staining bacilli in tissue



PB.5210

PB.5245

# OtherOptical instruments



Euromex offers a large range of optical products for a wide variety of applications in different fields

Our high-quality magnifiers, refractometers and other optical instruments all ensure an excellent optical quality and unmatched durability

- **MAGNIFIERS & MEASURING MICROSCOPES** PAGE 304
- **REFRACTOMETERS** PAGE 308
- **POLARIMETERS** PAGE 316
- **SPECTROSCOPES** PAGE 318
- **PATHOLOGY SCANNER** PAGE 320

# MAGNIFIERS & MEASURING MICROSCOPES

Magnifiers are widely used by biologists, jewelers, watchmakers and philatelists to accurately observe all details of the object



## HANDHELD MAGNIFIERS AND MAGNIFIERS WITH HANDLES

- PB.5020** Magnifier with handle 4x, lens Ø 50 mm and handle Ø 8 mm. Fits PB.5022
- PB.5021** Magnifier with handle 10x, aplanatic lens Ø 25 mm and handle Ø 8 mm. Fits PB.5022

- PB.5022** Heavy stand with adjustable cross clamp, Base Ø 70 mm. Weight 450 grams. For PB.5022 and PB.5021
- PB.5026** Handheld magnifier 10x with illuminator, aplanatic lens Ø 28 mm. Field of view 30 mm. Supplied without batteries



PB.5020



PB.5026

PB.5022



PB.5021

## FOLDING MAGNIFIERS

- PB.5016** Aplanatic magnifier 6x, doublet. Lens Ø 20 mm. Field of view 25 mm
- PB.5018** Aplanatic magnifier 15x, doublet. Lens Ø 18 mm. Field of view 14 mm
- PB.5032** Achromatic magnifier 10x, triplet. Lens Ø 21 mm. Field of view 15 mm
- PB.5033** Achromatic magnifier 20x, triplet. Lens Ø 21 mm. Field of view 8 mm
- PB.5034** Achromatic magnifier 10x, triplet. Lens Ø 18 mm. Field of view 15 mm
- PB.5036** Aplanatic magnifier 10x, doublet. Lens Ø 20 mm. Field of view 20 mm
- PB.5037** Achromatic diamond magnifier 10x with 4 lenses Ø 21 mm. Field of view 25 mm



PB.5032



PB.5016



## FOLDING MAGNIFIERS WHITE LED ILLUMINATION

- PB.5034-LED** Achromatic magnifier 10x triplet. Lens Ø 21 mm. White LED illumination
- PB.5018-LED** Achromatic magnifier 15x triplet. Lens Ø 21mm. White LED illumination
- PB.5033-LED** Achromatic magnifier 20x, triplet. Lens Ø 21 mm. White LED illumination
- PB.5035-LED** Achromatic magnifier 30x triplet. Lens Ø 21 mm. White LED illumination



PB.5034-LED

## FOLDING MAGNIFIERS WHITE LED AND UV ILLUMINATION

- PB.5034-LUV** Achromatic magnifier 10x triplet. Lens Ø 21 mm. White LED and UV illumination
- PB.5018-LUV** Achromatic magnifier 15x triplet. Lens Ø 21mm. White LED and UV illumination
- PB.5033-LUV** Achromatic magnifier 20x, triplet. Lens Ø 21 mm. White LED and UV illumination
- PB.5035-LUV** Achromatic magnifier 30x triplet. Lens Ø 21 mm. White LED and UV illumination



PB.5034-LUV



# MAGNIFIERS & MEASURING MICROSCOPES

Measuring microscopes are built with a microscope objective for magnification from 20 to 100x times



## TABLE MAGNIFIERS

- PB.5039** Table magnifier, 15x magnification.  
Glass achromatic lens Ø 19 mm, field of view 15 mm
- PB.5041** Table magnifier, 10x magnification.  
Glass lens Ø 26 mm, field of view 25 mm
- PB.5043** Table magnifier, 4x magnification.  
Plastic lens Ø 57 mm, field of view 55 mm
- PB.5040** Table magnifier, 8x magnification.  
Plastic lens Ø 23 mm, field of view 30 mm.  
10mm/100 reticle



## MISCELLANEOUS MAGNIFIERS

- PB.5030** Dual sliding magnifier with 3x and 6x magnification.  
Lens aperture 23 x 23 mm.  
Fields of view 50 x 50 mm and 25 x 25 mm.  
Plastic housing
- PB.5049** Linen tester folding magnifier with 6x lens.  
A 25 x 25 mm base with millimeter scale.  
Metal casing lacquered in black.  
Supplied with plastic case



## MEASURING MAGNIFIERS WITH RETICLE

- PB.5044** Measuring magnifier 7x.  
Eyepiece Ø 18 mm. Field of view 24 mm.  
Measuring scale 10-0-10 mm divided into 0.1 mm and cross hair
- PB.5045** Measuring magnifier 7x.  
Eyepiece Ø 18 mm. Field of view 24 mm.  
Measuring scale 10-0-10 mm divided into 0.1 mm and cross hair. With 5 interchangeable scales for angle, thickness and linear measurements
- PB.5046** Measuring magnifier 10x.  
Eyepiece Ø 20 mm. Field of view 35 mm.  
Measuring scale 15-0-15 mm with 0.1, 0.2 and 0.5 mm graduations
- PB.5048** Measuring magnifier 4x.  
Eyepiece Ø 30 mm. Field of view 65 mm.  
Measuring scale 25-0-25 mm with 0.1 mm graduations
- PB.5047** Measuring magnifier 10x.  
Eyepiece Ø 25 mm. Field of view 32 mm.  
Measuring scale 13-0-13 mm



