

CATALOG

2023-2024

PART 2



PART 1 MICROSCOPES FOR EDUCATION

PART 2 MICROSCOPES FOR LIFE SCIENCE

PART 3 MICROSCOPES FOR INDUSTRY

Distributed by :

PT. ZAFARO ELHA TRANSINDO

Bussiness Park Ruko Bukit Cimanggu City Blok. B1 No. 3A Bogor West Java
Indonesia 16166

Email : zafaro.elha@gmail.com

Contact Person : +62 812-8593-8682 (Yusuf Naruli R)



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euromex MICROSCOPE COLLECTION 2023 • 2024



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EDUCATION | BIOLOGICAL MICROSCOPES

MicroBlue • EcoBlue • BioBlue
BioBlue.Lab • bScope • iScope

2

EDUCATION | STEREO MICROSCOPES

EduBlue • StereoBlue
NexiusZoom • AP series

3

EDUCATION | DIGITAL SOLUTIONS

Digital microscopes • MacroZoom • USB cameras • HD cameras • WiFi cameras
Cooled cameras • Tablet cameras • Software • Adapters

4

LIFE SCIENCE | BIOLOGICAL MICROSCOPES

iScope • bScope • Delphi-X Observer • Oxion
BioBlue.Lab • Oxion Inverso • Delphi-X Inverso

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LIFE SCIENCE | FLUORESCENCE MICROSCOPES

iScope • bScope • Delphi-X Observer • Oxion • Oxion Inverso
Delphi-X Inverso • LED light sources (fluorescence) • Fluorescence filter sets

6

LIFE SCIENCE | STEREO MICROSCOPES

NexiusZoom (EVO) • StereoBlue • DZ series
Z series • P series

7

LIFE SCIENCE | DIGITAL SOLUTIONS

Digital microscope • MacroZoom • WiFi camera • USB cameras
HD cameras • Cooled cameras • Tablet camera • Software • Adapters

8

INDUSTRY | STEREO MICROSCOPES

NexiusZoom, -EVO and -ESD • NexiusZoom for Gemology
StereoBlue • DZ series • Z series • BE-50 series • P series

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INDUSTRY | MATERIALS SCIENCE MICROSCOPES

iScope (materials & polarization) • bScope
Delphi-X Observer • Oxion • Oxion Inverso

10

INDUSTRY | DIGITAL SOLUTIONS

Digital microscopes • MacroZoom • WiFi camera • USB cameras
HD cameras • Cooled cameras • Tablet cameras • Software • Adapters

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ACCESSORIES | FOR MICROSCOPY

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

12

OTHER OPTICAL PRODUCTS

Magnifiers & measuring microscopes • Refractometers
Polarimeters • Spectroscopes • Pathology Scanner

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, stereo and metallurgical microscopes

The corporate office is based in Arnhem, The Netherlands. A facility with a 2,000 m² conditioned logistics warehouse, an opto-mechanical 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



Visit **Euromex Academy** for
Video Tutorials and Manuals



View the Product Videos
on YouTube

choose the right
microscope



microscope selector

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

SEE PAGE 412

At the end of the catalog you'll also find an index page, listing the products featuring in this catalog alphabetically

SEE PAGE 420

life science

biological microscopes



biological microscopes

Euromex offers a wide range of life science microscopes that are used by researchers and biologists worldwide

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



product information

ISCOPE • PAGE 106
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BIOBLUE.LAB • PAGE 144
DELPHI-X INVERSO • PAGE 148
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LIFE SCIENCE MICROSCOPES

iScope®

NeoLED™
euromex optical technology

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 darkfield, basic polarization and several epi-illumination sources for fluorescence applications can be used. iScope® models with multiheads are also available for teaching purposes



product information



IS.1153-PLi



IS.1153-PLi

480 (h) x 210 (w) x 255 (d) mm | 9.0 kg



iScope® tilting head

SPECIFICATIONS

EYEPIECES

- Extended plan wide field EWF 10x/20 mm eyepieces with 20 mm field of view and adjustable diopter on the left eyepiece for non-infinity corrected systems (Ø 23.2 mm tube. Tube length 160 mm)
- Extended plan wide field EWF 10x/22 mm 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. Tube length 200 mm)

HEAD

Binocular and trinocular Siedentopf type heads with 30° inclined tubes. Interpupillary distance from 48 to 76 mm. The trinocular head of the plan infinity corrected models (IS.1153-PLi) has an optical path selector (100:0 / 50:50) and ± 5 diopter adjustments on both Ø 30 mm tubes. The trinocular head of the E-plan infinity corrected models (IS.1153-EPLi) has a fixed built-in beam splitter (50:50) and ± 5 diopter adjustment on the Ø 30 mm left tube. The trinocular head of the E-plan finite models (IS.1153-EPL) has a fixed built-in 50:50 beam splitter and one ± 5 diopter adjustment on the Ø 23.2 mm left tube. A unique rotating

HIGHLIGHTS

- EWF 10x/22 mm and EWF 10x/20 mm eyepieces
- Binocular and trinocular models
- Smart Light Control (SLC) system available
- Multihead and face-to-face dual head systems
- Optional tilting head
- Quintuple reversed nosepiece
- E-plan, plan and plan phase objectives
- E-plan, plan and plan phase IOS objectives
- 156 x 138 mm stage
- 187/230 x 140 mm rackless stage
- Cardioid mirror darkfield condenser with 5 W NeoLED™ illumination
- 3 W NeoLED™ Köhler illumination
- iCare sensor for energy saving
- CSS - Cable Storage System
- 10 Years warranty

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

ERGONOMIC TILTING HEAD

Optional ergonomic 5° to 35° tilting head supplied with EWF 10x/22 mm eyepieces, 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

To order an iScope® with tilting head and photo tube attachment use reference IS.1159-xxx

FACE-TO-FACE HEADS

The iScope® can be supplied with two heads in a face-to-face configuration, allowing simultaneous observation by two operators. The Ø 30 mm tubes of the head are equipped with EWF 10x/20 mm eyepieces. Both heads have two diopter adjustments. Only available for the model with plan infinity corrected objectives (IS.1154-PLi/T). The face-to-face head is equipped with a 2-color laser pointer

MULTIHEAD SYSTEM

The iScope® can be extended with a unique multihead system for in total two, three or five 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 view of all heads. Configurations with one, two or four additional

viewing binocular heads, 30° inclined tubes and plan 4x, 10x, S40x, S100x oil immersion infinity corrected IOS objectives.

All heads are equipped with extended wide field plan EWF 10x/22 mm eyepieces

(references: IS.1156-PLi-x, x = total number of heads)

OBJECTIVES - 45 MM PARFOCAL

E-plan EPL	4x/0.10	10x/0.25	20x/0.40*	S40x/0.65	S100x/1.25 oil
E-plan EPLi IOS	4x/0.10	10x/0.25		S40x/0.65	S100x/1.25 oil
Plan PLi IOS	4x/0.10	10x/0.25	20x/0.40*	S40x/0.65	S60x/0.85* 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

* optional

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

NOSEPIECE

Revolving quintuple reversed nosepiece for max. 5 objectives

STAGE

- The iScope® can be equipped with three types of stages:
- 156 x 138 mm stage equipped with integrated 79 x 52 mm X-Y mechanical stage
 - 187/230 x 140 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. The ceramic coating protects the stage effectively 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 newly 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 darkfield 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 darkfield stop position for darkfield contrast up to 400x magnification. Supplied with alignment telescope and green filter

CONDENSER FOR DARKFIELD

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 darkfield solution. By using IS.9150 and IS.7200-I an existing brightfield microscope can be upgraded to darkfield

FOCUSING

Coaxial coarse and fine adjustments, 200 graduations, 1 µm per graduation, 200 µm per rotation, total travel range is 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

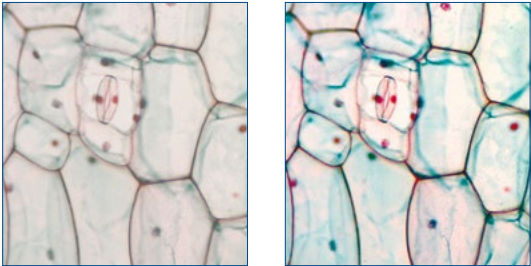
3 W adjustable Köhler NeoLED™ diascope illumination with internal 100-240 V power supply. The innovative NeoLED™ design offers larger apertures, allowing the optical system of the iScope® microscope to produce images at higher resolutions, very close to the theoretical diffraction limit of the optics. Other benefits of the NeoLED™ is the low energy consumption, no heating and a long operating life span. 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

SMART LIGHT CONTROL SYSTEM

- The Smart Light Control (SLC) automatically memorises the last used illumination intensity brightness for each individual objective. Simply rotate the nosepiece to the next objective and the SLC will instantly adjust the illumination intensity to your desired level
- Light intensity can be locked to stop intensity changing by simply pressing the control button twice
- The LCD screen at the front of the microscope informs the user of the magnification and light intensity settings of the microscope, as well as the sleep and locking modes when activated
- Push the button once to enter/leave sleep mode and push the button twice to enter/leave lock mode

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



● Normal LED ● NeoLED™

CSS – CABLE STORAGE SYSTEM

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

PACKAGE CONTENT

Supplied with power cord, dust cover, a spare fuse, user manual and 5 ml immersion oil for models with S100x objective. Phase contrast models are supplied with green filter and alignment telescope. All packed in polystyrene boxes



ISCOPE® FOR LIFE SCIENCE (NON-INFINITY MODELS)

MODELS	Bino	Trino	Phase contrast	EWF 10x20 mm	E-plan 4x/10x/ 40x/100x objectives	Plan phase 10x/20x/ 40x/100x objectives	Mechanical stage
IS.1152-EPL	•			•	•		•
IS.1153-EPL		•		•	•		•
IS.1152-PLPH	•		•	•		•	•
IS.1153-PLPH		•	•	•		•	•

ISCOPE® FOR LIFE SCIENCE (INFINITY MODELS)

MODELS	Bino	Trino	Phase contrast	EWF 10x22 mm	E-plan IOS 4x/10x/ 40x/100x objectives	Plan IOS 4x/10x/ 40x/100x objectives	Plan phase IOS 10x/20x/ 40x/100x objectives	Mechanical rackless stage	Smart Light Control	Köhler LED
IS.1152-EPLi	•			•	•			•		
IS.1152-EPLi/SLC	•			•	•			•	•	
IS.1153-EPLi		•		•	•			•		
IS.1153-EPLi/SLC		•		•	•			•	•	
IS.1152-PLi	•			•*		•		•		•
IS.1152-PLi/SLC	•			•*		•		•	•	•
IS.1153-PLi		•		•*		•		•		•
IS.1153-PLi/SLC		•		•*		•		•	•	•
IS.1152-PLPHi	•		•	•*			•	•	•	•
IS.1153-PLPHi		•	•	•*			•	•	•	•

* Two tubes with diopter adjustments
Some models are also available as in vitro diagnostic medical devices class A - (EU) 2017/746. Contact your Euromex dealer

ISCOPE® FOR LIFE SCIENCE (FACE-TO-FACE DUAL HEAD SYSTEM)

MODELS	Total users	Binocular EWF 10x/20 mm	Trinocular EWF 10x/20 mm	Plan IOS 4x/10x/ 40x/100x objectives	Mechanical rackless stage	iCare sensor	Köhler LED
IS.1154-PLi/T	2	1x	1x	•	•	•	•

Also available as in vitro diagnostic medical devices class A - (EU) 2017/746. Contact your Euromex dealer

ISCOPE® FOR LIFE SCIENCE (INFINITY - MULTIHEAD SYSTEMS)

MODELS	Total users	Binocular	Trinocular	EWF 10x22 mm	Plan IOS 4x/10x/ 40x/100x objectives	Mechanical rackless stage	Köhler LED
IS.1156-PLi2	2	1x	•	•	•	•	•
IS.1156-PLi3	3	2x	•	•	•	•	•
IS.1156-PLi5	5	4x	•	•	•	•	•
IS.1156-PLi7	7	6x	•	•	•	•	•
IS.1156-PLi9	9	8	•	•	•	•	•

Some models are also available as in vitro diagnostic medical devices class A - (EU) 2017/746. Contact your Euromex dealer

ISCOPE® FOR LIFE SCIENCE (INFINITY - ERGONOMIC TILTING HEAD)

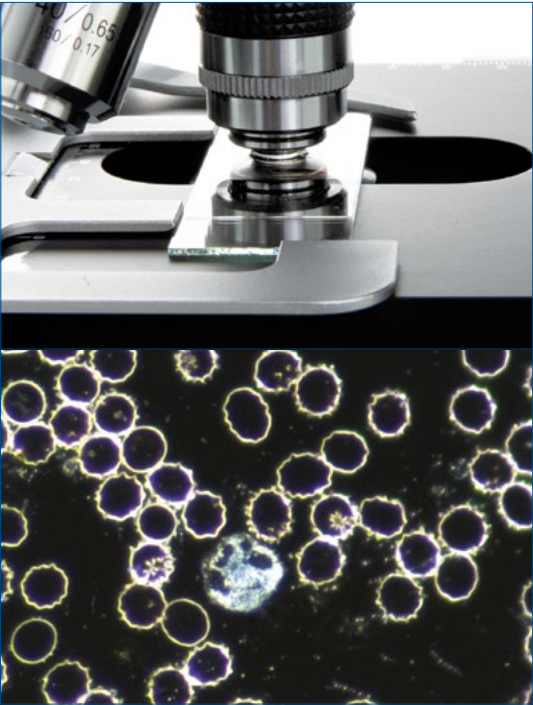
MODELS	Bino	Photo port	Phase contrast	EWF 10x22 mm	E-plan IOS 4x/10x/ 40x/100x objective	Plan IOS 4x/10x/ 40x/100x objectives	Plan phase IOS 10x/20x/ 40x/100x objectives	Mechanical rackless stage	Köhler LED
IS.1158-EPLi	•			•	•			•	
IS.1159-EPLi	•	•		•	•			•	
IS.1158-PLi	•			•		•		•	•
IS.1159-PLi	•	•		•		•		•	•
IS.1158-PLPHi	•		•	•			•	•	•
IS.1159-PLPHi	•	•	•	•			•	•	•

Some models are also available as in vitro diagnostic medical devices class A - (EU) 2017/746. Contact your Euromex dealer

ISCOPE® FOR LIFE SCIENCE (DARKFIELD CONTRAST APPLICATION)

MODELS	Trino	Darkfield	EWF 10x20 mm	EWF 10x22 mm	E-plan 4x/10x/ 40x/100x objectives	Plan IOS 4x/10x/ 40x/100x objectives	Mechanical rackless stage	Köhler LED
IS.1153-PLi/DFi	•	•		•		•	•	•
IS.1153-EPL/DF	•	•	•		•			

Models for darkfield observation IS.1152-PLi/DF is 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 1000x magnification darkfield solution can be achieved. All other specifications are identical to models IS.1152-PLi and IS.1153-PLi



DARKFIELD
Darkfield contrast is used in particular for unstained samples. The produced image 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 darkfield microscopy was limited due to low light levels. Euromex has overcome this issue by developing very strong illumination methods, without causing damage to the samples. A 5 W build in high power LED is used to power the especially 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

ACCESSORIES AND SPARE PARTS

EYEPIECES (23.2 MM)

IS.6010	EWf 10x/20 mm eyepiece
IS.6010-P	EWf 10x/20 mm eyepiece with pointer
IS.6010-C	EWf 10x/20 mm eyepiece with crosshairs
IS.6010-CM	EWf 10x/20 mm eyepiece with 10/100 micrometer and cross
IS.6015	WF 15x/16 mm eyepiece
IS.6099	Pair of eyecups

EYEPIECES (30 MM)

IS.6210	EWf 10x/22 mm eyepiece
IS.6210-C	EWf 10x/22 mm eyepiece with crosshairs
IS.6210-P	EWf 10x/22 mm eyepiece with pointer
IS.6210-CM	EWf 10x/22 mm eyepiece with 10/100 micrometer and crosshairs
IS.6212	WF 12.5x/17 mm eyepiece
IS.6215	WF 15x/16 mm eyepiece
IS.6220	WF 20x/12 mm eyepiece
IS.6310	EWf 10x/20 mm eyepiece
IS.6310-C	EWf 10x/20 mm eyepiece with crosshairs
IS.6310-CM	EWf 10x/20 mm eyepiece with 10/100 micrometer and crosshairs
IS.6299	Pair of eyecups infinity models (Ø 30 mm tube)

OBJECTIVES - 45 MM PARFOCAL

IS.7104	E-plan EPL 4x/0.10 objective. WD 15.2 mm
IS.7110	E-plan EPL 10x/0.25 objective. WD 5.5 mm
IS.7120	E-plan EPL 20x/0.40 objective. WD 3.5 mm
IS.7140	E-plan EPL S40x/0.65 objective. WD 0.45 mm
IS.7160	E-plan EPL S60x/0.85 objective. WD 0.19 mm
IS.7100	E-plan EPL S100x/1.25 oil objective. WD 0.13 mm
IS.7710	Plan PLPH 10x/0.25 phase contrast objective. WD 12.2 mm
IS.7720	Plan PLPH 20x/0.40 phase contrast objective. WD 5 mm
IS.7740	Plan PLPH S40x/0.65 phase contrast objective. WD 0.37 mm
IS.7700	Plan PLPH S100x/1.25 oil phase contrast objective. WD 0.13 mm

IS.8804	E-plan EPLi 4x/0.10 IOS infinity corrected objective. WD 15.4 mm
IS.8810	E-plan EPLi 10x/0.25 IOS infinity corrected objective. WD 5.8 mm
IS.8840	E-plan EPLi S40x/0.65 IOS infinity corrected objective. WD 0.43 mm
IS.8800	E-plan EPLi S100x/1.25 oil IOS infinity corrected objective. WD 0.13 mm
IS.7202	Plan PLi 2x/0.05 IOS infinity corrected objective, WD 18.3 mm. Best to be used together with swing-out condenser
IS.7204	Plan PLi 4x/0.10 IOS infinity corrected objective. WD 15.4 mm
IS.7210	Plan PLi 10x/0.25 IOS infinity corrected objective. WD 10 mm
IS.7220	Plan PLi 20x/0.40 IOS infinity corrected objective. WD 5.1 mm
IS.7240	Plan PLi S40x/0.65 IOS infinity corrected objective. WD 0.54 mm
IS.7260	Plan PLi S60x/0.85 IOS infinity corrected objective. WD 0.14 mm
IS.7200	Plan PLi S100x/1.25 IOS infinity corrected objective. WD 0.13 mm
IS.7200-I	Plan Super Contrast PLi S100x/1.25 oil IOS infinity corrected objective with built-in iris diaphragm. WD 0.13 mm. Suitable for darkfield contrast
IS.7200-W	Plan PLi S100x/1.10 IOS water immersion objective. Working distance 0.14 mm. Cover glass 0.17 mm corrected
IS.7404	Plan Fluarex PLFi 4x/0.13 IOS infinity corrected objective. 0.17 mm cover glass correction. WD 16.3 mm
IS.7410	Plan Fluarex PLFi 10x/0.30 IOS infinity corrected objective. 0.17 mm cover glass correction. WD 12.4 mm
IS.7420	Plan Fluarex PLFi 20x/0.50 IOS infinity corrected objective. 0.17 mm cover glass correction. WD 1.5 mm

IS.7440	Plan Fluarex PLFi S40x/0.75 IOS infinity corrected objective. 0.17 mm cover glass correction. WD 0.35 mm
IS.7400	Plan Fluarex PLFi S100x/1.30 oil IOS infinity corrected objective. 0.17 mm cover glass correction. WD 0.13 mm
IS.8910	Plan PLPHi 10x/0.25 phase contrast IOS infinity corrected objective. WD 10.2 mm
IS.8920	Plan PLPHi 20x/0.40 phase contrast IOS infinity corrected objective. WD 5.1 mm
IS.8940	Plan PLPHi S40x/0.65 phase contrast IOS infinity corrected objective. WD 0.5 mm
IS.8900	Plan PLPHi S100x/1.25 oil phase contrast IOS infinity corrected objective. WD 0.13 mm

WD = working distance

CONDENSERS

IS.9102	Standard Abbe condenser 1.25 NA with slot for darkfield and phase contrast sliders
IS.9105	Swing-out 0.9/1.25 N.A. condenser
IS.9150	Cardiod darkfield condenser with integrated 5 W LED light source and external 100-240 V mains adapter. To be used with IS.7200-I

PHASE CONTRAST ATTACHMENTS

IS.9124	Zernike phase contrast set including rotating disc with PLPH 10/20/40/100, brightfield and darkfield position
IS.9127	Zernike phase contrast set including rotating disc with PLPH 10/20/40/100, brightfield and darkfield position
IS.9148	Alignment telescope for phase contrast, Ø 30 mm tube
IS.9149	Alignment telescope for phase contrast, Ø 23.2mm tube
IS.9160	Phase contrast slider set with 10x and S40x PLPH objectives and annuli for 10/S40x PLPH objectives. Also suitable for optional 20x PLPH objective

IS.9161	Phase contrast slider set with 20x and S100x PLPH objectives and annuli for 20x/S100x PLPH objectives
IS.9162	Phase contrast slider set with 10x and S40x PLPHi IOS infinity corrected objectives and annuli for 10x/S40x PLPHi IOS infinity corrected objectives. Also suitable for optional 20x PLPHi infinity corrected objective
IS.9163	Phase contrast slider set with 20x and S100x PLPHi IOS infinity corrected objectives and annuli for 20x/S100x PLPHi IOS infinity corrected objectives

MISCELLANEOUS

IS.9170	Slider with darkfield stop, up to 400x
IS.9194	Slider with phase contrast annuli for S40x phase contrast objective
IS.9503	Large ceramic stage. Only with new microscopes, add /C suffix after iScope® model part number
IS.9880	Köhler attachment
IS.4300	Aluminum transport case for iScope®
AE.9919	Nylon carry bag for iScope (29 x 53 x 23)
AE.3684	Glass fuses 500 mA 250 V, 10 pieces
AE.5168-I	Heating stage series with controller, only with new microscopes
SL.5500	NeoLED™ replacement unit

POLARIZATION ATTACHMENTS

IS.9600	Polarization filter 45 mm for lamphouse
IS.9601	Polarization set: simple rotating polarizer for lamphouse and fixed polarizer mounted under head
IS.9626	Polarization filter for mounting under the head

FILTERS

IS.9700	Blue filter 45 mm for lamphouse
IS.9702	Green filter 45 mm for lamphouse
IS.9704	Yellow filter 45 mm for lamphouse
IS.9706	White opaque filter 45 mm for lamphouse

CAMERA ACCESSORIES

- IS.9800** single photo tube attachment with one 23.2 mm tube for ergonomic tilting head of iScope® infinity systems
- AE.5130** Universal SLR adapter with built-in 2x lens for standard 23.2 mm tube. Needs T2 adapter
- AE.5025** T2 adapter for Nikon D SLR digital camera
- AE.5040** T2 adapter for Canon EOS SLR digital camera

DISPOSABLES

- PB.5155** Microscope slides 76 x 26 mm, ground edges, 50 pieces per pack
- PB.5157-W** Microscope slides 76 x 26 mm, ground edges and frosted side white color, 50 pieces per pack
- PB.5157-B** Microscope slides 76 x 26 mm, ground edges and frosted side blue color, 50 pieces per pack
- PB.5160** Microscope slides 76 x 26 mm with cavity, ground edges. 10 pieces per pack
- PB.5165** Cover glasses 18 x 18 mm, 0.13-0.17 mm, 100 pieces
- PB.5168** Cover glasses 22 x 22 mm, 0.13-0.17 mm, 100 pieces
- PB.5245** Lens cleaning paper, 100 sheets per pack
- PB.5255** Immersion oil, 25 ml. Refraction index $n = 1.515$
- PB.5274** Isopropyl alcohol 99%, 200 ml
- PB.5275** Cleaning kit: lens fluid, lint free lens tissue/paper, brush, air blower, cotton swabs

- PB.5276** Microscope maintenance and servicing kit, 16pcs: cleaning brush, 6 pcs screwdriver set, air blower, 3 pcs Allen key, 1.5, 2, 2.5 mm, lens cleaning fluid 20 ml, cleaning cloth 140 x 140 mm, 100 pcs lens tissue sheets, tube of maintenance grease, 10 ml bottle of oil, packed in a nice toolbox



IS.1154-PLi /T



IS.1156-PLi-9



IS.1153-PLi/SLC



IS.1158-PLi, with optional
IS.9503 Ceramic stage

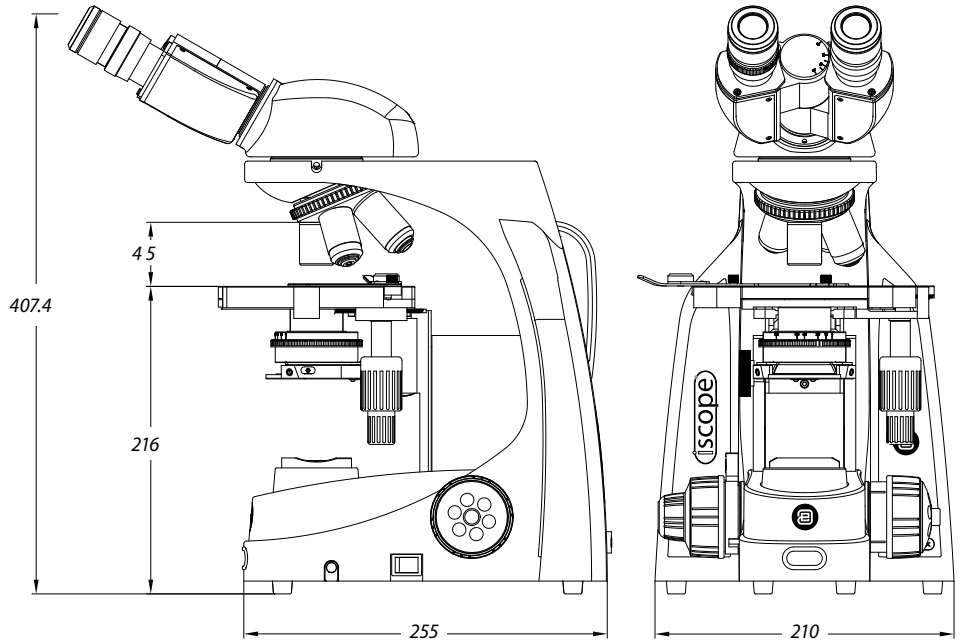


IS.1159-EPLi



IS.1153-EPL-DF

DIMENSIONS

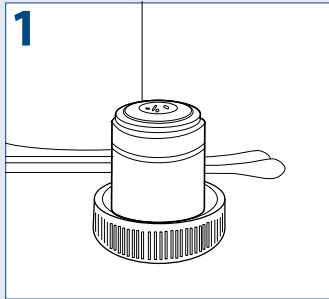


● iScope cable storage system

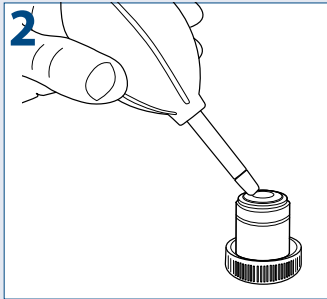


how to keep the optics clean PB.5275 cleaning kit

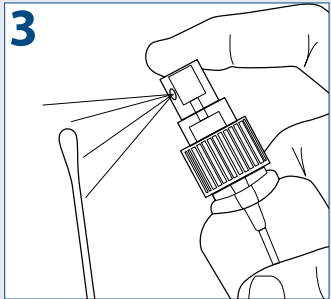
Dust and dirt particles have a negative affect on image quality. Keeping the optical system of your microscope clean is essential for the best image quality and overall lifetime of your microscope. Dust and dirt on optical elements such as lenses, prisms and filters that are left unattended can become difficult - or even impossible - to remove and may cause mold



Place your objective or eyepiece on a secure location. One can use the objective's cap or eyepieces can be placed in the cut-outs within the storage box. Condensers and collector lenses can remain on the microscope



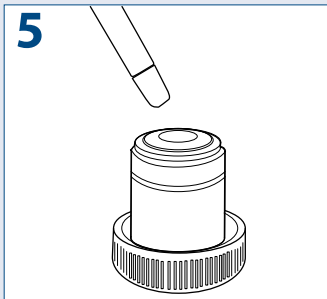
To prevent scratches on coatings and optical glass, first try to remove dirt and dust that sticks to the optical surface with an air-blower or pressurized dry air (oil-free and under moderate pressure version only)



Use an absorbent lens paper or cotton swap. Damp a swap or towel with a small amount of lens cleaning fluid or cleaning mixture (Either pure iso-propanol or a mixture of 7 parts ether and 3 parts alcohol)



Clean the lens by using the tip of the cotton swap or lens paper*. When cleaning a large lens surface, wipe with little pressure from the center towards the periphery in a circular motion, do not use zig-zag motion. Discard each lens paper or cotton swap after a single use



Wait until the cleaning fluid is evaporated, or speed up this process by using pressurized dry air

6 Check with the help of a magnifying glass if the surface is clean and place the cleaned item back on the nosepiece of the microscope



● PB.5275

PLEASE NOTE
that cleaning of the optical surfaces indicated in this instruction only applies to external surfaces of objectives, eyepieces, filters and condensers. Internal surfaces must always be done by your Euromex microscope distributor

*Use enough lens paper so that solvents do not dissolve oils from your hands which can make their way through the paper onto the coated surface

BIOLOGICAL MICROSCOPES

bscope

NeoLED™
euromex optical technology

bScope®

versatile and evolutive!

The well-equipped microscopes of the bScope® series are intensively used in universities, small and mid-sized laboratories and in veterinary applications

The design of the bScope® is both ergonomic and evolutive. Height adjustable eye tubes and low stage controls minimize fatigue during long working sessions and thus provide more comfort for microscopists. The robust, compact size of the

bScope® and the Cable Storage System allow more working space, safer operation and enable easy storage



product information



● BS.1153-EPLi

MONO: BS.1151-EPL

385 (h) x 235 (w) x 195 (d) | 6.3 kg

BINO: BS.1152-EPL / BS.1152-EPLi / BS.1152-PLi

409 (h) x 195 (w) x 235 mm (d) | 6.5 kg

TRINO: BS.1153-EPL / BS.1153-EPLi / BS.1153-PLi

459 (h) x 195 (w) x 235 mm (d) | 6.6 kg



● BS.1152-PLi

● BS.1151-EPL

SPECIFICATIONS

EYEPIECE(S)

High wide field HWF 10x/20 mm secured eyepiece(s) with 20 mm field of view (Ø 23.2 mm tube). The eyepiece of monocular models is supplied with pointer

HEAD

The bScope® is available with a monocular head (45° inclined Ø 23.2 mm tube) or with binocular or trinocular heads equipped with a Siedentopf type head, 360° rotatable and equipped with 30° inclined Ø 23.2 mm tubes. Binocular and trinocular models have a diopter ± 5 adjustment on the left eyepiece. The interpupillary distance is adjustable between 48 to 76 mm. The models equipped with plan infinity corrected PLi objectives have a unique swiveling system of the eyepiece tubes for ergonomic positioning of both tubes in a high (431 mm) and in a low position (377 mm). The trinocular head comes with a Ø 23.2 mm tube, ensuring a maximum of flexibility and has a fixed light path beam splitter (20:80) and generates an erect image. Models with an integrated USB-2.0 camera are supplied with a 5.0 MP 1/2.5" CMOS sensor with a resolution of 2592 x 1944 pixels (see chapter 7)

NOSEPIECE

Revolving and reversed ball-bearing quadruple or quintuple nosepiece

HIGHLIGHTS

- Versatile and evolutive microscopes
- Monocular, binocular and trinocular models
- Digital models available
- HWF 10x/20 mm eyepieces
- Reversed ball-bearing quadruple or quintuple nosepiece with slot for polarization filter
- E-plan, E-plan IOS and plan IOS objectives
- E-plan phase, E-plan phase IOS, plan phase IOS objectives
- Rackless integrated X-Y mechanical stage
- 3 W NeoLED™ adjustable illumination system
- Darkfield cardioid condenser with 5 W NeoLED™
- Integrated carrying grip
- Cable Storage System and anti-theft system
- 10 Years warranty

OBJECTIVES - 45 MM PARFOCAL

The state-of-the-art production techniques and multi layer coatings used for the manufacturing of the bScope® objectives enable the bScope® to be used for the most demanding applications. World class spherical aberration correction and modern CNC and assembly technology ensure the perfect centering of the objectives

- Brightfield models: E-plan, E-plan IOS infinity corrected, plan IOS infinity corrected 4x/0.10, 10x/0.25, 20x/0.40, S40x/0.65, S60x/0.85 and S100x/1.25 oil immersion objectives
- Phase contrast models: E-plan phase, E-plan phase IOS infinity corrected, plan phase IOS infinity corrected 10x/0.25, 20x/0.40, S40x/0.65 and S100x/1.25 oil immersion objectives
- Darkfield model: E-plan 4x/0.10, 10x/0.25, 20x/0.40, S40x/0.65, S60x/0.85 objectives. The S100x/1.25 oil immersion objective has a built-in iris diaphragm

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

Double coaxial, low-positioned coarse and fine adjustments with 180 graduations. Precision 1.1 µm, 200 µm per rotation, total travel range is approximately 19 mm. Supplied with an adjustable rack stop to prevent damage to sample and objectives. The coarse adjustment is equipped with friction control

STAGE

The bScope® is equipped with a scratch resistant 152/197 x 131 mm stage with integrated 75 x 36 mm X-Y rackless mechanical stage, Vernier scale, soft-close removable specimen holder. The rackless stage has no protruding parts, enables more smooth movements and is safer in use. Low-positioned X-Y control knobs prevent fatigue during long working sessions. The bScope® can be equipped with a heating stage which can be set up to 50° Celsius by a PID temperature controller. Only available with newly purchased microscopes

CONDENSER FOR BRIGHTFIELD

The standard height adjustable Abbe N.A. 1.25 condenser for brightfield comes with an iris diaphragm and swing-out filter holder

CONDENSER FOR ZERNIKE
PHASE CONTRAST

The height adjustable Zernike NA. 1.25 phase contrast disc condenser comes with phase annuli for 10/20/S40x and S100x phase contrast objectives, an iris diaphragm, a swing-out filter holder and also a BF position for brightfield contrast. Phase contrast objectives exist in either EPL-PH, EPL-PHi or PL-PHi phase contrast versions. Supplied with alignment telescope and green filter

CONDENSER FOR SIMPLE
PHASE CONTRAST

The height adjustable NA. 1.25 simple phase contrast condenser has a free slot for either a slider for 10/S40x phase contrast objectives or a slider for 20/S100x phase contrast objectives. The condenser has an iris diaphragm and filter holder. The condenser includes a BF position for brightfield contrast with an iris diaphragm and filter holder. Phase contrast objectives exist in either EPL-PH, EPL-PHi or PL-PHi versions. Supplied with alignment telescope and green filter

POLARIZATION

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

NEOLED™ ILLUMINATION

The 3 W adjustable Köhler NeoLED™ diascope illumination is powered by an internal 100-240 V power supply making it suitable for worldwide use. The innovative NeoLED™ design offers larger apertures, allowing the optical system of the bScope® 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 life span



Swing-out
Abbe condenser
0.9/1.25 NA



Zernike phase
contrast condenser
with filter holder



Ergonomic carrying
grip for easy
transportation

DARKFIELD EQUIPMENT

The BS.1153-EPL/DF is equipped with a darkfield oil immersion cardioïd mirror condenser with a integrated 5W LED illumination and a plan PL S100x oil immersion objective with built-in iris



Darkfield cardioïd
mirror condenser

KÖHLER ILLUMINATION

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

CORDLESS USE

The optional rechargeable AA batteries turn the bScope® into a cordless system

CSS – CABLE STORAGE SYSTEM

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

CARRYING GRIP

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

ANTI-THEFT SLOT

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

PACKAGE CONTENT

Smart polystyrene packaging ensures a low environmental footprint while maintaining maximum safety during transport. Supplied with power cord, dust cover, tools, a spare fuse, white filter, user manual and 5 ml immersion oil

Phase contrast models are supplied with green filter and alignment telescope. An optional aluminum case can be supplied



● BS.1152-PLi

BSCOPE® FOR BRIGHTFIELD AND DARKFIELD *

MODELS	Bino	Trino	digital **	HWF 10x/20 mm eyepieces	Quadruple nosepiece E-plan 4/10/540/5100x	Quadruple nosepiece plan IOS 4/10/540/ S100x	Quintuple nosepiece E-plan IOS 4/10/ 540/5100x	Quintuple nosepiece plan IOS 4/10/540/ S100x	Köhler NeoLED™	Neo- LED™	2-position swiveling ergo head
BS.1152-EPL	•			•	•					•	
BS.1153-EPL		•		•	•					•	
BS.1153-EPL/DF*		•		•	•					•	
BS.1152-EPLi	•			•			•		•		•
BS.1153-EPLi		•		•			•		•		•
BS.1152-PLi	•			•				•	•		•
BS.1153-PLi		•		•				•	•		•
BS.1152-PLi/4N	•			•		•			•		•
BS.1153-PLi/4N		•		•		•			•		•
BS.1157-EPLi	•		•	•			•		•		•
BS.1157-PLi	•		•	•				•	•		•

* BS.1153-EPL/DF model is equipped with a dark field oil immersion cardioid mirror condenser and a S100x oil immersion objective with built-in iris diaphragm
** For more information, see chapter 7
Some models are also available as in vitro diagnostic medical devices class A - (EU) 2017/746. Contact your Euromex dealer

BSCOPE® FOR PHASE CONTRAST *

MODELS	Bino	Trino	HWF 10x/20 mm eyepieces	Quadruple nosepiece E-plan phase 10/20/ S40/S100x	Quintuple nosepiece E-plan phase IOS 10/20/S40/S100x	Quintuple nosepiece plan phase IOS 10/20/S40/S100x	Köhler NeoLED™	NeoLED™	2-position swiveling ergo head
BS.1152-EPLPH	•		•	•				•	
BS.1153-EPLPH		•	•	•				•	
BS.1153-EPLPHi		•	•		•		•		•
BS.1152-PLPHi	•		•			•	•		•
BS.1153-PLPHi		•	•			•	•		•

*All models can be supplied with three rechargeable AA batteries
All models are equipped with a 152/197 x 131 mm stage with integrated 75 x 36 mm X-Y rackless mechanical stage

ACCESSORIES AND SPARE PARTS

EYEPIECES

BS.6010	HWF 10x/20 mm eyepiece, Ø 23.2 mm tube	BS.6020	WF 20x/11 mm eyepiece, Ø 23.2 mm tube
BS.6010-P	HWF 10x/20 mm with pointer, Ø 23.2 mm tube	BS.6099	Pair of eyecups
BS.6010-C	HWF 10x/20 mm eyepiece with crosshairs, Ø 23.2 mm tube		
BS.6010-CM	HWF 10x/20 mm eyepiece, Ø 23.2 mm tube with 10/100 micrometer and crosshairs		
BS.6012	WF 12.5x/14 mm eyepiece, Ø 23.2 mm tube		
BS.6015	WF 15x/11 mm eyepiece, Ø 23.2 mm tube		

OBJECTIVES - 45 MM PARFOCAL

BS.7104	E-plan EPL 4x/0.10 objective. WD 37.0 mm
BS.7110	E-plan EPL 10x/0.25 objective. WD 6.61 mm
BS.7120	E-plan EPL 20x/0.40 objective. WD 1.85 mm
BS.7140	E-plan EPL S40x/0.65 objective. WD 0.64 mm

BS.7160	E-plan EPL S60x/0.85 objective. WD 0.20 mm
BS.7100	E-plan EPL S100x/1.25 objective. WD 0.19 mm
86.521	Plan PL S100x/1.25 oil immersion objective with built-in iris diaphragm. Working distance 0.33 mm
BS.7510	E-plan phase EPLPH 10x/0.25 objective. WD 5.95 mm
BS.7520	E-plan phase EPLPH 20x/0.40 objective. WD 2.61 mm
BS.7540	E-plan phase EPLPH S40x/0.65 objective. WD 0.66 mm
BS.7500	E-plan phase EPLPH S100x/1.25 objective. WD 0.36 mm

BS.8204	E-plan EPLi 4x/0.10 IOS infinity corrected objective. WD 18.9 mm
BS.8210	E-plan EPLi 10x/0.25 IOS infinity corrected objective. WD 5.95 mm
BS.8220	E-plan EPLi 20x/0.40 IOS infinity corrected objective. WD 2.61 mm
BS.8240	E-plan EPLi S40x/0.65 IOS infinity corrected objective. WD 0.78 mm
BS.8200	E-plan EPLi S100x/1.25 IOS infinity corrected objective. WD 0.36 mm
BS.8404	Plan PLi 4x/0.10 IOS infinity corrected objective. WD 21.0 mm
BS.8410	Plan PLi 10x/0.25 IOS infinity corrected objective. WD 5.0 mm
BS.8420	Plan PLi 20x/0.40 IOS infinity corrected objective. WD 8.8 mm
BS.8440	Plan PLi S40x/0.65 IOS infinity corrected objective. WD 0.66 mm
BS.8400	Plan PLi S100x/1.25 IOS infinity corrected objective. WD 0.36 mm