## MEASURING MICROSCOPES

- PB.5044** Measuring magnifier 7x.  
Eyepiece Ø w18 mm. Field of view 24 mm.  
Measuring scale 10-0-10 mm divided into 0.1 mm and cross hair
- PB.5008** Measuring microscope 20x with LED illumination. Field of view 7.2 mm
- PB.5010** Measuring microscope 40x with LED illumination. Field of view 3.8 mm
- PB.5012** Measuring microscope 60x with LED illumination. Field of view 1.45 mm
- PB.5014** Measuring microscope 100x with LED illumination. Field of view 0.7 mm



# RefractoMeters



Refractometers are used for the identification of substances and concentration measurement of fluids. Because the refractive index (R.I.) of a solution is proportional to the concentration it is easy to identify the substance or to measure the purity and concentrations of solutions

The Euromex refractometers are calibrated at 20° Celsius. Most refractometers are equipped with Automatic Temperature Compensation (ATC)

# REFRACTOMETERS



RF.5562

## Handheld refractometers Sugar concentration

A few drops on the measurement prism of the refractometer are sufficient to read the refraction index of a liquid under test. The reflected light beam projects a shadow line onto a small glass reticle inside the instrument. The line and scale can be read through a magnifying eyepiece. The reading of most refractometers are corrected with an automatic temperature compensation (ATC)

The food industry intensively uses refractometers to determine the exact Brix concentration in marmalades, fruit, fruit juices, honey, treacle, wine and other food products. In the chemistry and oil industry refractometers are used to measure water / oil emulsions

Only a few drops of the liquid are necessary to read the refractive index straight from the built-in scale. All refractometers are equipped with an ATC (except RF.5190) and are supplied with specific scales

### MODELS

Concentrations of sugar in marmalades, fruits, honey, syrups, wine and monitoring of oil emulsions

Model	Scales	Accuracy	ATC	Analog	Model	Scales	Accuracy	ATC	Analog
RF.5190	0-90 Brix	0.2 Brix	•	•	RF.5562	28-62 Brix	0.2 Brix	•	•
RF.5510	0-10 Brix	0.1 Brix	•	•	RF.5580	0-80 Brix	0.5 Brix	•	•
RF.5520	0-20 Brix	0.1 Brix	•	•	RF.5582	40-82 Brix	0.5 Brix	•	•
RF.5532	0-32 Brix	0.2 Brix	•	•	RF.5592	58-92 Brix	0.5 Brix	•	•

# HIGHLIGHTS

- Portable
- Accurate
- Fast
- Automatic Temperature Correction (ATC)



RD.6535

## Digital handheld refractometer Sugar concentration in juices

A focused light beam of a LED source is reflected by the substance on a linear array of photo diodes. The refractometer correlate the position of the light beam on the array of photo diodes to refractive index or to another unit of measure related to the substance under observation. The value can be read from a digital LCD readout. The digital refractometers are equipped with an automatic temperature compensation (ATC)

Especially designed to measure sugar concentrations in fresh fruit juices. Latest technology for measuring refractive indices. The sample is illuminated by LED light source while an optical sensor measures the percentage of reflection from the sample. With the refractive index the device calculates the concentration

Units in Brix, °Oe (Oechsle) and °KMW. With ATC

### MODELS

Concentrations of grapes and fruit

Model	Scales	Accuracy	Remarks	ATC	Digital
RF.5635	0-140 °Oe	1 °Oe	Oechsle units	•	•
	0-32 Brix	0.2 Brix	Sugar concentration	•	•
	0-25 °KMW	0.2 °KMW	Babo units	•	•

### MODELS

Concentrations of sugar, nD indices (only for sugar)

Model	Scales	Accuracy	ATC	Digital
RD.5635	0-35 Brix	0.1 Brix	•	•
RD.5645	0-45 Brix	0.1 Brix	•	•
RD.5645	1.33-1.40 R.I.	0.0001 R.I.	•	•
RD.5665	28-65 Brix	0.1 Brix	•	•

## REFRACTOMETERS



98.490

### Abbe laboratory refractometer

#### Substance identification

The Abbe laboratory refractometer is a bench-top instrument for high-precision measurements of an index of refraction. The Abbe refractometer is also suitable for determination of the refractive index of solid samples, such as glass, plastics, and polymer films. The instrument is equipped with a built-in thermometer and water connection to control fluid temperatures. Also equipped with a Brix and a refraction index scale and is supplied with a test plate

Abbe refractometers are more accurate with an extended scale to measure concentrations of sugar and refractive indices. Capable of measuring all kinds of concentrations and identifying several types of substances

The Abbe refractometer can be connected to a water bath for measuring at a controlled temperature. During the use of this type of refractometer the use of a cold light source like the LE.5209 is recommended.

This Abbe table refractometer has scales for measurement of sugar concentrations and refractive indices. Delivered with carrying case, thermometer 0-50° Celsius, calibration plate and adjusting tool

#### MODEL

Substance identification of sugar concentration

Model	Scales	Accuracy	Remarks	Analog
98.490	0-95 Brix 1.300-1.700 RI	0.5 Brix 0.0002 RI	Abbe table refractometer without light source	•

## HIGHLIGHTS

- Portable
- Accurate
- Fast
- Automatic Temperature Correction (ATC)

### Gemmological refractometer

#### Gemstones

Gemmological refractometers are the key instruments for research in gemological laboratories. Gemstones can be examined using the optical principles on which these refractometers are based



RF.5381

Refractive index, one of the principal properties used in determining the type of a gemstone, is a material constant, dependent on the chemical composition of a substance. This allows users to identify gem materials by measuring their refractive index

Determination of the refractive index is done at the wavelength of the sodium line D-line (NaD) of ~589 nm. This is filtered out from daylight with a dedicated optical filter

#### MODEL

Identification of precious stones

Model	Scales	Accuracy	Remarks	Bench-top instrument	Analog
RF.5381	1.30-1.81 I.R.	0.01 I.R.	With filter 590 nm	•	•