BS.8510	E-plan phase EPLPHi 10x/0.25 IOS infinity corrected objective. WD 5.95 mm
BS.8520	E-plan phase EPLPHi 20x/0.40 IOS infinity corrected objective. WD 2.61 mm

BS.8540	E-plan phase EPLPHi S40x/0.65 IOS infinity corrected objective. WD 0.76 mm
BS.8500	E-plan phase EPLPHi S IOS infinity corrected objective. WD 0.36 mm
BS.8710	Plan phase PLPHi 10x/0.25 IOS infinity corrected objective. WD 5.00 mm
BS.8720	Plan phase PLPHi 20x/0.40 IOS infinity corrected objective. WD 8.80 mm
BS.8740	Plan phase PLPHi S40x/0.65 IOS infinity corrected objective. WD 0.66 mm
BS.8700	Plan phase PLPHi S100x/1.25 IOS infinity corrected objective. WD 0.36 mm

WD = working distance



● BS.1153-PLPHi

CONDENSERS

- BS.9102** Abbe condenser 1,25 NA with slot for darkfield and phase contrast sliders
- BS.9170** Darkfield stop for BS.9102 condenser
- BS.9105** Swing-out Abbe condenser 0.9/1.25 NA

PHASE CONTRAST ATTACHMENTS

- BS.9118** Zernike phase contrast kit with E-plan EPLPH 10/20/S40 and S100x oil phase contrast objectives, Zernike rotating condenser, telescope and green filter
- BS.9120** Zernike phase contrast kit with E-plan EPLPHi 10/20/S40 and S100x oil phase contrast IOS infinity corrected objectives, Zernike rotating condenser, telescope and green filter
- BS.9123** Zernike phase contrast kit with plan PLPH 10/20/S40 and S100x oil phase contrast objectives, Zernike rotating condenser, telescope and green filter
- BS.9126** Zernike phase contrast kit with plan PLPHi 10/20/S40 and S100x oil phase contrast IOS infinity corrected objectives, Zernike rotating condenser, telescope and green filter
- BS.9164** Phase contrast kit with Abbe condenser with slot for slider. Plan PLPHi phase S40x contrast objectives, slider with 40x annuli only, telescope and green filter
- BS.9194** Slider with phase contrast annuli 40x. Needs BS.9102 condenser with slot
- BS.9148** Alignment telescope for bScope® IOS version with Ø 30 mm tubes
- BS.9149** Alignment telescope for bScope® non IOS version with Ø 23.2 mm tubes
- BS.9156** Phase contrast kit with Abbe condenser with slot for slider. E-plan EPLPH 10/S40x phase contrast objectives, slider with 10 and 40x annuli, telescope and green filter
- BS.9157** Phase contrast kit with Abbe condenser with slot for slider. E-plan EPLPH 20/S100x phase contrast

objectives, slider with 20 and 100x annuli, telescope and green filter

- BS.9158** Phase contrast kit with Abbe condenser with slot for slider. E-plan EPLPH i 10/S40x phase contrast infinity corrected objectives, slider with 10 and 40x annuli, telescope and green filter
- BS.9159** Phase contrast kit with Abbe condenser with slot for slider. E-plan EPLPHi 20/S100x phase contrast infinity corrected objectives, slider with 20 and 100x annuli, telescope and green filter
- BS.9162** Phase contrast kit with Abbe condenser with slot for slider. Plan PLPH i 10/S40x phase contrast infinity corrected objectives, slider with 10 and 40x annuli, telescope and green filter
- BS.9163** Phase contrast kit with Abbe condenser with slot for slider. Plan PLPHi 20/S100x phase contrast infinity corrected objectives, slider with 20 and 100x annuli, telescope and green filter

POLARIZATION ATTACHMENTS

- BS.9660** Polarization kit: analyzer under head and polarizer on lamphouse
- AE.5152-N** Small rotatable stage to be used with BS.9660
- BS.9647** Polarization polarizer Ø 16 mm for slider under bScope® head
- BS.9651** Polarization attachment for lamphouse of bScope® with 360° scale

MISCELLANEOUS

- BS.9880** Köhler attachment
- BS.9577-L** Add-on for left handed mechanical stage (only with new purchased microscope)
- BS.9870** Mirror attachment for bScope



● AE.5152-N,
small rotatable stage

- BS.9900** Aluminum transport case
- AE.9919** Nylon bag for bScope. 58(h) x 32(w) x 24(d)
- BS.9993** NeoLED™ replacement unit
- AE.1370** Set of rechargeable AA batteries, three pieces
- AE.5226** Glass fuses 3A 250V, 10pcs

CAMERA ACCESSORIES

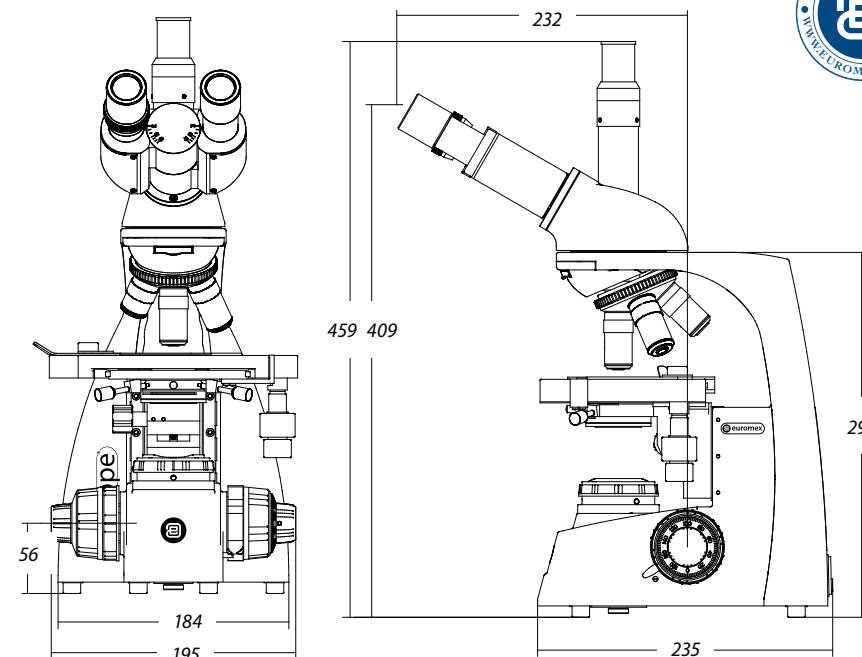
- AE.5130** Universal Ø 23.2 mm tube adapter with built-in 2x lens for SLR photo camera with APS-C sensor. Needs T2 adapter
- AE.5025** T2 adapter for Nikon D SLR digital camera
- AE.5040** T2 adapter for Canon EOS SLR digital camera

DISPOSABLES

- PB.5155** Microscope slides 76 x 26 mm, ground edges, 50 pieces per pack
- PB.5157-W** Microscope slides 76 x 26 mm, ground edges and frosted side white color, 50 pieces per pack

- PB.5157-B** Microscope slides 76 x 26 mm, ground edges and frosted side blue color, 50 pieces per pack
- PB.5160** Microscope slides 76 x 26 mm with cavity, grinded edges. 10 pieces per pack
- 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 (25 ml). n = 1.515
- PB.5274** Isopropyl alcohol 99% (200 ml)
- PB.5275** Cleaning kit: lens cleaning fluid, lint free lens tissue/paper, brush, air blower, cotton swabs
- PB.5276** Microscope maintenance and servicing kit, 16pcs: cleaning brush, 6 pcs screwdriver set, air blower, 3 pcs Allen key, 1.5, 2, 2.5 mm, lens cleaning fluid 20 ml, cleaning cloth 140 x 140 mm, 100 pcs lens tissue sheets, tube of maintenance grease, 10 ml bottle of oil, packed in a nice toolbox

DIMENSIONS





Delphi-X
observer

Delphi-X Observer

the standard in histopathology, cytology,
dermatopathology and forensic pathology



Delphi-X Observer



Delphi-X Observer
fluorescence



Delphi-X Inverso



Delphi-X Inverso
fluorescence

The Delphi-X Observer enables pathologists to examine their samples with the highest detail and with the largest field of view. Together with a powerful and stable light spectrum of a high performance LED it meets the ultimate standards. **Histopathology** is the microscopic examination of tissues, taken either as biopsy samples or resection specimens. **Cytology** studies diseases on the cellular on samples of free cells or tissue fragments. **Dermatopathology** is a subspecialty of dermatology and pathology that studies cutaneous diseases. **Forensic pathology** focuses on determining the cause of death by examining a corpse

BIOLOGICAL MICROSCOPES

Delphi-X
observer

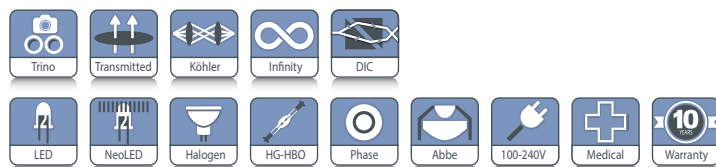
NeoLED™
euromex optical technology

Delphi-X Observer™

State-of-the-art microscopes for advanced life science applications. The outstanding optical performance of the Delphi-X Observer™ with 25 mm field of view and high numerical aperture of the plan 60 mm parfocal EIS objectives enable perfect observations, color rendering and at high resolving power. This is the perfect microscope for anatomy pathologists



product information



DX.1153-PLi
454 (h) x 260 (w) x 367 mm (d) 18 kg
DX.2153-PLi
454 (h) x 260 (w) x 480 mm (d) 18.5 kg

• DX.2153-APLi

HIGHLIGHTS

- Trinocular model
- Sextuple reversed nosepiece with slot for DIC
- Super wide field SWF 10x/25mm eyepieces, Ø 30 mm tubes
- Enhanced infinity corrected EIS optical system
- Ergonomic tilting head
- 60 mm parfocal plan EIS objectives
- 60 mm parfocal plan semi-apochromatic EIS objectives
- M25 objective thread mounting
- 3 W NeoLED™ illumination
- 100 W halogen illumination
- Face-to-face dual head system
- Multihead systems
- Brightfield, darkfield, phase contrast
- Differential Interference Contrast (DIC)

SPECIFICATIONS

EYEPIECES

- Super wide field SWF 10x/25 mm, Ø 30 mm tubes
- Extended wide field EWF 10x/22 mm, Ø 30 mm tubes

STANDARD HEAD

Siedentopf trinocular head with 30° inclined tubes. Interpupillary distance adjustable between 47 and 78 mm. The trinocular standard head has an optical path selector (100:0 / 80:20 / 0:100). Diopter ± 5 adjustments on both eyepieces

ERGONOMIC TILTING HEAD

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



• Ergonomic tilting head

FACE-TO-FACE DUAL HEAD SYSTEM

The Delphi-X Observer™ can be supplied with two binocular heads in a face-to-face configuration, allowing simultaneous observation by two operators. The main binocular head is equipped with super wide field SWF 10x/25 mm eyepieces and the second head with EWF 10x/22 mm eyepieces. A joystick enables the operator to move a green or red laser pointer across the entire field of view of both heads

MULTIHEAD SYSTEM

The Delphi-X-Observer™ can be extended with a multihead system for two, three, five or ten users. The central attachment is equipped with a joystick to move a green and red laser pointer across the entire field of view of all heads. The multihead systems with two, three or five heads and 30° inclined tubes are supplied with super wide field SWF 10x/25 mm eyepieces. The multihead systems with ten heads and 30° inclined tubes have the trinocular main head equipped with super wide field SWF 10x/25 mm eyepieces and the other nine binocular heads with extended wide field EWF 10x/22 mm eyepieces. The Delphi-X Observer™ multihead system with ten heads is supplied without the iCare sensor



● DX.2156-PLI/10

NOSEPIECE

Revolving sextuple reversed nosepiece on ball-bearings with M25 objectives mounting threads

MOTORIZED MODEL

The Delphi-X Observer™ can be supplied with a motorized revolving sextuple reversed nosepiece together with a flip-down condenser. A precise step-motor allows the user to switch from objective by a simple push on a button. Another button allows quick switching between two preselected objectives. The electronics memorize automatically the light intensity levels for each objective after switching. The electronics also automatically flip out the front lens of the flip-down condenser when the 4x objective is used



● Motorized nosepiece

OBJECTIVES

Plan (PLi)	2x/0.06*	4x/0.10	10x/0.25	20x/0.40	S40x/0.65	S50x/0.95 oil*	S60x/0.80*	S100x/1.25 oil	S100x/1.25 oil iris*
Plan phase (PLPHi)			10x/0.25	20x/0.40	S40x/0.65			S100x/1.25 oil	
Plan semi-apo (PLi Apo)		4x/0.13	10x/0.30	20x/0.50	S40x/0.75			S100x/1.30 oil	

All objectives are 60 mm parfocal and have a M25 mounting thread, all optics are anti-fungus treated and anti-reflection coated for maximum light throughput and all S40x, S50x, S60x and S100x objectives are spring loaded
*Optional

ENHANCED INFINITY SYSTEM (EIS)

The enhanced infinity system (EIS) of the Delphi-X Observer™ consists of super wide field SWF 10x25 mm eyepieces, high numerical aperture, 60 mm parfocal objectives and a 200 mm focal length tube lens. This focal length tube lens reduces the angle of the light rays passing the optics and as a direct result it improves significantly the chromatic aberration corrections and contrast. The objectives with larger diameter enable much higher numerical apertures improving the overall resolving power of the optical system. For all these reasons the Delphi-X Observer™ offers superior optical performance for the most demanding applications

PLAN ACHROMATIC EIS OBJECTIVES (CLINICAL ROUTINE APPLICATIONS)

The Delphi-X Observer™ comes with plan achromatic 4x/0.10, 10x/0.25, 20x/0.40, S40x/0.65 and S100x/1.25 oil immersion infinity corrected EIS objectives

As an option available: 2x/0.06 , S50x/0.95 (oil immersion) and S60x/0.80

PLAN SEMI-APOCHROMATIC OBJECTIVES (ANATOMO- AND HISTOPATHOLOGY APPLICATIONS)

The Delphi-X Observer™ can also be supplied with plan semi-apochromatic Fluarex 4x/0.13, 10x/0.30, 20x/0.50, S40x/0.75 and S100x/1.30 (oil immersion) infinity corrected EIS objectives

PLAN PHASE CONTRAST OBJECTIVES

The Delphi-X Observer™ with phase contrast is supplied with Plan phase EIS 10x/0.25, 20x/0.40, s40x/0.65 and s100x/1.25 (oil immersion) infinity corrected EIS objectives

STAGE

The 190 x 152 mm stage has a 78 x 32 mm integrated right-handed mechanical stage. Comes with scratch-resistant Gorilla glass. Sapphire scratch-resistant glass is available on request. Left-handed mechanical stage is also available on request



● Sextuple nosepiece

FOCUSING

Coaxial coarse and fine adjustment, 100 graduations, 1 µm precision, 100 µm per rotation, total travel range is approx. 35 mm. Supplied with an adjustable rack stop to prevent damage to sample and objectives. The coarse adjustments are equipped with friction control. The focusing knobs can be switched from left to right according to the user's preference

CONDENSER FOR BRIGHTFIELD

In height adjustable N.A. 0.90/1.25 Abbe swing-out condenser with numerical aperture identification marks. Models with a motorized nosepiece are supplied with a motorized condenser that automatically flips out the front lens of the condenser when the 4x objective is used

CONDENSER FOR PHASE CONTRAST

In height adjustable N.A. 1.25 Zernike phase contrast condenser with phase annuli for 10/20/40x and S100x-oil objectives. To be used with the phase contrast objectives

DIFFERENTIAL INTERFERENCE CONTRAST (DIC)

The Nomarski differential interference contrast technique helps to enhance contrast of samples and lets samples appear as three-dimensional objects. The equipment consist of a specific rotating DIC condenser, two Nomarski modified Wollaston prisms, a DIC slider for insertion into the slot of the sextuple reversed nosepiece and a polarizer

DIASCOPIIC ILLUMINATION

Two Köhler illuminations are available for the Delphi-X Observer™ microscope:

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

The diascopic halogen illumination comes with two push-in/ push-out neutral density filters for smooth attenuation of the light intensity for all kinds of samples. The diascopic NeoLED™ illumination comes with one neutral density filter

LIGHT INTENSITY MEMORY FUNCTION (LIM)

LIM automatically saves preferred brightness while changing magnifications. It eliminates the need for adjusting lamp brightness when changing magnification. This allows maintaining preferred brightness at each magnification, thus improving user efficiency significantly and reducing eye strain. Standard on all models with a motorized nosepiece, for other models see ordering instructions below
For ordering Automatic light intensity memory function
Example: DX.1153-PLi = DX.1153-PLi/LIM model but with automatic light control

NEOLED™

The innovative NeoLED™ design is a combination of a custom LED and a specially designed thin lens with a short focal length in order to obtain three main benefits:

- More oblique light from the LED light source can be captured, which increases the light output significantly

- Less energy is required to achieve this level of light intensity
- The larger aperture of NeoLED™ allows the optical system to produce images at higher resolutions, very close to the theoretical diffraction limit of the optics

ICARE SENSOR

The unique iCare Sensor is developed to avoid unnecessary loss of energy. The illumination of the microscope automatically switches off shortly after the microscopist steps away from the microscope

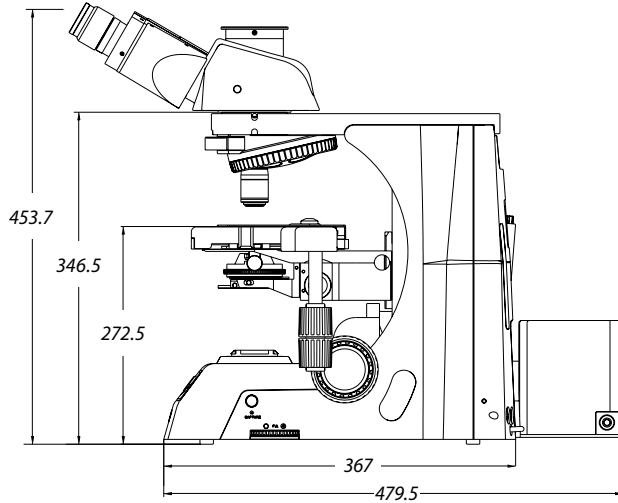
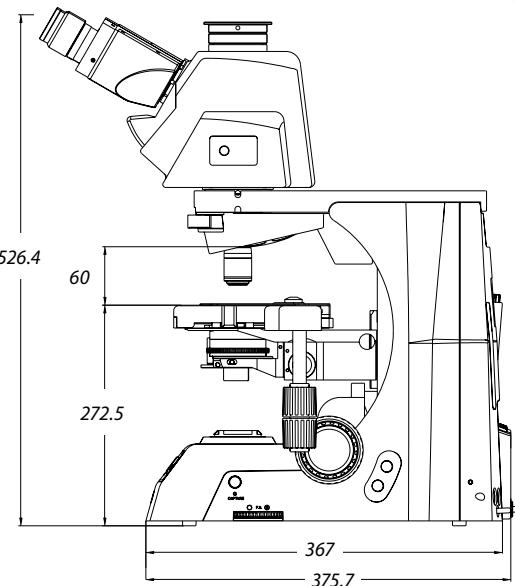
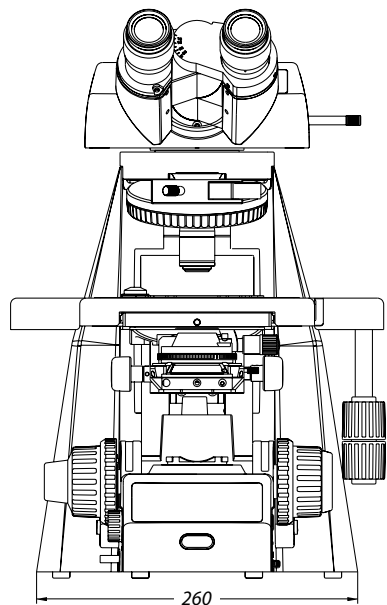
CARRYING GRIP

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

PACKAGE CONTENT

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

DIMENSIONS



• Delphi-X Observer™ motorized



Nosepiece lowering attachment (DX.9887)



Eye-level riser (DX.9885)



iCare sensor

STANDARD MODELS

MODELS	Ergonomic tilting head	SWF 10x/25 mm eyepieces	Sextuple nosepiece	Plan 4/10/20/ S40 EIS objectives	S100x oil EIS objective	Plan semi-apo 4/10/20/S40/S100x oil EIS objectives	Plan phase 10/20/ S40/ S100x oil EIS objectives	3 W NeoLED™ Köhler	100 W 24 V halogen Köhler
DX.1053-PLi		•	•	•				•	
DX.1153-PLi		•	•	•	•			•	
DX.1158-PLi	•	•	•	•	•			•	
DX.1153-APLi		•	•			•		•	
DX.1158-APLi	•	•	•			•		•	
DX.1153-PLPHi		•	•				•	•	
DX.1158-PLPHi	•	•	•				•	•	
DX.2053-PLi		•	•	•					•
DX.2153-PLi		•	•	•	•				•
DX.2158-PLi	•	•	•	•	•				•
DX.2153-APLi		•	•			•			•
DX.2158-APLi	•	•	•			•			•
DX.2153-PLPHi		•	•				•	•	•
DX.2158-PLPHi	•	•	•				•	•	•

Some models are also available as in vitro diagnostic medical devices class A - (EU) 2017/746. Contact your Euromex dealer



● DX.1153-PLi

MOTORIZED MODELS

MODELS	Ergonomic tilting head	SWF 10x/25 mm eyepieces	Sextuple nosepiece	Plan 4/10/20/ S40/ S100x oil EIS objectives	Plan semi-apo 4/10/20/ S40/S100x oil EIS objectives	3 W NeoLED™ Köhler	100 W 24 V halogen Köhler
DX.1173-PLi		•	•	•		•	
DX.1178-PLi	•	•	•	•		•	
DX.1173-APLi		•	•		•	•	
DX.1178-APLi	•	•	•		•	•	
DX.2173-PLi		•	•	•			•
DX.2178-PLi	•	•	•	•			•
DX.2173-APLi		•	•		•		•
DX.2178-APLi	•	•	•		•		•

For ordering more motorized models, substitute the third digit 5" of the model reference with the digit 7"
Example: DX.1173-PLi = DX.1153-PLi model but with motorized nosepiece, flip-down condenser and automatic light control
Some models are also available as in vitro diagnostic medical devices class A - (EU) 2017/746. Contact your Euromex dealer

FACE-TO-FACE DUAL HEAD SYSTEMS

MODELS	Total users	Trinocular head SWF 10x/25 mm eyepieces	Binocular head SWF 10x/22 mm eyepieces	Sextuple nosepiece	Plan 4/10/20/ S40/ S100x oil EIS objectives	Plan semi-apo Fluarex 4/10/20/ S40/S100x oil EIS objectives	Plan phase 10/20/S40/ S100x oil EIS objectives	3 W NeoLED™ Köhler	100 W 24 V halogen Köhler
DX.1154-PLi	2	1x	1x	•	•			•	
DX.1154-APLi	2	1x	1x	•		•		•	
DX.1154-PLPHi	2	1x	1x	•			•	•	
DX.2154-PLi	2	1x	1x	•	•				•
DX.2154-APLi	2	1x	1x	•		•			•
DX.2154-PLPHi	2	1x	1x	•			•		•

Some models are also available as in vitro diagnostic medical devices class A - (EU) 2017/746. Contact your Euromex dealer

MULTIHEAD SYSTEMS

MODELS	Total users	Trinocular head SWF 10x/25 mm eyepieces	Number of binocular heads	Binocular head SWF 10x/25 mm eyepieces	Sextuple nose-piece	Plan 4/10/20/ S40/ S100x oil EIS objectives	Plan semi-apo Fluarex 4/10/20/S40/ S100x oil EIS objectives	Plan phase 10/20/S40/ S100x oil EIS objectives	3 W NeoLED™ Köhler	100 W 24 V halogen Köhler
DX.1156-PLi/2	2	1x	1	•	•	•			•	
DX.1156-PLi/3	3	1x	2	•	•	•			•	
DX.1156-PLi/5	5	1x	4	•	•	•			•	
DX.1156-PLi/10	10	1x	9 ⁽¹⁾	•	•	•			• ⁽²⁾	
DX.1156-APLi/2	2	1x	1	•	•		•		•	
DX.1156-APLi/3	3	1x	2	•	•		•		•	
DX.1156-APLi/5	5	1x	4	•	•		•		•	
DX.1156-APLi/10	10	1x	9 ⁽¹⁾	•	•		•		• ⁽²⁾	
DX.1156-PLPHi/2	2	1x	1	•	•			•	•	
DX.1156-PLPHi/3	3	1x	2	•	•			•	•	
DX.1156-PLPHi/5	5	1x	4	•	•			•	•	
DX.1156-PLPHi/10	10	1x	9 ⁽¹⁾	•	•			•	• ⁽²⁾	
DX.2156-PLi/2	2	1x	1	•	•	•				•
DX.2156-PLi/3	3	1x	2	•	•	•				•
DX.2156-PLi/5	5	1x	4	•	•	•				•
DX.2156-PLi/10	10	1x	9 ⁽¹⁾	•	•	•				•
DX.2156-APLi/2	2	1x	1	•	•		•			•
DX.2156-APLi/3	3	1x	2	•	•		•			•
DX.2156-APLi/5	5	1x	4	•	•		•			•
DX.2156-APLi/10	10	1x	9 ⁽¹⁾	•	•		•			•
DX.2156-PLPHi/2	2	1x	1	•	•			•	•	
DX.2156-PLPHi/3	3	1x	2	•	•			•	•	
DX.2156-PLPHi/5	5	1x	4	•	•			•	•	
DX.2156-PLPHi/10	10	1x	9 ⁽¹⁾	•	•			•	•	

⁽¹⁾ The model with 9 binocular heads (10 users) is supplied with EWF 10x/22 mm eyepieces
⁽²⁾ Supplied with 5 W NeoLED™ Köhler, without iCare sensor
Some models are also available as in vitro diagnostic medical devices class A - (EU) 2017/746. Contact your Euromex dealer

ACCESSORIES AND SPARE PARTS

EYEPIECES

- DX.6010** Super wide field SWF 10x/25 mm eyepiece
- DX.6010-CM** Super wide field SWF 10x/25 mm eyepiece with micrometer and crosshairs
- DX.6210** Super wide field SWF 10x/22 mm eyepiece
- DX.6210-CM** Super wide field SWF 10x/22 mm eyepiece with micrometer and crosshairs
- DX.6012** Wide field WF 12.5x/17.5 mm eyepiece
- DX.6015** Wide field WF 15x/16 mm eyepiece
- DX.6020** Wide field WF 20x/12 mm eyepiece
- DX.6099-L** Eyecups for eyepiece
- DX.6099-N** Eyeshade for eyepieces

OBJECTIVES

- DX.7201** Infinity EIS 60 mm Plan PLi 1x/0.04 objective. WD 3.2 mm
- DX.7202** Infinity EIS 60 mm Plan PLi 2x/0.06 objective. WD 7.5 mm
- DX.7204** Infinity EIS 60 mm Plan PLi 4x/0.10 objective. WD 30 mm
- DX.7210** Infinity EIS 60 mm Plan PLi 10x/0.25 objective. WD 10.2 mm
- DX.7220** Infinity EIS 60 mm Plan PLi 20x/0.40 objective. WD 12 mm
- DX.7240** Infinity EIS 60 mm Plan PLi S40x/0.65 objective. WD 0.7 mm
- DX.7250** Infinity EIS 60 mm Plan PLi S50x/0.95 oil objective. WD 0.19 mm
- DX.7260** Infinity EIS 60 mm Plan PLi S60x/0.80 objectives. WD 0.3 mm
- DX.7200** Infinity EIS 60 mm Plan PLi S100x/1.25 oil immersion objective. WD 0.2 mm
- DX.7200-I** Infinity EIS 60 mm Plan PLi S100x/1.25 oil immersion objective with built-in iris diaphragm. WD 0.2 mm
- DX.7200-W** Infinity EIS 60 mm Plan PLi S100x/1.25 water immersion objective. Working distance 0.2 mm
- DX.7304** Infinity EIS 60 mm plan semi-apochromatic PLi-apo Fluarex 4x/0.13 objective. WD 16.5 mm
- DX.7310** Infinity EIS 60 mm plan semi-apochromatic PLi-apo Fluarex 10x/0.30 objective. WD 8.1 mm

- DX.7320** Infinity EIS 60 mm plan semi-apochromatic PLi-apo Fluarex 20x/0.50 objective. WD 2.1 mm
- DX.7340** Infinity EIS 60 mm plan semi-apochromatic PLi-apo Fluarex S40x/0.75 objective. WD 0.7 mm
- DX.7300** Infinity EIS 60 mm plan semi-apochromatic PLi-apo Fluarex S100x/1.30 oil immersion objective. WD 0.15 mm
- DX.7710** Infinity plan phase PLPHi 10x/0.25 objective
- DX.7720** Infinity plan phase PLPHi 20x/0.40 objective
- DX.7740** Infinity plan phase PLPHi S40x/0.65 objective
- DX.7700** Infinity plan phase PLPHi S100x/1.25 oil objective

STAGES

- DX.9501-R** Stage with Gorilla glass. Right handed
- DX.9501-L** Stage with Gorilla glass. Left handed
- DX.9504-R** Stage with Sapphire glass. Right handed
- DX.9504-L** Stage with Sapphire glass. Left handed
- DX.9501-LG** Option for left handed stage with Gorilla glass*
- DX.9504-RS** Option for right handed stage with Sapphire glass*
- DX.9504-LS** Option for left handed stage with Sapphire glass*
- DX.9522** X-Y strantlation 30 x 30 mm stage for round stage
- *Only with new Delphi-X Observer™ microscopes*
- (resp. DX.xx5x-xxx/LG, DX.xx5x-xxx/RS and DX.xx5x-xxx/LS)*
- WD = Working distance*

PHASE CONTRAST EQUIPMENT

- DX.9126** Phase contrast set with 10/20/S40 and S100x oil objectives, supplied with rotating disc phase contrast condenser with phase annuli and alignment telescope
- DX.9140** Rotating disc phase contrast condenser with phase annuli without objectives
- DX.9148** Alignment telescope for phase contrast, Ø 30 mm tube

CONDENSERS

- DX.9105** Abbe condenser with 0.9/1.25 swing-out front lens
- DX.9110** Dry darkfield condenser
- DX.9112** Oil immersion darkfield condenser

POLARIZER

- DX.9660** Simple polarization kit
- DX.9662** Special polarization kit for gout

DIFFERENTIAL INTERFERENCE CONTRAST

- DX.9690** Rotating DIC and BF disc condenser without DIC prisms for Life Science Delphi Observer models. Needs one or more DIC-prisms (DX.9690-10 / DX.9690-24 / DX.9690-100) and corresponding slider with prism (DX.9693 / DX.969). To be used with DX.9695.
- DX.9690-10** DIC prism for rotating disc condenser (DX.9690). To be used with Plan Semi-Apo 10x objective
- DX.9690-24** DIC prism for rotating disc condenser (DX.9690). To be used with Plan Semi-Apo 20x objective and/or with Plan Semi-Apo 40x objective
- DX.9690-100** DIC prism for rotating disc condenser (DX.9690). To be used with Plan Semi-Apo 100x objective
- DX.9693** Slider with DIC prism for nosepiece and to be used with Plan semi-Apo 10x and 20x objectives
- DX.9694** Slider with DIC prism for nosepiece and to be used with Plan semi-Apo 40x and 100x objectives
- DX.9695** DIC polarizer for transmitted light

CAMERA ACCESSORIES

- DX.9810** C-mount with 1x magnification for C-mount camera
- DX.9835** C-mount with high resolution relay 0.35x objective for 1/3 inch C-mount camera
- DX.9850** C-mount with high resolution relay 0.50x objective for 1/2 inch C-mount camera
- DX.9863** C-mount with high resolution relay 0.63x objective for 2/3 inch C-mount camera
- AE.5130** Universal SLR adapter with built-in 2x lens for standard 23.2 mm tube. Needs T2 adapter
- AE.5025** T2 adapter for Nikon D SLR digital camera
- AE.5040** T2 adapter for Canon EOS SLR digital camera

MISCELLANEOUS

- DX.0070-ADD** Motorized nosepiece and automatic light intensity control function for Delphi-X Observer (not for Materials Science models). Only available with the purchase of a new microscope)
- DX.9704** Yellow filter for lamphouse, diameter 45 mm
- DX.9885** 25.4 mm eye-level riser (1 inch)
- DX.9887** 40 mm nosepiece and stage lowering attachment
- DX.9960** 100 Watt 24 V halogen bulb (revision 1 models)
- DX.9961** 100 Watt 12 V halogen bulb (revision-2 models)
- DX.9993** 3 Watt LED replacement
- AE.5214** 500 mA 250 V fuses for LED models, 10 pieces
- AE.5216** 5 A 250 V fuses for Halogen models, 10 pieces

DISPOSABLES

- PB.5155** Microscope slides 76 x 26 mm, ground edges, 50 pieces per pack
- PB.5157-W** Microscope slides 76 x 26 mm, ground edges and frosted side white color, 50 pieces per pack
- PB.5157-B** Microscope slides 76 x 26 mm, ground edges and frosted side blue color, 50 pieces per pack
- PB.5160** Microscope slides 76 x 26 mm with cavity, ground edges. 10 pieces per pack
- PB.5165** Cover glasses 18 x 18 mm, 0.13-0.17 mm, 100 pieces
- PB.5168** Cover glasses 22 x 22 mm, 0.13-0.17 mm, 100 pieces
- PB.5245** Lens cleaning paper, 100 sheets per pack
- PB.5255** Immersion oil, 25 ml. Refraction index n = 1.515
- PB.5274** Isopropyl alcohol 99%, 200 ml
- PB.5275** Cleaning kit: lens fluid, lint free lens tissue/paper, brush, air blower, cotton swabs



LIFE SCIENCE MICROSCOPES

Oxion



OX.3035

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



product information



OX.3035 TO OX.3065

397 (h) x 185 (w) x 294 mm (d) | 7.5 kg

HIGHLIGHTS

- HWF 10x/22 mm eyepieces
- Binocular, trinocular and multihead systems
- Optional tilting head
- Reversed nosepiece for a maximum of five 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 darkfield applications
- Ergonomic stand and head
- 10 Years warranty



Ergonomic tilting head

SPECIFICATIONS

EYEPIECES

HWF 10X/22 mm eyepieces with $\pm 5^\circ$ diopter adjustments on both eyepieces. The multihead systems OX.56xx are supplied with WF 10x/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° inclined tubes. Interpupillary distance from 50 to 75 mm. A unique rotating system allows an ergonomic positioning of both tubes in an upper (431 mm) and in a lower position (397 mm). An ergonomic tilting head is also available (OX.5700-ADD)

NOSEPIECE

Reversed nosepiece for a maximum of five 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 10x/0.25, 20x/0.45, 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 76 x 50 mm X-Y mechanical stage

The Oxion can be supplied with a heating stage which can be set up to 50° Celsius by a PID temperature controller. Only available with 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 darkfield stop in slider for the 10x, 20x and S40x objectives can also be inserted with magnification indication

FOCUSING

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

PACKAGE CONTENT

Supplied with power cord, dust cover, a spare fuse, user manual and 5 ml immersion oil. All packed in a polystyrene box. An optional aluminum case can be supplied



● Ceramic stage (mounted on an OX.3035)

MODELS	Binocular	Trinocular	Eyepieces HWF 10x/22mm	Plan4x/10x/S40x/S100x IOS objectives	Plan semi apo 4x/10x/ S40x/100x objectives	5 W LED illumination
OX.3030	•		•	•		•
OX.3035		•	•	•		•
OX.3065		•	•		•	•

ACCESSORIES AND SPARE PARTS

EYEPIECES

- AE.3210 HWF 10x/22 mm eyepiece
- AE.3215 HWF 15x/13 mm eyepiece
- AE.3223 HWF 10x/22 mm eyepiece with 10 mm/100 micrometer
- AE.3225 Pair of eyecups

OBJECTIVES

- AE.3160 Semi plan 4x/0.10 infinity corrected IOS objective. WD 15 mm

- AE.3162 Semi plan 10x/0.25 infinity corrected IOS objective. WD 15 mm
- AE.3166 Semi plan S40x/0.65 infinity corrected IOS objective. WD 0.42 mm
- AE.3168 Semi plan S60x/0.85 infinity corrected IOS objective. WD 0.12 mm
- AE.3170 Semi plan S100x/1.25 oil immersion infinity corrected IOS objective. WD 0.19 mm

- AE.3102 Plan 2x/0.06 infinity corrected IOS objective WD 4.1 mm
- AE.3104 Plan 4x/0.10 infinity corrected IOS objective. WD 11.9 mm
- AE.3106 Plan 10x/0.25 infinity corrected IOS objective. WD 12.1 mm
- AE.3108 Plan 20x/0.40 infinity corrected IOS objective. WD 1.5 mm
- AE.3110 Plan S40x/0.65 infinity corrected IOS objective. WD 0.36 mm
- AE.3112 Plan S60x/0.85 infinity corrected IOS objective. WD 0.30 mm
- AE.3114 Plan S100x/1.25 oil immersion infinity corrected IOS objective. WD 0.18 mm
- AE.3144 Plan semi apochromatic Fluarex 4x/0.13 infinity corrected IOS objective. WD 18.5 mm
- AE.3146 Plan semi apochromatic Fluarex 10x/0.30 infinity corrected IOS objective. WD 10.6 mm
- AE.3148 Plan semi apochromatic Fluarex 20x/0.50 infinity corrected IOS objective. WD 2.33 mm
- AE.3152 Plan semi apochromatic Fluarex S40x/0.75 infinity corrected IOS objective. WD 0.6 mm
- AE.3156 Plan semi apochromatic Fluarex S100x/1.28 oil immersion infinity corrected IOS objective. WD 0.21 mm
- AE.3126 Plan phase 10x/0.25 infinity corrected IOS objective. WD 12.1 mm
- AE.3128 Plan phase 20x/0.45 infinity corrected IOS objective. WD 1.5 mm
- AE.3130 Plan phase S40x/0.65 infinity corrected IOS objective. WD 0.36 mm
- AE.3134 Plan phase S100x/1.25 oil immersion infinity corrected IOS objective. WD 0.18 mm

WD = Working distance

PHASE CONTRAST ATTACHMENTS

- AE.3180 Telescope for alignment of phase contrast rings
- 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

POLARIZATION ATTACHMENTS

- AE.3190 Polarizer/analyzer set
- AE.3192 Polarizer slider for nosepiece
- AE.3194 Polarizer for lamphouse

FILTERS

- AE.3196 Frosted filter 45 mm, to be mounted on lamphouse
- AE.3198 Blue glass filter 45 mm, to be mounted on lamphouse
- AE.3200 Yellow glass filter 45 mm, to be mounted on lamphouse
- AE.3202 Green glass filter 45 mm, to be mounted on lamphouse



● Polarizer slider for nosepiece



● Polarizer for lamphouse

CAMERA ACCESSORIES

- AE.5120** Trinocular 23.2 mm tube for Oxion revision 1 photo port
- AE.5120-2** Trinocular 23.2 mm tube for Oxion revision-2 photo port
- AE.5130** Universal SLR camera adapter for 23.2 mm tubes 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
- MISCELLANEOUS**
- AE.3185** Slider with darkfield stop
(only for objectives 10x, 20x and S40x)
- 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.5168-O** Heating stage and temperature controller up to 50°C. Only supplied with newly purchased microscopes

- SL.5510** LED replacement for Oxion
- AE.3199** Glass fuses 3.15 A 250 V, 10 pieces
- OX.3010** Aluminum transport case with flight case locks
- OX.3011** Aluminum transport case with classical locks

● AE.5168-O heating stage

DISPOSABLES

- PB.5155** Microscope slides 76 x 26 mm, ground edges, 50 pieces
- PB.5165** Cover glasses 18 x 18 mm, thickness 0.13-0.17 mm, 100 pieces
- PB.5168** Cover glasses 22 x 22 mm, thickness 0.13-0.17 mm, 100 pieces
- PB.5245** Lens cleaning paper, 100 sheets per pack
- PB.5255** Immersion oil, n = 1.515 (25 ml)
- PB.5274** Isopropyl alcohol 99% (200 ml)
- PB.5275** Cleaning kit: lens cleaning fluid, lint free lens tissue, brush, air blower, cotton swabs
- PB.5276** Microscope maintenance and servicing kit, 16pcs: cleaning brush, 6 pcs screwdriver set, air blower, 3 pcs Allen key, 1.5, 2, 2.5 mm, lens cleaning fluid 20 ml, cleaning cloth 140 x 140 mm, 100 pcs lens tissue sheets, tube of maintenance grease, 10 ml bottle of oil, packed in a nice toolbox

● OX.3035

about
field of view

Field of view (FOV) is the visible area when looking through the microscope eyepiece (eyepiece FOV) or camera (camera FOV) and is usually expressed as a diameter

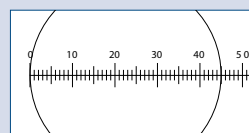
CALCULATING FOV OF AN EYEPIECE

The FOV through an eyepiece is equal to:

$$FOV = \frac{\text{Field Number}}{\text{Object Magnification}}$$

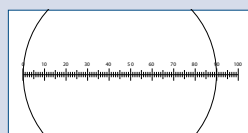
Field number (FN) is usually engraved on the eyepiece as a figure next to the magnification and expressed in mm, e.g. WF 10x/18. A 10x/18 eyepiece with a 40x objective will have a FOV = 18 mm / 40 = 0.45 mm or 450 nm

450 nm FOV with 10x/18 eyepiece and S40x objective



Micrometer stage 1 mm/100

900 nm FOV with 10x/18 eyepiece and S20x objective

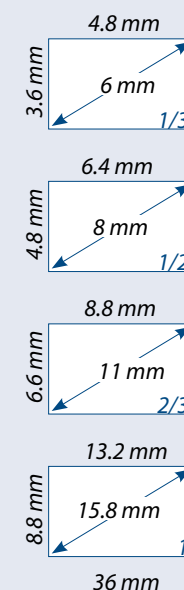


Micrometer stage 1 mm/100

FIELD OF VIEW WITH CAMERA

Most commercially available microscope digital cameras use 1/3, 1/2- or 2/3-inch rectangular sensors. A few will use a 1 inch camera sensor

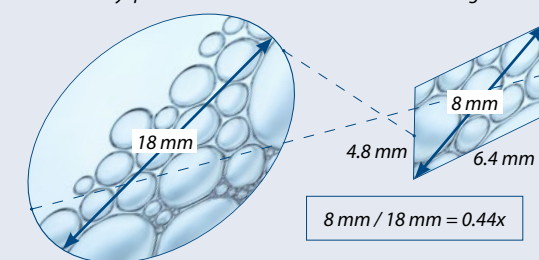
As a consequence, a rectangular camera sensor cannot capture the circular FOV that exits from a eyepiece, microscope third tube or photo port



EYEPIECE VERSUS CAMERA FOV

Circular FOV through a WF10x/18 eyepiece

1/2 camera sensor and its rectangular FOV



Furthermore, the circular eyepiece FOV is much larger than the camera FOV and thus the microscope FOV must be reduced" with a so-called relay" lens or photo-adapter" to fit the camera FOV. However - in order to avoid vignetting (dark shadows in the corners of an image), the circular microscope FOV must just be projected outside the image sensor area. Subsequently the camera FOV will always be smaller than the microscope FOV by 50 to 60%

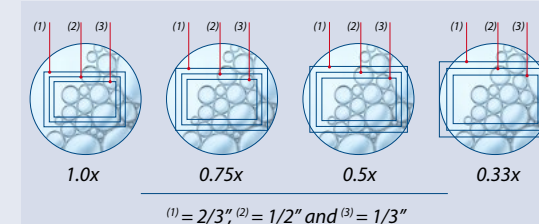
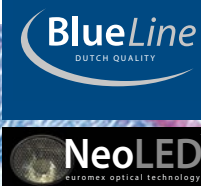


Figure: different camera sensor sizes (2/3, 1/2, 1/3 inch) with different demagnifying" lenses (C-mount photo-adapters) 0.33x, 0.50x, 0.75x and 1.0x

IN ORDER TO OBTAIN THE DESIRED FIELD OF VIEW WITHOUT VIGNETTING USE:

a 0.33 x photo adapter for cameras with a 1/3 sensor
a 0.50 x photo adapter for cameras with a 1/2 sensor
a 0.75 photo adapters for cameras with a 2/3 sensor
a 1.0x or 1.2x photo adapters for cameras with a 1" or larger camera sensor

LIFE SCIENCE MICROSCOPES



BioBlue.Lab

The BlueLine flagship BioBlue.Lab is the ideal laboratory instrument. The steady base and infinity corrected objectives make the BioBlue.Lab 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



product information



BB.1153-PLi

BB.1152-PLi

378 (h) x 190 (w) x 260 mm (d) | 5.4 kg

BB.1153-PLi

448 (h) x 190 (w) x 260 mm (d) | 5.6 kg

HIGHLIGHTS

- WF 10x/20 mm eyepieces
- Binocular and trinocular models
- Reversed quadruple nosepiece
- Plan and plan phase objectives
- Non-infinity and infinity optical system
- Integrated rackless mechanical stage
- 3 W NeoLED™ illumination
- Ergonomic carrying grip
- 10 Years warranty

SPECIFICATIONS

These ergonomic easy-to-use microscopes have been designed specifically 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 range

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 WF 10x/20 mm eyepieces, plan and IOS plan 4x/ 10x/ S40x/ S100x infinity corrected objectives

This enhancement is suitable for a wide variety of routine applications in laboratories and field microscopy



BB.1153-PLPHi



BioBlue

BioBlue.Lab

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.
Slot for analyzer (BB.9602)

OBJECTIVES - 45 MM PARFOCAL

BioBlue.Lab microscopes are equipped with plan and plan IOS (infinity corrected) 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 range is 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

ILLUMINATION

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

ANTI-THEFT SLOT

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

PACKAGE CONTENT

Supplied with power cord, 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	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

ACCESSORIES AND SPARE PARTS

EYEPIECES

- BB.6010** WF 10x/20 mm eyepiece, 30 mm tube
- BB.6110** WF 10x/22 mm eyepiece, 30 mm tube with micrometer reticle
- BB.6015** WF 15x/15 mm eyepiece, 30 mm tube
- BB.6020** WF 20x/11 mm eyepiece, 30 mm tube
- BB.6099** Pair of eyecups

OBJECTIVES - 45 MM PARFOCAL

- BB.8804** Plan 4x/0.10 objective. WD 17.92 mm
- BB.8810** Plan 10x/0.25 objective. WD 2.04 mm
- BB.8820** Plan 20x/0.40 objective. WD 1.20 mm
- BB.8840** Plan S40x/0.65 objective. WD 0.65 mm
- BB.8860** Plan S60x/0.80 objective. WD 0.19 mm
- BB.8800** Plan S100x/1.25 oil immersion objective. WD 0.18 mm
- BB.7204** Plan 4x/0.10 IOS objective. WD 7.18 mm
- BB.7210** Plan 10x/0.25 IOS objective. WD 4.80 mm
- BB.7220** Plan 20x/0.40 IOS objective., WD 5.27 mm
- BB.7240** Plan S40x/0.65 IOS objective. WD 0.68 mm
- BB.7260** Plan S60x/0.85 IOS objective. WD 0.50 mm
- BB.7200** Plan S100x/1.25 oil immersion IOS objective. WD 0.20 mm
- BB.7710** Plan phase 10x/0.25 IOS objective. WD 4.7 mm
- BB.7720** Plan phase 20x/0.40 IOS objective. WD 1.75 mm
- BB.7740** Plan phase S40x/0.65 IOS objective. WD 0.72 mm
- BB.7700** Plan phase S100x/1.25 oil immersion IOS objective. WD 0.50 mm

WD = working distance

MISCELLANEOUS

- BB.9602** Analyzer in slider, Ø 25 mm. Fits in nosepiece
- BB.9707** White filter Ø 32 mm. Fits in filter holder
- BB.9732** Polarization filter, 32 mm diameter. Fits in filter holder
- BB.9880** Köhler attachment
- BB.9993** 3 W NeoLED™ replacement unit
- AE.5227** Fuse 1 A 250 V, 10 pieces

- BB.9900** Aluminum case
- AE.9919** Nylon bag for BioBlue.Lab, 58(h) x 32(w) x 24(d)

CAMERA ACCESSORIES

- AE.5130** Universal SLR camera adapter with 2x projection lens for 23.2 mm tubes. Needs T2 adapter
- AE.5040** T2 adapter for Canon EOS SLR digital camera
- AE.5025** T2 adapter for Nikon D SLR digital camera

DISPOSABLES

- PB.5155** Microscope slides 76 x 26 mm, ground edges, 50 pieces
- PB.5157-W** Microscope slides 76 x 26 mm, ground edges. White frosted side, 50 pieces per pack
- PB.5157-B** Microscope slides 76 x 26 mm, ground edges. Blue frosted side, 50 pieces per pack
- PB.5160** Microscope slides 76 x 26 mm with cavity, grinded edges. 10 pieces per pack
- 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
- PB.5276** Microscope maintenance and servicing kit, 16pcs: cleaning brush, 6 pcs screwdriver set, air blower, 3 pcs Allen key, 1.5, 2, 2.5 mm, lens cleaning fluid 20 ml, cleaning cloth 140 x 140 mm, 100 pcs lens tissue sheets, tube of maintenance grease, 10 ml bottle of oil, packed in a nice toolbox



LIFE SCIENCE MICROSCOPES

Delphi-X
inverso

Delphi-X Inverso™

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

- for phase contrast plus DIC (differential interference contrast) equipment
- for fluorescence application

Super contrast semi-apochromatic objectives with collar adjustment ring assure perfect observation of cells or tissues in 1.2 mm thick Petri dishes or flasks

• DI.1053-PLPHi



product information



PHASE CONTRAST DI.1053-PLPHi
686.5 (h) x 276 (w) x 800 mm (d) | 31 kg

HIGHLIGHTS

- Life science applications
- Observation of tissue cultures, living cells
- Brightfield, phase contrast
- DIC (differential interference contrast)
- Long working distance
- IOS plan semi apochromatic objectives
- Revolving sextuple nosepiece
- 5 W LED or 100 W halogen transmitted illumination
- Backwards tilting condenser arm
- Easy placement of large objects
- 10 Years warranty

SPECIFICATIONS

EYEPIECES

Pair of HWF plan 10x/25 mm or 10x/22 mm eyepieces with diopter adjustment (optional)

HEAD

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

NOSEPIECE

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

OBJECTIVES

High numerical infinity semi-apochromatic long working distance plan phase Fluarex PLPHFi 10x/0.30, 20x/0.45, S40x/0.60 IOS objectives enable the sub-cellular structures. An optional 4x/0.13 and 60x/0.70 IOS objectives are also available. The 20x, 40x and optional 60 objectives are equipped with collar adjustment ring for glass thicknesses from 0 to 1.2 mm

Fluarex™ objectives are made of low-absorption glass.

Fluarex™ is a trademark of Euromex microscopen bv.

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



- Phase contrast brightfield and differential interference contrast condenser

STAGE

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

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

CONDENSER

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

MAGNIFICATION CHANGER

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

FLUORESCENCE FILTER SET WHEEL

The Delphi-X Inverso is supplied with a 6-position fluorescence filter set wheel. See photo below. (More information on fluorescence in the Delphi-X Inverso fluorescence)



FOCUSING ADJUSTMENT

Coaxial 10 mm coarse and fine adjustments, 1 µm precision and with friction adjustment

ILLUMINATION

Transmitted 5 W LED or 100 W halogen Intensity adjustable with internal 100-240 V power supply. Fuse holder 5 A / 250 V. Delphi-X Inverso can be extended with fluorescence equipment

PACKAGE CONTENT

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

ICSI SET

(Intracytoplasmic sperm injection)

- Perfect for inexperienced users in need of training practice as well as for professionals
- Complete manual system
- Large movement range
- Easy micropipette repositioning
- Adjustable micropipette holder angle between 20° and 40°
- Micropipette holder fixing knob reduces vibration and provides easy handling of the sperm
- Easy installation and service
- 3D Hydraulic manipulation joysticks for smooth movement
- Pneumatic Air Injector for ICSI and holding
- No service required for injector
- Identical sensitive injectors on both sides and interchangeable
- Top quality for affordable price
- Medical device CE mark
- Movement range: X/Y/Z: 20 mm each, 1 mm for one complete turn of the handle
- Optional heating stage with controller

Set includes two 3D hydraulic joysticks, two pipette setup mechanisms, one connection bar with moving handle, two air injectors with tubing and pen type micromanipulation, pipette holder, two metal plates for injectors, one set of Allen wrenches, one ruler for mechanic home position adjustment. Unit is packed in a solid carry case



Filters in sliders

HEATING STAGE AE.8010

Heating glass stage for Euromex microscope stage with 110 mm circular hole. The glass plate fits the circular opening of the X-Y stage and enables a flat glass object-plate with constant temperature. The stage has an aluminum frame for superior resistance and flatness. Glass thickness 0.5 mm. Plate diameter 110 mm



AE.8010 Controller

Controller AE.8010

- 2-Channel Temperature Controller with touchscreen interface
- One controller can control up to two devices
- On-board data logging allows for recording temperature as a function of time and logging calibration events and alarms
- The password protected controller is equipped with routines to re-calibrate the sensors against certified thermometers
- Temperature range: from ambient to 60°C
- Temperature accuracy on specimen: ± 0.3°C
- 4.3" touch screen interface
- Alarm buzzer and external alarm connector
- Self calibration routines enable high temperature accuracy



DI.1053-PLPHFi with CMEX camera



MODELS	LWD Plan phase 10x/20x/540x objectives	100 W Halogen illumination	5 W LED illumination
DI.1053-PLPHFi	•		•
DI.2053-PLPHFi	•	•	

ACCESSORIES AND SPARE PARTS

EYEPIECES

- DI.6010** Super wide field SWF 10x/25 mm eyepiece
- DI.6010-C** Super wide field SWF 10x/25 mm eyepiece with crosshairs
- DI.6010-M** Super wide field SWF 10x/25 mm eyepiece with micrometer
- DI.6010-CM** Super wide field SWF 10x/25 mm eyepiece with micrometer and crosshairs
- DI.6010-SG** Super wide field SWF 10x/25 mm eyepiece with 20 x 20 square grid reticle
- DI.6012** Wide field WF 12.5x/17.5 mm eyepiece
- DI.6015** Wide field WF 15x/16 mm eyepiece
- DI.6020** Wide field WF 20x/12 mm eyepiece
- DI.6210** Super wide field SWF 10x/22 mm eyepiece
- DI.6099-L** Eyecup for eyepiece

- DI.8704** Infinity semi-apochromatic long working distance plan phase Fluarex PLPHFi 4x/0.13, IOS objective. WD 16.8 mm
- DI.8710** Infinity semi-apochromatic long working distance plan phase Fluarex PLPHFi 10x/0.30, IOS objective. WD 10.2 mm
- DI.8720** Infinity semi-apochromatic long working distance plan phase Fluarex PLPHFi 20x/0.45 objective. WD 7.5 to 8.8 mm
- DI.8740** Infinity semi-apochromatic long working distance plan phase Fluarex PLPHFi S40x/0.60 IOS objective. WD 3 to 4.4 mm

WD = working distance



OBJECTIVES

- DI.8604** Infinity Plan Semi-Apochromatic Fluarex PLPHFi-Apo 4x/0.13 IOS objective, working distance 17 mm. Recommended for fluorescence. M25 mounting thread
- DI.8610** Infinity Plan Semi-Apochromatic Fluarex PLPHFi-Apo 10x/0.30 IOS objective, working distance 7.4 mm. Cover glass correction 1.2 mm. Recommended for DIC and fluorescence. M25 mounting thread
- DI.8620** Infinity Plan Semi-Apochromatic Fluarex PLPHFi-Apo 20x/0.45 IOS objective, working distance 8 mm. Cover glass correction 1.2 mm. Recommended for DIC and fluorescence. M25 mounting thread
- DI.8640** Infinity Plan Semi-Apochromatic Fluarex PLPHFi-Apo 40x/0.60 IOS objective, working distance 3.3 mm. Cover glass correction 1.2 mm. Recommended for DIC and fluorescence. M25 mounting thread
- DI.8660** Infinity Plan Semi-Apochromatic Fluarex PLPHFi-Apo 60x/0.70 IOS objective, with collar ring for adjustment of working distance 01 - 1.3 mm. Recommended for fluorescence. M25 mounting thread

DIFFERENTIAL INTERFERENCE CONTRAST

- DI.9690-00** DIC prism with polarizer for condenser. To be used with Plan Semi-Apo 20/40x objectives
- DI.9690-10** DIC prism with polarizer for condenser. To be used with Plan Semi-Apo 10x objective
- DI.9693-10** DIC prism for nosepiece to be used with Semi-Apo 10x objective
- DI.9693-20** DIC prism for nosepiece to be used with Semi-Apo 20x objective
- DI.9693-40** DIC prism for nosepiece to be used with Semi-Apo 40x objective
- DI.9698** DIC analyzer for nosepiece

MICROMANIPULATOR ATTACHMENT

- AE.8000** Micromanipulator for intracytoplasmic sperm injection (ICSI) suitable with the Oxion Inverso inverted microscope
- AE.8010** Heating stage with transparent glass plate for AE.8000 Micromanipulator, including digital temperature controller

CAMERA ACCESSORIES

- DI.9810** C-mount with 1x magnification for C-mount camera
- DI.9840** C-mount with high resolution 0.40x objective for 1/3 inch C-mount camera
- DI.9850** C-mount with high resolution relay 0.50x objective for 1/2 inch C-mount camera

MISCELLANEOUS

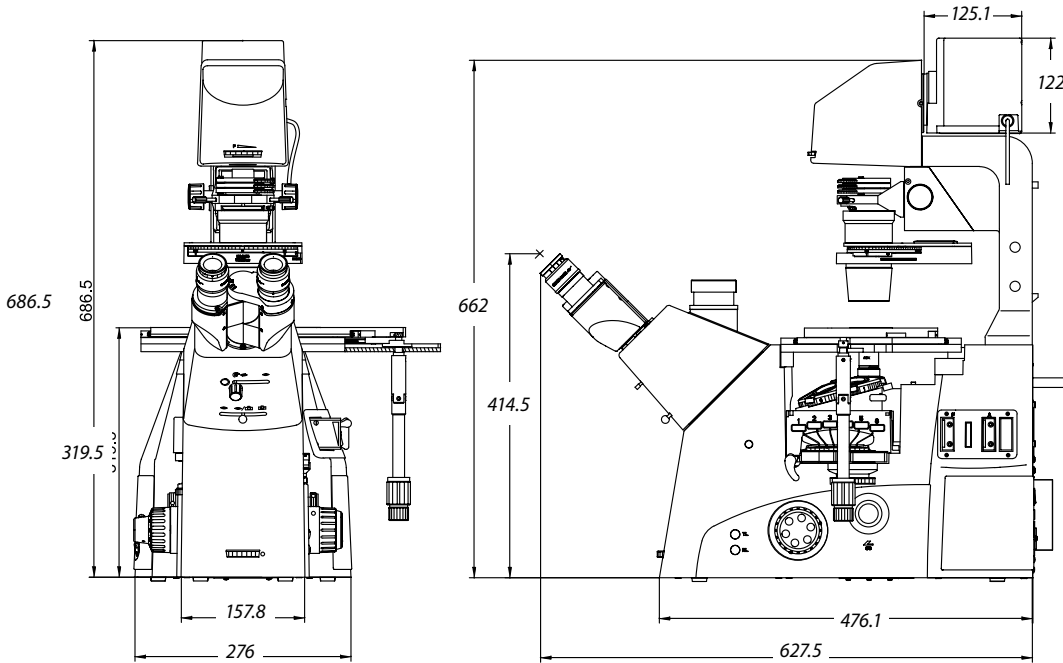
- DI.9191** Phase contrast annuli for 4x PLPHFi objective DI.8704
- DI.9961** 100 Watt 12 V halogen bulb

- DI.9997** 5 Watt LED replacement
- AE.5214** 500 mA 250 V fuses for LED models, 10pcs
- AE.5216** 5 A 250 V fuses for Halogen models, 10pcs

DISPOSABLES

- PB.5155** Microscope slides 76 x 26 mm, ground edges, 50 pieces per pack
- PB.5157-W** Microscope slides 76 x 26 mm, ground edges and frosted side white color, 50 pieces per pack
- PB.5157-B** Microscope slides 76 x 26 mm, ground edges and frosted side blue color, 50 pieces per pack
- PB.5165** Cover glasses 18 x 18 mm, 0.13-0.17 mm, 100 pieces
- PB.5168** Cover glasses 22 x 22 mm, 0.13-0.17 mm, 100 pieces
- PB.5245** Lens cleaning paper, 100 sheets per pack
- PB.5274** Isopropyl alcohol 99%, 200 ml
- PB.5275** Cleaning kit: lens fluid, lint free lens tissue/paper, brush, air blower, cotton swabs

DIMENSIONS



LIFE SCIENCE MICROSCOPES

HIGHLIGHTS

- Life science applications
- Observation of tissue cultures, living cells
- Brightfield and phase contrast
- Long working distance IOS plan achromatic objectives
- Revolving quintuple nosepiece
- 5 W LED transmitted illumination
- 10 Years warranty

- Micromanipulator for intracytoplasmic sperm injection (ICSI)

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 is available in two configurations:

- for brightfield and phase contrast
- for fluorescence (see chapter on fluorescence)

Dedicated objectives are suitable for 1.2 mm thick glass bottoms of cell culture dishes and flasks



product information



OX.2003-PL / OX.2053-PL
488 (h) x 231 (w) x 555 mm (d) | 12.0 kg

• OX.2053-PLPH

SPECIFICATIONS

EYEPIECES

Pair of HWF plan 10x/22 mm eyepieces

HEAD

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 0-100 % positions

NOSEPIECE

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

FLUAREX OBJECTIVES FOR BRIGHTFIELD

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

FLUAREX OBJECTIVES FOR PHASE CONTRAST

Infinity color corrected long working distance plan Fluarex 10x/0.30 and plan phase Fluarex 20x/0.45 and 540x/0.65 IOS objectives

All objectives corrected for 1.2 mm thickness.

*Fluarex™ objectives are made of low-absorption glass
Fluarex™ is a trademark of Euromex microscopen bv*

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

STAGE

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

- Stage extension plate
- Metal insert for Ø 65 mm cell culture dish or Multiwell
- Metal insert for 76 x 26 mm slides and 54 mm cell dish (only for models with X-Y stage)
- Optional universal cell culture 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 supplied 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
Oxion Inverso can be extended with fluorescence equipment

FILTERS FOR PHASE CONTRAST MODELS

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

PACKAGE CONTENT

Supplied with metal insert with Ø 25 mm hole, metal insert for Ø 35 mm cell culture dish, blue LBD and green 550 nm interference Ø 45 mm filter, power cord, dust cover and user

manual. Phase contrast models are supplied with 4x/10x and 20x/40x phase contrast annuli in slider, green filter and alignment telescope

ICSI SET (AE.8000)

- (Intracytoplasmic sperm injection)
- Perfect for inexperienced users in need of training practice as well as for professionals
 - Complete manual system
 - Large movement range
 - Easy micropipette repositioning
 - Adjustable micropipette holder angle between 20° and 40°
 - Micropipette holder fixing knob reduces vibration and provides easy handling of the sperm
 - Easy installation and service
 - 3D Hydraulic manipulation joysticks for smooth movement
 - Pneumatic air injector for ICSI and holding
 - No service required for injector
 - Identical sensitive injectors on both sides and interchangeable
 - Top quality for affordable price
 - Medical device CE mark
 - Movement range: X/Y/Z: 20 mm each, 1 mm for one complete turn of the handle
 - Optional heating stage with controller

Set includes two 3D hydraulic joysticks, two pipette setup mechanisms, one connection bar with moving handle, two air injectors with tubing and pen type micromanipulation, pipette holder, two metal plates for injectors, one set of Allen wrenches, one ruler for mechanic home position adjustment

MODELS	LWD Plan 10x/20x/40x objectives	LWD Plan phase 10x/20x/40x objectives	Mechanical stage	ICSI equipment
OX.2003-PL	•			
OX.2053-PL	•		•	
OX.2003-PLPH		•		
OX.2053-PLPH		•	•	
OX.2053-PLPH-ICSI		•	•	•

LWD = long working distance

HEATING STAGE AE.8010

Heating glass stage for Euromex microscope stage with 110 mm circular hole. The glass plate fits the circular opening of the X-Y stage and enables a flat glass object-plate with constant temperature. The stage has an aluminum frame for superior resistance and flatness. Glass thickness 0.5 mm. Plate diameter 110 mm

Controller AE.8010

- 2-Channel Temperature Controller with touchscreen interface
- One controller can control up to two devices
- External temperature sensor (included) and self calibration routines allow easy calibration of the heating devices
- On-board data logging allows for recording temperature as a function of time and logging calibration events and alarms
- The password protected controller is equipped with routines to re-calibrate the sensors against certified thermometers
- Temperature range: from ambient to 60°C



● Controller of the AE.8010

- Temperature accuracy on specimen: ± 0.3°C
- 4.3" touch screen interface
- External temperature sensor
- On-board data logging to USB drive
- Alarm buzzer and external alarm connector
- One controller can control up to two devices
- Self calibration routines enable high temperature accuracy

● OX.2053-PLPH-ICSI
Oxion Inverso with ICSI equipment
(intra-cytoplasmic sperm injection)



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 reticle
- OX.6099** Pair of eyecups

PLAN OBJECTIVES FOR BRIGHTFIELD⁽¹⁾

- OX.8304** PL LWD 4x/0.13 IOS objective, WD 11 mm
- OX.8310** PL LWD 10x/0.25 IOS objective, WD 7.45 mm
- OX.8320** PL LWD 20x/0.40 IOS objective, WD 6.92 mm
- OX.8340** PL LWD 40x/0.65 IOS objective, WD 2.74 mm
- OX.8360** PL LWD 60x/0.70 IOS objective, WD 1.28 mm

PLAN FLUAREX OBJECTIVES FOR BRIGHTFIELD AND FLUORESCENCE⁽¹⁾

- OX.8604** PL FL LWD 4x/0.13 IOS objective, WD 18.95 mm
- OX.8610** PL FL LWD 10x/0.30 IOS objective, WD 7.27 mm
- OX.8620** PL FL LWD 20x/0.45 IOS objective, WD 6.03 mm
- OX.8640** PL FL LWD 40x/0.65 IOS objective, WD 1.79 mm
- OX.8660** PL FL LWD 60x/0.75 IOS objective, WD 1.28 mm

PLAN PHASE CONTRAST OBJECTIVES^{(1) (2)}

- OX.8404** PLPH LWD 4x/0.13 IOS objective, WD 10.75 mm
- OX.8410** PLPH LWD 10x/0.25 IOS objective, WD 7.45 mm
- OX.8420** PLPH LWD 20x/0.40 IOS objective, WD 6.92 mm
- OX.8440** PLPH LWD 40x/0.65 IOS objective, WD 2.74 mm

OBJECTIVES FOR FLUORESCENCE AND PHASE CONTRAST^{(1) (2) (3)}

- OX.8720** Plan Phase Fluarex LWD 20x/0.45 infinity corrected IOS objective. WD 6.12 mm
- OX.8740** Plan Phase Fluarex LWD 40x/0.65 infinity corrected IOS objective. WD 1.79 mm

⁽¹⁾ All objectives corrected for 1 mm cover glass thickness except OX.8304

⁽²⁾ Phase contrast objectives require slider with phase contrast annuli OX.9163

⁽³⁾ Phase contrast objectives require slider with phase contrast annuli OX.9163

All optical parts are anti-fungus treated

WD = working distance

PHASE CONTRAST ATTACHMENTS

- OX.9148** Telescope for phase contrast fluorescence alignment
- OX.9149** Telescope for phase contrast alignment
- OX.9190** Slider with 4x/10x and 20x/40x phase contrast annuli

CAMERA ACCESSORIES

- 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.5120-2** Trinocular 23.2 mm tube for Oxion photo port revision-2
- AE.5130** Universal SLR camera adapter with 2x projection lens for 23.2 mm tubes
Needs T2 adapter and AE.5120 or AE.5120-2
- AE.5025** T2 adapter for Nikon D digital SLR cameras
- AE.5040** T2 adapter for Canon EOS digital SLR cameras

STAGES AND HOLDERS

- OX.9500** Mechanical coaxial X-Y 120 x 78 mm stage
- OX.9506** Transparent glass insert with Ø 30 mm hole
- OX.9508** Metal insert with Ø 25 mm hole
- OX.9510** Metallic insert for Ø 65 mm cell culture dish and Multiwell
- OX.9512** Metal insert with 76 x 26 mm slide holder and Ø 55 mm cell culture dish holder
- OX.9535** Metal insert for Ø 35 mm cell culture dish holder
- OX.9550** Stage extension plate
- OX.9599** Universal cell culture dish holder



● OX.9599

MICROMANIPULATOR ATTACHMENT

- AE.8000** Micromanipulator for intracytoplasmic sperm injection (ICSI) suitable with the Oxion Inverso inverted microscope
- AE.8010** Heating stage with transparent glass plate for AE.8000 Micromanipulator, including advanced digital temperature controller

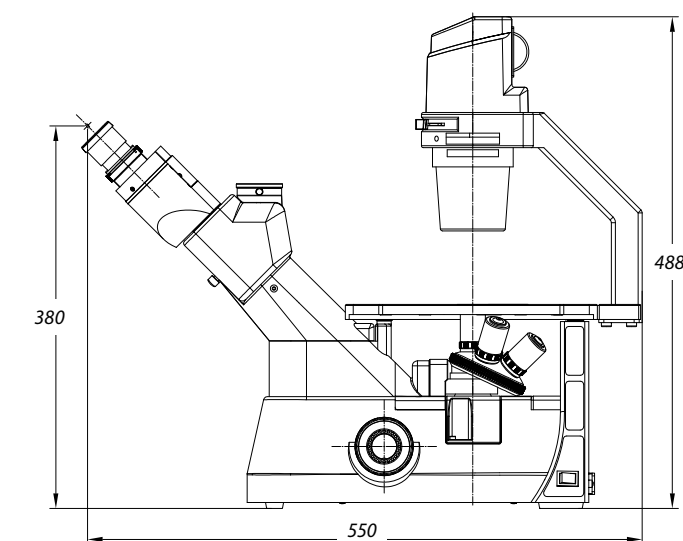
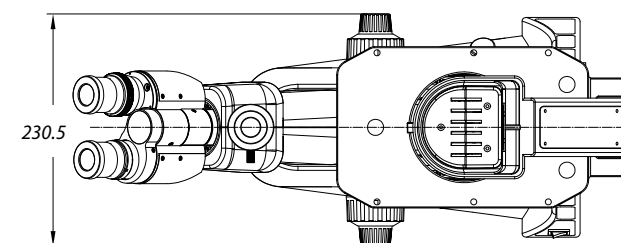
MISCELLANEOUS

- OX.9700** Blue filter Ø 45 mm
- OX.9985** 5 W NeoLED™ replacement unit
- AE.3199** Glass fuses 3.15 A 250 V packed, per 10 pieces

DISPOSABLES

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

DIMENSIONS



● Accessories supplied with phase contrast models



life science

fluorescence microscopes



fluorescence microscopes

Euromex offers a wide range of life science upright and inverted microscopes
for researchers and biologists worldwide

On the next pages you will find all models that can be used in life science fluorescence applications,
using mercury vapor lamps or LED technology together with optimized fluorescence filter sets



product information

ISCOPE FLUORESCENCE •	PAGE 162
BSCOPE FLUORESCENCE •	PAGE 168
DELPHI-X OBSERVER FLUORESCENCE •	PAGE 174
OXION FLUORESCENCE •	PAGE 180
DELPHI-X INVERSO FLUORESCENCE •	PAGE 186
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EUROMEX LED SOURCES •	PAGE 198
FLUORESCENCE FILTER SETS •	PAGE 200

LIFE SCIENCE MICROSCOPES

iscope

NeoLED™
euromex optical technology

iScope® fluorescence

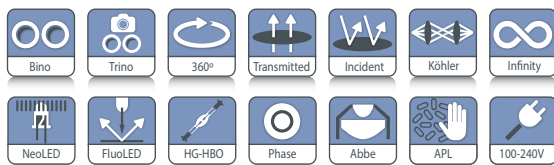
The excellent optics and mechanical components make the iScope® a state-of-the art microscope that is amongst others suitable for fluorescence applications in life science and biotechnological fields

The iScope® fluorescence microscope 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



product information



● IS.3152 PLi-3



IS.3153-XXX

407 (h) x 210 (w) x 255 mm (d) | 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
- 187/230 x 140 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
- iCare sensor for energy saving
- CSS - Cable Storage System
- 10 Years warranty



● IS.3153-PLFi/6

SPECIFICATIONS

EYEPIECES

Extended plan EWF 10x/22 mm eyepieces, Ø 30 mm tubes. Eyepieces can be secured to the tubes. The trinocular head of the plan infinity corrected models (IS.1153-PLi) has a light path selector (100:0 / 50:50) and ± 5 diopter adjustments on both Ø 30 mm tubes. The trinocular head of the E-plan infinity corrected models (IS.1153-EPLi) has a fixed built-in light path beam splitter (50:50) and one ± 5 diopter adjustment on the Ø 30 mm left tube

HEAD

Binocular and trinocular Siedentopf type heads are equipped with 30° inclined tubes, interpupillary distance from 48 to 76 mm and 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. An optional ergonomic tilting 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

OBJECTIVES

E-Plan EPLi IOS	4x/0.10	10x/0.25	S40x/0.65	S100x/1.25 oil
Plan PLi IOS	4x/0.10	10x/0.25	20x/0.40*	S40x/0.65 S60x/0.85* S100x/1.25 oil
Plan PLFi IOS	4x/0.13	10x/0.30	20x/0.50*	S40x/0.75 S100x/1.30 oil

* 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

NOSEPIECE

Revolving and reversed nosepiece for a maximum of five objectives

OBJECTIVES

See table below

STAGE

- 187/230 x 140 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 with a very tough ceramic surface, protects against marks and scratches. The surface also ensures stray light not to be reflected from the stage into the objective

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 darkfield 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 darkfield stop position for darkfield contrast observation up to 400x magnification

FOCUSING

Coaxial coarse and fine adjustments, 200 graduations, 1 µm per graduation, 200 µm per rotation, total travel range is 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™ diascope illumination with internal 100-240 V power supply

The innovative NeoLED™ design offers larger apertures, allowing the optical system of the iScope® microscope to produce images at higher resolutions, very close to the theoretical diffraction limit of the optics. Other benefits of the NeoLED™ is the low energy consumption, no heating and a long operating life span

The Köhler illumination on models with IOS plan and plan phase infinity corrected systems 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-position rotating or 3-position slider fluorescence attachments are supplied with standard 100 W HBO mercury vapor light source for a broad powerful light spectrum and 100-240 V external power supply with indication of the life span of 100 W HBO lamp

Supplied with standard fluorescence filter sets for blue excitation (EX460-490 (BP) DM500 EM520 (LP)) and green excitation (EX510-550 (BP) DM570 EM590 (LP)) and a UV protection shield. Optional standard fluorescence filters for UV excitation (EX330-385 (BP) DM400 EM420 (LP)) and violet excitation (EX400-410 (BP) DM455 EM455 (LP))

The iScope® fluorescence microscopes can also be supplied with optimized and zero-pixel shift optimized filter sets on request. See end of this chapter

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 back of the instrument, which enables easy storage

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

PACKAGE CONTENT

Supplied with power 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

6-POSITION ROTATING ATTACHMENT

With 100 W mercury vapor light source. The 6-position rotating fluorescence attachments are supplied with a standard 100 W HBO mercury vapor light source for a broad powerful light spectrum. Supplied with standard fluorescence filter sets for excitation in the blue and green light spectrum and a UV protection shield

MODELS	Trino	WF 10x/22 mm	Diopter adjustable on left side	Diopter adjustable on both sides	E-plan EPLi 4x/10x/S40x and S100x objectives	Plan PLi 4x/10x/S40x and S100x objectives	Plan PLF 4x/10x/S40 and S100x objectives	100 W HBO light source	Filter sets (blue & green)	NeoLED™ illumination
IS.3153-EPLi/6	•	•	•		•			•	•	•
IS.3153-PLi/6	•	•		•		•		•	•	•
IS.3153-PLFi/6	•	•		•			•	•	•	•

3-POSITION SLIDER ATTACHMENT

With 100 W mercury vapor light source. The 3-position slider fluorescence attachments are supplied with standard 100 W HBO mercury vapor light source for a broad powerful light spectrum. Supplied with standard fluorescence filter sets for blue and green excitation and a UV protection shield

MODELS	Trino	WF 10x/22 mm	Diopter adjustable on both sides	Plan PLi 4x/10x/S40x and S100x objectives	Plan PLF 4x/10x/S40x and S100x objectives	100 W HBO light source	Filter sets (blue & green)	NeoLED™ illumination
IS.3153-PLi/3	•	•	•	•		•	•	•
IS.3153-PLFi/3	•	•	•		•	•	•	•

ACCESSORIES AND SPARE PARTS

EYEPIECES

IS.6210	EWf 10x/22 mm eyepiece (Ø 30mm tube)	IS.7100	E-plan EPL S100x/1.25 objective. WD 0.13 mm
IS.6210-C	EWf 10x/22 mm eyepiece with crosshairs (Ø 30 mm tube)	IS.7710	Plan PLPH 10x/0.25 phase contrast objective. WD 12.2 mm
IS.6210-P	EWf 10x/22 mm eyepiece with pointer (Ø 30 mm tube)	IS.7720	Plan PLPH 20x/0.40 phase contrast objective. WD 5 mm
IS.6210-CM	EWf 10x/22 mm eyepiece with 10/100 micrometer and crosshairs (Ø 30 mm tube)	IS.7740	Plan PLPH S40x/0.65 phase contrast objective. WD 0.37 mm
IS.6212	WF 12.5x/17 mm eyepiece (Ø 30 mm tube)	IS.7700	Plan PLPH S100x/1.25 phase contrast objective. WD 0.13 mm
IS.6215	WF 15x/16 mm eyepiece (Ø 30 mm tube)	IS.8804	E-plan EPLi 4x/0.10 IOS objective. WD 15.4 mm
IS.6220	WF 20x/12 mm eyepiece (Ø 30 mm tube)	IS.8810	E-plan EPLi 10x/0.25 IOS objective. WD 5.8 mm
IS.6299	Pair of eyecups infinity models	IS.8840	E-plan EPLi S40x/0.65 IOS objective. WD 0.43 mm
		IS.8800	E-plan EPLi S100x/1.25 IOS objective. WD 0.13 mm

OBJECTIVES

IS.7104	E-plan EPL 4x/0.10 objective. WD 15.2 mm	IS.7202	Plan PLi 2x/0.05 IOS objective, WD 18.3 mm. Best used together with swing-out condenser
IS.7110	E-plan EPL 10x/0.25 objective. WD 5.5 mm	IS.7204	Plan PLi 4x/0.10 IOS objective. WD 15.4 mm
IS.7120	E-plan EPL 20x/0.40 objective. WD 3.5 mm	IS.7210	Plan PLi 10x/0.25 IOS objective. WD 10 mm
IS.7140	E-plan EPL S40x/0.65 objective. WD 0.45 mm	IS.7220	Plan PLi 20x/0.40 IOS objective. WD 5.1 mm
IS.7160	E-plan EPL S60x/0.85 objective. WD 0.19 mm		

- IS.7240** Plan PLi S40x/0.65 IOS objective. WD 0.54 mm
- IS.7260** Plan PLi S60x/0.85 IOS objective. WD 0.14 mm
- IS.7200** Plan PLi S100x/1.25 IOS objective. WD 0.13 mm
- IS.7200-I** Plan super contrast PLi S100x/1.25 IOS objective with built-in iris diaphragm. WD 0.13 mm
- IS.7404** Plan Fluarex PLFi 4x/0.10 IOS objective. WD 21.6 mm
- IS.7410** Plan Fluarex PLFi 10x/0.30 IOS objective. WD 2.9 mm
- IS.7420** Plan Fluarex PLFi 20x/0.50 IOS objective. WD 1.5 mm
- IS.7440** Plan Fluarex PLFi S40x/0.75 IOS objective. WD 0.6 mm
- IS.7400** Plan Fluarex PLFi S100x/1.30 IOS objective. WD 0.13 mm
- IS.8910** Plan PLPHi 10x/0.25 phase contrast IOS infinity corrected objective. WD 10.2 mm
- IS.8920** Plan PLPHi 20x/0.40 phase contrast IOS infinity corrected objective. WD 5.1 mm
- IS.8940** Plan PLPHi S40x/0.65 phase contrast IOS infinity corrected objective. WD 0.5 mm
- IS.8900** Plan PLPHi S100x/1.25 phase contrast IOS infinity corrected objective. WD 0.13 mm

WD = working distance

CONDENSERS

- IS.9102** Standard Abbe condenser 1.25 NA condenser with slot for darkfield and phase contrast sliders
- IS.9105** Swing-out 0.9/1.25 NA condenser