## REFRACTOMETERS

The Euromex refractometers are ideal for determining concentrations, testing and measuring of fluids



### Alcohol and alcohol-sugar solutions Handheld refractometer

The measure concentrations of alcohol, sugar and alcohol-sugar % solutions. Using refractometers permits the growers to choose the moment of the vintage by monitoring the "must". With ATC



#### MODEL

Sugar concentration, % alcohol and alcohol/sugar solutions

Model	Scales	Accuracy	ATC	Analog
RF.5625	0-25% 0-40 Brix	0.2 % 0.2 Brix	•	•

### Sugar and salt Handheld refractometer

For concentrations of salt, water-soluble salt solutions of sugar. The handheld refractometers are equipped with a Brix scale. With ATC



#### MODEL

Substance identification of sugar concentration

Model	Scales	Accuracy	ATC	Analog
RF.5610	0-100° 0-10 Brix	1° 0.1 Brix	•	•

Substance identification of sugar concentration

Model	Scales	Accury	ATC	Digital
RD.5728	0-28 % 0-35 Brix 1.30-1.39 RI	0.1% 0.1 Brix 0.0001RI	•	•

### Battery acid and Coolant Handheld refractometer

Testing water-soluble coolants and battery acid solutions. The refractometer features a coolant temperature scale for ethylene glycol and propylene glycol. It also has a specific acid. With ATC



#### MODEL

For testing water-soluble coolants and battery acid solutions.

Model	Scales	Accuracy	Remarks	ATC	Analog
RF.5650	1.15-1.30 RI 0/-50 °C 0/-50 °C	0.01RI 5 °C 5 °C	Battery acid Ethylene glycol Propylene glycol	•	•

### Clinical applications Handheld refractometer

Clinical refractometers are commonly used to measure Serum Protein, Specific Gravity of Urine and Refractive Index. With ATC



#### MODELS

For measuring clinical applications as Serum Protein, Specific Gravity of Urine and Refractive Index

Model	Scales	Accuracy	Remarks	ATC	Analog	Model	Scales	Accuracy	Remarks	ATC	Digital
RF.5612	0-12 g/dl	0.2 g/dl	Proteins in Serum	•	•	RD.5712	0-12 g/dl	0.2 g/dl	Proteins in Serum	•	•
	1-1.05 sg	0.002 sg	Urine specific gravity	•	•		1-1.05 sg	0.001 sg	Urine specific gravity	•	•
	1.333-1.360 RI	0.0005 RI		•	•		1.33-1.39 RL	0.0001 RL		•	•

#### ACCESSORIES AND SPARE PARTS

- RF.5295** Test slide 78.8 Brix for calibration of RF.5190
- RF.5384** 5 ml immersion nD 1.79 liquid for RF.5381
- LE.5209** 20 W 12 V cold light source with single fiber light conductor

- SL.5208** Spare 20 W 12 V halogen bulb
- 98.492** Thermometer 0-50° C (for Abbe refractometer 98.490)
- 98.496** Calibration slide nD 1.5163 (for Abbe refractometer 98.490)

# Polarimeters & Spectroscopes



A polarimeter measures the angle of rotation caused by passing polarized light through an optically active substance. The rotation angle of the polarization plane of linear polarized light, is different for each optical active substance as described in the Law of Biot

Polarimetry is a non-destructive test method for measuring optical activity of organic and inorganic substances. It is very useful to analyze expensive non-reproducible samples. Polarimeters are extensively used for quality and process control in research laboratories in the chemical and food industry

Spectroscopes are used to visualise the light spectrum of the light source of transparent substances



POLARIMETERS

99.400

## Polarimeter

Polarimeters are suitable for fast and accurate measurements of sugars, glucose, perfume, chemical substances and medical drugs. Equipped with a built-in 230 V 589.3 nm sodium lamp with ballast for 230 volt operation with cable and plug

Polar scale, range  $\pm 180^\circ$  with  $0.1^\circ$  readings. Supplied with observation tubes of 100 mm and 200 mm. Bright light measuring field permits reading with accuracy of  $0.1^\circ$  with aid of Vernier

Range  $0-180^\circ$  to left and right . Accuracy  $0.1^\circ$ . Polarizing device: Glam Thomson prism and Laurent Quartz plate

### HIGHLIGHTS

- The polarimeters are delivered with 100 and 200 mm observation tubes
- Equipped with a built-in 230 V 589.3 nm sodium lamp
- Fast and accurate
- Short warm-up time

### ACCESSORIES FOR 99.400

- 99.410** Measuring tube, 100 mm long
- 99.415** Measuring tube, 200 mm long
- 99.430** Cover glass for measuring tube  $\varnothing$  15 mm
- 99.431** Rubber ring (for 99.430)
- 99.197** Spare sodium 589.3 nm lamp

### MODEL

Model	Scales	Accuracy	Observation tubes 100 and 200 mm	230 V sodium lamp (with 589.3 nm filter)
99.400	$\pm 180^\circ$	$\pm 0.1^\circ$ polar scale	•	•

## SPECTROSCOPES

Euromex handheld spectroscopes are used for optical experiments in natural sciences, industry and education



### Handheld spectroscope SP.5100

Handheld spectroscope with fixed slit

- Direct vision type
- Adjustable eyelens
- Fixed slit
- Angle dispersion C - F 6°
- Linear dispersion 40 mm



SP.5100

#### MODEL

Model	Dimensions	Weight (gram)	Adjustable slit	Comparison prism	Angle dispersion	Linear dispersion	Wavelength scale	589 nm indication	With 5 glass cuvettes
SP.5100	90 x 18 mm Ø	72			C-F 6°	40 mm			

### Handheld spectroscope SP.5150

Handheld spectroscope with adjustable slit from 0 to 1 mm

- Direct vision type
- Adjustable eyelens
- Adjustable slit 0 - 1 mm
- Angle dispersion C - F 7°
- Linear dispersion 60 mm



SP.5150

#### MODEL

Model	Dimensions	Weight (gram)	Adjustable slit	Comparison prism	Angle dispersion	Linear dispersion	Wavelength scale	589 nm indication	With 5 glass cuvettes
SP.5150	90 x 18 mm Ø	92	0-1 mm		C-F 7°	60 mm			

### Euromex handheld spectroscope SP.5155

Handheld spectroscope with adjustable slit and comparison prism, mirror and 5 glass cuvettes

- Direct vision type
- Adjustable eyelens
- Adjustable slit 0 - 1 mm
- Angle dispersion C - F 7°
- Linear dispersion 60 mm
- Comparison prism for comparison between products
- Mirror
- 5 Glass cuvettes



SP.5155

#### MODEL

Model	Dimensions	Weight (gram)	Adjustable slit	Comparison prism	Angle dispersion	Linear dispersion	Wavelength scale	589 nm indication	With 5 glass cuvettes
SP.5155	h45x l105xp23	125	0-1 mm	•	C-F 7°	60 mm			•

### Euromex handheld spectroscope SP.5200

Handheld spectroscope with adjustable slit, comparison prism, mirror, 5 glass mini-cuvettes and wavelength scale 400 - 700 nm with 589 nm indication. Divisions 10 nm

- Direct vision type
- Adjustable eyelens
- Adjustable slit 0 - 1 mm
- Angle dispersion C - F 7°
- Linear dispersion 60 mm
- Comparison prism for comparison between products
- Mirror
- 5 Glass cuvettes
- Wavelength scale 400 - 700 nm



SP.5200

#### MODEL

Model	Dimensions	Weight (gram)	Adjustable slit	Comparison prism	Angle dispersion	Linear dispersion	Wavelength scale	589 nm indication	With 5 glass cuvettes
SP.5200	h50x l115xp23	250	0-1 mm	•	C-F 7°	60 mm	•	•	•

# PATHOLOGY SCANNER



PS.1001

## PathoScanner 10,000 DPI slide scanner

In pathology, histology and other medical fields, medical professionals look at tissue slides under a microscope. Often the tissue are stained to highlight certain structures enabling the specialists to perform their analysis. Euromex now introduces a digital solution for these specialists

The PathoScan digital microscope slide scanner produces quick, reliable and high-resolution digital images of cells. Once the slides are digitized there are numerous advantages against classic microscopy

The users now have the ability to upload the scanned images onto a network for sharing and collaboration among colleagues, resolving in better and faster diagnostics. The scanned slides can also be used for education purposes. Digitized slides also can be analyzed using the specialists own dedicated software. The software can be used to automate the manual counting of structures, or for classifying the condition of tissue such as is used in grading tumors

### PATHOVIEW SCANNING SOFTWARE

- Easy Preview and Scan Slide
- Quick setting exposure time
- Scan resolution from 1,000~10,000 dpi
- File format: TIF and JPEG
- Images can also be used with ImageFocus Alpha basic microscopy analysis software, see chapter 9.

<b>PS.1001</b>	
<b>Dimensions</b>	<b>Weight</b>
(h) 70 x (w) 150 x (d) 260 mm	1.0 kg

## HIGHLIGHTS

- Supports standard microscopy slide 76 x 26 mm
- From basic histology research to life science education
- Scans full slide
- Simple user interface
- Superior quality, 3-line CCD sensor
- 48-bit, 10,000 dpi, 5 µm resolution
- Industry-leading scanning speeds
- Holder for 2 slides included
- Polarization attachment available



PS.1001 / PS.3001

### SPECIFICATION

Resolution	10,000 x 10,000 dpi
Signal Expression	Color
Dynamic Range	3.8
Scanning Area	24.3 x 36.5 mm (H x W)
Scanning medium	76 x 26 mm slides
File Format	Saving in JPG, TIFF format
Light Source	Transmission white LED
Operating System	Windows XP/Vista/7/8/10 Intel-based Mac OS X 10.5/10.6 /10.7/10.8
Power supply	100- 240 AC Adapter, 12V 1.5 A
Supplied with	Double slide holder, 100-240 V power supply, USB-2 cable, PathoView scanning software and user manual
Model	<b>PS.1001</b>

### MODEL

PS.1001	PathoScanner 10,000 DPI slide scanner
PS.3001	Double slide holder
PS.3002	Polarization slide holder, for one slide



# Choose the right EuromexMicroscope

Euromex offers a large range of microscope series and selecting the right microscope for your application might be challenging and time consuming.

To simplify this process we have listed our recommended models for most common applications in education, laboratories and industry