PHASE CONTRAST ATTACHMENTS

- IS.9124** Zernike phase contrast set PLPH 10/20/40/100 brightfield and darkfield position
- IS.9127** Zernike phase contrast set PLPHi 10/20/40/100 IOS brightfield and darkfield position
- IS.9148** Telescope for phase contrast Ø30 mm tube
- IS.9149** Telescope for phase contrast Ø 23.2 mm tube
- IS.9160** Phase contrast slider set with 10x and S40x PLPH objectives and annuli for 10/S40x PLPH objectives. Also suitable for optional 20x PLPH objective

- IS.9161** Phase contrast slider set with 20x and S100x PLPH objectives and annuli for 20x/S100x PLPH objectives
- IS.9162** Phase contrast slider set with 10x and S40x PLPHi IOS infinity corrected objectives and annuli for 10x/S40x PLPHi IOS infinity corrected objectives. Also suitable for optional 20x PLPHi infinity corrected objective
- IS.9163** Phase contrast slider set with 20x and S100x PLPHi IOS infinity corrected objectives and annuli for 20x/S100x PLPHi IOS infinity corrected objectives
- IS.9190** Slider with phase contrast annuli for 10x and S40 phase contrast non-IOS objective (without objective, condenser and without alignment telescope)
- IS.9192** Slider with phase contrast annuli for 20x and S100 phase contrast non-IOS objective (without objective, condenser and without alignment telescope)
- IS.9194** Slider with phase contrast annuli for S40 phase contrast objective
- IS.9196** Slider with phase contrast annuli for 10x and S40 phase contrast IOS objective (without objective, condenser and without alignment telescope)
- IS.9198** Slider with phase contrast annuli for 20x and S100 phase contrast IOS objective (without objective, condenser and without alignment telescope)

POLARIZATION ATTACHMENTS

- IS.9600** Polarization filter 45 mm for lamphouse
- IS.9601** Polarization set: simple rotating polarizer for lamphouse and fixed polarizer mounted under head
- IS.9626** Polarization filter for mounting under the head

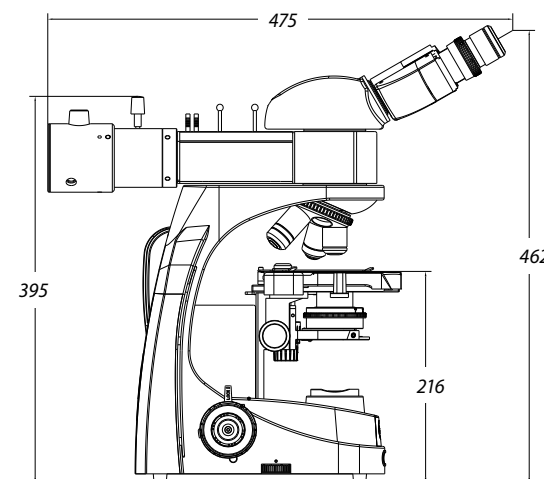
FILTERS

- IS.9700** Blue filter 45 mm for lamphouse
- IS.9702** Green filter 45 mm for lamphouse
- IS.9704** Yellow filter 45 mm for lamphouse
- IS.9706** White opaque filter 45 mm for lamphouse
- IS.9752.ND25** Neutral density 25 % transmission filter ND25 for 6-positions Fluorescence attachment

MISCELLANEOUS

- IS.9170** Slider with darkfield stop
- IS.9501-ADD** Stage with ergonomical low-positioned X-Y adjustments of mechanical stage. Right handed. Add-on price, only with new microscopes
- IS.9503** Large ceramic stage. Only with new microscopes, add /C suffix after iScope® model part number
- IS.9880** Köhler attachment
- IS.9749-6** Empty filter cube for 6-position fluorescence attachment
- IS.9749-3** Empty filter cube for 3-position fluorescence attachment
- IS.9753** Filter rail, 3-position
- AE.3684** Glass fuses 500 mA 250 V, 10 pieces
- AE.5168-I** Heating stage series with controller, only with new microscopes
- SL.1385** 100 W HBO mercury vapor lamp for fluorescence
- SL.5500** NeoLED™ replacement unit

DIMENSIONS

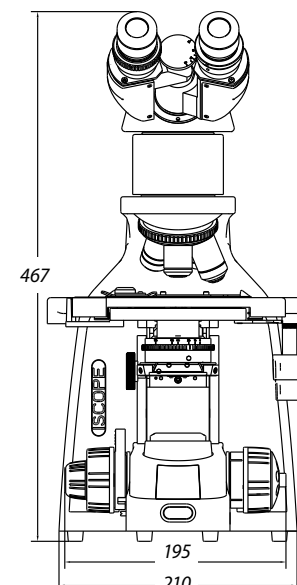


CAMERA ACCESSORIES

- IS.9800** single photo tube attachment with one Ø 23.2 mm tube for IS.5700 ergonomic tilting head of iScope® infinity systems
- AE.5130** Universal SLR adapter with built-in 2x lens for standard 23.2 mm tube. Needs T2 adapter
- AE.5025** T2 adapter for Nikon D SLR digital camera
- AE.5040** T2 adapter for Canon EOS SLR digital camera

DISPOSABLES

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



LIFE SCIENCE MICROSCOPES

bscope

NeoLED™
euromex optical technology

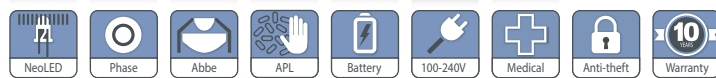
5 bScope® fluorescence

The bScope® microscope for fluorescence microscopy is equipped with four monochromatic LEDs

The microscopes are supplied with fluorescence filter sets and dichroic mirrors for excitation in the blue, green, violet and ultraviolet spectral regions



product information



● BS.3153-PLi

BS.3153-PL(F)i
505 (h) x 195 (w) x 450 mm (d) | 8.8 kg

HIGHLIGHTS

- Trinocular models
- WF 10x/22 mm eyepieces, 30 mm tubes
- Reversed ball-bearing quintuple nosepiece with slot for polarization filter
- Plan IOS and plan Fluarex IOS objectives
- Rackless integrated X-Y mechanical stage
- Epi-fluorescence illumination with four monochromatic LEDs
- 3 W NeoLED™ adjustable transmitted illumination
- Integrated carrying grip
- Cable storage system and anti-theft system
- 10 Years warranty

SPECIFICATIONS

EYEPIECES

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

HEAD

The bScope® is equipped with a Siedentopf type head and with 30° inclined Ø 30 mm tubes and with a ± 5 diopter adjustment on left eyepiece. The interpupillary distance is adjustable between 48 to 76 mm

The trinocular head comes with a Ø 23.2 mm tube, ensuring maximum flexibility. The prisms inside the heads are designed to minimize the light absorption for perfect digital imaging. The trinocular head has a 20:80 beamsplitter and generates an erect image

NOSEPIECE

Revolving and reversed ball-bearing quintuple nosepiece

OBJECTIVES

The state-of-the-art production techniques and multi layer coatings used for the manufacturing of the bScope®



● BS.3153-PLi

objectives enable the bScope® to be used for the most demanding applications. World class spherical aberration correction and modern CNC and assembly technology ensure the perfect centering of the objectives

- Plan infinity corrected PLi 4x/0.10, 10x/0.25, 20x/0.40, S40x/0.65, S60x/0.85 and S100x/1.25 oil immersion IOS objectives for applications where violet or Ultra-Violet excitation is not needed
- Plan Fluarex infinity corrected PLFi 4x/0.10, 10x/0.25, 20x/0.40, S40x/0.65 and S100x/0.90 IOS objectives for applications where either higher resolving power or violet or ultra-violet excitation is needed

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

Double coaxial, low-positioned coarse and fine adjustments with 180 graduations. Precision 1.1 μm , 200 μm per rotation, total travel range is approximately 19 mm. Supplied with an adjustable rack stop to prevent damage to sample and objectives. The coarse adjustment is equipped with friction control

STAGE

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

CONDENSER FOR BRIGHTFIELD

The standard height adjustable Abbe N.A. 1.25 condenser for brightfield comes with an iris diaphragm and swing-out filter holder

CONDENSER FOR ZERNIKE PHASE CONTRAST

The height adjustable Zernike NA. 1.25 phase contrast disc condenser comes with phase annuli for 10/20/540x and S100x phase contrast objectives, an iris diaphragm, a swing-out filter holder and also a BF position for brightfield contrast. Phase contrast objectives are available in either EPL-PHi or PL-PHi versions. Supplied with alignment telescope and green filter

CONDENSER FOR SIMPLE PHASE CONTRAST

The height adjustable NA. 1.25 simple phase contrast condenser has a free slot for either a slider for 10/540x phase contrast objectives, or a slider for 20/S100x phase contrast objectives. The condenser has an iris diaphragm and filter holder. The condenser includes a BF position for brightfield contrast with an iris diaphragm and filter holder. Phase contrast objectives available in either EPL-PHi or PL-PHi version. Supplied with alignment telescope and green filter

POLARIZATION

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

FLUORESCENCE ATTACHMENT

- Epi-illumination with four 5 W LEDs for fluorescence excitation from 450 to 470 nm (blue), 515 to 535 nm (green), 390 to 400 (violet) and 360 to 370 nm (ultraviolet). External 100-240 V power supply
- Fluorescence filter set for blue excitation (EX450-490 (BP) DM505 EM515 (LP)), green excitation (EX495-555 (BP) DM580 EM595 (LP)), UV excitation (EX320-380 (BP) DM420 EM435 (LP)) and violet excitation (EX380-415 (BP) DM460 EM475 (LP))
- Supplied with UV protection shield

NEOLED™ TRANSMITTED ILLUMINATION

The 3 W adjustable Köhler NeoLED™ transmitted illumination is powered by an internal 100-240 V power supply making it suitable for worldwide use. The innovative NeoLED™ design offers larger apertures, allowing the optical system of the bScope® 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 life span

KÖHLER ILLUMINATION

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

Ergonomic carrying grip for easy transportation



CORDLESS USE

The optional rechargeable AA batteries turn the bScope® into a cordless system for transmitted illumination

CSS – CABLE STORAGE SYSTEM

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

CARRYING GRIP

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

ANTI-THEFT SLOT

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

PACKAGE CONTENT

Smart polystyrene packaging ensures a low environmental footprint while maintaining maximum safety during transport. Supplied with power cord, dust cover, tools, a spare fuse, white filter, user manual and 5 ml immersion oil



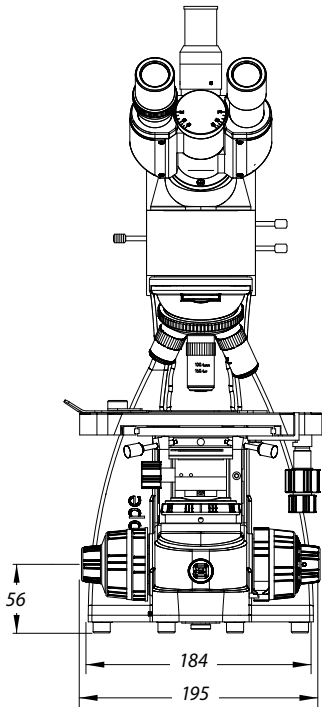
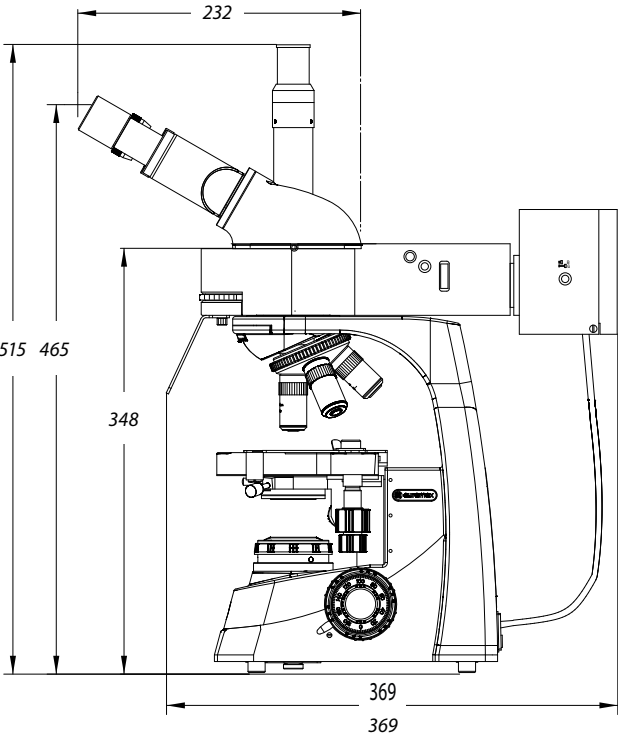
● BS.3153-PLi

BSCOPE® WITH EPI-FLUORESCENCE 4 LED ILLUMINATION
(BLUE, GREEN, VIOLET AND ULTRA-VIOLET)

MODELS	Trinocular	HWF 10x/22 mm eyepieces	Quintuple nosepiece Plan PLi 4/10/S40/ S100x	Quintuple nosepiece Plan Fluarex PLFi 4/10/S40/ S100x *
BS.3153-PLi	•	•	•	
BS.3153-PLFi	•	•		•

*The plan Fluarex infinity corrected IOS objectives are recommended for applications where either higher resolving power or violet or ultra-violet excitation is needed

DIMENSIONS



ACCESSORIES AND SPARE PARTS

EYEPIECES

- BS.6310** WF 10x/22 mm eyepiece, Ø 30 mm tube
- BS.6310-M** WF 10x/22 mm eyepiece, Ø 30 mm tube
- BS.6315** WF 15x/12 mm eyepiece, Ø 30 mm tube
- BS.6399** Pair of eyecups, Ø 30 mm tube

OBJECTIVES

- BS.8404** Plan PLi 4x/0.10 IOS objective. WD 21.0 mm
- BS.8410** Plan PLi 10x/0.25 IOS objective. WD 5.0 mm
- BS.8420** Plan PLi 20x/0.40 IOS objective. WD 8.8 mm
- BS.8440** Plan PLi S40x/0.65 IOS objective. WD 0.66 mm
- BS.8400** Plan PLi S100x/1.25 oil immersion IOS objective. WD 0.36 mm
- BS.7400** Plan Fluarex S100x/1.30 oil immersion IOS objective. WD 0.13 mm

WD = working distance
For phase contrast equipment and accessories, see chapter 4 Life science, bScope®

CONDENSERS

- BS.9102** Abbe condenser 1,25 NA with slot for darkfield and phase contrast sliders
- BS.9170** Slider with darkfield stop for standard Abbe condenser with slot
- BS.9105** Swing-out Abbe condenser 0.9/1.25 NA

POLARIZATION ATTACHMENTS

- BS.9647** Polarization polarizer Ø 6 mm for slider under bScope® head
- BS.9651** Polarization attachment for lamphouse of bScope® with 360° scale

MISCELLANEOUS

- BS.9993** NeoLED™ replacement unit
- BS.9200-LED/WOO** Epi-Fluorescence illuminator Life science microscopes
- AE.1370** Set of rechargeable AA batteries, three pieces
- AE.5226** Glass fuses 3A 250V, 10pcs

CAMERA ACCESSORIES

- AE.5130** Universal Ø 23.2 mm tube adapter with built-in 2x lens for SLR photo camera with APS-C sensor. Needs T2 adapter
- AE.5025** T2 adapter for Nikon D SLR digital camera
- AE.5040** T2 adapter for Canon EOS SLR digital camera

DISPOSABLES

- PB.5155** Microscope slides 76 x 26 mm, ground edges, 50 pieces
- PB.5165** Cover glasses 18 x 18 mm, thickness 0.13-0.17 mm, 100 pieces
- PB.5168** Cover glasses 22 x 22 mm, thickness 0.13-0.17 mm, 100 pieces
- PB.5245** Lens cleaning paper, 100 sheets per pack
- PB.5255** Immersion oil (25 ml). n = 1.515
- PB.5274** Isopropyl alcohol 99% (200 ml)
- PB.5275** Cleaning kit: lens cleaning fluid, lint free lens tissue/ paper, brush, air blower, cotton swabs
- PB.5276** Microscope maintenance and servicing kit, 16pcs: cleaning brush, 6 pcs screwdriver set, air blower, 3 pcs Allen key, 1.5, 2, 2.5 mm, lens cleaning fluid 20 ml, cleaning cloth 140 x 140 mm, 100 pcs lens tissue sheets, tube of maintenance grease, 10 ml bottle of oil, packed in a nice toolbox

LIFE SCIENCE MICROSCOPES

Delphi-X
observer

NeoLED™
euromex optical technology

Delphi-X Observer™ fluorescence

State-of-the-art microscopes for advanced life science fluorescence applications. The outstanding optical performance of the Delphi-X Observer™ makes it ideal for life science fluorescence applications, where a high performance optical system is required. The larger 22 mm fields of view of the super wide field eyepieces and the high numerical aperture of the plan Fluarex 60 mm parfocal EIS objectives enable perfect observations and color rendering at high resolving power



product information



• DX.3153-PLi

DX.3153-PLi

454 (h) x 260 (w) x 367 mm (d) | 26 kg

DX.3153-PLi/HAL

454 (h) x 260 (w) x 480 mm (d) | 26.5 kg

HIGHLIGHTS

- Trinocular model
- Ergonomic tilting head
- Super wide field SWF 10x/22 mm, Ø 30 mm tubes
- Sextuple reversed nosepiece
- Enhanced infinity corrected EIS optical system
- 60 mm parfocal plan EIS objectives
- 60 mm parfocal plan semi-apochromatic EIS objectives
- M25 objective thread mounting
- 100 W HBO mercury vapor illumination
- 3 W NeoLED™ illumination
- 100 W halogen illumination

SPECIFICATIONS

EYEPIECES

Extended wide field EWF 10x/22 mm, Ø 30 mm tubes

STANDARD HEAD

Siedentopf trinocular head with 30° inclined tubes.

Interpupillary distance adjustable between 47 and 78 mm.

Three position beam splitter (0:100/ 80:20 / 100:0).

Dioptr ± 5 adjustments on both eyepieces

ERGONOMIC TILTING HEAD

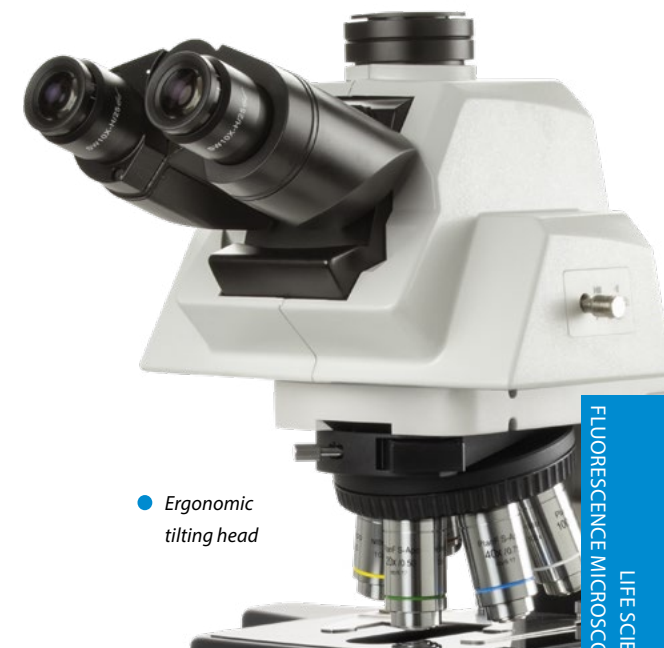
Optional ergonomic 0 to 35° tilting trinocular head supplied with SWF 10x/25 mm eyepieces, interpupillary distance 47-78 mm and photo tube, standard with Ø 23.2 mm tube

NOSEPIECE

Revolving sextuple reversed nosepiece on ball-bearings with 25 mm mounting threads for objectives

MOTORIZED MODEL

The Delphi-X Observer™ can be supplied with a motorized revolving sextuple reversed nosepiece together with a flip-down condenser. A precise step-motor allows the user to switch from objective by a simple push of a button. Another button allows quick switching between two preselected objectives. The electronics memorize automatically the



• Ergonomic tilting head

light intensity levels for each objective after switching. The electronics also automatically flip-out the front lens of the flip-down condenser when the 4x objective is used

ENHANCED INFINITY SYSTEM (EIS)

The enhanced infinity system (EIS) of the Delphi-X Observer™ consists of super wide field SFWF 10x22 mm eyepieces, high numerical aperture 60 mm parfocal objectives and a 200 mm focal length tube lens. This tube lens reduces the angle of the light rays passing through the optics and as a direct result it significantly improves the chromatic aberration corrections and contrast of the images produced. The objectives with larger diameter enable much higher numerical apertures, improving the overall resolving power of the optical system

PLAN ACHROMATIC EIS OBJECTIVES

(clinical routine applications)

The Delphi-X Observer™ is supplied with plan achromatic 4x/0.10, 10x/0.25, 20x/0.40, S40x/0.65 and S100x/1.25 (oil immersion) infinity corrected EIS objectives

Available as an option:

2x/0.06, S50x/0.95 (oil immersion) and S60x/0.80

OBJECTIVES

Plan PLi	2x/0.06*	4x/0.10	10x/0.25	20x/0.40	S40x/0.65	S50x/0.95 oil*	S60x/0.80*	S100x/1.25 oil	S100x/1.25 oil iris*
Plan semi-apo Fluarex		4x/0.13	10x/0.30	20x/0.50	S40x/0.75			S100x/1.30 oil	

All objectives are 60 mm parfocal and have a M25 mounting thread, all optics are anti-fungus treated and anti-reflection coated for maximum light throughput and all S40x, S50x, S60x and S100x objectives are spring loaded
*Optional

PLAN SEMI-APPOCHROMATIC FLUAREX OBJECTIVES

(Anatomo- and histopathology applications)
The Delphi-X Observer™ can also be supplied with plan semi-apochromatic 4x/0.13, 10x/0.30, 20x/0.50, S40x/0.75 and S100x/1.30 (oil immersion) infinity corrected EIS objectives

STAGE

190 x 152 mm stage with 78 x 32 mm integrated right-handed mechanical stage. Supplied with scratch-resistant Gorilla glass. Sapphire scratch-resistant glass is available on request. Left-handed mechanical stage is available on request

FOCUSING

Coaxial coarse and fine adjustment, 100 graduations, 1 µm precision, 100 µm per rotation, total travel range is approximately 35 mm. Supplied with an adjustable rack stop to prevent damage to sample and objectives. The coarse adjustments are equipped with friction control. The focusing knobs can be switched from left to right according to the user's preference

CONDENSER FOR BRIGHTFIELD

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

ILLUMINATION FOR FLUORESCENCE

The attachment for fluorescence of the Delphi-X Observer™ is equipped with a rotating block which can contain up to six filter cubes and supplied with 100 W HBO mercury vapor light source for a broad powerful light spectrum

DIASCOPIC ILLUMINATIONS

Two Köhler illuminations are available for the Delphi-X Observer™ microscope:

- Diascopic intensity adjustable 3 W NeoLED™ Köhler illumination with internal 100-240 V power supply
- Diascopic intensity adjustable 100 W halogen Köhler illumination with internal 100-240 V power supply
- The diascope halogen illumination comes with two push-in/push-out neutral density filters for smooth attenuation of the light intensity for all kind of samples. The diascope NeoLED™ illumination comes with one neutral density filter

LIGHT INTENSITY MEMORY FUNCTION

The electronics memorize automatically the light intensity levels for each objective after switching. The electronics also automatically flip out the front lens of the flip-down condenser when the 4x objective is used. Optionally available, only for a new Delphi-X Observer

NEOLED™

The innovative NeoLED™ design is a combination of a custom LED and a specially designed thin lens with a short focal length in order to obtain three main benefits:

- More oblique light from the LED light source can be captured, which increases the light output significantly
- Less energy is required to achieve this level of light intensity
- The larger aperture of NeoLED™ allows the optical system to produce images at higher resolutions, very close to the theoretical diffraction limit of the optics

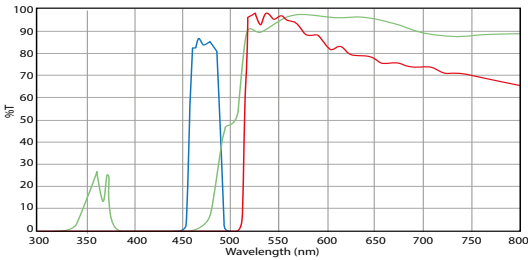
ICARE SENSOR

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

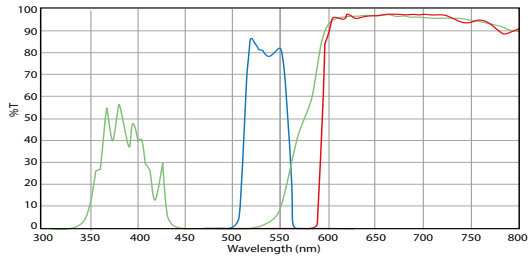
STANDARD GENERAL PURPOSE FLUORESCENCE FILTER SETS

Supplied with standard fluorescence filter sets for blue excitation (EX460-495 DM505 EM510LP) and green excitation (EX510-550 DM570 EM750LP), UV shield and external power supply. Optional: fluorescence filter sets for UV excitation (EX330-385 DM400 EM420LP) and violet excitation (EX400-410 DM455 EM460LP). On special request, the microscope can also be supplied with optimized and zero-pixel shift optimized filter sets on request. See end of this chapter

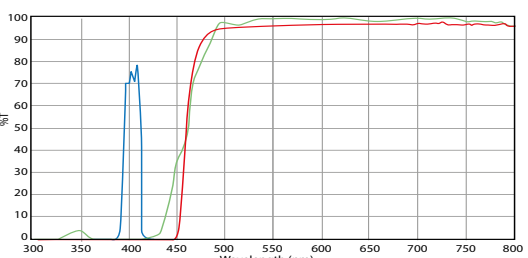
BLUE EXCITATION (DX.9745)



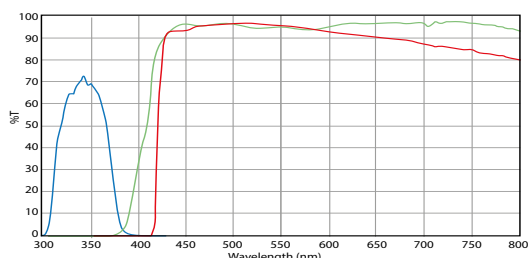
GREEN EXCITATION (DX.9746)



VIOLET EXCITATION (DX.9747)



ULTRA-VIOLET EXCITATION (DX.9748)



Other with more specific and optimized and application related fluorescence filter sets are also available

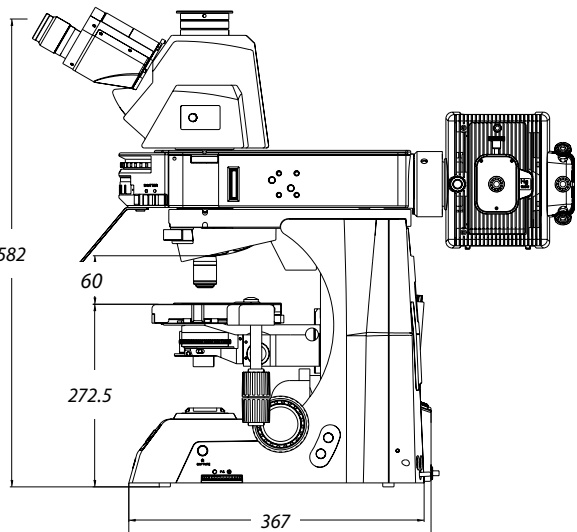
CARRYING GRIP

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

PACKAGE CONTENT

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

DIMENSIONS



DELPHI-X OBSERVER FOR FLUORESCENCE WITH TRINOCULAR HEAD

MODELS	SWF 10x/22 mm eyepieces	Plan 4/10/20/S40/ S100x oil EIS objectives	Plan semi-apo Fluarex 4/10/20/ S40/S100x oil EIS objectives	3 W NeoLED™ illumination	100 W Halogen illumination
DX.3153-PLi	•	•		•	
DX.3153-APLi	•		•	•	
DX.3153-PLi/HAL	•	•			•
DX.3153-APLi/HAL	•		•		•

FOR ORDERING MOTORIZED MODELS

Substitute the third digit 5" of the model reference with the digit 7". Example: DX.1173-PLi = DX.1153-PLi model but with motorized nosepiece, flip-down condenser and automatic light control

FOR ORDERING LIGHT INTENSITY MEMORY FUNCTION ONLY

Substitute the third digit 5" of the model reference with the digit 8". Example: DX.1183-PLi = DX.1153-PLi model but with automatic light control

ACCESSORIES AND SPARE PARTS

EYEPIECES

- DX.6210** Super wide field SWF 10x/22 mm eyepiece for Ø 30 mm tube
- DX.6210-CM** Super wide field SWF 10x/22 mm eyepiece with micrometer and crosshairs for Ø 30 mm tube
- DX.6210-SG** Super wide field SWF 10x/22 mm eyepiece with 20 x 20 square grid reticle. For Ø 30 mm tube
- DX.6012** Wide field WF 12.5x/17.5 mm eyepiece for Ø 30 mm tube
- DX.6015** Wide field WF 15x/16 mm eyepiece for Ø 30 mm tube
- DX.6020** Wide field WF 20x/12 mm eyepiece for Ø 30 mm tube
- DX.6099-L** Eyecup for eyepieces

- DX.7260** 60 mm plan PLi S60x/0.80 objectives. WD 0.3 mm
- DX.7200** 60 mm plan PLi S100x/1.25 oil immersion objective. WD 0.2 mm
- DX.7200-I** 60 mm plan PLi S100x/1.25 oil immersion objective with built-in iris diaphragm. WD 0.2 mm
- DX.7304** 60 mm plan semi-apochromatic PLi-apo Fluarex 4x/0.13 objective. WD 16.5 mm
- DX.7310** 60 mm plan semi-apochromatic PLi-apo Fluarex 10x/0.30 objective. WD 8.1 mm
- DX.7320** 60 mm plan semi-apochromatic PLi-apo Fluarex 20x/0.50 objective. WD 2.1 mm
- DX.7340** 60 mm plan semi-apochromatic PLi-apo Fluarex S40x/0.75 objective. WD 0.7 mm
- DX.7300** 60 mm plan semi-apochromatic PLi-apo Fluarex S100x/1.30 oil immersion objective. WD 0.15 mm

WD = working distance

MISCELLANEOUS

- DX.9501-R** Stage with Gorilla glass. Right handed
- DX.9501-L** Stage with Gorilla glass. Left handed
- DX.9504-R** Stage with Sapphire glass. Right handed
- DX.9504-L** Stage with Sapphire glass. Left handed

- DX.9501-LG** Option* for left handed stage with Gorilla glass
- DX.9504-RS** Option* for right handed stage with Sapphire glass
- DX.9504-LS** Option* for left handed stage with Sapphire glass
- SL.1385** 100 W HBO mercury vapor lamp for fluorescence

* Option mounted only on new Delphi-X Observer™ microscopes (resp. DX.xx5x-xxx/RS and DX.xx5x-xxx/LS)

CONDENSERS

- DX.9105** Abbe condenser with 0.9/1.25 swing-out front lens
- DX.9110** Dry darkfield condenser
- DX.9112** Oil immersion darkfield condenser

CAMERA ACCESSORIES

- DX.9810** C-mount with 1 magnification for C-mount camera
- DX.9835** C-mount with high resolution relay 0.35x objective for 1/3 inch C-mount camera
- DX.9850** C-mount with high resolution relay 0.50x objective for 1/2 inch C-mount camera
- DX.9863** C-mount with high resolution relay 0.63x objective for 2/3 inch C-mount camera
- AE.5130** Universal SLR adapter with built-in 2x lens for standard 23.2 mm tube. Needs T2 adapter
- AE.5025** T2 adapter for Nikon D SLR digital camera
- AE.5040** T2 adapter for Canon EOS SLR digital camera

MISCELLANEOUS

- DX.9660** Simple polarization kit
- DX.9662** Special polarization kit for gout
- DX.9704** Yellow filter for lamphouse, diameter 45 mm
- DX.9960** 100 W 24 V halogen bulb (revision 1 models)
- DX.9961** 100 W 12 V halogen bulb (revision-2 models)
- DX.9993** 3 Watt LED replacement
- AE.5214** 500 mA 250 V fuses for LED models, 10pcs
- AE.5216** 5 A 250 V fuses for halogen models, 10pcs



DX.9112 Oil immersion darkfield condenser

DISPOSABLES

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



DX.9501-L Stage with Gorilla glass. Left handed



LIFE SCIENCE MICROSCOPES

Oxion

NeoLED™
euromex optical technology

Oxion

OX.3230

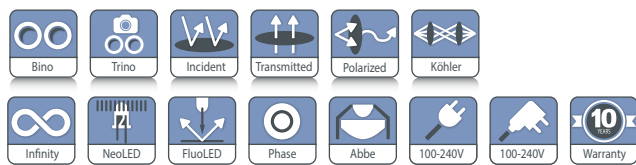
Oxion

fluorescence with FluoLED

The Oxion FluoLED comes 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 470 and 560 nm wavelengths are also available. The Oxion fluorescence microscopes are intended for professionals in life science applications, university labs and research centers



product information



OX.3230

454 (h) x 185 (w) x 294 mm (d) | 8.7 kg

HIGHLIGHTS

- Binocular and trinocular models
- HWF 10x/22 mm eyepieces
- Reversed nosepiece for a maximum of five 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 with single filter block and 455 nm (blue), 470 nm (green) or 560 nm (UV) incident illumination
- Ergonomic stand and head
- 10 Years warranty

SPECIFICATIONS

EYEPIECES

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

HEAD

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

NOSEPIECE

Revolving and reversed nosepiece for a maximum of five objectives

OBJECTIVES

- Plan 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



Close up of the OX.3230

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 μ m per graduation, 200 μ m per rotation, total travel range is 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 76 x 50 mm X-Y mechanical stage

A ceramic stage is also available on request

CONDENSER FOR BRIGHTFIELD

Height adjustable Abbe condenser N.A. 1.25 with iris diaphragm. Supplied with a white diffusion filter. A darkfield 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 a field diaphragm

ILLUMINATION FOR BRIGHTFIELD

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 (LED)

The FluoLED attachment is standard delivered with a **455 nm LED** (EX 425-475, DM 480, EM 485 LP filter set) for detection of tuberculosis with Auramine-O fluorochrome. FluoLED attachments with **365 nm LED** (EX 340-390, DM 400, EM 420 LP filter set, DAPI), **470 nm LED** (EX 450-490, DM 495, EM 500-525 filter set, FITC/GFP/eGFP) and **560 nm LED** (EX 540-580, DM 585, EM 608-690 filter set, TexasRed) are also available. On special request, the microscope can also be supplied with optimized and zero-pixel shift optimized filter sets on request. See end of this chapter

PACKAGE CONTENT

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

MODELS	Binocular	Trinocular	Plan 4x/10x/S40x/S100x objectives	Plan semi apo Fluarex 4x/10x/S40x/S100x objectives	455 nm FluoLED illumination
OX.3230	•		•		•
OX.3235		•	•		•
OX.3232	•			•	•
OX.3237		•		•	•

ACCESSORIES AND SPARE PARTS

EYEPIECES

- AE.3210** HWF 10x/22 mm eyepiece
- AE.3215** HWF 15x/13 mm eyepiece
- AE.3223** HWF 10x/22 mm eyepiece with 10 mm/100 micrometer
- AE.3225** Pair of eyecups

OBJECTIVES

- AE.3102** Plan 2x/0.06 IOS objective. WD 5 mm
- 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

- IS.7400** Plan Fluarex PLFi S100x/1,30 IOS infinity corrected objective. 0.17 mm cover glass correction. WD 0.13 mm
- AE.3144** Plan semi apochromatic Fluarex 4x/0.13 IOS objective. WD 18.5 mm
- AE.3146** Plan semi apochromatic Fluarex 10x/0.30 IOS objective. WD 10.6 mm
- AE.3148** Plan semi apochromatic Fluarex 20x/0.50 IOS objective. WD 2.33 mm
- AE.3152** Plan semi apochromatic Fluarex S40x/0.75 IOS objective. WD 0.6 mm
- AE.3156** Plan semi apochromatic Fluarex S100x/1.28 oil immersion IOS objective. WD 0.21 mm

WD = working distance

POLARIZATION ATTACHMENTS

- AE.3190** Polarizer/analyzer set
- AE.3192** Polarizer slider for nosepiece
- AE.3194** Polarizer for lamphouse

FILTERS

- AE.3196** Frosted white filter 45 mm, to be mounted on lamphouse
- AE.3198** Blue filter 45 mm, to be mounted on lamphouse
- AE.3200** Yellow filter 45 mm, to be mounted on lamphouse
- AE.3202** Green filter 45 mm, to be mounted on lamphouse

CAMERA ACCESSORIES

- AE.5120-2** Standard 23.2 mm diameter tube for Oxion photo port revision-2
- 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
- OX.9850** CS/C mount with 0.5x objective for 1/2" sensor cameras
- OX.9833** CS/C mount with 0.33x objective for 1/3" sensor cameras

MISCELLANEOUS

- AE.5168-O** Heating stage and temperature controller up to 50°C. Only with new microscopes
- SL.5510** NeoLED™ replacement unit for Oxion
- AE.3199** Glass fuses 3.15 A 250 V, 10 pieces



● AE.3194 Polarizer for lamphouse



● AE.3192 Polarizer slider

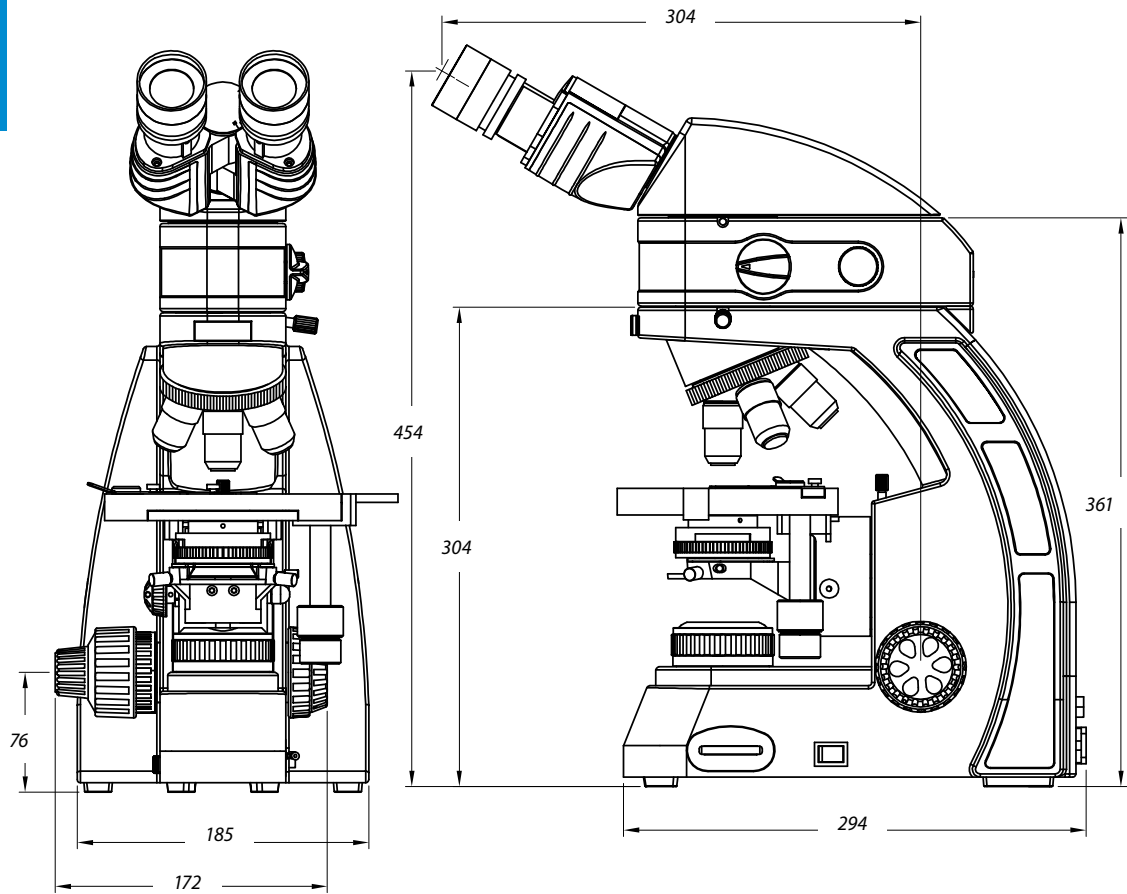


● AE.5168-O Heating stage and temperature controller

DISPOSABLES

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

DIMENSIONS



about
fluorescence

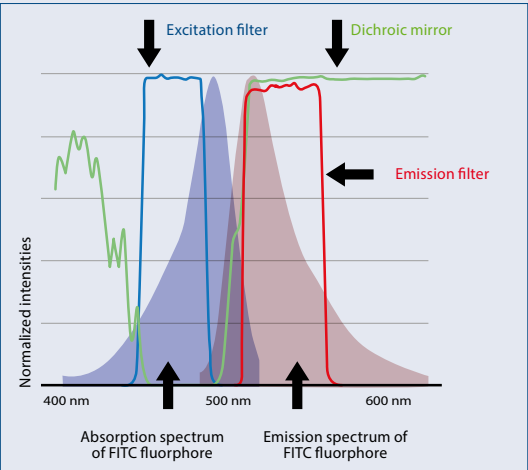
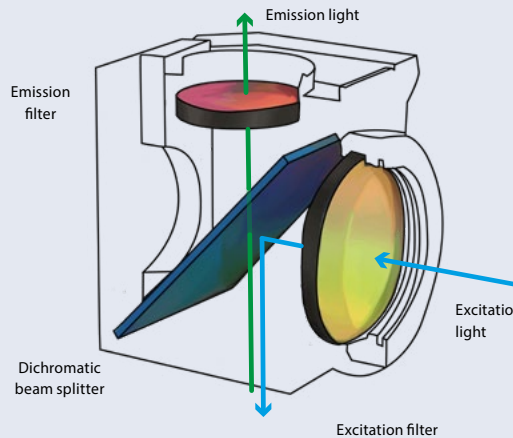
It took many years - since the discovery by Osamu Shimomura of the first proteins aequorin and green fluorescent protein (GFP) in the bio-luminescent jellyfish *Aequorea Victoria* around the sixties - to develop a specific fluorescence microscope for live-cell imaging which permits essential progress in medical and biological sciences. Today it has become an important tool in Life and Materials Sciences

INTRODUCTION TO FLUORESCENCE
MICROSCOPY

Fluorescence is the phenomenon of subsequent specific emission of photons by a fluorophore (chemical compound) after the absorption of specific excitation photons. Fluorophores are used as a dye for staining cells, tissues or materials that can be observed as markers under a fluorescence microscope

DESIGN OF A FLUORESCENCE
MICROSCOPE

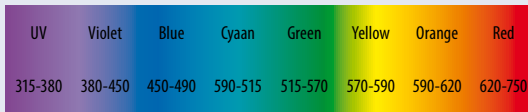
The basic function of a fluorescence microscope is to bring specific excitation" wavelengths to a stained specimen (with a specific fluorophore) and to catch the subsequent weak emission wavelengths in order to visualize the fluorescent structures on the retina of the eyes or on an imaging camera



The excitation light of a microscope for fluorescence is provided with either a mercury vapor light source or a monochrome LED. The selection of the specific fluorophore excitation light is done by a so-called emission interference filter that is mounted in a cube together with a dichroic mirror (beam splitter) and the emission filter. The filtered excitation light is further reflected by the dichroic mirror through the objectives towards the sample

The fluorophore(s) inside the specimen will absorb this excitation energy with some efficiency (quantum yield) and will start re-emitting the so-called emission energy, visible light with longer wavelengths than the absorbed light.

The emission light from the specimen that fluoresces will be collected by the objective, pass the dichroic mirror and is separated from excitation and other unwanted light wavelengths by the emission filter. The filtered emission light is further projected to the eyepieces or/and camera imaging sensor



LIFE SCIENCE MICROSCOPES

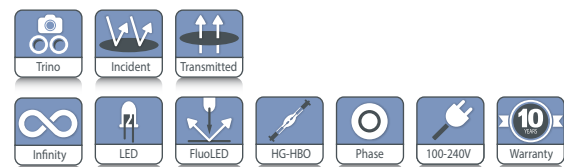
Delphi-X
inverso

Delphi-X Inverso™ fluorescence

The Delphi-X Inverso™ for fluorescence is an inverted microscope for the professional who needs to observe tissues or cells stained with fluorescence dyes. Super contrast semi-apochromatic Fluarex™ objectives with collar adjustment ring assure perfect observation of cells or tissues in 1.2 mm thick Petri dishes or flasks



product information



● DI.3053-PLPHFi

DI.1053-PLPHFi
665 (h) x 276 (w) x 800 mm (d) | 36.0 kg

HIGHLIGHTS

- Life science applications
- Observation of fluorescence in tissues and cells
- Brightfield, phase contrast fluorescence observations
- DIC (differential interference contrast)
- Long working distance IOS plan semi-apochromatic Fluarex achromatic objectives
- Revolving sextuple nosepiece
- 5 W LED or 100 W halogen transmitted illumination
- 100 W HBO mercury vapor fluorescence illumination
- Backwards tilting condenser arm
- Easy placement of large objects
- 10 Years warranty



● Filter cubes
with fluorescence filters

SPECIFICATIONS

EYEPIECES

Pair of HWF plan 10x/25 mm or 10x/22 mm eyepieces with diopter adjustment

HEAD

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

NOSEPIECE

Revolving sextuple nosepiece on ball-bearings

OBJECTIVES

High numerical infinity semi-apochromatic long working distance plan phase Fluarex PLPHFi 10x/0.30, 20x/0.45, S40x/0.60 IOS objectives enable the sub-cellular structures. An optional 60x/0.80 IOS objective is also available. The 20x, S40x and optional S60 objectives are equipped with collar adjustment ring for glass thicknesses from 0 to 1.2 mm *Fluarex™ objectives are made of low-absorption glass. Fluarex™ is a trademark of Euromex microscopen bv. All optics are anti-fungus treated and anti-reflection coated for maximum light throughput*

STAGE

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

- Metal insert for O 38 mm cell culture dish
- Metal insert for O 54 mm cell culture dish or 76 x 26 mm slides
- Metal insert for Multiwell plates (127.76 x 85.48 mm)
- Metal insert for Teraski plates (83.3 x 58.0 mm)
- Optional universal cell culture holder

CONDENSER

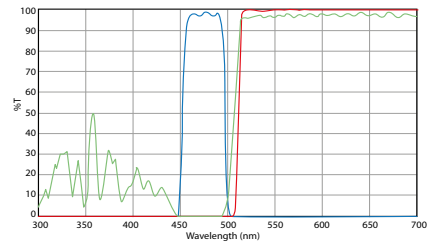
Rotating N.A. 0.55 condenser with iris diaphragm. Working distance 26 mm. Supplied with phase contrast annuli for 10x/20x, 40x and 60x objectives and the DIC prisms for the 10x/20x/40x and 60x objectives. Three filter holders allow the insertion of Ø 38 mm filters in the optical path. The arm with condenser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

LENS CHANGER

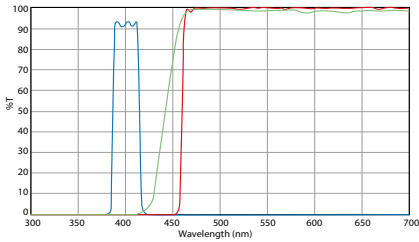
A lens changer with a 1.5x lens allow intermediary magnifications of 1.5 times the standard objective magnifications. Switching from 20x to 30x or 40 to 60 and from 60x to 90x magnification can be done without the need to re-focus on the sample

FLUORESCENCE ATTACHMENT

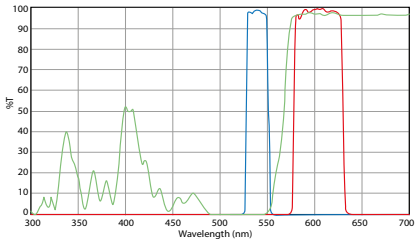
The Delphi-X Inverso for fluorescence microscopy is supplied with a 6-position fluorescence filter set wheel and comes with two fluorescence filter sets for blue and green excitation



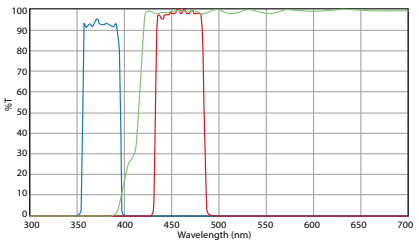
● *DI.9745 Blue excitation*
EX 460-495 DM 505 EM 510 long pass



● *DI.9747 Violet excitation*
EX 400-410 DM 455 EM 460 Long pass

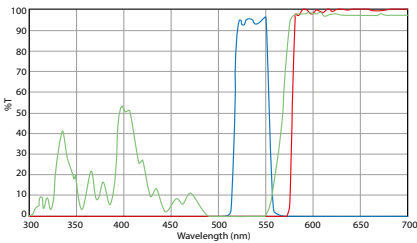


● *DI.9750.TRITC Green excitation*
EX 528-553 DM 565 EM 578-633 band pass

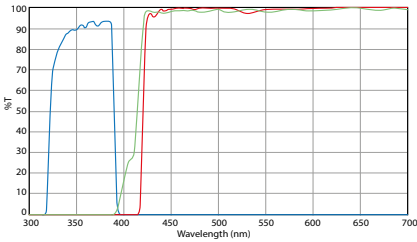


● *DI.9750.DAPI UV excitation*
EX 360-390 DM 415 EM 435-485 band pass

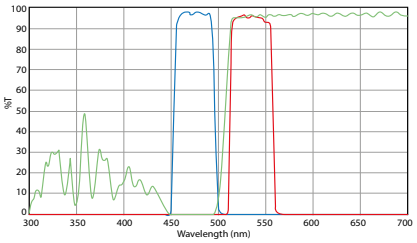
(DI.9745 and DI.9746). On special request, the microscope can also be supplied with optimized and zero-pixel shift optimized filter sets on request. See end of this chapter



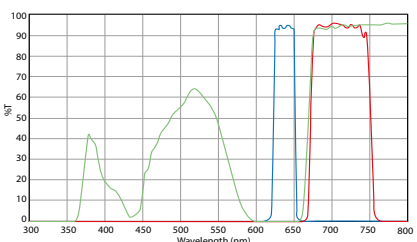
● *DI.9746 Green excitation*
EX 510-550 DM 570 EM 575 long pass



● *DI.9748 Ultra violet excitation*
EX 330-385 DM 410 EM 420 Long pass



● *DI.9750.FITC Blue excitation*
EX 460-495 DM 505 EM 510-550 band pass



● *DI.9750.R Red excitation*
EX 620-650 DM 660 EM 670-750 band pass

FOCUSING ADJUSTMENT

Coaxial 10 mm coarse and fine adjustments, 1 µm precision and with friction adjustment

ILLUMINATION

Fluorescence illumination with a 100 W mercury vapor lamp with external 100-240 V power supply. Transmitted 5 W LED or 100 W halogen illumination and internal power supply. Fuse holder 3.15 A / 250 V

MODELS	10x/20x/40x PLPHFi objectives	100 W Halogen illumination	5 W LED illumination	100 W HBO fluorescence illumination
DI.3053-PLPHFi	•		•	•
DI.3053-PLPHFi/HAL	•	•		•



● 6-Position fluorescence filter set wheel and 1.5 lens changer

PACKAGE CONTENT

Supplied with metal insert for Ø 38 mm cell culture dish and a metal insert for Ø 54 mm cell culture dish with 76 x 26 mm slides, metal insert for Multiwell plates, metal insert for Teraski plates, blue and green interference Ø 45 mm filters, power cord, dust cover, green filter and alignment telescope and user manual



ACCESSORIES AND SPARE PARTS

EYEPIECES

- DI.6010** Super wide field SWF 10x/25 mm eyepiece
- DI.6010-C** Super wide field SWF 10x/25 mm eyepiece with crosshairs
- DI.6010-M** Super wide field SWF 10x/25 mm eyepiece with micrometer
- DI.6010-CM** Super wide field SWF 10x/25 mm eyepiece with micrometer and crosshairs
- DI.6010-SG** Super wide field SWF 10x/25 mm eyepiece with 20 x 20 square grid reticle
- DI.6012** Wide field WF 12.5x/17.5 mm eyepiece
- DI.6015** Wide field WF 15x/16 mm eyepiece
- DI.6020** Wide field WF 20x/12 mm eyepiece
- DI.6099-L** Eyecups for eyepiece

OBJECTIVES

- DI.8604** Infinity Plan Semi-Apochromatic Fluarex PLPHFi-Apo 4x/0.13 IOS objective, working distance 17 mm. Recommended for fluorescence. M25 mounting thread
- DI.8610** Infinity Plan Semi-Apochromatic Fluarex PLPHFi-Apo 10x/0.30 IOS objective, working distance 7.4 mm. Cover glass correction 1.2 mm. Recommended for DIC and fluorescence. M25 mounting thread
- DI.8620** Infinity Plan Semi-Apochromatic Fluarex PLPHFi-Apo 20x/0.45 IOS objective, working distance 8 mm. Cover glass correction 1.2 mm. Recommended for DIC and fluorescence. M25 mounting thread

- DI.8640** Infinity Plan Semi-Apochromatic Fluarex PLPFI-Apo 40x/0.60 IOS objective, working distance 3.3 mm. Cover glass correction 1.2 mm. Recommended for DIC and fluorescence. M25 mounting thread
- DI.8660** Infinity Plan Semi-Apochromatic Fluarex PLPFI-Apo 60x/0.70 IOS objective, with collar ring for adjustment of working distance 01 - 1.3 mm. Recommended for fluorescence. M25 mounting thread
- DI.8710** Infinity semi-apochromatic long working distance plan phase Fluarex PLPHFi 10x/0.30, IOS objective PLPHi 10x/0.30 objective. WD 10.2 mm
- DI.8720** Infinity semi-apochromatic long working distance plan phase Fluarex PLPHFi 20x/0.45 objective. WD 7.5 to 8.8 mm
- DI.8740** Infinity semi-apochromatic long working distance plan phase Fluarex PLPHFi S40x/0.60 IOS objective. WD 3 to 4.4 mm

WD = working distance

DIFFERENTIAL INTERFERENCE CONTRAST

- DI.9690-00** DIC prism with polarizer for condenser. To be used with Plan Semi-Apo 20/40x objectives
- DI.9690-10** DIC prism with polarizer for condenser. To be used with Plan Semi-Apo 10x objective
- DI.9693-10** DIC prism for nosepiece to be used with Semi-Apo 10x objective
- DI.9693-20** DIC prism for nosepiece to be used with Semi-Apo 20x objective
- DI.9693-40** DIC prism for nosepiece to be used with Semi-Apo 40x objective
- DI.9698** DIC analyzer for nosepiece

STANDARD GENERAL PURPOSE FLUORESCENCE FILTER SETS

Long pass type:

- DI.9745** Fluorescence filter block for blue excitation with excitation at 460 to 495 nm, dichroic mirror at 505 nm and emission long pass filter from 510 nm
- DI.9746** Fluorescence filter block for green excitation with excitation at 510 to 550 nm, dichroic mirror at 570 nm and emission long pass filter from 575 nm
- DI.9747** Fluorescence filter block for violet excitation with excitation at 400 to 410 nm, dichroic mirror at 455 nm and emission long pass filter from 460 nm
- DI.9748** Fluorescence filter block for ultra violet excitation with excitation at 330 to 385 nm, dichroic mirror at 410 nm and emission long pass filter from 420 nm
- DI.9749** Empty cube for Delphi-X Inverso Fluorescence attachment

Band-pass type

- DI.9750.TRITC** Fluorescence filter block for blue excitation with excitation at 528 to 553 nm, dichroic mirror at 565 nm and emission band pass filter at 578 to 633 nm. Suitable for TRITC
- DI.9750.FITC** Fluorescence filter block for green excitation with excitation at 460 to 495 nm, dichroic mirror at 505 nm and emission band pass filter at 510 to 550 nm. Suitable for FITC
- DI.9750.DAPI** Fluorescence filter block for ultraviolet excitation with excitation at 360 to 390 nm, dichroic mirror at 415 nm and emission band pass filter at 435 to 485 nm. Suitable for DAPI
- DI.9750.RED** Fluorescence filter block for red excitation with excitation at 620 to 650 nm, dichroic mirror at 660 nm and emission band pass filter at 670 to 750 nm

CAMERA ACCESSORIES

- DI.9810** C-mount with 1x magnification for C-mount camera
- DI.9840** C-mount with high resolution 0.40x objective for 1/3 inch C-mount camera
- DI.9850** C-mount with high resolution relay 0.50x objective for 1/2 inch C-mount camera

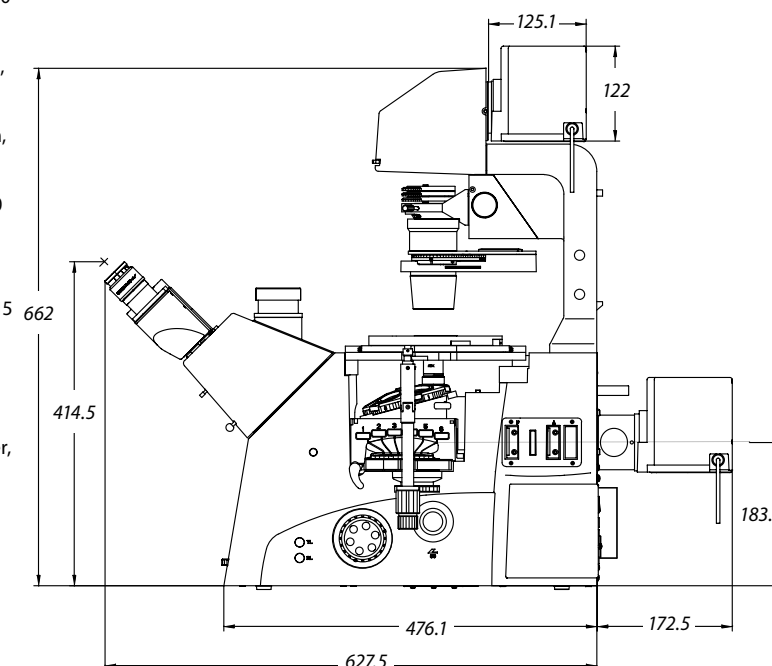
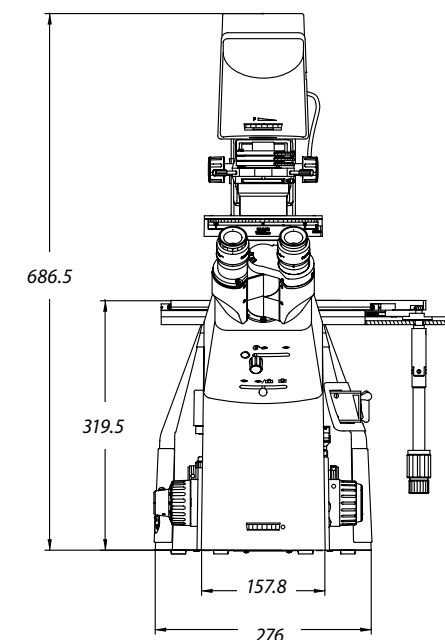
MISCELLANEOUS

- DI.9961** 100 Watt 12 V halogen bulb
- DI.9997** 5 Watt LED replacement
- AE.5214** 500 mA 250 V fuses for LED models, 10pcs
- AE.5216** 5 A 250 V fuses for halogen models, 10pcs
- SL.1385** 100 W HBO mercury vapor lamp for fluorescence

DISPOSABLES

- PB.5155** Microscope slides 76 x 26 mm, ground edges, 50 pieces per pack
- PB.5157-W** Microscope slides 76 x 26 mm, ground edges and frosted side white color, 50 pieces per pack
- PB.5157-B** Microscope slides 76 x 26 mm, ground edges and frosted side blue color, 50 pieces per pack
- PB.5165** Cover glasses 18 x 18 mm, 0.13-0.17 mm, 100 pieces
- PB.5168** Cover glasses 22 x 22 mm, 0.13-0.17 mm, 100 pieces
- PB.5245** Lens cleaning paper, 100 sheets per pack
- PB.5255** Immersion oil, 25 ml. Refraction index $n = 1.515$
- PB.5274** Isopropyl alcohol 99%, 200 ml
- PB.5275** Cleaning kit: lens fluid, lint free lens tissue/paper, brush, air blower, cotton swabs

DIMENSIONS



- Life science applications
- Observation of tissue cultures, living cells
- Brightfield and phase contrast 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.2253-PLPHF

Oxion Inverso fluorescence

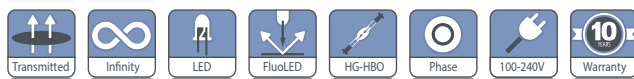
The Oxion Inverso inverted microscopes for fluorescence are useful for observation of living organisms and tissue cultures in cell culture dishes and flasks

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

OX.2453-PLPHF



product information



Oxion Fluorescence OX.2453-PLPHF
488 (h) x 230.5 (w) x 728 mm (d) | 14.3 kg

SPECIFICATIONS

EYEPIECES

Pair of HWF plan 10x/22 mm eyepieces

HEAD

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 0-100 % beamsplitter

NOSEPIECE

Revolving quintuple nosepiece on ball-bearings

OBJECTIVES FOR BRIGHTFIELD AND FLUORESCENCE MICROSCOPY

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

Infinity color corrected long working distance plan Fluarex 10x/0.30, 20x/0.45, 40x/0.65 IOS objectives. An optional plan Fluarex 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 Fluarex 10x/0.30 and plan phase Fluarex 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

ICSI SET

Micromanipulator with two 3D hydraulic joysticks for Intracytoplasmic sperm injection is available for the Oxion Inverso fluorescence. See chapter 4

STAGE

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

- Stage extension plate
- Metal insert for Ø 65 mm cell culture dish or Multiwell
- Metal insert for 76 x 26 mm slides and 54 mm cell dish (only for models with X-Y stage)
- Glass insert with Ø 30 mm hole
- Optional universal cell culture holder



● Accessories supplied with models with mechanical stage

CONDENSER

N.A. 0.30 condenser with iris diaphragm.
Working distance 72 mm

The models for the phase contrast OX.2253-PLPHF and OX.2453-PLPHF are supplied 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, Ø 45 mm

STANDARD FLUORESCENCE FILTERS

(for fluorescence models)

The fluorescence models OX.2253-PLF and OX.2253-PLPHF are come with two filter sets for excitation:

- In the blue spectrum,
OX.9745, EX465-495 (BP) DM505 (LP) EM515-555 (BP)
- In the green spectrum,
OX.9746, EX540-580 (BP) DM600 (LP) EM605-665 (BP)

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

- In the blue spectrum,
OX.9745, EX465-495 (BP) DM505 (LP) EM515-555 (BP)
- In the green spectrum,
OX.9746, EX540-580 (BP) DM600(LP) EM605-665 (BP)
- In the UV spectrum,
OX.9747, EX361-389 (BP) DM415 (LP) EM435-485 (BP)

On special request, the microscope can also be supplied with optimized and zero-pixel shift optimized filter sets on request. See end of this chapter

PACKAGE CONTENT

Supplied with metal insert with Ø 25 mm hole, metal insert for Ø 35 mm cell culture dish, blue LBD and green 550 nm interference Ø 45 mm filter, power cord, dust cover and user manual. Phase contrast models are supplied with 4x/10x and 20x/40x phase contrast annuli in slider, green filter and alignment telescope



● Standard accessory

MODELS	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.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

PLAN FLUAREX OBJECTIVES FOR
BRIGHTFIELD AND FLUORESCENCE⁽¹⁾

- OX.8604** PL FL LWD 4x/0.13 IOS objective, WD 18.95 mm
- OX.8610** PL FL LWD 10x/0.30 IOS objective, WD 7.27 mm
- OX.8620** PL FL LWD 20x/0.45 IOS objective, WD 6.03 mm
- OX.8640** PL FL LWD 40x/0.65 IOS objective, WD 1.79 mm
- OX.8660** PL FL LWD 60x/0.75 IOS objective, WD 1.28 mm

OBJECTIVES FOR FLUORESCENCE AND
PHASE CONTRAST^{(1) (2) (3)}

- OX.8720** Plan Phase Fluarex LWD 20x/0.45 infinity corrected IOS objective. WD 6.12 mm
- OX.8740** Plan Phase Fluarex LWD 40x/0.65 infinity corrected IOS objective. WD 1.79 mm

⁽¹⁾ All objectives corrected for 1 mm cover glass thickness except OX.8304

⁽²⁾ Phase contrast objectives require slider with phase contrast annuli OX.9163

⁽³⁾ Phase contrast objectives require slider with phase contrast annuli OX.9163

All optical parts are anti-fungus treated
WD = working distance

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 540-580 nm
- OX.9747** Fluorescence filter block for ultra violet excitation 361-389 nm
- OX.9748** Fluorescence filter block for violet excitation 415-445 nm

PHASE CONTRAST ATTACHMENTS

- OX.9148** Telescope for phase contrast fluorescence alignment
- OX.9149** Telescope for phase contrast alignment
- OX.9190** Slider with 4x/10x and 20x/40x phase contrast annuli

CAMERA ACCESSORIES

- OX.9810** 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.5120-2** Trinocular 23.2 mm tube for Oxion photo port revision-2
- AE.5130** Universal SLR camera adapter with 2x projection lens for 23.2 mm tubes. Needs T2 adapter and AE.5120 or AE.5120-2

- AE.5025** T2 adapter for Nikon D digital SLR cameras
AE.5040 T2 adapter for Canon EOS digital SLR cameras

STAGES AND HOLDERS

- OX.9500** Mechanical coaxial X-Y 120 x 78 mm stage
OX.9506 Transparent glass insert with Ø 30 mm hole
OX.9508 Metal insert with Ø 25 mm hole
OX.9510 Metallic insert for Ø 65 mm cell culture dish and Multiwell
OX.9512 Metal insert with 76 x 26 mm slide holder and Ø 55 mm cell culture dish holder
OX.9535 Metal insert for Ø 35 mm cell culture dish holder
OX.9550 Stage extension plate
OX.9599 Universal cell culture dish holder
AE.8010 Heating stage with transparent glass plate for AE.8000 Micromanipulator, including digital temperature controller



● OX.9599

MICROMANIPULATOR ATTACHMENT

- AE.8000** Micromanipulator for intracytoplasmic sperm injection (ICSI) suitable for the Oxion Inverso inverted microscope

MISCELLANEOUS

- OX.9700** Blue filter Ø 45 mm
OX.9985 5 W NeoLED™ replacement unit
AE.3199 Glass fuses 3.15 A 250 V packed, per 10 pieces
SL.1385 100 W HBO mercury vapor lamp for fluorescence
OX.9703 IR cut-off filter
OX.9749 Empty filter block
OX.9753 Filter block rail, three positions, without filters
OX.9754 Filter block rail, four positions, without filters

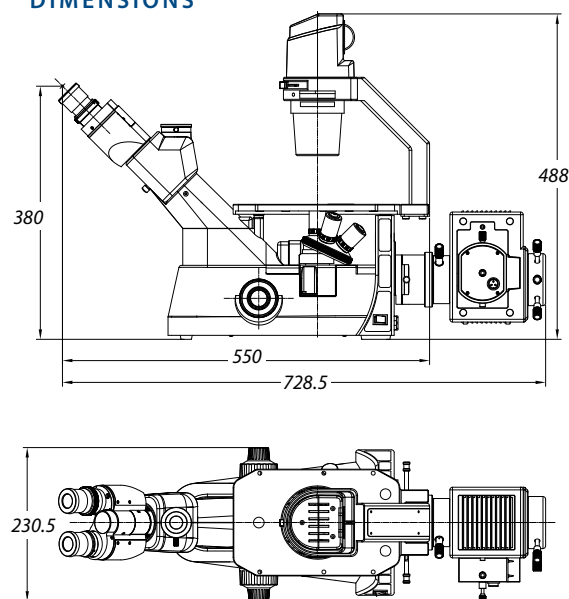
DISPOSABLES

- PB.5155** Microscope slides 76 x 26 mm, ground edges, 50 pieces
PB.5165 Cover glasses 18 x 18 mm, thickness 0.13 - 0.17 mm, 100 pieces
PB.5168 Cover glasses 22 x 22 mm, thickness 0.13 - 0.17 mm, 100 pieces
PB.5245 Lens cleaning paper, 100 sheets per pack
PB.5255 Immersion oil, n = 1.482 (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

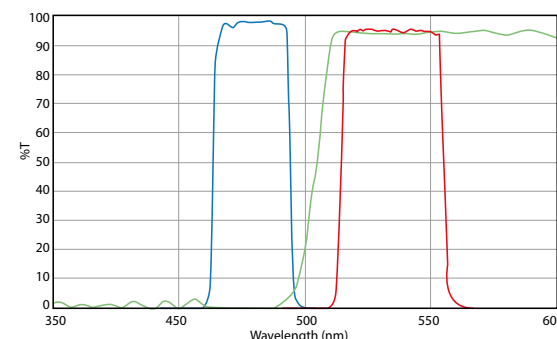


● Accessories supplied with phase contrast models

DIMENSIONS

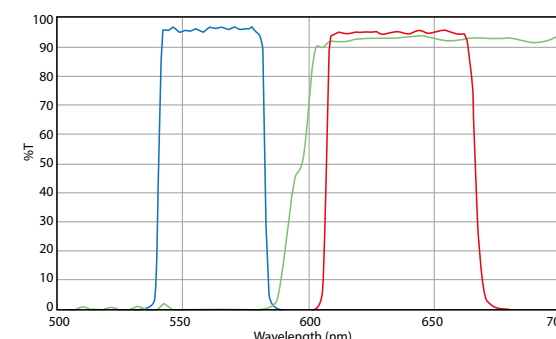


STANDARD GENERAL PURPOSE FLUORESCENCE FILTER SETS



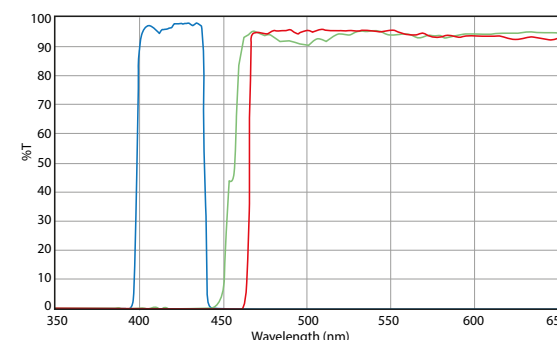
● **OX.9745 Blue excitation 465-495 nm**
 FITC EX465-495 (BP) DM505 (LP) EM515-555 (BP)

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



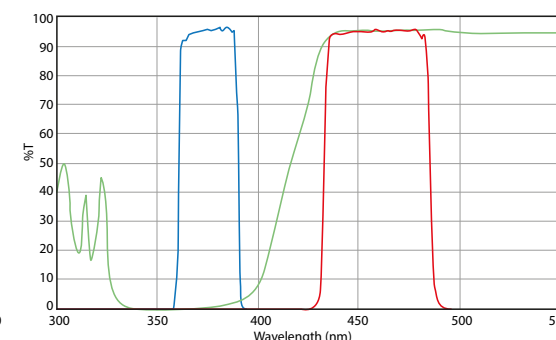
● **OX.9746 Green excitation 540-580 nm**
 Texas Red / mCherry / Alexa Fluor 594
 EX540-580 (BP) DM600 (LP) EM605-665 (BP)

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.9747 Ultra-Violet excitation 361-381 nm**
 DAPI / Hoechst / Alexa Fluor 350
 350 EX361-389 (BP) D415 (LP) EM435-485 (BP)

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



● **OX.9748 Violet excitation 415-445 nm**
 UV/DAPI/Hoechst/AlexaFluor 350
 EX415-445 (BP) DM455 (LP) EM465-495 (BP)

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



FluoLED

LED SOURCES

• LE.6500

LED light sources

for fluorescence

Euromex offers two high-end and extremely easy-to-use LED light sources for fluorescence applications that can replace mercury vapor HBO light sources of our microscope solutions for fluorescence

The standard LE.6500 LED light source for fluorescence fits five wavelengths bands for fluorescence excitation, one for ultra violet, two for the green and two for the blue light spectrum. Other bands are also possible, see model block

HIGHLIGHTS

- Stand-alone operation
- Easy mounting and operation
- 9 excitation wavelengths-bands are available
- 2 Years warranty

The ultimate LED light source for fluorescence LE.6900 fits all nine available wavelength bands for fluorescence, ranging from 330 to 670 nm



product information



LAMPHOUSE CONTROLLER TOUCH SCREEN	95 (h) x 85 (w) x 130 (d) 1.30 kg
	75 (h) x 150 (w) x 205 (d) 0.90 kg
	95 (h) x 155 (w) x 36 (d) 0.25 kg

SPECIFICATIONS

LAMPHOUSE

The lamphouse can be mounted with a specific adapter on a Euromex Delphi-X Observer, iScope and Oxion upright microscopes as well as for our Oxion Inverso and Delphi-X Inverso inverted models. For other brands, contact Euromex

CONTROLLERS

The standard LE.6500 system has a 100-240 V power supply/ intensity control unit with touch screen for selection and intensity adjustment of five wavelength bands

The ultimate LE.6900 system has a 100-240 V power supply/ intensity control unit with keyboard pad for selection and intensity adjustment of all nine wavelength bands



• Keyboard pad of the LE.6900

LE.6500

Band	Wavelength	FWHM (nm)	Range	Color	Power (mW)
1	365	18	330-380	Ultra violet	205
4	450	26	440-470	Royal blue	485
5	470	24	450-490	Blue	315
6	525	29	505-545	Green	142
7	545	116	510-560	Emerald green	172

Customized versions (product nr. LE.6500-ABCDE) with a maximum of five wavelength bands are available on special request. One can choose from wavelength bands 1 to 7 (see table below), e.g. LE.6500-12456

Customized versions (product nr. LE.6500-ABCD) with wavelength band 8 or 9 (not both) plus three other wavelength bands (chosen freely from wavelength bands 1 to 7, see table below) are also available. E.g LE.6500-1458

LE.6900

Band	Wavelength	FWHM (nm)	Range	Color	Power (mW)	E.g. compatible fluorochromes
1	365	18	330-380	Ultra violet	205	DAPI (359 nm), Biosearch Blue (352 nm), Calcofluor White (350 nm)
2	385	14	370-395	Royal violet	126	Coumarin (384 nm), FluoroGold (390 nm), wtGFP (395 nm)
3	405	22	380-420	Violet	468	DyLight 405 (399 nm)
4	450	26	440-470	Royal blue	485	Auramine (460 nm)
5	470	24	450-490	Blue	315	Cy2 (489 nm), rsGFP (488 nm), EGFP (488 nm), FITC (494 nm), Acridine Orange (DNA -500 nm)
6	525	29	505-545	Green	142	Citrine (514 nm), Acridine Orange (500 nm)
7	545	16	510-560	Emerald green	172	TRITC (555 nm), Cy3 (552 nm), DsRed (557 nm), Alexa Fluor 546 (556 nm)
8	625	20	605-650	Orange-Red	130	Cy5 (649nm), Alexa Fluor 633 (632 nm)
9	660	21	645-670	Red	221	Cy5 (649nm), Alexa Fluor 647 (649 nm)

FLUORESCENCE FILTER SETS

For ordering a specific fluorescence filter set find the fluorochrome you need and add the filter set reference 'xxxx' as follows:

FOR ISCOPE:

IS.9750.xxxx/6, iScope® with 6-position fluorescence attachment, needs also empty block IS.9749/6

IS.9750.xxxx/3 iScope® with 3-position fluorescence attachment, needs also empty block IS.9749/3

FOR DZ SERIES:

DZ.9750.xxxx, this set is supplied with two emission filters and also needs empty block DZ.9749

EXAMPLE:

*the reference for the iScope®
with a 39001 filter set is IS.9750.39001*

OPTIMIZED FILTER SETS

19xxx series is an optimized filter set with long pass filter

39xxx series is a standard optimized filter set

49xxx series is a zero-pixel shift optimized filter set

Acridine Orange DNA - EX: 500 nm EM: 526 nm

EX: **465-495** nm DM 505 nm EM: **515** nm (LP) • **19002**

EX: **465-495** nm DM 505 nm EM: **590-650** nm • **39009**

EX: **460-500** nm DM 510 nm EM: **510-560** nm • **49011**

Acridine Orange DNA+RNA - EX: 500 nm EM: 526 nm

EX: **460-500** nm DM 510 nm EM: **510** nm (LP) • **49011**

Alexa Fluor 488™ - EX: 498 nm EM: 520 nm

EX: **460-500** nm DM 510 nm EM: **510-560** nm • **49011**

Alexa Fluor 514™ - EX: 517 nm EM: 539 nm

EX: **485-505** nm DM 515 nm EM: **525-555** nm • **39003**

EX: **490-510** nm DM 515 nm EM: **520-550** nm • **49003**

Alexa Fluor 546™ - EX: 556 nm EM: 573 nm

EX: **528-553** nm DM 565 nm EM: **578-633** nm • **39004**

EX: **532-557** nm DM 605 nm EM: **570-640** nm • **49004**

FOR DELPHI-X OBSERVER/INVERSO:

DX.9750.xxxx, Delphi-X Observer™ with 6-position

fluorescence attachment, needs also empty block DX.9749/6

DI.9750.xxxx, Delphi-X Inverso™ with 6-position fluorescence

attachment, needs also empty block DI.9749/6

FOR OXION SERIES:

OX.9750.xxxx Oxion inverso with 3-position fluorescence

attachment, needs also empty block OX.9749/3

OX.9750.xxxx Oxion inverso with 4-positions fluorescence

attachment, needs also empty block OX.9749/4

AE.3250.xxxx, Oxion upright with 4-positions fluorescence

attachment, needs also empty block AE.3249



● AE.3248

Alexa Fluor 555™ - EX: 553 nm EM: 568 nm

EX: **528-553** nm DM 565 nm EM: **578-633** nm • **39004**

EX: **532-557** nm DM 605 nm EM: **570-640** nm • **49004**

Alexa Fluor 568™ - EX: 578 nm EM: 603 nm

EX: **540-580** nm DM 600 nm EM: **615-665** nm • **39010**

EX: **540-580** nm DM 585 nm EM: **593-667** nm • **49008**

Alexa Fluor 594™ - EX: 590 nm EM: 617 nm

EX: **540-580** nm DM 600 nm EM: **615-665** nm • **39010**

Alexa Fluor 647™ - EX: 649 nm EM: 666 nm

EX: **595-645** nm DM 655 nm EM: **665-715** nm • **39007**

EX: **590-650** nm DM 660 nm EM: **663-737** nm • **49006**

EX: **625-655** nm DM 660 nm EM: **665-715** nm • **49009**

AmCyan - EX: - 458 nm EM: 489 nm

EX: **425-445** nm DM 455 nm EM: **465-495** nm • **39001**

Auramine longpass - EX: 460 nm EM: 550 nm

EX: **425-475** nm DM 485 nm EM: **495** nm (LP) • **19008**

Auramine-rhodamine - EX: 450 nm EM: 550 nm

EX: **465-495** nm DM 485 nm EM: **515** nm (LP) • **19002**

Azami Green - EX: 492 nm EM: 505 nm

EX: **465-495** nm DM 505 nm EM: **515-555** nm • **39002**

EX: **450-490** nm DM 525 nm EM: **500-550** nm • **49002**

Biosearch Blue - EX: 352 nm EM: 447 nm

EX: **361-389** nm DM 415 nm EM: **435-485** nm • **39000**

BODIPY FL/pH7.2 - EX: 505 nm EM: 512 nm

EX: **465-495** nm DM 505 nm EM: **515-555** nm • **39002**

EX: **450-490** nm DM 525 nm EM: **500-550** nm • **49002**

CAL Fluor® Red 590 - EX: 569 nm EM: 591 nm

EX: **528-553** nm DM 565 nm EM: **578-633** nm • **39004**

EX: **532-557** nm DM 605 nm EM: **570-640** nm • **49004**

CAL Fluor® Red 610 - EX: 590 nm EM: 610 nm

EX: **540-580** nm DM 600 nm EM: **615-665** nm • **39010**

Calcein - EX: 494 nm EM: 517 nm

EX: **465-495** nm DM 505 nm EM: **515-555** nm • **39002**

EX: **450-490** nm DM 525 nm EM: **500-550** nm • **49002**

EX: **460-500** nm DM 510 nm EM: **510-560** nm • **49011**

Calcium Green™-1 - EX: 506 nm EM: 531 nm

EX: **465-495** nm DM 505 nm EM: **515-555** nm • **39002**

EX: **450-490** nm DM 525 nm EM: **500-550** nm • **49002**

EX: **460-500** nm DM 510 nm EM: **510-560** nm • **49011**

Calcofluor White - EX: 350 nm EM: 475 nm

EX: **361-389** nm DM: 415 nm EM: **435** nm (LP) • **19000**

Cerulean - EX: 433 nm EM: 475 nm

EX: **425-445** nm DM 455 nm EM: **465-495** nm • **39001**

CFP - EX: 433 nm EM: 475 nm

EX: **425-445** nm DM 455 nm EM: **465-495** nm • **39001**

Citrine - EX: 514 nm EM: 529 nm

EX: **485-505** nm DM 515 nm EM: **525-555** nm • **39003**

EX: **490-510** nm DM 515 nm EM: **520-550** nm • **49003**

Coumarin - EX: 384 nm EM: 470 nm

EX: **390-420** nm DM: 440 nm EM: **450** nm (LP) • **19011**

Cy2™ - EX: 489 nm EM: 506 nm

EX: **465-495** nm DM 505 nm EM: **515-555** nm • **39002**

EX: **450-490** nm DM 525 nm EM: **500-550** nm • **49002**

EX: **460-500** nm DM 510 nm EM: **510-560** nm • **49011**

Cy3.5™ - EX: 581 nm EM: 598 nm

EX: **540-580** nm DM 600 nm EM: **615-665** nm • **39010**

EX: **540-580** nm DM 585 nm EM: **593-667** nm • **49008**

Cy3™ - EX: 552 nm EM: 570 nm

EX: **528-553** nm DM 565 nm EM: **578-633** nm • **39004**

EX: **532-557** nm DM 605 nm EM: **570-640** nm • **49004**

Cy5™ - EX: 649 nm EM: 670 nm

EX: **595-645** nm DM 655 nm EM: **665-715** nm • **39007**

EX: **590-650** nm DM 660 nm EM: **663-737** nm • **49006**

EX: **625-655** nm DM 660 nm EM: **665-715** nm • **49009**

Cy7™ - EX: 743 nm EM: 767 nm

EX: **672-747** nm DM 760 nm EM: **765-855** nm • **49007**

DAPI - EX: 359 nm EM: 461 nm

EX: **361-389** nm DM 415 nm EM: **435-485** nm • **39000**

Draq5 - EX: 647 nm EM: 683 nm

EX: **595-645** nm DM 655 nm EM: **665-715** nm • **39007**

DsRed - EX: 557 nm EM: 584 nm

EX: **528-553** nm DM 565 nm EM: **578-633** nm • **39004**

EX: **532-557** nm DM 605 nm EM: **570-640** nm • **49004**

DyLight 350 - EX: 352 nm EM: 435 nm

EX: **361-389** nm DM 415 nm EM: **435-485** nm • **39000**

DyLight 405 - EX: 399 nm EM: 433 nm

EX: **390-420** nm DM: 440 nm EM: **450** nm (LP) • **19011**

DyLight 488 - EX: 492 nm EM: 517 nm

EX: **450-495** nm DM 505 nm EM: **515-555** nm • **39002**

EX: **450-490** nm DM 525 nm EM: **500-550** nm • **49002**

EX: **460-500** nm DM 510 nm EM: **510-560** nm • **49011**

DyLight 549 - EX: 554 nm EM: 569 nm

EX: **528-553** nm DM 565 nm EM: **578-633** nm • **39004**

EX: **532-557** nm DM 605 nm EM: **570-640** nm • **49004**

DyLight 594 - EX: 592 nm EM: 616 nm

EX: **540-580** nm DM 600 nm EM: **615-665** nm • **39010**

EX: **540-580** nm DM 585 nm EM: **593-667** nm • **49008**

DyLight 649 - EX: 652 nm EM: 667 nm

EX: **595-645** nm DM 655 nm EM: **665-715** nm • **39007**

EX: **590-650** nm DM 660 nm EM: **663-737** nm • **49006**

EX: **625-655** nm DM 660 nm EM: **665-715** nm • **49009**

DyLight 750 - EX: 751 nm EM: 772 nm

EX: **672-747** nm DM 760 nm EM: **765-855** nm • **49007**

ECFP - EX: 434 nm EM: 477 nm

EX: **425-445** nm DM 455 nm EM: **465-495** nm • **39001**

FLUORESCENCE FILTER SETS (continued)