EDUCATION	FIELD OF APPLICATION	RECOMMENDED MODELS
• Botany	Study of plants as branch of biology. Plant anatomy and morphology. Plant genetics and ecology. Plant biochemistry	MicroBlue, EcoBlue, BioBlue, BioBlue.Lab, AP series, EduBlue, StereoBlue
• Digital imaging	Observation and perform analysis on microscope images, storage and share captured and videos	CMEX cameras, CCD cameras, HD cameras, EduPad
• Electronics	Development, production, assembling and inspection of electronic components or circuitry	B+ series (material), EduBlue, StereoBlue, NexiusZoom
• Entomology	Study of insects as branch of zoology. Identification and classification of beetles, flies, termites, moths and butterflies, bees, ants, wasps	MicroBlue, EcoBlue, BioBlue, BioBlue.Lab, AP series, EduBlue, StereoBlue
• Geology, mineralogy	Earth Science; Study of solids, rocks and processes. Identification and classification of rocks and minerals	EcoBlue (polarization), BioBlue (polarization), AP series, EduBlue, StereoBlue
• Geology, petrology	Identification by means of petrographic microscope	EcoBlue (polarization), BioBlue (polarization), AP series, EduBlue, StereoBlue
• Mechanics	Manufacturing and quality inspection of mechanical parts	B+ series (material), EduBlue, StereoBlue, NexiusZoom
• Microbiology	Study of microscopic uni-, multi- or acellular small organisms such as protozoa, algae, bacteria and more. Identification and classification	EcoBlue, BioBlue, B and B+ series
• Mycology	Study of fungi as branch of biology. Identification and classification	EcoBlue, BioBlue, BioBlue.Lab, B and B+ series, AP series, EduBlue, StereoBlue
• Petrology	Study of the composition and structure of rocks as branch of geology. Identification by means of polarization microscopes	EcoBlue (polarization), BioBlue (polarization), AP series, EduBlue, StereoBlue
• Zoology	Animal biology. Study of invertebrated and vertebrated animals and related branches	EcoBlue, BioBlue, BioBlue.Lab, B and B+ series, AP series, EduBlue, StereoBlue
UNIVERSITY LABS	FIELD OF APPLICATION	RECOMMENDED MODELS
• Agronomy & forestry	Selective breeding of plants, fruit and production of food from plants, wood from trees, fuel. Plant physiology and genetics research	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• Anatomopathology	Diagnosis of diseases of organs or tissues. Cytopathology and forensic pathology	BioBlue.Lab, B and B+ series, iScope, Oxion, NexiusZoom, DZ series
• Asbestos control	Research of asbestos fibers, environmental protection during restauration of older buildings	iScope (asbestos and polarization), NexiusZoom, DZ series, Z series
• Bacteriology	Study of bacteria as subdivision of microbiology. Identification, classification	BioBlue.Lab, B and B+ series, iScope, Oxion

UNIVERSITY LABS FIELD OF APPLICATION

RECOMMENDED MODELS

• <b>Biochemistry</b>	Study of chemical processes within living organism. Identification and classification of enzymes and structure of biomolecules	BioBlue.Lab, B and B+ series, iScope, Oxion
• <b>Biomedical</b>	Study of medical microbiology, virology, epidemiology, biomedical engineering	BioBlue.Lab, iScope, Oxion
• <b>Biotechnology</b>	Study of living organism in order to make food products, for plant protection (genetically modified organism) and other bioprocess engineering. Development of pharmaceutical drugs, genetic testing, enzymes production, biofuels, textile	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• <b>Botany</b>	Study of plants as branch of biology. Plant anatomy and morphology. Plant genetics and ecology. Plant biochemistry	BioBlue.Lab, B and B+ series, StereoBlue, NexiusZoom, DZ series
• <b>Cell Culture</b>	Controlled grown of cells and tissues, fungal culture and microbiological culture	Oxion Inverso, NexiusZoom, DZ series
• <b>Chemistry</b>	Study of the composition and properties of chemicals	iScope (material and polarization), Oxion (material), B+ series (material), NexiusZoom, DZ series
• <b>Cosmetics</b>	Research, development and testing (safety) of substances for make-up or perfume	iScope (material), Oxion (material), B+ series (material), NexiusZoom, DZ series
• <b>Cytology</b>	Study of cell structure, function and chemistry. Detection of cellular diseases	BioBlue.Lab, iScope, Oxion
• <b>Dermatology</b>	Study and diagnosis, treatment of skin, nails and hair diseases	iScope, Oxion, NexiusZoom, StereoBlue, DZ series
• <b>Digital imaging</b>	Observation and perform analysis on microscope images, save and share captured images and videos	CMEX cameras, CCD cameras, HD cameras, Cooled cameras, ProPad
• <b>Electronics</b>	Development, production, assembling and inspection of electronic components or circuitry	iScope (material), Oxion (material), B+ series (material), StereoBlue, NexiusZoom, DZ series, Z series
• <b>Embryology</b>	Study of gametes, embryos and fetuses	BioBlue.Lab, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• <b>Entomology</b>	Study of insects as branch of zoology. Identification and classification of beetles, flies, termites, moths and butterflies, bees, ants, wasps	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• <b>Environmental</b>	Monitoring of environmental conditions like water, atmosphere, ecosystems, soil and pollution control	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• <b>Fluorescence</b>	Study of living and non living material with the help of fluorescence markers (fluorochromes)	iScope (fluorescence), Oxion (fluorescence), Oxion Inverso (fluorescence), B+ series (fluorescence), DZ series
• <b>Food and beverages</b>	Quality and safety controls, before, during and after the production of food and beverages	BioBlue.Lab, B and B+ series, iScope, Oxion
• <b>Forensics</b>	Analysis of scientific evidence. Toxicology, fingerprints, Forensic anthropology and archeology, forensic botany and entomology	BioBlue.Lab, iScope, iScope (material and polarization), Oxion, Oxion (material), Oxion Inverted, Oxion Inverted (material), NexiusZoom, DZ series, Z series
• <b>Genetics</b>	Study of genes, heredity in living organism including bacteria, plants, animals and humans	iScope, Oxion, DZ series