EGFP - EX: 488 nm EM: 507 nm

EX: **465-495** nm DM 505 nm EM: **515-555** nm • **39002**

EX: **450-490** nm DM 525 nm EM: **500-550** nm • **49002**

Emerald GFP - EX: 489 nm EM: 510 nm

EX: **465-495** nm DM 505 nm EM: **515-555** nm • **39002**

EX: **450-490** nm DM 525 nm EM: **500-550** nm • **49002**

EYFP/pH 7 - EX: 514 nm EM: 527 nm

EX: **485-505** nm DM 515 nm EM: **525-555** nm • **39003**

EX: **490-510** nm DM 515 nm EM: **520-550** nm • **49003**

FITC - EX: 490 nm EM: 525 nm

EX: **465-495** nm DM 505 nm EM: **515-555** nm • **39002**

EX: **450-490** nm DM 525 nm EM: **500-550** nm • **49002**

EX: **460-500** nm DM 510 nm EM: **510-560** nm • **49011**

Fluo-4 - EX: 494 nm EM: 516 nm

EX: **465-495** nm DM 505 nm EM: **515-555** nm • **39002**

EX: **450-490** nm DM 525 nm EM: **500-550** nm • **49002**

EX: **460-500** nm DM 510 nm EM: **510-560** nm • **49011**

FluoroGold - EX: 390 nm EM: 600 nm

EX: **361-389** nm DM: 415 nm EM: **515** nm (LP) • **19012**

FM™ 1-43 - EX: 479 nm EM: 598 nm

EX: **465-495** nm DM: 505 nm EM: **600** nm (LP) • **19010**

FM™ 4-64 - EX: 515 nm EM: 740 nm

EX: **540-580** nm DM: 600 nm EM: **610** nm (LP) • **19006**

FM™ 4-64 - EX: 515 nm EM: 740 nm

EX: **465-495** nm DM: 505 nm EM: **600** nm (LP) • **19010**

FusionRed - EX: 576 nm EM: 603 nm

EX: **540-580** nm DM 600 nm EM: **615-665** nm • **39010**

EX: **540-580** nm DM 585 nm EM: **593-667** nm • **49008**

GFP - EX: 488 nm EM: 507 nm

EX: **465-495** nm DM 505 nm EM: **515-555** nm • **39002**

EX: **450-490** nm DM 525 nm EM: **500-550** nm • **49002**

Hoechst 33258 - EX: 352 nm EM: 461 nm

EX: **361-389** nm DM 415 nm EM: **435-485** nm • **39000**

Lucifer Yellow - EX: 428 nm EM: 540 nm

EX: **400-440** nm DM 455 nm EM: **515-555** nm • **39008**

LysoTracker Blue/MeOH - EX: 373 nm EM: 425 nm

EX: **361-389** nm DM 415 nm EM: **435-485** nm • **39000**

LysoTracker Green/pH 5.2 - EX: 504 nm EM: 511 nm

EX: **465-495** nm DM 505 nm EM: **515-555** nm • **39002**

EX: **450-490** nm DM 525 nm EM: **500-550** nm • **49002**

LysoTracker Red/pH 5.2 - EX: 577 nm EM: 590 nm

EX: **540-580** nm DM 585 nm EM: **593-667** nm • **49008**

LysoTracker Yellow HCK-123 - EX: 486 nm EM: 563 nm

EX: **465-495** nm DM 505 nm EM: **590-650** nm • **39009**

mCherry - EX: 587 nm EM: 610 nm

EX: **540-580** nm DM 600 nm EM: **615-665** nm • **39010**

EX: **540-580** nm DM 585 nm EM: **593-667** nm • **49008**

mCitrine - EX: 514 nm EM: 529 nm

EX: **485-505** nm DM 515 nm EM: **525-555** nm • **39003**

EX: **490-510** nm DM 515 nm EM: **520-550** nm • **49003**

MitoTracker Green FM/MeOH - EX: 490 nm EM: 516 nm

EX: **465-495** nm DM 505 nm EM: **515-555** nm • **39002**

EX: **450-490** nm DM 525 nm EM: **500-550** nm • **49002**

MitoTracker Orange/MeOH - EX: 551 nm EM: 576 nm

EX: **528-553** nm DM 565 nm EM: **578-633** nm • **39004**

EX: **532-557** nm DM 605 nm EM: **570-640** nm • **49004**

MitoTracker Red/MeOH - EX: 578 nm EM: 599 nm

EX: **540-580** nm DM 600 nm EM: **615-665** nm • **39010**

EX: **540-580** nm DM 585 nm EM: **593-667** nm • **49008**

MitoTracker Deep Red 633/MeOH - EX: 644 nm EM: 665 nm

EX: **590-650** nm DM 660 nm EM: **663-737** nm • **49006**

EX: **625-655** nm DM 660 nm EM: **665-715** nm • **49009**

mRFP1 - EX: 584 nm EM: 607 nm

EX: **540-580** nm DM 600 nm EM: **615-665** nm • **39010**

EX: **540-580** nm DM 585 nm EM: **593-667** nm • **49008**

mWasabi - EX: 493 nm EM: 509 nm

EX: **465-495** nm DM 505 nm EM: **515-555** nm • **39002**

EX: **450-490** nm DM 525 nm EM: **500-550** nm • **49002**

Nile Blue - EX: 631 nm EM: 660 nm

EX: **590-650** nm DM 660 nm EM: **663-737** nm • **49006**

Oregon Green™ 488 - EX: 490 nm EM: 514 nm

EX: **465-495** nm DM 505 nm EM: **515-555** nm • **39002**

EX: **450-490** nm DM 525 nm EM: **500-550** nm • **49002**

Oregon Green™ 514 - EX: 506 nm EM: 526 nm

EX: **485-505** nm DM 515 nm EM: **525-555** nm • **39003**

EX: **490-510** nm DM 515 nm EM: **520-550** nm • **49003**

Pacific Blue - EX: 405 nm EM: 455 nm

EX: **390-420** nm DM: 440 nm EM: **450** nm (LP) • **19011**

Propidium Iodide - EX: 536 nm EM: 617 nm

EX: **528-552** nm DM 565 nm EM: **590-650** nm • **39005**

EX: **530-560** nm DM 570 nm EM: **590-650** nm • **49005**

Pulsar™ 650 - EX: 460 nm EM: 650 nm

EX: **465-495** nm DM: 505 nm EM: **600** nm (LP) • **19010**

Quasar® 670 - EX: 647 nm EM: 670 nm

EX: **595-645** nm DM 655 nm EM: **665-715** nm • **39007**

Rhod-2 - EX: 552 nm EM: 581 nm

EX: **528-553** nm DM 565 nm EM: **578-633** nm • **39004**

EX: **532-557** nm DM 605 nm EM: **570-640** nm • **49004**

Rhodamine 123 - EX: 507 nm EM: 529 nm

EX: **485-505** nm DM 515 nm EM: **525-555** nm • **39003**

EX: **490-510** nm DM 515 nm EM: **520-550** nm • **49003**

Rhodamine Red™-X - EX: 570 nm EM: 590 nm

EX: **540-580** nm DM 600 nm EM: **615-665** nm • **39010**

EX: **540-580** nm DM 585 nm EM: **593-667** nm • **49008**

Sulforhodamine 101 - EX: 586 nm EM: 605 nm

EX: **540-580** nm DM 600 nm EM: **615-665** nm • **39010**

SYBR® Green I - EX: 498 nm EM: 522 nm

EX: **465-495** nm DM 505 nm EM: **515-555** nm • **39002**

EX: **450-490** nm DM 525 nm EM: **500-550** nm • **49002**

EX: **460-500** nm DM 510 nm EM: **510-560** nm • **49011**

SYTO 9/DNA - EX: 483 nm EM: 500 nm

EX: **465-495** nm DM 505 nm EM: **515-555** nm • **39002**

EX: **450-490** nm DM 525 nm EM: **500-550** nm • **49002**

EX: **460-500** nm DM 510 nm EM: **510-560** nm • **49011**

SYTO® 60 - EX: 652 nm EM: 678 nm

EX: **595-645** nm DM 655 nm EM: **665-715** nm • **39007**

EX: **590-650** nm DM 660 nm EM: **663-737** nm • **49006**

EX: **625-655** nm DM 660 nm EM: **665-715** nm • **49009**

TagRFP - EX: 556 nm EM: 584 nm

EX: **528-553** nm DM 565 nm EM: **578-633** nm • **39004**

TAMRA - EX: 555 nm EM: 580 nm

EX: **528-553** nm DM 565 nm EM: **578-633** nm • **39004**

EX: **532-557** nm DM 605 nm EM: **570-640** nm • **49004**

Texas Red® - EX: 595 nm EM: 620 nm

EX: **540-580** nm DM 600 nm EM: **615-665** nm • **39010**

EX: **540-580** nm DM 585 nm EM: **593-667** nm • **49008**

Texas Red®-X - EX: 595 nm EM: 615 nm

EX: **540-580** nm DM 600 nm EM: **615-665** nm • **39010**

EX: **540-580** nm DM 585 nm EM: **593-667** nm • **49008**

TO-PRO™-3 - EX: 642 nm EM: 661 nm

EX: **595-645** nm DM 655 nm EM: **665-715** nm • **39007**

Topaz - EX: 514 nm EM: 529 nm

EX: **485-505** nm DM 515 nm EM: **525-555** nm • **39003**

EX: **490-510** nm DM 515 nm EM: **520-550** nm • **49003**

TRITC - EX: 555 nm EM: 580 nm

EX: **528-553** nm DM 565 nm EM: **578-633** nm • **39004**

Turbo FP650 - EX: 592 nm EM: 650 nm

EX: **540-580** nm DM: 600 nm EM: **610** nm (LP) • **19006**

EX: **540-580** nm DM 585 nm EM: **593-667** nm • **49008**

wtGFP - EX: 475 nm EM: 509 nm

EX: **425-475** nm DM: 485 nm EM: **495** nm (LP) • **19008**

X-rhod-1/Ca2+ - EX: 580 nm EM: 601 nm

EX: **540-580** nm DM 600 nm EM: **615-665** nm • **39010**

ZsGreen1 - EX: 493 nm EM: 505 nm

EX: **465-495** nm DM 505 nm EM: **515-555** nm • **39002**

OPTIMIZED FISH SINGLE BAND FILTERS

DAPI 395 nm FISH single band

EX: **385-407** nm DM 425 nm EM: **435-485** • **49028**

Blue FISH single band

EX: **400-410** nm DM 425 nm EM: **442-478** • **49301**

Aqua FISH single band

EX: **426-446** nm DM 425 nm EM: **465-495** • **49302**

Green#1 FISH single band

EX: **483-507** nm DM 515 nm EM: **522-551** • **49303**

Green#2 FISH single band

EX: **473-497** nm DM 515 nm EM: **510-540** • **49308**

Green#3 Narrow band FISH single band

EX: **480-500** nm DM 505 nm EM: **515-535** • **49312**

Gold FISH single band

EX: **541-551** nm DM 556 nm EM: **560-583** • **49304**

Orange#1 FISH single band

EX: **535-557** nm DM 565 nm EM: **573-606** • **49305**

Orange#2 FISH single band

EX: **529-550** nm DM 556 nm EM: **561-592** • **49309**

FLUORESCENCE FILTER SETS (continued)

- Red#1** FISH single band
EX: 568-592 nm DM 600 EM: 595-640 • 49306
- Red#2** FISH single band
EX: 581-602 DM 610 EM: 615-645 • 49310
- Red#3 Narrow band** FISH single band
EX: 592-605 nm DM 612 EM: 618-646 • 49311
- Far Red** FISH single band
EX: 620-640 nm DM 647 EM: 637-697 • 49307
- Cy5 Narrow Excitation** single band
EX: 625-655 nm DM 660 EM: 665-715 • 49009

OPTIMIZED FISH DUAL BAND FILTERS

- DAPI/Green** FISH dual band 3 filters
EX: 380-410 / EX: 470-495, DM 424-462 / 515-560 / 610-660,
EM: 515-540 / EM: 615-645 • 59001v2
- DAPI/Orange** FISH dual band 3 filters
EX: 380-405 / 530-560, DM 430-495 / 570-615,
EM: 445-475 / 570-610 • 59002v2
- DAPI/Red** FISH dual band 3 filters
EX: 380-405 / EX: 565-590, DM 445-475 / 605-650
EM: 445-475 / EM: 605-645 • 59003v2
- Green/Red #1** FISH dual band 3 filters
EX: 480-500 / EX: 574-594, DM 424-462 / 510-560 / 610-660,
EM: 515-540 / EM: 615-640 • 59010
- Green/Orange #1** FISH dualband 3 filters
EX: 465-490 / EX: 550-570, DM 425-455 / 505-535 / 590-625,
EM: 425-455 / EM: 505-535) EM: 590-620 • 59011
- Green/Orange #2** FISH dualband 3 filters
EX: 460-485 / EX: 540-560, DM 500-530 / 575-620,
EM: 500-530 / EM: 575-620 • 59012
- Aqua/Gold** FISH dualband 3 filters
EX: 430-445 / EX: 525-545, DM 465-495 / 565-595,
EM: 470-490 / EM: 570-590 • 59033

OPTIMIZED FISH TRIPLE BAND FILTERS

- ECFP/EYFP/mCherry** triple band 3 filters
EM: 430-445 / EM: 495-510 / EM: 565-585,
DM 455-480 / 520-550 / 600-660,
EM: 460-480 / EM: 520-550 / EM: 605-660 • 69008
- DAPI/Green/Orange #1** FISH triple band 3 filters
EX: 380-405 / EX: 465-490 / EX: 550-570,
DM 425-450 / 505-535 / 590-625
EM: 425-450 / EM: 505-535 / EM: 590-620 • 69013v2
- DAPI/Green/Red** FISH triple band 3 filters
EX: 380-405 / EX: 480-495 / EX: 575-590
DM 425-460 / 515-560 / 610-655
EM: 425-460 / EM: 515-560 / EM: 610-655 • 69015
- Aqua/Green/Orange** FISH triple band 3 filters
EX: 425-445 / EX: 490-505 / EM: 550-560
DM 460-475 / 520-540 / 590-630
EM: 460-475 / EM: 520-540 / EM: 595-625 • 69011
- DAPI/Aqua/Green/Orange** FISH triple band 3 filters
EX: 380-390 / EX: 420-440 / EX: 555-575
DM 455-475 / 518-540 / 590-628
EM: 460-475 / EM: 518-540 / EM: 595-630 • 69014

NEUTRAL DENSITY FILTERS:

25 mm diameter, 1 mm thick and unmounted

AE.3250.ND01 Neutral density filter, ND 0.10 (T 80 %)

32 mm diameter, 1 mm thick and unmounted

- AE.3252.ND01** Neutral density filter, ND 0.10 (T 80 %)
- AE.3252.ND02** Neutral density filter, ND 0.20 (T 65 %)
- AE.3252.ND03** Neutral density filter, ND 0.30 (T 50 %)
- AE.3252.ND04** Neutral density filter, ND 0.40 (T 40 %)
- AE.3252.ND05** Neutral density filter, ND 0.50 (T 32 %)
- AE.3252.ND06** Neutral density filter, ND 0.60 (T 25 %)
- AE.3252.ND10** Neutral density filter, ND 1.0 (T 10 %)
- AE.3252.ND13** Neutral density filter, ND 1.3 (T 5 %)

On request, microscopes can be equipped with more specific, optimized and application related fluorescence filter sets

about
Antoni van Leeuwenhoek

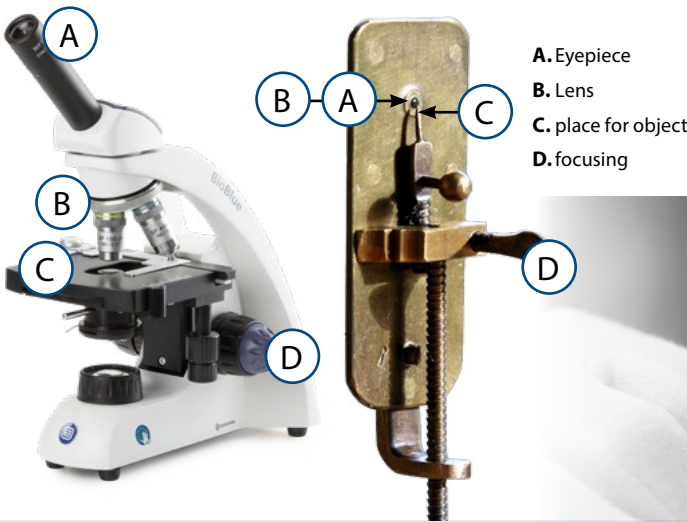
1632, Delft, the Netherlands

As a cloth merchant, Antoni van Leeuwenhoek became familiar with the use of magnifying glasses, which he used to check the quality of the fabric and the density of the weave. Eventually he began to grind and polish his own lenses. Around 1670 he developed the single microscope, which could magnify many times more than the compound microscopes of that time

VAN LEEUWENHOEK'S MICROSCOPE

The design of Van Leeuwenhoek's microscopes is relatively simple: a small glass lens riveted between two metal plates. The preparation sits on a pin that can move up and down and closer or further from the lens with screws in order to focus

Where contemporaries' microscopes reached a magnification of around 30x, Van Leeuwenhoek made microscopes that were much more powerful. Most of Van Leeuwenhoek's microscopes magnified about 80x, but there were also outliers with a magnification factor of 250, which was phenomenal for the time



HISTORICAL
FACTS

5
LIFE SCIENCE
FLUORESCENCE MICROSCOPES

life science

stereo microscopes



stereo microscopes



product information

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

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STEREO MICROSCOPES

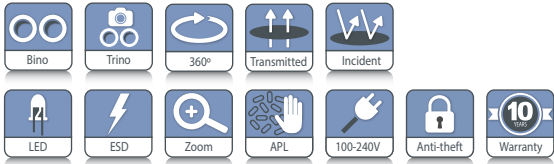
NexiusZoom (EVO)

The NexiusZoom and NexiusZoom EVO stereo microscopes allow three-dimensional observation of your specimen, suitable for highly demanding applications. These top level zoom microscopes are perfect for analyzing all kinds of material surfaces or for observing and preparing biological samples

These stereo microscopes are supplied with a large choice of stands, with or without LED illumination. Ideal for a wide variety of applications. With additional lenses and objectives magnifications from 3.3x up to 220x can be achieved



product information



NZ.1903-S / NZ.1703-S
339 (h) x 256 (w) x 311 mm (d) | 5.1 kg
NZ.1903-P / NZ.1703-P
299 (h) x 256 (w) x 311 mm (d) | 5.2 kg
For weight of other products see table

NexiusZoom

HIGHLIGHTS

- Binocular and trinocular heads with HWF 10x/22 mm or HWF 10x/23 mm eyepieces
- Zoom ratio 1 : 6.7, 6.7x to 45x or 1 : 8.4, 6.5x to 55x
- Click-stops standard on EVO models
- Ergonomic stands
- Double 3 W LED illuminations
- Configurations up to 220x magnification
- Large working distance (WD)
- 10 Years warranty



• NZ.1903-PG

• NZ.1903-M

SPECIFICATIONS

EYEPIECES

The standard NexiusZoom is supplied with a pair of HWF 10x/22 mm eyepieces. The NexiusZoom EVO is supplied with a pair of HWF 10x/23 mm eyepieces

HEAD

Binocular or trinocular heads with 45° inclined tubes. Both eyepieces have ± 5 diopter adjustments. Interpupillary distance adjustable between 54 mm and 75 mm. Trinocular head is supplied with a fixed light path beam splitter (50:50). The NexiusZoom EVO models are now equipped with click-stops

OBJECTIVES

The standard NexiusZoom is supplied with a 1:6.7 zoom objective with 0.67x to 4.5x magnifications, a field of view from 33 mm to 4.9 mm. Working distance 110 mm

The NexiusZoom EVO is supplied with a 1:8.4 zoom objective with 0.65x to 5.5x magnifications, a field of view from 35.4 mm to 4.2 mm. WD 110 mm

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

AUXILIARY LENSES

For extra working distances the following auxiliary lenses are available for both the standard NexiusZoom and NexiusZoom EVO: 0.3x, 0.4x, 0.5x, 0.75x, 1.5x and 2.0x. For fields of view and working distances, see table magnifications



• NexiusZoom EVO NZ.5313

POLARIZATION

The NexiusZoom and NexiusZoom EVO can be supplied with an optional 360° rotatable circular stage with built-in polarization filter and/or an optional rotatable analyzer filter in mount to be screwed under the objective

STAND

- Ergonomic pillar or rack & pinion stand with 3 W incident and 3 W transmitted LED illuminations (-P and -S stands)
- Ergonomic pillar stand with two 3 W goose-neck type incident LED illuminations on each side and a 3 W transmitted LED illumination (-PG stand)
- Ergonomic pillar stand with rotating mirror and 3 W LED transmitted and incident illuminations (-M stand)
- Ergonomic universal or boom stands, without illumination (-U and -B stands)
- Articulated arm stand for table mounting or with heavy desktop base plate, both without head holder, without illumination (-A and -AP stands)

All pillar and rack & pinion stands are supplied with two object clamps. Alloy metal cast, hardened coating



● NZ.1902-S

STAGE

180 x 155mm X-Y mechanical stage with 76 x 55mm translation stage and transparent glass plate for NexiusZoom, fixed on stage of microscope. Only available with new microscopes (due to fixing), so it has to be ordered with the purchase of a microscope (see picture: NZ.9505)

ILLUMINATION

3 W transmitted and incident LED illuminators with internal power supply 100-240 V. Both illuminators can be used simultaneously and the light intensities can be adjusted separately. The universal single or double arm stands and the articulated stands can be equipped with the ring illuminators LE.1974 and LE.1973 with respectively 72 or 144 power LEDs controlled in segments or with the LE.5212 illumination station, ideal for creating or lifting shades

ANTI-THEFT SLOT

At the back of the microscope a Kensington Security slot is placed, which can be used to secure the instrument from theft (only on th P-, PG-, and S-models)

PACKAGE CONTENT

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



● NZ.1902-P

MAGNIFICATIONS

NexiusZoom: working distance and field of view with standard HWF 10x / 22 high wide field eyepieces

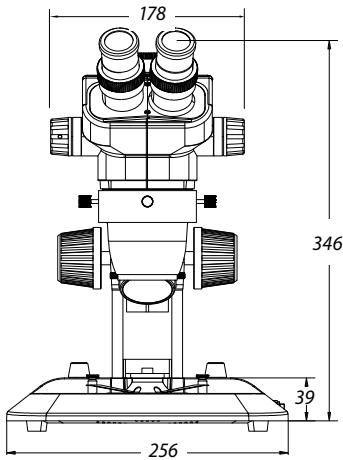
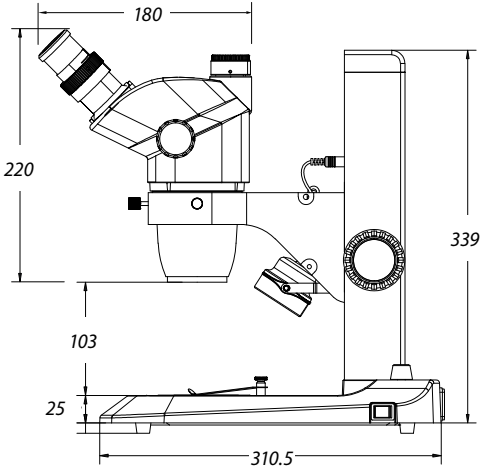
Zoom indication	Auxiliary lens 0.3x WD 287 mm		Auxiliary lens 0.4x WD 220 mm		Auxiliary lens 0.5x WD 183 mm		Auxiliary lens 0.75x WD 105 mm		Without auxiliary lens WD 110 mm		Auxiliary lens 1.5x WD 53 mm		Auxiliary lens 2x WD 34 mm	
	Total mag.	FoV in mm	Total mag.	FoV in mm	Total mag.	FoV in mm	Total mag.	FoV in mm	Total mag.	FoV in mm	Total mag.	FoV in mm	Total mag.	FoV in mm
0.67	2.0	109.5	2.7	82.1	3.35	65.7	5.0	43.8	6.7	32.8	10.1	21.9	13.4	16.4
0.7	2.1	104.8	2.8	78.6	3.5	62.9	5.3	41.9	7.0	31.4	10.5	21.0	14.0	15.7
0.8	2.4	91.7	3.2	68.8	4.0	55.0	6.0	36.7	8.0	27.5	12.0	18.3	16.0	13.8
1.0	3.0	73.3	4.0	55.0	5.0	44.0	7.5	29.3	10.0	22.0	15.0	14.7	20.0	11.0
1.5	4.5	48.9	6.0	36.7	7.5	29.3	11.3	19.6	15.0	14.7	22.5	9.8	30.0	7.3
2.0	6.0	36.7	8.0	27.5	10.0	22.0	15.0	14.7	20.0	11.0	30.0	7.3	40.0	5.5
3.0	9.0	24.4	12.0	18.3	15.0	14.7	22.5	9.8	30.0	7.3	45.0	4.9	60.0	3.7
4.0	12.0	18.3	16.0	13.8	20.0	11.0	30.0	7.3	40.0	5.5	60.0	3.7	80.0	2.8
4.5	13.5	16.3	18.0	12.2	22.5	9.8	33.8	6.5	45.0	4.9	67.5	3.3	90.0	2.4

NexiusZoom EVO: working distance and field of view with standard HWF 10x / 23 high wide field eyepieces

Zoom indication	Auxiliary lens 0.3x WD 287 mm		Auxiliary lens 0.4x WD 220 mm		Auxiliary lens 0.5x WD 183 mm		Auxiliary lens 0.75x WD 105 mm		Without auxiliary lens WD 110 mm		Auxiliary lens 1.5x WD 53 mm		Auxiliary lens 2x WD 34 mm	
	Total mag.	FoV in mm	Total mag.	FoV in mm	Total mag.	FoV in mm	Total mag.	FoV in mm	Total mag.	FoV in mm	Total mag.	FoV in mm	Total mag.	FoV in mm
0.65	1.95	117.9	2.6	88.5	3.25	70.8	4.9	47.2	6.5	35.4	9.8	23.6	13.0	17.7
1.0	3.0	76.7	4.0	57.5	5.0	46.0	7.5	30.7	10.0	23.0	15.0	15.3	20.0	11.5
1.5	4.5	51.1	6.0	38.3	7.5	30.7	11.3	20.4	15.0	15.3	22.5	10.2	30.0	7.7
2.0	6.0	38.3	8.0	28.8	10.0	23.0	15.0	15.3	20.0	11.5	30.0	7.7	40.0	5.8
2.5	7.5	30.7	10.0	23.0	12.5	18.4	18.8	12.3	25.0	9.2	37.5	6.1	50.0	4.6
3.0	9.0	25.6	12.0	19.2	15.0	15.3	22.5	10.2	30.0	7.7	45.0	5.1	60.0	3.8
3.5	10.5	21.9	14.0	16.4	17.5	13.1	26.3	8.8	35.0	6.6	52.5	4.4	70.0	3.3
4.0	12.0	19.2	16.0	14.4	20.0	11.5	30.0	7.7	40.0	5.8	60.0	3.8	80.0	2.9
4.5	13.5	17.0	18.0	12.8	22.5	10.2	33.8	6.8	45.0	5.1	67.5	3.4	90.0	2.6
5.0	15.0	15.3	20.0	11.5	25.0	9.2	37.5	6.1	50.0	4.6	75.0	3.1	100.0	2.3
5.5	16.5	13.9	22.0	10.5	27.5	8.4	41.3	5.6	55.0	4.2	82.5	2.8	110.0	2.1

WD = working distance, FoV = Field of view, Total mag. = total magnification

DIMENSIONS





NEXIUSZOOM 0.67-4.5 (WF 10X/22MM)

MODELS	Bino	Trino	Pillar stand	Rack & pinion stand	Universal stand	Boom stand on heavy base plate	Articulated arm stand on table clamp	Articulated arm stand on heavy base plate	Gooseneck dual LED	Mirror LED	Weight (kg)
NZ.1902-P	•		•								5.0
NZ.1902-PG	•		•						•		5.1
NZ.1902-S	•			•							4.9
NZ.1902-U	•				•						15.6
NZ.1902-B	•					•					22.1
NZ.1902-A	•						•				8.6
NZ.1902-AP	•							•			20.7
NZ.1903-P		•	•								5.2
NZ.1903-PG		•	•						•		5.3
NZ.1903-M		•	•							•	5.1
NZ.1903-S		•		•							5.1
NZ.1903-U		•			•						15.7
NZ.1903-B		•				•					22.2
NZ.1903-A		•					•				8.7
NZ.1903-AP		•						•			20.8

NEXIUSZOOM EVO 0.65-5.5 (WF 10X/23MM)

MODELS	Bino	Trino	Pillar stand	Rack & pinion stand	Universal stand	Boom stand on heavy base plate	Articulated arm stand on table clamp	Articulated arm stand on heavy base plate	Gooseneck dual LED	Mirror LED	Weight (kg)
NZ.1702-P	•		•								5.0
NZ.1702-PG	•		•						•		5.1
NZ.1702-M	•		•							•	4.9
NZ.1702-S	•			•							4.9
NZ.1702-U	•				•						15.6
NZ.1702-B	•					•					22.1
NZ.1702-A	•						•				8.6
NZ.1702-AP	•							•			20.7
NZ.1703-P		•	•								5.2
NZ.1703-PG		•	•						•		5.3
NZ.1703-M		•	•							•	5.1
NZ.1703-S		•		•							5.1
NZ.1703-U		•			•						15.7
NZ.1703-B		•				•					22.2
NZ.1703-A		•					•				8.7
NZ.1703-AP		•						•			20.8

The NexiusZoom EVO models are now equipped with click-stops

ACCESSORIES AND SPARE PARTS

HEADS & EYEPIECES

- NZ.5302** NZ binocular head 0.67-4.5x*
 - NZ.5303** NZ trinocular head 0.67-4.5x*
 - NZ.5312** NZ EVO binocular head 0.65-5.5x*
 - NZ.5313** NZ EVO trinocular head 0.65-5.5x*
- *without head holder*
-
- NZ.6010** Pair of HWF 10x/22 mm eyepieces
 - NZ.6010-C** HWF 10x/22 mm eyepiece only with crosshairs
 - NZ.6010-CM** HWF 10x/22 mm eyepiece only with 10/100 micrometer and crosshairs
 - NZ.6015** Pair of HWF 15x/16 mm eyepieces for NZ
 - NZ.6020** Pair of HWF 20x/12 mm eyepieces for NZ
 - NZ.6099** Pair of eyecups for NZ
 - NZ.6210** Pair of HWF 10x/23 mm eyepieces for NZ EVO
 - NZ.6210-C** HWF 10x/23 mm eyepiece only with crosshairs for NZ EVO
 - NZ.6210-CM** HWF 10x/23 mm eyepiece only with 10/100 micrometer and crosshairs for NZ EVO
 - NZ.6020-CM** HWF 20x/12 mm eyepieces with 10/100 micrometer and crosshairs

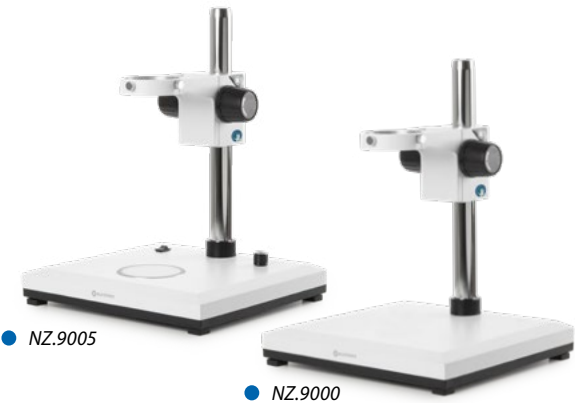
AUXILIARY LENSES

- NZ.8903** Additional 0.3x lens for NZ. WD 287 mm. Only suitable for A, AP, U, B and BC stands
- NZ.8904** Additional 0.4x lens for NZ. WD 220 mm. Only suitable for A, AP, U, B and BC stands
- NZ.8905** Additional 0.5x lens for NZ. WD 183 mm. Not suitable for S stands
- NZ.8907** Additional 0.75x lens for NZ. WD 105 mm
- NZ.8915** Additional 1.5x lens for NZ. WD 53 mm
- NZ.8920** Additional 2.0 lens for NZ. WD 34 mm. Not suitable for S stands



STANDS

- NZ.9000** Ergo pillar stand without illumination. Height 35 cm
- NZ.9005** Ergo pillar stand with adjustable transmitted 3 W LED illumination. Height 35 cm
- NZ.9010** Ergo rack & pinion stand with incident and transmitted 3 W LED illuminators
- NZ.9015** Ergo pillar stand with incident and transmitted 3 W LED illuminators
- NZ.9018** Ergonomic pillar stand with two 3 W gooseneck type incident LED illuminations on each side and a 3 W transmitted LED illumination
- NZ.9020** Universal one-arm stand without NZ head holder
- NZ.9025** Black universal stand with table clamp without NZ head holder
- NZ.9027** Black universal stand with heavy baseplate without NZ head holder
- NZ.9030** Universal double-arm boom stand without NZ head holder
- NZ.9032** Universal two-arm stand with table clamp without NZ head holder
- NZ.9042** Stand with rotating mirror and indirect transmitted LED illumination



HEAD HOLDERS

- NZ.9081** Head holder (76 mm) for NZ and black universal stand NZ.9025/NZ.9027
- NZ.9090** NZ head holder for NZ.9020/9030/9032 pillar stands
- NZ.9095** NZ head holder with fine and coarse adjustment for NZ.9020/9030/9032 pillar stands. Only available with new microscopes



ILLUMINATION

- LE.5207** Multi-functional dual 3 W LED adjustable light source. Equipped with two flexible gooseneck arms with LED illuminator
- LE.5212** Euromex illumination station with two independently controlled goosenecks, a ring light and a transmitted stage illuminator (see photos on next page)
- LE.5260** Interchangeable high power (standard) white 6500K light guide for NZ.9018/LE.5207/LE.5212, 1 pc
- LE.5261** Interchangeable high power 365 nm flexible arm for NZ.9018/LE.5207/LE.5212, 1 pc
- LE.5262** Interchangeable high power 395 nm flexible arm for NZ.9018/LE.5207/LE.5212, 1 pc
- LE.5263** Interchangeable high power 420 nm flexible are for NZ.9018/LE.5207/LE.5212, 1 pc
- LE.1974** Ring illuminator with 72 LEDs with adjustable light intensity. External power supply 110-240 Vac / 12 Vdc (50/60 Hz). With segment controller. Brightness of 20,000 Lux at 100 mm distance and color temperature of 6,500 K. Mounting for stereo head with diameter from 25 to 61 mm

- LE.1973** Ring illuminator with 144 LEDs with adjustable light intensity. External power supply 100-240 Vac / 12 Vdc (50/60 Hz). With segment controller. Brightness of 23,000 Lux at 100 mm distance and color temperature of 6,500 K. Mounting for stereo head with diameter from 25 to 61 mm
 - LE.5210** Euromex cold light illuminator EK-1, 100 W. 110V and 230V models available
 - LE.5211** Euromex cold light illuminator, 150 W halogen. 110 V and 230 V models available
 - LE.5211-LED** Euromex cold light illuminator LED, 30W high power LED
 - LE.5214** Dual arm light conductor, gooseneck self-sustaining, 50 cm long, 4 mm diameter core
 - LE.5215** Triple arm light conductor, gooseneck self-sustaining, 50 cm long, 4 mm diameter core
 - LE.5222** Focusing head suitable for focusing lens LE.5214 and LE.5215. Needs LE.5224
 - LE.5224** Aspherical focusing lens for mounting in LE.5222
- More illumination options, see chapter 11*

STAGES

- NZ.9505** Mechanical 180 x 155 mm X-Y stage with 75 x 55 mm translation and transparent glass plate
- NZ.9524** 360° rotatable circular stage with built-in polarization filter for NZ
- NZ.9525** 360° rotatable analyzer in mount to be screwed under head of NZ
- AE.5168-NZ** Heating stage for NZ microscope stage

CAMERA ACCESSORIES

- NZ.9850** C-mount adapter with 0.5x lens for 1/2 inch cameras
- AE.5130** Universal SLR adapter with built-in 2x lens for standard 23.2 mm tube. Needs T2 adapter
- AE.5025** T2 adapter for Nikon D SLR digital camera
- AE.5040** T2 adapter for Canon EOS SLR digital camera

MISCELLANEOUS

- NZ.8950** Protection glass window for NZ
- NZ.9520** Polarization kit for NZ: 360° rotatable circular stage with built-in polarization filter (NZ.9524) + analyzer in mount to be screwed under head (NZ.9525)
- NZ.9040** Darkfield attachment for NZ
- NZ.9045** Fall protection ring for NexusZoom pillars.
Note: the one- and double arm stands are as a standard supplied with this ring
- NZ.9570** Pair of object clamps for standard stage
- NZ.9572** Adjustable GEM object clamp for P, PL and S stand of NZ
- NZ.9950** Standard plexiglass object plate, opaque, with black border
- NZ.9956** Pair of object stage plates (black/white) Ø 90 mm
- NZ.9958** Standard glass object plate, opaque
- NZ.9983-R** 3 W LED replacement unit for NZ, incident illumination
- NZ.9983** 3 W LED replacement unit for NZ, transmitted illumination
- AE.1112** Micrometer 76 x 26 mm slide, 50 mm/500 divisions, 100 µm per division