**UNIVERSITY LABS FIELD OF APPLICATION**
**RECOMMENDED MODELS**

• <b>Geology, mineralogy</b>	Earth Science; Study of solids, rocks and processes. Identification and classification of rocks and minerals	iScope (material), Oxion (material), B+ series (material), StereoBlue, NexiusZoom, DZ series
• <b>Geology, petrology</b>	Identification by means of petrographic microscope	iScope (polarization), StereoBlue, NexiusZoom, DZ series
• <b>Glass industry</b>	Quality control, before, during and after the production of glass and coatings	iScope (material), Oxion (material), Oxion Inverso (material), B+ series (material), StereoBlue, NexiusZoom, DZ series
• <b>Hematology</b>	Study and diagnosis, treatment and prevention of diseases of the blood	iScope, B and B+ series (dark field), iScope (dark field), Oxion, Oxion (dark field)
• <b>Histopathology</b>	Microscopic examination of tissue , diagnosis of diseases	iScope, Oxion
• <b>Horticulture</b>	Selective breeding of plants and fruit for production of food	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• <b>In vitro fertilization</b>	In vitro fertilization IFV. Quality control of collected egg and sperm	StereoBlue, NexiusZoom, DZ series, Z series
• <b>Histopathology</b>	Microscopic examination of tissue , diagnosis of diseases	iScope, Oxion
• <b>Marine Biology</b>	Study of organisms living in the ocean or sea's as branch of biology	B and B+ series, BioBlue.Lab, iScope, Oxion
• <b>Mechanics</b>	Manufacturing and quality inspection of mechanical parts	iScope (material), Oxion (material), Oxion Inverso (material), B+ series (material), StereoBlue, NexiusZoom, DZ series
• <b>Metallurgy</b>	Manufacturing and quality inspection of metallic elements, intermetallic compounds and alloys	iScope (material), Oxion (material), B+ series (material), StereoBlue, NexiusZoom, DZ series
• <b>Microbiology</b>	Study of microscopic uni-, multi- or acellular small organisms such as protozoa, algae, bacteria and more. Identification and classification	iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• <b>Mining</b>	Extraction of minerals for identification, quantitative and qualitative evaluation of minerals	iScope (material and polarization), Oxion (material and polarization), Oxion Inverso (material), B+ series (material), StereoBlue, NexiusZoom, DZ series
• <b>Mycology</b>	Study of fungi as branch of biology. Identification and classification	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• <b>Neuropathology</b>	Study and diagnosis of diseases in nervous system tissue	iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• <b>Oncology</b>	Study and diagnosis, treatment and prevention of cancers	iScope, Oxion
• <b>Ornithology</b>	Study of birds as branch of zoology. Diagnosis of diseases in birds like competition pigeons	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• <b>Paleontology</b>	Study of fossils in order to determinate organisms evolution	iScope (material), Oxion (material), B+ series (material), StereoBlue, NexiusZoom, DZ series
• <b>Paper industry</b>	Production of paper related products. Quality inspection	iScope (material), Oxion (material), B+ series (material), StereoBlue, NexiusZoom, DZ series

**UNIVERSITY LABS FIELD OF APPLICATION**

UNIVERSITY LABS	FIELD OF APPLICATION	RECOMMENDED MODELS
• Parasitology	Study of parasites, medical and veterinary	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• Pathology	Study and diagnosis of diseases	iScope, Oxion
• Petrochemical	Research and transformation of crude oil and natural gas	iScope (material), Oxion (material), B+ series (material), StereoBlue, NexiusZoom, DZ series
• Petrology	Study of the composition and structure of rocks as branch of geology. Identification by means of polarization microscopes	iScope (polarization), StereoBlue, NexiusZoom, DZ series
• Pharmaceuticals	Development and production of drugs for medication. Quality assurance and inspection of produced products	iScope (polarization), StereoBlue, NexiusZoom, DZ series
• Phytopathology	Study and diagnosis of plant diseases	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• Plastics	Development and production of plastics and plastic based compounds. Quality assurance and inspection	iScope (material), Oxion (material), Oxion Inverso (material), B+ series (material), StereoBlue, NexiusZoom, DZ series
• Textile	Development and production of all kind of textile based products. Quality assurance and inspection	iScope (material), Oxion (material), B+ series (material), AP series, StereoBlue, NexiusZoom, DZ series
• Veterinary medicine	Prevention, diagnosis and treatment of diseases, injuries in animals	BioBlue.Lab, B and B+ series, iScope, Oxion, Oxion Inverso, StereoBlue, NexiusZoom, DZ series
• Virology	Study and diagnosis of viruses and virus-like agents	BioBlue.Lab, B and B+ series, iScope, Oxion
• Water treatment	Production of drinking water and wastewater treatment. Quality control and disease prevention	BioBlue.Lab, B and B+ series, iScope, Oxion
• Wood production	Wood production for construction material, fuel. Quality control	iScope (material), Oxion (material), Oxion Inverso (material), B+ series (material), AP series, StereoBlue, NexiusZoom, DZ series
• Embryo collection	Embryo collection and transfer in mares, pigs, cows. Quality control	NexiusZoom, DZ series, Z series
• Zoology	Animal biology. Study of invertebrated and vertebrated animals and related branches	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series

**LIFE SCIENCE LABORATORIES FIELD OF APPLICATION**

LIFE SCIENCE LABORATORIES	FIELD OF APPLICATION	RECOMMENDED MODELS
• Agronomy & forestry	Selective breeding of plants, fruit and production of food from plants, wood from trees, fuel. Plant physiology and genetics research	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• Anatomopathology	Diagnosis of diseases of organs or tissues. Cytopathology and forensic pathology	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• Bacteriology	Study of bacteria as subdivision of microbiology. Identification, classification	BioBlue.Lab, B and B+ series, iScope, Oxion, Oxion Inverso

**LIFE SCIENCE  
LABORATORIES**

**FIELD OF APPLICATION**

**RECOMMENDED MODELS**

• <b>Biochemistry</b>	Study of chemical processes within living organism. Identification and classification of enzymes and structure of biomolecules	BioBlue.Lab, B and B+ series, iScope, Oxion
• <b>Biomedical</b>	Study of medical microbiology, virology, epidemiology, biomedical engineering	BioBlue.Lab, iScope, Oxion
• <b>Biotechnology</b>	Study of living organism in order to make food products, for plant protection (genetically modified organism) and other bioprocess engineering. Development of pharmaceutical drugs, genetic testing, enzymes production, biofuels, textile	BioBlue.Lab, B and B+ series, iScope, Oxion, NexiusZoom, DZ series
• <b>Botany</b>	Study of plants as branch of biology. Plant anatomy and morphology. Plant genetics and ecology. Plant biochemistry	BioBlue.Lab, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• <b>Cell Culture</b>	Controlled growth of cells and tissues, fungal culture and microbiological culture	Oxion Inverso, NexiusZoom, DZ series
• <b>Chemistry</b>	Study of the composition and properties of chemicals	iScope (material and polarization), Oxion (material), B+ series (material), NexiusZoom, DZ series
• <b>Cosmetics</b>	Research, development and testing (safety) of substances for make-up or perfume	B+ series (material), iScope (material), NexiusZoom, Oxion (material), DZ series
• <b>Cytology</b>	Study of cell structure, function and chemistry. Detection of cellular diseases	BioBlue.Lab, iScope, Oxion
• <b>Dermatology</b>	Study and diagnosis, treatment of skin, nails and hair diseases	iScope, Oxion, NexiusZoom, StereoBlue, DZ series
• <b>Digital imaging</b>	Observation and perform analysis on microscope images, save and captured the images and videos	CMEX cameras, CCD cameras, HD cameras, Cooled cameras, ProPad
• <b>Embryology</b>	Study of gametes, embryos and fetuses	BioBlue.Lab, B and B+ series, iScope, Oxion, NexiusZoom, DZ series, Z series
• <b>Entomology</b>	Study of insects as branch of zoology. Identification and classification of beetles, flies, termites, moths and butterflies, bees, ants, wasps	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• <b>Environmental</b>	Monitoring of environmental conditions like water, atmosphere, ecosystems, soil and pollution control	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• <b>Fluorescence</b>	Study of living and non living material with the help of fluorescence markers (fluorochromes)	iScope (fluorescence), Oxion (fluorescence), Oxion Inverso (fluorescence), B+ series (fluorescence), DZ series
• <b>Food and beverages</b>	Quality and safety controls, before, during and after the production of food and beverages	BioBlue.Lab, B and B+ series, iScope, Oxion
• <b>Forensics</b>	Analysis of scientific evidence. Toxicology, fingerprints, Forensic anthropology and archeology, forensic botany and entomology	BioBlue.Lab, B and B+ series, B+ series (material), iScope, iScope (material and polarization), Oxion, Oxion (material), Oxion Inverted, Oxion Inverted (material), NexiusZoom, DZ series, Z series
• <b>Genetics</b>	Study of genes, heredity in living organism including bacteria, plants, animals and humans	iScope, Oxion, DZ series
• <b>Hematology</b>	Study and diagnosis, treatment and prevention of diseases of the blood	iScope, B+ series (dark field), iScope (dark field), Oxion, Oxion (dark field), iScope, Oxion

**LIFE SCIENCE  
LABORATORIES**

**FIELD OF APPLICATION**

**RECOMMENDED MODELS**

• <b>Histopathology</b>	Microscopic examination of tissue , diagnosis of diseases	iScope, Oxion
• <b>Horticulture</b>	Selective breeding of plants and fruit for production of food	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• <b>In vitro fertilization</b>	In vitro fertilization IVF. Quality control of collected egg and sperm	StereoBlue, NexiusZoom, DZ series, Z series
• <b>Histopathology</b>	Microscopic examination of tissue , diagnosis of diseases	iScope, Oxion
• <b>Marine Biology</b>	Study of organisms living in the ocean or sea's as branch of biology	iScope, Oxion, NexiusZoom, DZ series
• <b>Microbiology</b>	Study of microscopic uni-, multi- or acellular small organisms such as protozoa, algae, bacteria and more. Identification and classification	iScope, Oxion, NexiusZoom, DZ series
• <b>Mycology</b>	Study of fungi as branch of biology. Identification and classification	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• <b>Neuropathology</b>	Study and diagnosis of diseases in nervous system tissue	iScope, Oxion, NexiusZoom, DZ series
• <b>Oncology</b>	Study and diagnosis, treatment and prevention of cancers	iScope, Oxion
• <b>Parasitology</b>	Study of parasites, medical and veterinary	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• <b>Pathology</b>	Study and diagnosis of diseases	iScope, Oxion
<b>Pharmaceutics</b>	Development and production of drugs for medication. Quality assurance and inspection of produced products	iScope (polarization), StereoBlue, NexiusZoom, DZ series
• <b>Phytopathology</b>	Study and diagnosis of plant diseases	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• <b>Veterinary medicine</b>	Prevention, diagnosis and treatment of diseases, injuries on animals	BioBlue.Lab, B and B+ series, iScope, Oxion, Oxion Inverso, StereoBlue, NexiusZoom, DZ series
• <b>Virology</b>	Study and diagnosis of viruses and virus-like agents	BioBlue.Lab, B and B+ series, iScope, Oxion
• <b>Water treatment</b>	Production of drinking water and wastewater treatment. Quality control and disease prevention	BioBlue.Lab, B and B+ series, iScope, Oxion
• <b>Embryo collection</b>	Embryo collection and transfer in mares, pigs, cows. Quality control	NexiusZoom, DZ series, Z series
• <b>Zoology</b>	Animal biology. Study of invertebrated and vertebrated animals and related branches	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series