DISPOSABLES

- PB.5245** Lens cleaning paper, 100 sheets per pack
- PB.5274** Isopropyl alcohol 99%, 200 ml
- PB.5275** Cleaning kit: lens fluid, lint free lens tissue/ paper, brush, air blower, cotton swabs
- PB.5276** Microscope maintenance and servicing kit, 16pcs: cleaning brush, 6 pcs screwdriver set, air blower, 3 pcs Allen key 1.5, 2, 2.5 mm, lens cleaning fluid 20 ml, cleaning cloth 140 x 140 mm, 100 pcs lens tissue sheets, tube of maintenance grease, 10 ml bottle of oil, packed in a toolbox

NZ = NexusZoom
WD = working distance



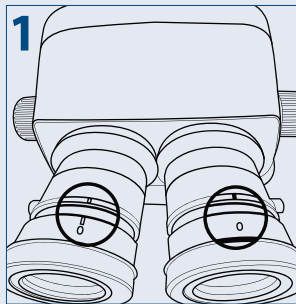
● NZ.9505



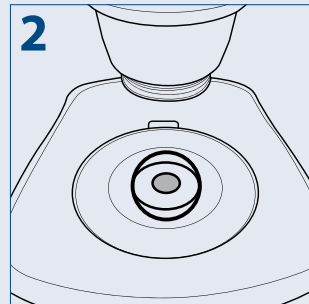
● The LE.5212 in two different configurations

how to set up a stereo microscope

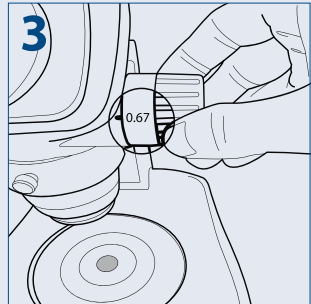
Setting up your stereo microscope properly is essential to getting parfocal images during the entire zoom range. It also prevents head aches, stressful eyes and fatigue. Below you will find a setup guide that will help get the best out of your microscope



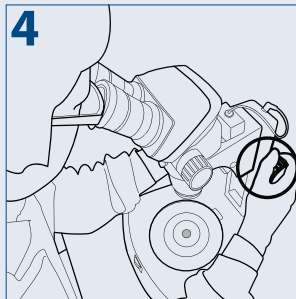
Turn the diopter adjustment rings of both eyepieces to position 0"



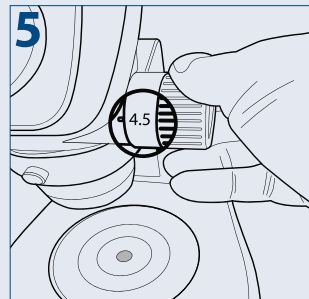
Put a specimen on the stage plate



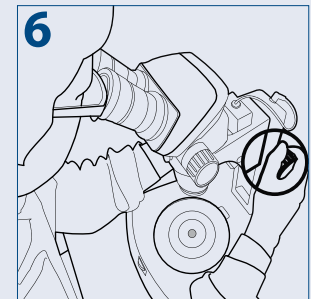
Turn the zoom adjustment knob to the lowest magnification



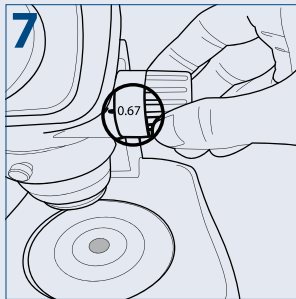
Rotate the focus adjustment knob to bring the specimen into focus



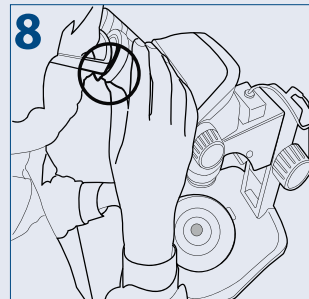
Turn the zoom adjustment knob to the highest magnification



Rotate the focus adjustment knob to bring the specimen into focus



Turn the zoom adjustment knob to the lowest magnification



Rotate the diopter adjustment rings of the left and right eyepiece to bring the specimen into focus

PLEASE NOTE

Put the zoom adjustment knob at the highest magnification again and check the image focusing. The diopter adjustment is complete when the image is accurately focused during zooming

If not, please repeat steps 3 to 8

STEREO MICROSCOPES

BlueLine
DUTCH QUALITY

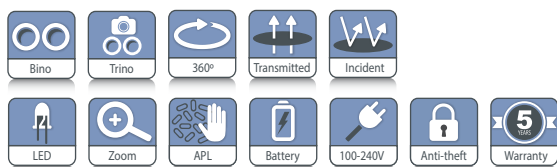
StereoBlue

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

Equipped with either a parfocal 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



product information



● SB.1903

SB.1903

330 (h) x 220 (w) x 266 mm (d) | 4.4 kg

SB.1903-P

299 (h) x 220 (w) x 266 mm (d) | 5.1 kg

SB.1302/SB.1402

330 (h) x 220 (w) x 266 mm (d) | 4.0 kg

SB.1302-P/SB.1402-P

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



HIGHLIGHTS

- Designed for professional use
- Robust and sturdy
- WF 10x/21 mm eyepieces
- Dual magnification or zoom models
- Available in ergonomic rack & pinion, pillar, universal and boom stands
- Double 3 W LED illumination
- Also available with batteries
- Ergonomic carrying grip
- 5 Years warranty

SPECIFICATIONS

EYEPIECES

Pair of WF 10x/21 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 /1402 , which have diopter adjustment on one side
- Interpupillary distance adjustable between 55 mm and 75 mm
- Trinocular head is supplied with a fixed light path beam splitter (50:50)

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 21 mm/6.9 mm or 10.5 mm/5.25 mm
- Working distance 100 mm

ZOOM OBJECTIVE

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



● SB.1402-P



Built-in ring light with 30 intensity adjustable LED's

EVO ZOOM OBJECTIVE

- Zoom stereo 0.5x to 5.5x parfocal objective
- Magnification from 5x to 55x
- Field of view 38 mm to 3.9 mm
- Working distance 100 mm

STAND

- The rack & pinion and pillar stands of the StereoBlue are equipped with ergonomic flat bases, complete with two object clamps and Ø 60 mm transparent and black/white stage plates
- The coarse adjustment is equipped with tension control
- The ergonomic universal (single arm stand, U) and boom stand (dual arm, B) are ideal for viewing large samples or working under the microscope. They come without illumination

- The U- and B-stand can be equipped with ring illuminators LE.1974 and LE.1973 with respectively 72 or 144 power LEDs controlled in segments, ideal for creating or lifting shades
 - The stands are alloy metal casted with hardened coating
- More illumination options see chapter 11 (Accessories)

ILLUMINATION

3 W transmitted and incident LED illuminators which can be used simultaneously. Model SB.3903 and SB.3903-P are equipped with 3 W transmitted and incident LED illuminators and a built-in 30 LED ring light incident illuminator. The light

intensities can be adjusted separately. Also available with batteries (add "B" after article number, e.g. SB.1302-PB)

ANTI-THEFT SLOT

At the back of the microscope a Kensington Security slot is placed, which can be used to secure the instrument from theft (not on the U- and B-models)

PACKAGE CONTENT

Models with illumination are supplied with power cord, dust cover, eyecups, a spare fuse, Ø 60 mm transparent, black/white stage plates and user manual. All packed in a polystyrene box

STEREOBLUE 1X/3X AND 2X/4X OBJECTIVES

MODELS	Binocular	1x/3x objective	2x/4x objective	Rack & pinion stand 3 W LED	Pillar stand 3 W LED	Weight (kg)
SB.1302	•	•		•		3.3
SB.1302-P	•	•			•	4.2
SB.1402	•		•	•		3.3
SB.1402-P	•		•		•	4.2

STEREOBLUE 0.7X UP TO 4.5X ZOOM/0.5X UP TO 5.5X ZOOM EVO

MODELS	Bino	Trino	0.7 - 4.5x zoom	0.5 - 5.5x zoom EVO	Rack & pinion stand 3 W LED	Pillar stand 3 W LED	Universal stand	Boom stand on heavy base plate	30 LED right light	Weight (kg)
SB.1902	•		•		•					3.6
SB.1902-P	•		•			•				4.4
SB.1902-U	•		•				•			15.4
SB.1902-B	•		•					•		21.9
SB.1903		•	•		•					3.7
SB.1903-P		•	•			•				4.5
SB.1903-U		•	•				•			15.5
SB.1903-B		•	•					•		22.0
SB.3903		•	•		•				•	3.7
SB.3903-P		•	•			•			•	4.5
SB.1702	•			•	•					3.6
SB.1702-P	•			•		•				4.4
SB.1702-U	•			•			•			15.4
SB.1702-B	•			•				•		21.9
SB.1703		•		•	•					3.7
SB.1703-P		•		•		•				4.5
SB.1703-U		•		•			•			15.5
SB.1703-B		•		•				•		22.0

ACCESSORIES AND SPARE PARTS

EYEPIECES

- SB.6210** Pair of HWF 10x/21 mm eyepieces
- SB.6210-C** WF 10X/21 mm eyepiece with crosshairs
- SB.6210-M** WF 10X/21 mm eyepiece with micrometer scale
- SB.6015** Pair of HWF 15x/15 mm eyepieces
- SB.6015-C** WF 15X/15 mm eyepiece with crosshairs
- SB.6015-M** WF 15X/15 mm eyepiece with micrometer scale
- SB.6020** Pair of HWF 20x/10 mm eyepieces
- SB.6020-C** WF 20/10 mm eyepiece with crosshairs
- SB.6020-M** WF 20/10 mm eyepiece with micrometer scale
- SB.6099** Pair of eyecups

pillars. Note: the one- and double arm stands are as a standard supplied with this ring

- SB.9570** Pair of object clamps for stage
- SB.9952** Stage plate transparent, Ø 60 mm
- SB.9956** Stage plate black/white, Ø 60 mm
- SB.9983-R** 3 W LED replacement unit, incident illumination
- SB.9983** 3 W LED replacement unit, transmitted illumination
- AE.1112** Micrometer 76 x 26 mm slide, 50 mm/50 divisions

CAMERA ACCESSORIES

- SB.9850** C-mount adapter with 0.5x lens for 1/2" cameras. Only for trinocular models
- 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
- Other T2 adapters on request

DISPOSABLES

- 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

AUXILIARY LENSES

- SB.8903** Auxiliary 0.3x lens for zoom models, WD 287 mm. Only suitable for boom and articulated stands
- SB.8905** Auxiliary 0.5x lens for zoom models, WD 179 mm. Not suitable for SB.1X02, SB.1X03, SB.3903 and SB.3903-P
- SB.8907** Auxiliary 0.75x lens for zoom models, WD 105 mm
- SB.8915** Auxiliary 1.5x lens for zoom models, WD 53 mm. Not suitable for SB.39xx

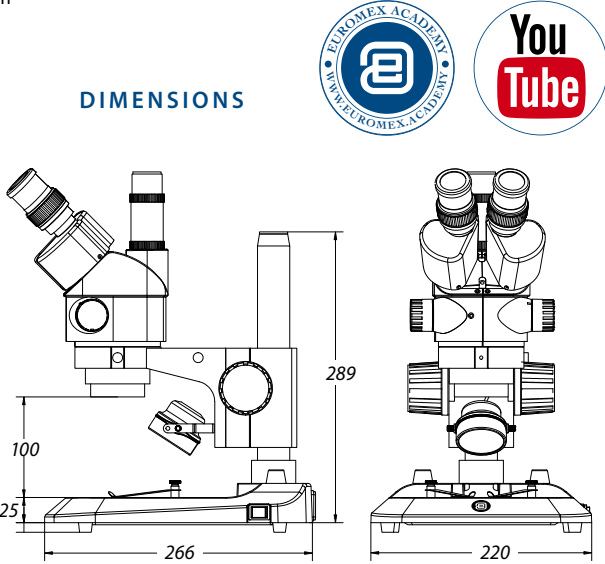
POLARIZATION ATTACHMENT

- SB.9520** Polarization kit : 360° rotatable circular stage with built-in polarization filter (SB.9524) + analyzer in mount to be screwed under the head (SB.9525)
- SB.9524** 360° rotatable circular stage with built-in polarization filter
- SB.9525** 360° rotatable analyzer in mount to be screwed under the head

MISCELLANEOUS

- SB.8950** Protection glass window
- SB.9020** Universal single-arm stand without head holder and without illumination
- SB.9030** Universal double-arm stand without head holder and without illumination
- SB.9090** Head holder for SB.9020
- SB.9040** Darkfield attachment, only for -S and -P models
- SB.9045** Fall protection ring for StereoBlue

DIMENSIONS

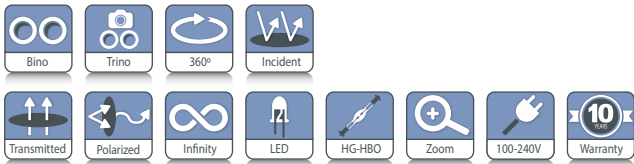


STEREO MICROSCOPES

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 such as for studies of vertebrate development and gene function, teratology, genetics and environmental sciences



DZ.1100 / DZ.1600 / DZ.1800
305 (h) x 330 (w) x 285 (d) mm | 6.0 kg
DZ.1105 / DZ.1605 / DZ.1805
444 (h) x 330 (w) x 285 (d) mm | 5.2 kg
For weight of other products see table 'Models'

- Customized configuration model DZ.0800, 2x DZ.3010, DZ.2025, DZ.4010 and DZ.5040

DZ series

HIGHLIGHTS

- Binocular and trinocular models
- Six standard configurations or customized configuration
- Ergonomic tilting head from 0° to 35° tilting or fixed 20° inclined head, EWF 10x/22mm eyepieces,
- Three central zoom units from 4x to 320x
- Fields of view from 55 mm to 1.4 mm
- Working distances from 126 mm to 33 mm
- Ergonomic rack & pinion stands, universal stand or articulated arm stand
- Transmitted and incident LED illumination
- 100 W epi-fluorescence mercury vapor illuminator
- 10 Years warranty

SPECIFICATIONS

EYEPIECES

Pair of EWF 10x/22 mm eyepieces

HEAD

- Ergonomic binocular 0-35° 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
- Click-stops

CENTRAL ZOOM UNIT

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 (CMO) 1x, working distance 78 mm. Other plan apochromatic common main objectives 0.5x (WD 126 mm) and 2x (WD 33 mm) are also available



- Customized specification fluorescence model

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 two 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

ILLUMINATION

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

PACKAGE CONTENT

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

STANDARD CONFIGURATIONS

All six standard configurations are equipped with EWF 10x/22mm eyepieces, plan achromatic common main objective (CMO) 1x and rack & pinion stand with incident and transmitted LED illumination

DZ SERIES STANDARD

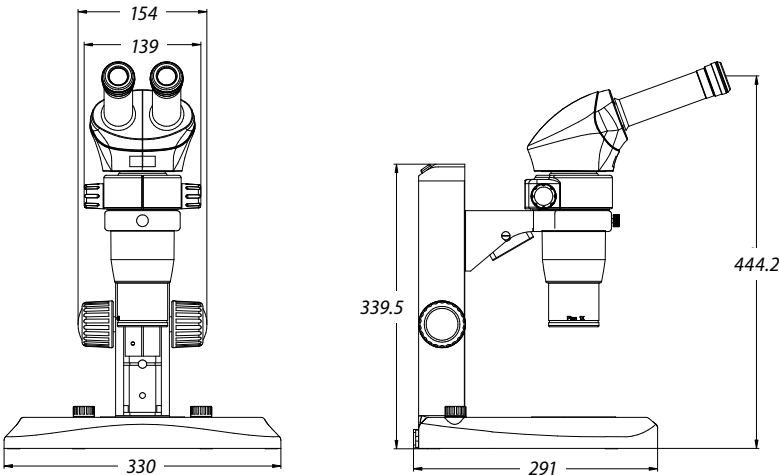
MODELS	Binocular 20° head	Binocular ergo 0 to 35° tilting	Magnifications from 8 to 50x	Magnifications from 8 to 64x	Magnifications from 8 to 80x
DZ.1100		•			•
DZ.1105	•				•
DZ.1800		•		•	
DZ.1805	•			•	
DZ.1600		•	•		
DZ.1605	•		•		

All equipped with EWF 10x/22mm eyepieces

MAGNIFICATIONS AND FIELDS OF VIEW FOR STANDARD CONFIGURATIONS

MODELS	Zoom indication	0.5x Objective WD 126 mm		1.0x Objective WD 78 mm		2.0x Objective WD 33 mm	
		Total magnification	Field of view	Total magnification	Field of view	Total magnification	Field of view
DZ.1100 / DZ.1105 DZ.1800 / DZ.1805 DZ.1600 / DZ.1605	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

DIMENSIONS



BUILD YOUR OWN STEREO 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. A pair of eyepieces, an ergonomic 0 to 35° tilting head or fixed 20° inclined head, a 0.5x, 1x or 2x common main objective (CMO), a large ergonomic LED stand, a universal or an articulated arm stand. Other accessories, such as a photo/camera unit or dual iris diaphragm, can complete the configuration

CENTRAL ZOOM UNITS

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

HEADS

- DZ.2020** Ergonomic binocular 0-35° tilting head without eyepieces
- DZ.2025** Binocular 20° tilted head without eyepieces
Interpupillary distance from 55 to 75 mm

EYEPIECES

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



IRIS DIAPHRAGMS

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

OBJECTIVES

- DZ.4003** Plan common main objective 0.3x. WD 276 mm
- DZ.4005** Plan apochromatic common main objective 0.5x. WD 126 mm
- DZ.4010** Plan apochromatic common main objective 1.0x. WD 78 mm

- DZ.4020** Plan apochromatic common main objective 2.0x. WD 33 mm

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

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. Coaxial coarse and fine adjustments, 100 graduations, 0.015 mm per graduations
- 65.980** Articulated arm stand for mounting on table without head holder (65.981)
- 65.981** Head holder 76 mm for DZ series and black articulated arm stand (65.980)
- NZ.9025** Articulated arm stand with table clamp (without DZ head holder 65.981)
- NZ.9027** Articulated arm stand with heavy stand (without DZ head holder 65.981)
- NZ.9042** Stand with rotating mirror and transmitted LED illumination
- NZ.9030** Boom (double arm) stand with heavy stand (without head holder NZ.9090)
- NZ.9032** Boom (double arm) stand with table clamp (without head holder NZ.9090)
- NZ.9090** Head holder (for NZ.9020, NZ. 9030 and NZ.9032)

FLUORESCENCE ATTACHMENT

- DZ.9050** Attachment for fluorescence with 100 W mercury vapor illumination with GFP-B and GFP-LP filter sets and one 23.2 mm photo port. Supplied with power supply
- DZ.9060** Filter cube with GFP-B band-pass filter set for blue excitation, EX 460-500, DM 505, EM 510-560



- DZ.9061** Filter cube with GFP-L long-pass filter set for Blue excitation, EX 460-500, DM 505, EM 510
 - DZ.9049** Empty filter cube
- Other premium and premium zero-pixel shift optimized filter sets are also available on request. See end of chapter 5*

● customized configuration model DZ.0800, 2x DZ.3010, DZ.2025, DZ.9005, DZ.9010, DZ.4010 and DZ.5040

ACCESSORIES/SPARE PARTS

POLARIZATION ATTACHMENTS

- 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

CAMERA ACCESSORIES

- DZ.9005** Photo port attachment with one 23.2 mm tube
- DZ.9007** Photo port attachment with two 23.2 mm tubes
- DZ.9013** C-mount 1x objective for insertion into photo port attachments
- 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
- AE.5063** 0.7x Objective with C-mount. To be mounted over a 23.2 mm tube of a Z-, M-, F-series

Other T2 adapters on request

MISCELLANEOUS

- DZ.9020** Large 185 x 145 mm stage with mechanical X-Y 50 x 50 mm stage, to be moved by hand
- DZ.9040** Darkfield attachment for DZ.5040
- AE.1112** Micrometer slide, 50 mm/50 divisions
- AE.1900** Glass object plate, Ø 100 mm
- AE.1903** Acrylic white/black object plate
- 50.875** Adjustable GEM clamp
- SL.5520** LED replacement for incident LED illumination of DZ.5040 stand

DISPOSABLES

- AE.1385** 100 W HBO mercury vapor bulb for fluorescence
- 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.2020, ergonomic binocular tilting head

STEREO MICROSCOPES

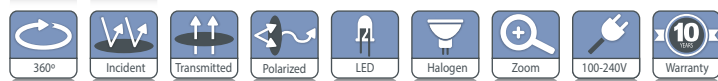
Z series

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



product information



HEAD + STAND ST.1740
210 (h) x 160 (w) x 240 mm (d) | 6.9 kg

• ZE.1624 and ST.1735

HIGHLIGHTS

- Modular system
- Binocular and trinocular models
- Standard HWF 10x/23 mm eyepieces
- Stereo zoom heads with a fixed 45° inclined tubes
- Zoom magnification objectives
- Superior resolution optics
- Multiple stands
- 10 Years warranty

SPECIFICATIONS

EYEPIECES

Pair of SWF 10x/23 mm eyepieces

HEAD

- Binocular or trinocular heads with a 45° inclined tubes
- Diopter $\pm 6^\circ$ adjustment on both tubes for Z series
- Interpupillary distance from 55 to 75 mm
- Optional click-stops

ZOOM MAGNIFICATION OBJECTIVES

- Zoom objective with magnifications from 0.4x to 2.5x
- Zoom objective with magnifications from 0.7x to 4.5x
- Zoom objective with magnifications from 1x to 7x

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

STANDS WITHOUT ILLUMINATION

- ST.1710** Pillar stand with ST.1790 head holder.
Pillar height 210 mm, diameter \varnothing 20 mm
Dimensions 250 (h) x 150 (w) x 240 (d) mm
- ST.1718** Pillar ergonomically flat stand with ST.1790 head holder. Pillar height 213 mm, diameter \varnothing 20 mm.
Dimensions 258 (h) x 330 (w) x 306 (d)



• ZE.1657 - ST.1710

STANDS WITH ILLUMINATION

- ST.1740** Rack & pinion stand with 5 W halogen illumination. Supplied with frosted filter for transmitted illumination and a blue filter for incident illumination. Both illuminations are adjustable and can be used simultaneously. With integrated power supply. Dimensions: (d)240 x (w)160 x (h)290 min/max height 240-290 mm

Stand with 3 W LED illumination and rotatable double-sided coated mirror



BOOM STANDS

- ST.1720** Articulated one arm boom stand with a 270 x 270 mm base, 610 mm and Ø 29 mm pillar, with orientable stereo head holder ST.1794. Vertical post 780 mm. Weight 19.5 kg
- 65.980** Articulated one arm stand to be mounted on table without 83 mm head holder. Depth positioning of stereo head between 33 and 100 cm. WD between 0 and a maximum of 295 mm
- 65.983** Head holder 85 mm diameter for 65.980

HEAD HOLDERS

Other optional head holders for boom stands

- 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**

* Not suitable for boom stands ST.1720 and 65.980/65.983

** Only suitable for boom stand ST.1720

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.1794, ST.1796. The head holders ST.1796 is also equipped with a fine focusing adjustment

PACKAGE CONTENT

Models with illumination are supplied with power cord, dust cover, a spare fuse and user manual. All packed in a polystyrene box



● ST.1718

ZOOM STEREO HEADS

MODELS	Binocular	Trinocular	Tilt tubes	Objective zoom	Magnification	WD (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		•*	45°	0.7 - 4.5x	7 - 45x	104	32/5.1
ZE.1670	•		45°	1 - 7x	10 - 70x	104	23/3.3

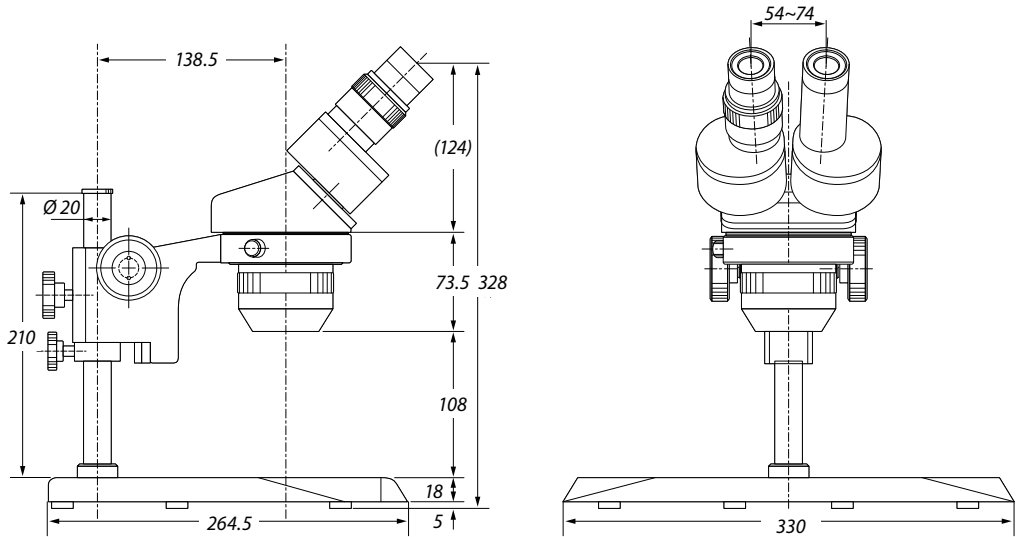
* When the trinocular tube is engaged, the image is still available in both other tubes
All zoom stereo heads are supplied with SWF 10x/23 mm eyepieces without eyecups

STANDS

MODELS	Column (mm)	Diameter (mm)	Rack & pinion	Base (w x d mm)	Height (mm)	Head holder	Illumination
ST.1710	210	20		240 x 150	250	ST.1790	
ST.1718	213	20		330 x 306	285	ST.1790	
ST.1720	610	29		780 x 270	650	ST.1794	
ST.1735			•	240 x 160	290		3 W LED
ST.1740			•	240 x 160	290		10 W Hal
65.980/65.983			•	Ø 1000 *	0/295	65.983	

* Length with the two arms totally extended

DIMENSIONS



ACCESSORIES AND SPARE PARTS

EYEPIECES

(without eyecups)

- AE.1836** Pair of SWF 10x/23 mm eyepieces
- AE.1834** Pair of SWF 12.5x/20 mm eyepieces
- AE.1840** Pair of SWF 30x/7.5 mm eyepieces
- AE.5439** Pair of eyecups
- AE.5425** Pair of eyecups, suitable when wearing spectacles

(with adjustable lens)

- AE.1839** SWF 10x/21 mm with 10 mm/100 micrometer reticle and crosshairs

MICROMETER SLIDE

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

MICROMETER EYEPIECE

ADDITIONAL LENSES

(for ZE.1659)

AE.1822 Additional 0.57x lens. WD 300 mm

ADDITIONAL LENSES

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

AE.1870 Additional 0.44x lens. WD 180 mm. Suitable with ST.1720, ST.1780, ST.1785 and 65.980 stands

AE.1856 Additional 0.5x lens. WD 150 mm. Suitable with ST.1740. Maximum object size is 15 mm

AE.1857 Additional 0.75x lens. WD 97 mm

AE.1858 Additional 1.5x lens. WD 50 mm

AE.1859 Additional 2.0x lens. WD 34 mm

ADDITIONAL LENSE

(for ZE.1657)

AE.1818 Additional 1.5x lens. WD 57 mm

PROTECTION WINDOW

(to be screwed under the objectives)

AE.1845 Protection window for all heads of ZE series except ZE.1659

MECHANICAL STAGE

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 and ST.1740

OBJECT PLATES - Ø 94 MM

AE.1882 Acrylic black/white object plate

FILTERS - Ø 40 MM

AE.1897 Frosted glass filter

OBJECT HOLDER

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

FUSE

AE.5252 Fuses for ST.1740 stand. Per 10 pieces

CAMERA ACCESSORIES

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.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

Other T2 adapters on request



● AE.1877



● AE.1876



● AE.1896

STEREO MICROSCOPES

P series

The microscopes of the P series are designed specifically for small lab purposes and come in 10/30x or 20x/40x magnification versions. By using optional eyepieces this can result in magnifications from 5x to 80x

The P series microscopes are compact and lightweight, ideal for lab or field work



60.200 (P-20)

60.100 / 60.200
290 (h) x 160 (w) x 240 (d) mm | 6.9 kg

P series

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 AA batteries for cordless use
- Incident and transmitted illuminations can be used simultaneously
- Lightweight; easy to carry to any location
- 5 Years warranty

SPECIFICATIONS

EYEPIECES

Secured pair wide field eyepieces WF 10x/20 m. 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 a total magnification of 10 and 30 times with fields of view from 20 mm to 6.7 mm
 - The P-20 and P-20-8 LED models are supplied with revolving 2x/4x objectives for a total magnification of 20 and 40 times with fields of view from 10 mm to 5 mm
- By using 5x or 20x eyepieces, magnifications from 5 to 80x can be achieved

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



60.100 (P-10)

STAND

Robust pillar stand with 35 mm coarse adjustment. Supplied with white/black object plate and two 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 three rechargeable AA batteries for a maximum of 35 hours continuous cordless operation. Both illuminators can be operated independently or simultaneously. Comes with external mains adapter

about
microscope optics

CAMERAS

Euromex offers a wide range of industrial and laboratory grade cameras, see chapter 6 (Digital Solutions).
For P series, the camera replaces one of the eyepieces

PACKAGE CONTENT

Supplied with power cord, three rechargeable AA batteries, dust cover, a spare fuse and user manual (and spare bulb for halogen models). All packed in a polystyrene box

ACCESSORIES AND SPARE PARTS

EYEPIECES

- 50.805** Pair of wide field eyepieces WF 5x/22 mm
- 50.810** Pair of wide field eyepieces WF 10x/20 mm
- 50.811** Micrometer eyepiece WF 10x/20 mm, 10 mm/100
- 50.815** Pair of wide field eyepieces WF 15x/16 mm
- 50.820** Pair of wide field eyepieces WF 20x/10 mm
- 50.840** Pair of eyecups

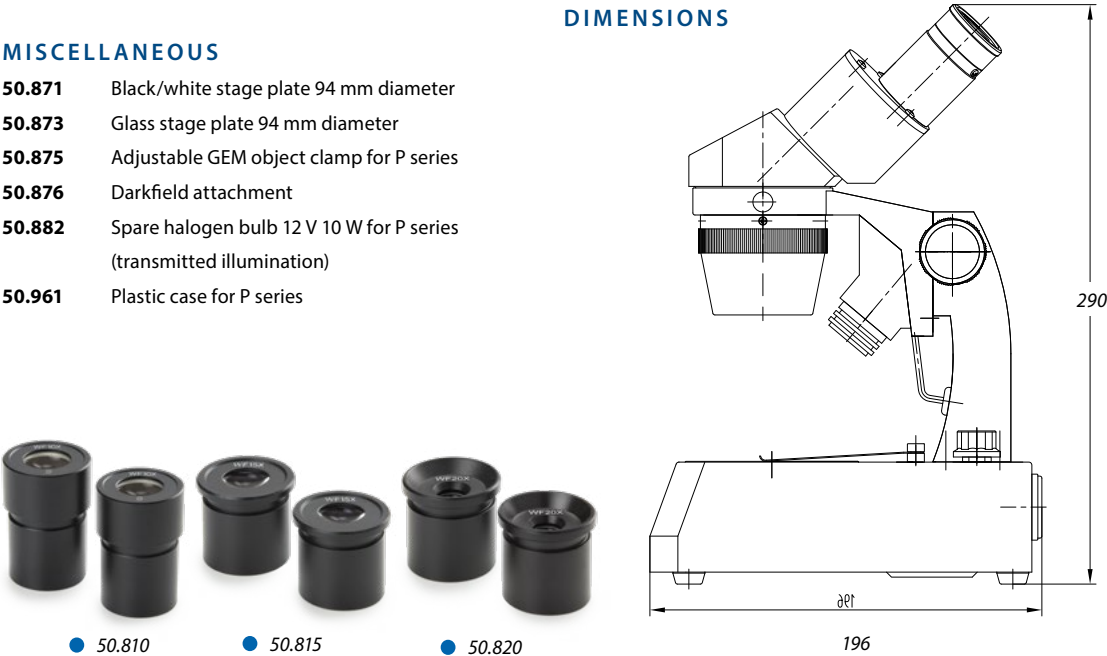
MISCELLANEOUS

- 50.871** Black/white stage plate 94 mm diameter
- 50.873** Glass stage plate 94 mm diameter
- 50.875** Adjustable GEM object clamp for P series
- 50.876** Darkfield attachment
- 50.882** Spare halogen bulb 12 V 10 W for P series (transmitted illumination)
- 50.961** Plastic case for P series

DISPOSABLES

- 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 and cotton swabs

DIMENSIONS



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

RESOLVING POWER

A human eye cannot 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 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 could better choose an optical compound microscope to resolve these details

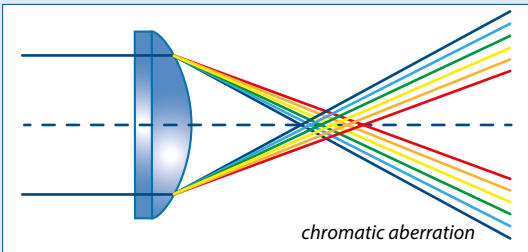
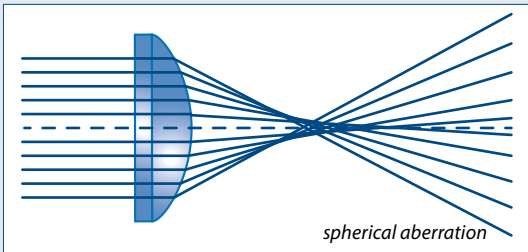
OPTICAL RESOLUTION

The resolution of an 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

MAGNIFICATION

If one needs to detect details of 10 μm, one needs at least 300 μm / 10 μm = 30x magnification in order to resolve this detail. Knowing that conventional 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



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

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

life science

digital solutions



digital solutions

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 offers the best suitable solutions for your specific application needs

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



product information

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TABLET CAMERA • PAGE 262
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DIGITAL MICROSCOPES

BioBlue
digital microscopes
with built-in
5 MP USB-2.0 camera

The WF 10x/18 eyepieces and the semi plan achromatic corrected 45 mm 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. Supplied with Abbe condenser,

NeoLED™ or LED illumination and rechargeable AA batteries for corded and cordless use



Mono

Bino

360°

Transmitted

LED

NeoLED

Abbe

APL

Digital

LCD

USB

Battery

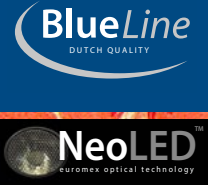
100-240V

Anti-theft

2

10

BB.4225 / BB.4245 / BB.4255
340 (h) x 155 (w) x 230 mm (d) | 3.4 kg
BB.4267 / BB.4269
360 (h) x 155 (w) x 230 mm (d) | 4.1 kg



BB.4225

HIGHLIGHTS

- Monocular and binocular models
- Models with a 7" LCD screen
- Reserved quadruple nosepiece for semi plan objectives
- Built-in digital 5.0 MP USB-2.0 camera
- Integrated mechanical stage
- LED and NeoLED™ illumination
- Cordless operation
- 10 Years warranty (2 years on camera)

SPECIFICATIONS

CAMERA

All the BioBlue digital microscopes are equipped with a 5.0 MP 1/2.8" CMOS USB-2.0 camera, a maximum of resolution 2560 x 1920, 24 bits color depth, up to 30 frames per second. Supplied with USB-2.0 cable and a micrometer 1mm/100 slide

SOFTWARE

The capture and analysis ImageFocus Plus software allows to save images in .jpg, .tif, .bmp or .dicom formats as well as .avi format videos. Measurements and annotations can be done on live or captured images. Compatible with Windows 10 and higher, both 32 and 64 bits configurations. A Mac OS version is also available. Free software can be downloaded from our website

MODELS WITH LCD SCREEN

The BioBlue is also available with a 7" LCD screen, with all the features of the regular BioBlue . This screen allows live viewing, saving images and videos directly to a micro SD card



BB.4220-LCD

and even has a basic line measurement function included. The HD LCD screen can only be operated as a stand alone

Screen resolution 1920 x 1080 @ 30 fps, image resolution upto 1844 x 1080 in JPG and video resolution 1280 x 720 AVI format
For full microscope specifications and accessories see chapter 1: Biological microscopes



The digital heads

MODELS	Mono	Bino	LCD	4/10/40x SMP 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
BB.4200-LCD			•	•				•		2.9
BB.4220-LCD			•	•			•	•		3.4

DIGITAL MICROSCOPES

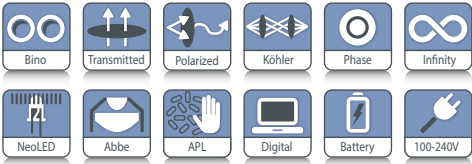
bScope®
digital microscopes
with built-in
5.0 MP USB-2.0 camera

The versatile and evolutive bScope® microscopes are well-equipped and intensively used in universities, small to mid-sized laboratories and for veterinary applications

The digital bScope® comes with WF 10x/20 mm eyepieces and is exclusive available in binocular versions. Complete with E-plan IOS and Plan IOS infinity corrected objectives for brightfield observations. Also EPLPHI IOS and PLPHi IOS infinity corrected objectives for phase contrast observations



product information



BS.1157-PLi



BS.1157-PLi
409 (h) x 195 (w) x 235 (d) | 7.1 kg



HIGHLIGHTS

- Binocular model
- Integrated 5.0 MP CMOS color USB.2 camera
- 2592 x 1944 pixels
- 7 frames per second (2592 x 1944 pixels)
- 27 frames per second (1280 x 960 pixels)
- 10 Years warranty (2 years on camera)

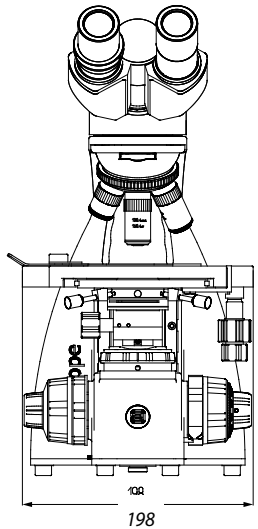
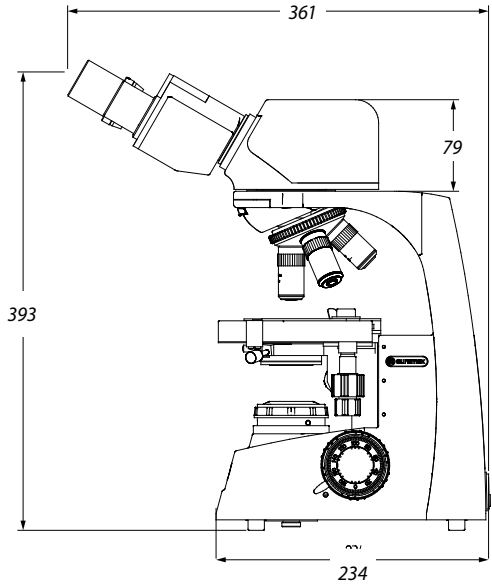
SPECIFICATIONS

CAMERA

The digital bScope microscopes are equipped with a 5.0 MP 1/2.5 inch CMOS USB-2.0 camera, 24 bits color depth, 7 frames per second (2592 x 1944 pixels) or 27 frames per second (1280 x 960 pixels). Dynamic range is 76 dB and signal/noise ratio 41 dB. Supplied with USB-2.0 cable and a micrometer 1mm/100 calibration slide

SOFTWARE

The capture and analysis ImageFocus Alpha software allows to save images in .jpg, .tif, .bmp or .dicom formats as well as .avi format videos. Measurements and annotations can be done on live or captured images. Compatible with Windows 10 and higher, both 32 and 64 bits configurations. A Mac OS version is also available. Free software can be downloaded from our website. For full microscope specifications and accessories see chapter 4: Biological microscopes



MODELS	Binocular head	HWF 10x/20 mm eyepieces	Quintuple nosepiece E-plan IOS 4/10/540/S100x	Quintuple nosepiece plan IOS 4/10/540/S100x	Köhler NeoLED™
BS.1157-EPLi	•	•	•		•
BS.1157-PLi	•	•		•	•

All models can optionally be supplied with three rechargeable AA batteries

MACROZOOMS

MZ series

MZ.5000 digital macrozoom

The digital MacroZoom microscope is built around one 0.7 to 5x zoom objective and enables inspection of objects directly on an 11.6" LCD screen, -5° to 15° inclination. This kind of microscope is well-suited for inspection and quality control departments