INDUSTRY	FIELD OF APPLICATION	RECOMMENDED MODELS
• Aerospace	Manufacturing and quality inspection of rockets and space vehicles related parts	iScope (material), Oxion (material), NexiusZoom, DZ series, Z series
• Agronomy & forestry	Selective breeding of plants, fruit and production of food from plants, wood from trees, fuel. Plant physiology and genetics research	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• Asbestos control	Research of asbestos fibers, environmental protection during restauration of older buildings	iScope (asbestos and polarization), NexiusZoom, DZ series, Z series
• Automotive	Manufacturing and quality inspection of automotive related parts	iScope (material), Oxion Inverso (material), NexiusZoom, DZ series, Z series
• Avionics	Manufacturing and quality inspection of aircrafts related parts	iScope (material), NexiusZoom, DZ series
• Biochemistry	Study of chemical processes within living organism. Identification and classification of enzymes and structure of biomolecules	BioBlue.Lab, iScope, Oxion, NexiusZoom, DZ series
• Chemistry	Study of the composition and properties of chemicals	iScope (material), Oxion (material)
• Cosmetics	Research, development and testing (safety) of substances for make-up or perfume	B+ series (material), iScope (material), Oxion (material), NexiusZoom, DZ series
• Digital imaging	Observation and perform analysis on microscope images, save and captured the images and videos	CMEX cameras, CCD cameras, HD cameras, ProPad
• Electronics	Development, production, assembling and inspection of electronic components or circuitry	iScope (material), Oxion (material), NexiusZoom, DZ series, Z series, BE-50 LED
• Environmental	Monitoring of environmental conditions like water, atmosphere, ecosystems, soil and pollution control	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• Food and beverages	Quality and safety controls, before, during and after the production of food and beverages	BioBlue.Lab, B and B+ series, iScope, Oxion
• Forensics	Analysis of scientific evidence. Toxicology, fingerprints, Forensic anthropology and archeology, forensic botany and entomology	BioBlue.Lab, B and B+ series, B+ series (material), iScope, iScope (material and polarization), Oxion, Oxion (material), Oxion Inverted, Oxion Inverted (material), NexiusZoom, DZ series, Z series
• Geology, mineralogy	Earth science that study the solid, rocks and processes. Identification and classification of rocks and minerals	iScope (material), Oxion (material), Oxion Inverso (material), B+ (material), StereoBlue, NexiusZoom, DZ series
• Geology, petrology	Identification by means of an petrographic microscope	iScope (polarization)
• Glass industry	Quality control, before, during and after the production of glass and coatings	iScope (material), Oxion (material), Oxion Inverso (material), B+ series (material), StereoBlue, NexiusZoom, DZ series
• Horticulture	Selective breeding of plants and fruit for production of food	BioBlue.Lab, B and B+ series, iScope, Oxion, StereoBlue, NexiusZoom, DZ series
• Jewelry	Precise manufacturing of very small decorative items such as brooches, rings, bracelets and more	BE-50 LED series, StereoBlue, NexiusZoom, DZ series, Z series
• Mechanics	Manufacturing and quality inspection of mechanical parts	iScope (material), Oxion (material), Oxion Inverso (material), B+ series (material), StereoBlue, NexiusZoom, DZ series
• Metallurgy	Manufacturing and quality inspection of metallic elements, intermetallic compounds and alloys	iScope (material), Oxion (material), Oxion Inverso (material), B+ series (material), StereoBlue, NexiusZoom, DZ series
• Mining	Extraction of minerals such. Identification, quantitative and qualitative evaluation of minerals	iScope (material and polarization), Oxion (material and polarization), Oxion Inverso (material), B+ series (material), StereoBlue, NexiusZoom, DZ series
• Paper industry	Production of paper related products. Quality inspection	iScope (material), Oxion (material), B+ series (material), StereoBlue, NexiusZoom, DZ series
• Petrochemical	Research and transformation of crude oil and natural gas	iScope (material), Oxion (material), B+ series (material), StereoBlue, NexiusZoom, DZ series
• Petrology	Study of the composition and structure of rocks as branch of geology. Identification by means of polarization microscopes	iScope (polarization), StereoBlue, NexiusZoom, DZ series
• Pharmaceuticals	Development and production of drugs for medication. Quality assurance and inspection of produced products	iScope (polarization), StereoBlue, NexiusZoom, DZ series

INDUSTRY	FIELD OF APPLICATION	RECOMMENDED MODELS
• <b>Plastics</b>	Development and production of plastics and plastic based compounds. Quality assurance and inspection	iScope (material), Oxion (material), Oxion Inverso (material), B+ series (material), StereoBlue, NexiusZoom, DZ series
• <b>Printing industry</b>	Production of relief printing, lithography	iScope (material), Oxion (material), B+ series (material), AP series, StereoBlue, NexiusZoom, DZ series
• <b>Textile</b>	Development and production of all kind of textile based products. Quality assurance and inspection	iScope (material), Oxion (material), Oxion Inverso (material), B+ (material), AP series, StereoBlue, NexiusZoom, DZ series
• <b>Water treatment</b>	Production of drinking water and wastewater treatment . Quality control and disease prevention	BioBlue.Lab, B and B+ series, iScope, Oxion,
• <b>Wood production</b>	Wood production for construction material, fuel. Quality control	iScope (material), Oxion (material), Oxion Inverso (material), B+ (material), AP series, StereoBlue, NexiusZoom, DZ series



























### MORE INFORMATION?

If you need further information or have any questions please feel free to contact our area sales managers or offices.

Contact details can be found at the back of this catalogue

## ICONS EXPLANATION

In this catalog icons are used to indicate the several functions of a microscope. Please find below more detail about the meaning of each icon

- **Monocular**   • **Phase contrast illumination**
- **Binocular**   • **Abbe condenser**
- **Trinocular**   • **Zoom stereo objective**
- **Rotating head 360°**   • **Digital product**
- **Incident light**   • **WiFi connection**
- **Transmitted light**   • **USB connection**
- **Polarized light**   • **ESD safe coating**
- **Infinity corrected**   • **Rechargeable battery**
- **LED illumination**   • **Internal power supply**
- **NeoLED™ illumination**   • **Mains adapter**
- **Halogen illumination**   • **2 years warranty**
- **HG-HBO illumination**   • **5 years warranty**
- **Köhler illumination**   • **10 years warranty**



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**MICROSCOPE  
COLLECTION**  
2016

**HEADQUARTERS**

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