The digital MacroZoom is equipped with a built-in full High Definition 1080p camera which can deliver up to 60 images per second and is connected either to the supplied and attached 11.6" screen or an external stand-alone HD screen



product information



● MZ.5000

MZ.5000
445/635 (h) x 320 (w) x 260 mm (d) | 4.6 kg

HIGHLIGHTS

- MonoZoom stand-alone digital microscope
- Zoom from 0.7x up to 5x
- 105 mm working distance
- 110 mm working distance with 0.5x lens
- Built-in incident LED ring light
- Built-in 1080p 2 MP HD camera
- HD 11.6 inch screen, -5° to 15°
- Built-in mouse driven on-screen software
- Conveniently build-in capture button
- Removable 32 GB memory stick
- Metal stand
- 2 Years warranty

SPECIFICATIONS

CENTRAL ZOOM OBJECTIVE

The digital MacroZoom MZ.5000 features a single zoom objective with a 0.7 to 5x zoom magnification. Zoom adjustment engravings on 1, 1.5, 2, 3, 4 and 5x. The working distance is 105 mm. Supplied with a 0.5x additional lens with a working distance of 110 mm

STAND

The Central Zoom Objective with attached screen and LED ring light is mounted on a rack and pinion system that sits on a large 320 x 260 mm metal stand. Travel range is 225 mm

ILLUMINATION

A supplied 5,500 K LED ring light with 56 LED's can be mounted under the microscope body. The intensity is adjustable

BUILT-IN CAMERA

Built-in HD 1080p high definition 2 MP CMOS high speed camera, 1920 x 1080 pixels, 60 fps with attached 11.6 screen. The standard field of view is 29.8 to 4.18 and with the 0.5x additional lens from 59 to 8.35. The camera has one HDMI output that can be connected either to the attached screen or to an external HD screen



● Adjustable screen

Two other USB ports accept the supplied 32 GB USB memory stick (up to 128 GB) and a supplied wireless mouse that drives the built-in on-screen software. The operator can also take and save images to the SD card by pressing on a capture button at the right side of microscope body

BUILT-IN SOFTWARE

The built-in on-screen software is mouse driven and features functions such as Capture image, Freeze image, Automatic white balance, Automatic exposition, File manager, Grids and camera settings such as exposure time, gain, saturation, contrast, sharpness, HDR
Measurement functions are also available from the software such as line, area, angle. Images are saved in .jpg format and videos are saved in .avi format. With the digital zoom function, objects can be observed with a magnification up to 70 times

PACKAGE CONTENT

Supplied with 32 GB memory stick, mouse, short HDMI cable for attached screen, external 100-240 Vac / 12Vdc / 3 A power supply



MZ.4700(-HDS)

digital autofocus macrozoom 4K/1080p

The MZ.4700 is an integration of a 1080p HDMI camera, an electrically controlled continuous zoom auto-focus objective together with a stand and illumination system. The MZ.4700 enables direct inspection of objects on a HD screen. The mouse-driven built-in software controls the camera parameters and enables measurements on screen, capturing and saving .jpg or .bmp format pictures and .mp4 format video on a USB memory stick

● MZ.4700



product information



MZ.4700

350 (h) x 375 (w) x 250 mm (d) | 5.1 kg

MZ series

HIGHLIGHTS

- Stand-alone or PC operated
- Sony 1/2.8" 4K/1080P CMOS sensor
18x optical zoom ratio
- Optical zoom factor up to 5.6x
- On-screen magnification from 2.8 to 47x
- 205 - 215 mm Working distance
- Standard LED ring light
- Optional directional LED ring light
- Built-in mouse-driven software
- 2 Years warranty

SPECIFICATIONS

ZOOM OBJECTIVE

- The 16 elements objective has a 18x zoom ratio and produces magnifications up to 0.56 magnification with a manual or automatic focusing function
- Field of views from 255 x 145 mm (1x zoom) to 14 x 8 mm (18x zoom)
- On-screen magnification 2.8 to 47x @190 mm WD (24" screen)
- Focusing range is between 205 and 225 mm
WD = working distance

CAMERA

- The 2 MP camera is equipped with a Sony 1/2.8 inch 4K UHD/1080P CMOS High Definition sensor with high signal-to-noise ratio generating a 3840 x 8160 pixels video streaming up to 60 images per second
- The 4K/UHD signal fits the HDMI input of a HD screen
- Image and video storage is done with a built-in SD card
- Stand-alone or PC operated (ImageFocus Alpha)

BUILT-IN SOFTWARE

The built-in intuitive software is controlled by the supplied and to the camera connected mouse. It features a camera-, an autofocus control panel and a measurement toolbar

ILLUMINATION

A standard LED ring light assures a good standard lighting of the sample. A ring light with 12x 1W, 30° directional LEDs enables very flexible lighting of the sample



● MZ.4735

● MZ.4730

STAND

- The MacroZoom can be mounted on a dedicated pole stand with or without a dedicated HD screen
- With the 30° directional 12x 1W LED ring light (MZ. 4735,) the MacroZoom (MZ.4705) can also be mounted on the NexusZoom stands

PACKAGE CONTENT

Supplied with a standard ring light, a 32 GB SD card, mouse, HDMI cable and external 100-240 Vac / 12Vdc / 3A power supply

ORDER PRODUCT REFERENCES

MZ.4700	Stand-alone digital autofocus MacroZoom ⁽¹⁾ with standard ⁽²⁾ stand
MZ.4700-HDS	Stand-alone digital autofocus MacroZoom ⁽¹⁾ with standard ⁽²⁾ stand and HD screen
MZ.4705	Stand-alone digital autofocus MacroZoom ⁽¹⁾
MZ.4710	Standard ⁽²⁾ stand for MZ.4705
MZ.4712	11 inch HD screen for MZ.4710 inclusive pillar attachment
MZ.4730	Standard LED ring light
MZ.4735	Directional 12 x 1W LEDs ring light ⁽²⁾

⁽¹⁾ Supplied with a 32 GB SD card, mouse, HDMI cable and External 100-240 Vac / 12Vdc / 3A power supply

⁽²⁾ With the MZ. 4735 a MZ.4705 can also be mounted on NexusZoom stands

MACROZOOMS

MZ series



MZ.4600 digital macrozoom

This entry-level digital MacroZoom is equipped with a 0.7 to 5x zoom objective enables direct inspection of objects on external HD screen (not supplied). The mouse-driven built-in software control the camera parameters and enables measurements on screen, capturing and saving .jpg or .bmp format pictures and .mp4 format video on an USB memory stick

The MZ.4600 has a built-in high definition 1080p 2 MP camera which can deliver up to 60 images per seconds and needs to be connected to an external stand-alone HD screen



product information



MZ.4600
323 (h) 320 (w) 260 mm (d) | 4.4 kg

HIGHLIGHTS

- MonoZoom stand-alone digital microscope
- Optical zoom from 0.7x up to 5x
- Magnification on screen from 2.5 up to 19x
- 100 mm working distance
- Built-in 1080p 2 MP HD camera
- Built-in mouse driven on-screen software
- Measurement function on screen
- jpg or bmp saved images
- mp4 video recording up to max 2 hrs
- Removable 32 GB memory stick
- Metal stand
- 2 Years warranty

SPECIFICATIONS

MACROZOOM OBJECTIVE

The Digital MacroZoom MZ.46000 features a single zoom objective with a 0.7 to 5x zoom magnification. Zoom adjustment engravings on 0.7, 1, 1.5, 2, 2.5, 3, 4 and 5x. The working distance is 100 mm. An optional 3D attachment enables a 45° angle observation

STAND

- Standard pillar stand (Ø 32 mm) that sits on a large 320 x 260 mm metal stand without illumination
- Travel range is 50 mm, max. object height 22 cm
- The MacroZoom objective can also be mounted in the NexiusZoom

ILLUMINATION

An external (not supplied) illumination system should be used, such as:

- LED ring lights LE.1973 or LE.1974
- LED illumination station LE.5212 or LE.5207 which can be mounted under the MacroZoom body

BUILT- IN CAMERA

Built-in HD 1080p high definition 2 MP 1/2.8" CMOS high speed camera, 1920 x 1080 pixels, 2.9 µm x 2.9 µm pixels and



• MZ.4600-NZ

60 images per seconds. Magnification on screen from 2.5x up to 19x with field of view from 210 x 120 mm up to 27 x 15 mm based on a 24 inch HD screen. The camera has one HDMI output that needs to be connected to an external HD screen (not supplied). Two USB ports accept the supplied 32 GB USB memory stick (up to 64 GB) and a supplied wireless mouse that drives the built-in on-screen software. The operator can take .jpg or .bmp images and .mp4 video's and save them to an external supplied memory stick

BUILT- IN SOFTWARE

The built-in on-screen software (only English language) is mouse driven and features functions such as capture or record images, automatic or manual white balance, color adjustments, file manager, grids, flip/mirror, freeze image, WDR (white dark regulation), crosshair and crosslines, text annotations. Camera settings such as automatic or manual exposition time, gain, brightness, saturation, contrast, sharpness, digital 1-6x zoom are available. Measurement functions are also available from the software such as line, polygon circle, rectangle, angle, arc. Images are saved in .jpg or .bmp format and video in .mp4 videos format

PACKAGE CONTENT MZ.4600

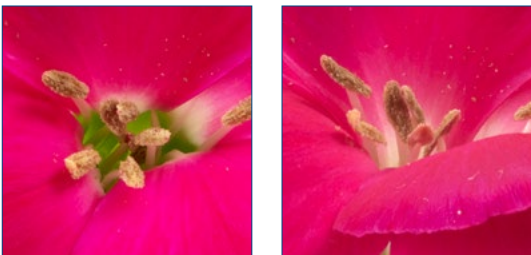
- Supplied with
- Digital MacroZoom body only (MZ.4605)
 - 32 GB memory stick, mouse, HDMI cable for HD screen, external 100-240 Vac / 12Vdc / 3A power supply
 - Standard pillar stand with head holder, without illumination (MZ.4610)

ORDER PRODUCT REFERENCES:

- MZ.4600** MacroZoom body with standard stand
- MZ.4600-NZ** MacroZoom body with NexiusZoom stand (NZ.9018), equipped with two 2 W gooseneck LED illuminations
- MZ.4605** MacroZoom body alone
- MZ.4610** Standard* stand for MZ body MZ.4605
- MZ.4615** 3D attachment for observation under 45° angle*
- MZ.4625** Additional 0.5x lens working distance 165 mm
- MZ.4627** Additional 0.7x lens working distance 128 mm
- MZ.4622** Additional 2x lens working distance 40 mm



● 3-D attachment MZ.4615
Below: view from above and from a 45° angle



OPTIONAL LIGHT SOURCES:

- LE.1973** Ring light with 144 LEDs with adjustable light intensity. External power supply 100-240. Vac / 12 Vdc (50/60 Hz). With segment controller. Luminous flux of 23,000 Lux and color temperature of 6500 K
- LE.1974** Ring light with 72 LEDs with adjustable light intensity. External power supply 110-240 Vac / 12 Vdc (50/60 Hz). With segment controller. Luminous flux of 20,000 Lux and color temperature of 6500 K
- LE.5207** Light source with 2x 3W LED light source mounted on two self-sustaining Gooseneck-type 56 cm long guide. Luminous flux 25.000 Lux, 6500K
- LE.5212** Multiple light source station with
- two self-sustaining gooseneck-type 56 cm long guides with 2x 3 Watt white 6500 K power LEDs, each with a 3-lens focusing heads
 - 60 LEDs ring light, 6.500 K, 24.000 Lux
 - transmitted 42 LEDs light stage, 6.500 K, 8.000 Lux. Stage diameter 94.5 mm, 15 mm thick



● MZ.4600 with LE.1973

how to match camera resolution

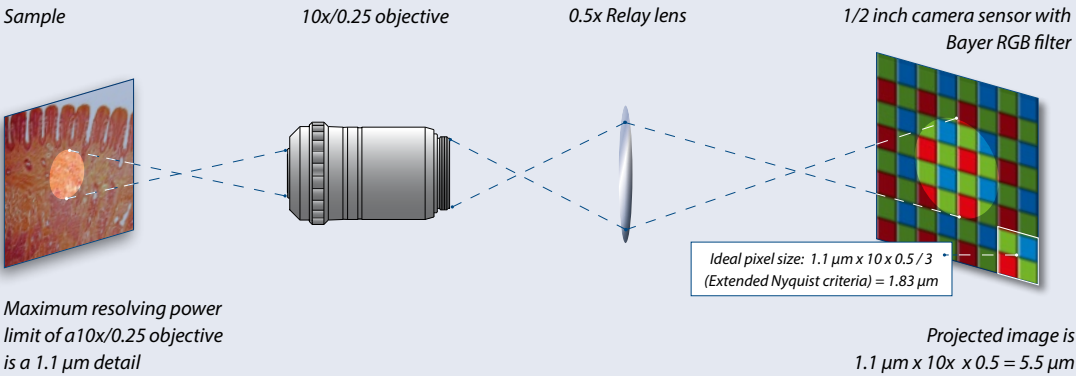
In microscopy, the image of the sample under observation is projected by the optical components of the microscope (objective lenses, eyepiece lenses, intermediate lens or camera relay lenses) onto the surface of a camera sensor or the retina of a human eye

Not the total amount of pixels – which basically determines the field of view of the camera image – is primordial but

a more important specification is the pixel size of the camera sensor. What might be astonishing to know about digital resolution of camera's is the fact, that the higher the magnification, the fewer pixels the chip of a camera needs!

To optimize the transfer of the details of the sample (resolving power) to the camera, the pixel size of the photodiodes of the camera sensor is a key element

EXAMPLE OF A 10X/0.25 OBJECTIVE WITH 1/2 INCH CAMERA SYSTEM



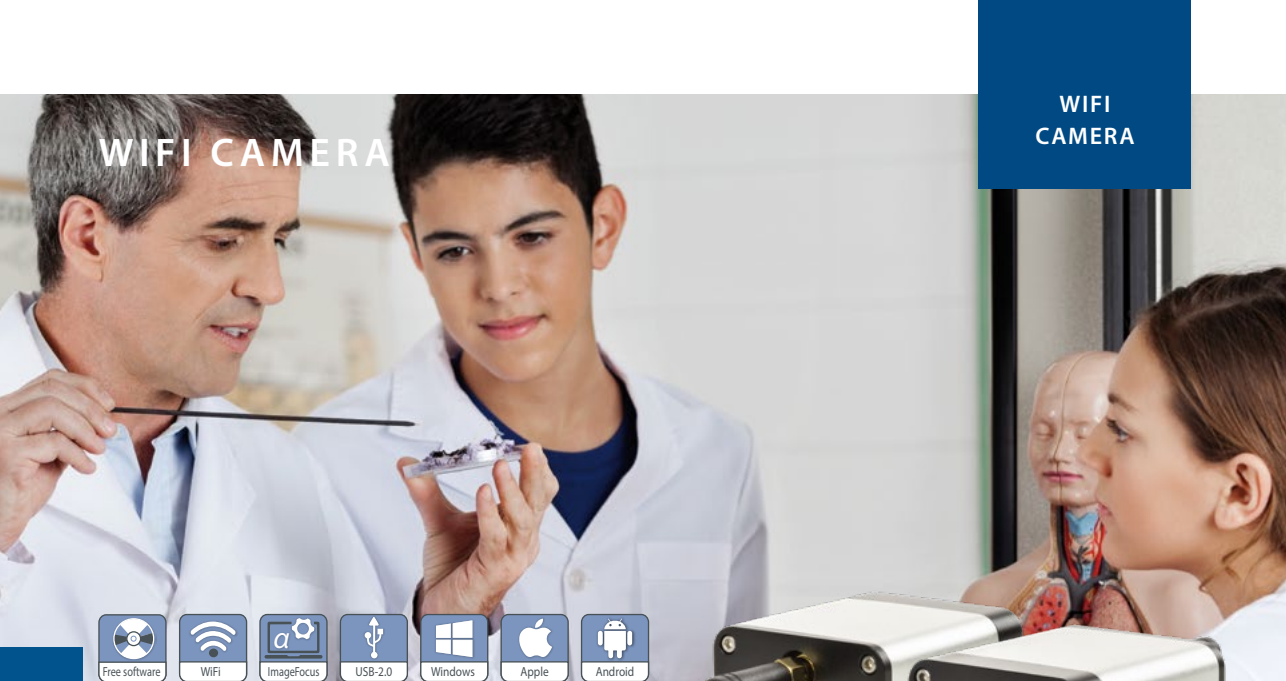
MAXIMUM AND OPTIMUM PIXEL SIZE REQUIREMENTS:

Obj. Magn.	NA	Resolving power ⁽¹⁾ (μm)	Projected size (μm)	Projected size with 0.5x lens (μm)	Maximum ⁽²⁾ camera pixel size (μm)	Optimum ^{(2) (3)} camera pixel size (μm)
1x	(0.04)	6.90	6.90	3.45	1.72	1.15
2x	(0.06)	4.60	9.20	4.60	2.30	1.53
4x	(0.10)	2.80	11.2	5.60	2.80	1.86
10x	(0.25)	1.10	11.0	5.50	2.75	1.83
20x	(0.40)	0.69	13.8	6.90	3.45	2.30
40x	(0.65)	0.42	16.8	8.40	4.20	2.80
60x	(0.80)	0.34	20.4	10.2	5.10	2.40
100x	(1.25)	0.22	22.0	11.0	5.50	3.67

⁽¹⁾ Resolving power of the objectives: $r = 1.22 \cdot \lambda / (NA \text{ Objective} + NA \text{ Condenser})$. With NA = numerical aperture, λ = wavelength and r = optical resolving power. The resolving power limits are based on various theoretical calculations. Low specimen contrast, improper or low illumination conditions, etc, may serve to lower resolving power limits, more often than not, the real-maximum values are not realized in practice

⁽²⁾ The Nyquist criterion states that the maximum camera pixel size can't exceed half of the resolving limit of the objective. For high resolution images, the Nyquist criterion is even extended to 2.5 to 3 pixels per detail and thus the optimum camera pixel size ⁽³⁾ is calculated as maximum 1/3 of the resolving limit of the objective

⁽³⁾ Although smaller pixel size of photodiodes of the camera sensor improve the resolution, smaller pixel sizes lower signal to noise ratios, lower the dynamic range and collect less light! Binning techniques can compensate for lower signal to noise ratios



WIFI CAMERA



CMEX-5 WiFi-2 5.0 MP

digital WiFi camera with 1/2.5 inch CMOS sensor

The CMEX-5 WiFi-3 1080p camera is equipped with a 5.0 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 or Windows operating systems

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



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

Android app for this camera is available on www.euromex.com. IOS app can be downloaded from the App Store (free of charge). ImageFocus Alpha software can be used by means of WiFi on PC's and Macs and is available on www.euromex.com

The camera is powered by the included USB charger or a computers USB port. Standard 0.37x C-mount objective is included

MODEL	Sensor	Sensor size (inches)	Pixels size (µm)	Resolutions	Grayscale conversion	Color rendering	Signal/ Noise(dB)	Dynamic (dB)	Sensitivity V/lux-sec	Product number
CMEX-5 WiFi-3	CMOS	1/2.5"	2.2 x 2.2	1280 x 720	12 bits	24 bits	60	66.5	0.53	DC.5000-WiFi-3

The CMEX-5 WiFi-3 camera is supplied in a box with USB cable, 30.0 and 30.5 mm adapters to use with stereo microscopes and a 0.37x C-mount objective



USB CAMERAS



CMEX USB-2.0 cameras

with fast CMOS sensor

The CMEX-2f, CMEX-5f and CMEX-12f are equipped with a fast CMOS sensor. The CMEX cameras are equipped with USB-2.0 data interface

Besides capturing images and videos, the ImageFocus Plus software allows measurements on still and live images and annotations on captured images. Compatible with Windows 10 and higher, both 32 and 64 bits configurations. A Mac OS version is also available. Free software can be downloaded from our website

MODELS	Number of pixels (MP)	Sensor	Pixels size (µm)	Resolutions	Max. frames (p/sec)	Grayscale conversion	Color rendering	Dynamic (dB)	Sensitivity V/lux-sec (at 550 nm)	Product number
CMEX-2f	2.0	1/2.9" CMOS	2.8 x 2.8	1920 x 1080	30	8 bits	24 bits	72	0.51	DC.2000f
CMEX-5f	5.0	1/2.8" CMOS	2.0 x 2.0	2560 x 1920 1600 x 1200	30 50	8 bits	24 bits	72	2.0	DC.5000f
CMEX-12f	12.0	1/2.3" CMOS	1.33 x 1.33	4000 x 3000 2592 x 1944	15 30	8 bits	24 bits	60	1.5	DC.12000f

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



USB CAMERAS



ADVANCED
CAMERAS FOR
LIFE SCIENCE



● CMEX-18 Pro

Advanced CMEX USB-3.0 cameras with CMOS sensor

The CMEX-3 Pro, -5 Pro, -10 Pro and -18 Pro cameras are equipped with a 3.1, 5.1, 10 or 18 MP CMOS sensor with 12 bits grayscale conversion and a 24 bits color rendering. These cameras are equipped with a USB-3.0 data interface, enabling fast frame rate

Besides capturing images and videos, the ImageFocus Alpha software allows measurements on still and live images and annotations on captured images. Compatible with Windows 10 and higher, both 32 and 64 bits configurations. A 2 GB RAM 2.8 GHz computer and 17 inch display is recommended. A Mac OS version is available. Free software can be downloaded from our website

MODELS	Sensor	Sensor size (inch)	Pixels size (µm)	Exposure time	Resolutions	Max. frames (p/sec)	Signal/ Noise (dB)	Dynamic (dB)	Sensitivity V/lux-sec	Product number
CMEX-3 Pro	CMOS	1/3"	2.2 x 2.2	1 ms ~ 2000 ms	2048 x 1534 1024 x 770	28 53	39	100	1.9	DC.3000-PRO
CMEX-5 Pro	CMOS	1/2.5"	2.2 x 2.2	1 ms ~ 2000 ms	2560 x 1922 1270 x 960 640 x 480	14 39 100	39	68.	1.76	DC.5000-PRO
CMEX-10 Pro	CMOS	1/2.3"	1.67 x 1.67	1 ms ~ 2000 ms	3584 x 2746 1792 x 1372	8 25	35.5	63.5	0.31	DC. 10000-PRO
CMEX-18 Pro	CMOS	1/2.3"	1.25 x 1.25	1 ms ~ 2000 ms	4912 x 3684 2456 x 1842 1228 x 922	6 18 32	42	65	1.3	DC. 18000-PRO

The CMEX-3 Pro, -5 Pro, -10 Pro and -18 Pro cameras are supplied with USB-3.0 cable, 30.0 and 30.5 mm adapters to use with stereo microscopes, 1 mm/100 (10 µm/division) calibration slide. The CMEX-5 Pro, -10 Pro and -18 Pro are supplied with a 0.5x C-mount objective. The CMEX-3 Pro is supplied with a 0.37x C-mount objective

USB CAMERAS



SCIENTIFIC
GRADE CAMERAS
FOR LIFE SCIENCE



● sCMEX

sCMEX USB-3.0 cameras with scientific grade sCMOS sensor

The sCMEX-3, sCMEX-6, sCMEX-20 and sCMEX-32 cameras are equipped with a scientific grade back illuminated Sony 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-3.0 data interface and work with ImageFocus Alpha software

Besides capturing images and videos, the ImageFocus Alpha software allows measurements on still and live images and annotations on captured images. Compatible with Windows 10 and higher, both 32 and 64 bits configurations. Also compatible with Mac OS. PC requirements: Intel Core2 2.8 GHz or higher or equivalent, 2 GB memory, USB-3.0 port, 17 inch display. Free software can be downloaded from our website

MODELS	Number of pixels (MP)	Sensor and size (inches)	Pixels size (µm)	Exposure time	Resolutions	Max. frames (p/sec)	Color rendering	Dynamic range (dB)	S/N Ratio (dB)	Sensitivity V/lux-sec	Product number
sCMEX- 3	3.1	1/2.8" sCMOS	2.5 x 2.5	0.244 ~ 15000 ms	2048 x 1536 1920 x 1080	50 58	36 bits	--	--	0.15	DC.3000s
sCMEX- 6	6.3	1/1.8" sCMOS	2.5 x 2.5	0.244 ~ 15000 ms	3072 x 2048 1536 x 1024	30 38	36 bits	66.8	44.51	0.15	DC.6000s
sCMEX-20	20	1" sCMOS	2.4 x 2.4	0.264 ~ 15000 ms	5440 x 3648 2736 x 1824 1824 x 1246	15 50 60	36 bits	66.3	44.74	0.21	DC.20000s
sCMEX-32	32	1.15" sCMOS	2.3 x 2.3	0.1 ~ 15000 ms	5600 x 5600 2800 x 2800 1400 x 1400	8.1 30 30	36 bits	88	50	0.43	DC.32000s

The sCMEX cameras are supplied in a carton box with USB-2.0 cable, 30.0 and 30.5 mm to 23.2 mm conversion adapters for use with stereo microscopes, 1 mm/100 (10 µm/division) calibration slide. The DC.3000s is supplied with a 0.37x objective, the DC.6000s is supplied with a 0.5x objective, the DC.20000s and DC.32000s are supplied with a 1.0x adapter

HD AND HD-AUTOFOCUS CAMERAS

HIGH DEFINITION
CAMERAS FOR
LIFE SCIENCE



High definition 1080p and 4K CMOS color cameras

These UHD-4K and HD cameras offer the perfect solution to modern microscopy where real-time images are needed. These HD image quality cameras can be used with biological, metallurgical or stereo microscopes

STAND-ALONE MODE

To use these cameras you do not need a computer or have any computer knowledge. Most camera settings are done automatically and therefore these cameras are very user- friendly. This results in faster, more flexible and compact working conditions. Simply connect the camera to a high definition dedicated 11.6" or 13" HD screen, TV-HD or HD-beamer with a HDMI input and the system is ready to go. The mouse driven built-in software of the camera enables captured images and recorded videos to be saved on the integrated SD memory card

Almost all HD cameras offer a full range of measuring functions on live and captured images

COMPUTER CONTROLLED MODE

Users who want more camera controls and more functions can also connect the camera to a computer and benefit from the extensive functions of the Euromex ImageFocus software. It runs on Windows 10 and higher, both 32 and 64 bits. Besides extended camera settings, the software can save images in JPG, TIFF or BMP formats and record videos in .avi format on the hard disk of the computer. The software offers different measurement functions on live and captured images and also full control over the camera parameters

HIGHLIGHTS

- UHD 2160p, HD 1080p high definition color cameras
- Real-time images directly on TV, monitor or beamer
- Stand-alone or computer controlled mode
- Built-in mouse-driven software and SD memory card
- HDMI, USB-2.0/3.0
- GbE (Ethernet) (VC.3042)
- WiFi (VC.3042 and VC.3034)
- Autofocus model available
- Compatible with ImageFocus software



VC.3036-HDS on stereo microscope



VC.3034-HDS on the BioBlue

PACKAGE CONTENT

MODELS	UHD-4K	HD-Ultra	HD-Lite	HD-Mini	HD-Mini +HDS	HD-Autofocus	HD-Pro
C-mount with objective	0.5x	0.37x	0.45x	0.37x	0.37x	0.5x	0.37x
Interface(s)	Digital HDMI, USB-2, WiFi	Digital HDMI, USB-2	Digital HDMI, USB-2	Digital HDMI	Digital HDMI	Digital HDMI, WiFi	Digital HDMI, USB-2
30 and 30.5 mm adapters	•	•	•	•	•	•	•
SD card	32 GB	16 GB	8 GB	32 GB	32 GB	32 GB	32 GB
Calibration slide 10mm/100	•	•	•	•	•	•	•
External power supply	12V 1A	12V 2A	12V 2A	12V 1A	12V 1A	12V 1A	12V 1A
Dimensions (w x d x h)	88 x 78 x 65	80 x 70 x 90	80 x 70 x 90	51ø x 60	50 x 50 x 60	81 x 65 x 78	81 x 65 x 78
Weight (grams)	480	440	280	50	130	500	500
Product number	VC.3042	VC.3036	VC.3031	VC.3023	--	VC.3034	VC.3039
With HD screen	13" VC.3042-HDS	11.6" VC.3036-HDS	11.6" VC.3031-HDS	--	13" VC.3024-HDS	13" VC.3034-HDS	13" VC.3039-HDS

ALL HD-CAMERAS

MODELS	UHD-4K	HD-Ultra	HD-Lite	HD-Mini	HD-Mini + HDS	HD-Autofocus	HD-Pro HDMI
Sensor	Sony 4K	Sony	Aptina	Sony	Sony	Sony	Sony
Format	1/1.8", HDTV 4K	1/2.8", HDTV 1080p	1/2.5", HDTV 1080p	1/2.8", HDTV 1080p	1/2.8", HDTV 1080p	1/1.9", HDTV 1080p	1/2.8", HDTV 1080p
Pixels	3840 x 2160 (1) HDMI 30 fps USB 30 fps	3264 x 1836 (1) 1920 x 1080 (2) HDMI 60 fps USB 30 fps	2592 x 1944 (1) 1920 x 1080 (2) HDMI 15 fps, USB 15fps	1920 x 1080 (1) 1920 x 1080 (2) HDMI 60 fps	1920 x 1080 (1) 1920 x 1080 (2) HDMI 60 fps	1920 x 1080 (1) HDMI 60 fps WiFi 25 fps	3840 x 2160 (1) 1920 x 1080 (2) HDMI 60 fps, USB 26 fps
Pixel size	2.0 x 2.0 (µm)	2.8 x 2.8 (µm)	2.2 x 2.2 (µm)	2.9 x 2.9 (µm)	2.9 x 2.9 (µm)	3.75 x 3.75 (µm)	1.45 x 1.45 (µm)
Video output	HDMI, USB-2.0, Ethernet, WiFi	HDMI, USB-2.0	HDMI, USB-2.0	HDMI	HDMI	HDMI, WiFi	HDMI, USB-C
Exposure	Automatic/ manual	Automatic/ manual	Automatic/ manual	Automatic/ manual	Automatic/ manual	Automatic/ manual	Automatic/ manual
White balance	Automatic/ manual/ROI	Automatic/ manual	Automatic/ manual	Automatic/ manual	Automatic/ manual	Automatic/ manual	Automatic/ manual/ROI
Sensitivity lux-sec	505 mV	510 mV	1000 mV	1300 mV	1300 mV	1120 mV (1/30s)	300 mV (1/30s)
Color rendering	36 bits	36 bits	24 bits	12 bits	12 bits	24 bits	24 bits
Signal/Noise	40.5 dB	55 dB	40.5 dB	42 dB	42 dB	50 dB	38 dB
Dynamic (dB)	60 dB	69 dB	60 dB	69 dB	69 dB	65 dB	66 dB
Interface	Digital HDMI, USB-2, Ethernet, WiFi	Digital HDMI, USB-2	Digital HDMI, USB-2	Digital HDMI	Digital HDMI	Digital HDMI, WiFi	Digital HDMI, USB-C
Camera buttons	on/off	on/off	on/off	--	--	on/off	on/off
Mounting	C-mount	C-mount	C-mount	C-mount	C-mount	C-mount	C-mount
Storage	32 GB SD card (max. 128 GB)	16 GB SD card (max. 32 GB)	8 GB SD card (max. 32 GB)	32 GB SD card (max.128 GB)	32 GB SD card (max.128 GB)	32 GB SD card (max. 128 GB)	32 GB SD card (max. 128 GB)
Software	ImageFocus Alpha	ImageFocus Plus	ImageFocus Plus	--	--	--	ImageFocus Alpha
Software languages	15 ⁽⁶⁾	13 ⁽⁵⁾	13 ⁽⁵⁾	--	--	15 ⁽⁶⁾	15 ⁽⁶⁾
External power supply	100-240 Vac to 12Vdc/1A	100-240 Vac to 12Vdc/2A	100-240 Vac to 12Vdc/2A	100-240 Vac to 12Vdc/1A	100-240 Vac to 12Vdc/1A	100-240 Vac to 12Vdc/2A	100-240 Vac to 12Vdc/2A
Relative humidity	30~80 %	45-85 %	45-85 %	30-80 %	30-80 %	45-85%	30~80%
Temperature Operation Storage	-10 – 50° C -20 to 60° C	0 – 60° C -20 to 70° C	0 – 60° C -20 to 70° C	-10 – 50° C -20 to 60° C	-10 – 50° C -20 to 60° C	-10-40° C -20°C to 60° C	-10~ 50° C -20°C to 60° C
Compatible	Win 10 + higher Mac OS, Linux	Win 10 + higher Mac OS	Win 10 + higher Mac OS	--	--	--	Win 10 + higher Mac OS, Linux
Product number	VC.3042 VC.3042-HDS ⁽⁴⁾	VC.3036 VC.3036-HDS ⁽⁴⁾	VC.3031 VC.3031-HDS ⁽⁴⁾	VC.3023 --	-- VC.3024-HDS ⁽⁴⁾	VC.3034 VC.3034-HDS ⁽⁴⁾	VC.3039 VC.3039-HDS ⁽⁴⁾

⁽¹⁾ capture mode
⁽²⁾ live view
⁽³⁾ USB-2.0 compatible
⁽⁴⁾ model with attached HD screen, 1080p

⁽⁵⁾ English, Chinese Simplified, Traditional Chinese, Thai, German, Italian, French, Korean, Japanese, Russian, Polish and portugese
⁽⁶⁾ English, Catalan, Indonesian, Polish, Chinese Simplified, Traditional Chinese, Thai, German, Italian, French, Korean, Japanese, Russian, Turkish, Spanish

BUILT-IN SOFTWARE FEATURES (HDMI MODE)

MODELS	UHD-4K	HD-Ultra	HD-Lite	HD-Mini	HD-Mini + HDS	HD-Autofocus	HD-Pro HDMI
Image capturing (JPEG)	3840 x 2160	3261 x 1840	2592 x 1944	1920 x 1080	1920 x 1080	1920 x 1080	3840 x 2160
Video recording	3840 x 2160 MP4	1920 x 1080 AVI	1920 x 1080 AVI	1920 x 1080 MP4	1920 x 1080 MP4	1920 x 1080 ASF	1920 x 1080 MP4
Browse saved images	•	•	•	•	•	•	•
Browse saved video's	•	•	•	•	•	no	•
Mouse driven	•	•	•	•	•	•	•
Auto exposure	•	•	•	•	•	•	•
Exposure time	0.04 ~ 1000 ms	0.001s ~ 10 s	0.001s ~ 10 s	0.01 ~ 1000 ms	0.01 ~ 1000 ms	0.06 ~ 918 ms	0.04 ~ 1000 ms
Gain	•	•	•	•	•	•	•
RGB & white balance	•	•	•	•	•	•	•
Gamma	•	•	•	•	•	•	•
Sharpness	•	•	•	•	•	•	•
Noise reduction	3D algorithm	3D algorithm	3D algorithm	3D algorithm	3D algorithm	3D algorithm	3D algorithm
Saturation & contrast	•	•	•	•	•	•	•
Horiz. & vert. flip	•	•	•	•	•	•	•
Grids	cross/multi	cross/multi	multi	multi	multi	multi	User defined
Autofocus	--	--	--	--	--	•	--
Compare function	•	•	•	--	--	•	•
Measurement functions	captured & live images	captured & live images	--	captured & live images	captured & live images	captured & live images	captured & live images
Line & free curve	•	•	--	--	--	•	•
Polygon & rectangle	•	•	--	--	--	•	•
Angle	•	•	--	--	--	•	•
Circle 3 points	•	•	--	--	--	•	•
Circle radius	•	•	--	--	--	•	•
Export function	CSV	CSV, Txt	--	--	--	CSV	CSV
Languages	10 ⁽⁴⁾	9 ⁽³⁾	9 ⁽³⁾	10 ⁽⁴⁾	10 ⁽⁴⁾	10 ⁽⁴⁾	10 ⁽⁴⁾
Product number	VC.3042 VC.3042-HDS	VC.3036 VC.3036-HDS	VC.3031 VC.3031-HDS	VC.3023 --	-- VC.3024-HDS	VC.3034 VC.3034-HDS	VC.3039 VC.3039-HDS

HDMI mode
⁽³⁾ English, Chinese Simplified, Traditional Chinese, German, Italian, French, Korean, Japanese, Spanish
⁽⁴⁾ English, Chinese Simplified, Traditional Chinese, Thai, German, Italian, French, Korean, Japanese, Russian

COOLED CAMERAS



● DC.20000i and DC.6000i



Cooled color camera
with CCD or CMOS sensor

The Euromex 6 and 20 Megapixel Peltier cooled cameras are equipped with Peltier cooling elements that allow the camera to be used for fluorescence and other low light applications. These advanced and premium models are supplied with a USB-3.0 interface

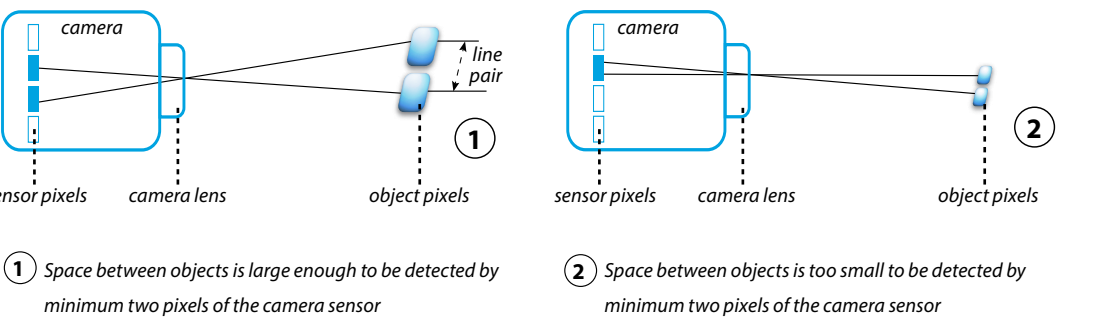
ImageFocus Alpha software has specific functions for fluorescence like combining capture fluorescence images. Furthermore it allows capturing of images and videos, doing measurements and annotations, generating reports, live image stitching etc. Compatible with Windows 10 and higher, both 32 and 64 bits configurations. A Mac OS version is also available (with a few differences in features)

MODELS	Number of pixels (MP)	Sensor	Pixel size (µm)	Resolutions	Max. frames (p/sec)	USB-3	Dynamic range (dB)	S/N Ratio	Sensitivity @ 1/30 sec	Peltier cooling
DC.6000i	6	1" CCD	4.54 x 4.54	2748 x 2200 2748 x 1092	7.5 14	•	62.34	41.6	880 mV	•
DC.20000i	20	1" CMOS	2.4 x 2.4	5440 x 3648 4096 x 2160 2736 x 1824 1824 x 1216	5 10 15 30	•	66.3	41.74	462 mV	•

about
camera resolution and limits

Resolution of a camera system is the ability to reproduce object detail on screen. In practice it is depending on factors such as the good lighting of the object, the sensor pixel size and the capabilities of the optics. The smaller the object detail, the higher the required resolution

The highest frequency – expressed as line pair per mm that can be resolved – is 2 pixels or one line pair, the so-called **Nyquist frequency**



THE LIMITING SENSOR RESOLUTION

(image space resolution) of a camera is commonly calculated as:

$$\left(\frac{1 \text{ lp}}{2 \times s}\right) \times \left(\frac{1000\mu\text{m}}{1 \text{ mm}}\right)$$

whereby s = pixel size (in μm)
and expressed as line pair per mm (Lp/mm)

The formula shows that a sensor with smaller pixels will have higher image space resolution:

Pixel size	Image Space resolution
1.67	229 LP/mm
2.2	227 LP/mm
3.45	145 LP/mm
5.5	90 LP/mm

Considering the Euromex DC.18000-Pro 2/3 inch camera which is equipped with 4921 x 3684 pixels camera on a 8.6 x 6.6 mm large sensor

THE NYQUIST IMAGE SPACE RESOLUTION

can also be calculated as 1/2 x sampling pixels/mm (Lp/mm) or:

- **Horizontal**
 $4921 / 8.6 = 572$ (sampling pixels) $\times 0.5 = 286$ Lp/mm
 - **Vertical**
 $3684 / 6.6 = 558$ (sampling pixels) $\times 0.5 = 279$ Lp/mm
- The Nyquist object space resolution or the smallest detail that could be theoretically resolved is then equal to:
1000 mm / (286 Lp/mm) or 3.5 μm

However, taken into account the manufacturing limitations and inevitable optical aberrations, the real image space resolution can be calculated as:

1/2 x Kell factor (approx 0.70) x sampling pixels (Lp/mm) or:

- **Horizontal**
 $4921 / 8.6 = 572$ (sampling pixels) $\times 0.35 = 200$ Lp/mm
 - **Vertical**
 $3684 / 6.6 = 558$ (sampling pixels) $\times 0.35 = 195$ Lp/mm
- or approx. 1000 mm / 200 Lp/mm or 5 μm
- In comparison, the by physics diffraction limited object space resolution (smallesy detail that ever can be observed through the eyepieces of a optical compound microscope, is around 0.20 μm



TABLET CAMERAS



ProPad tablet

with microscope camera and keyboard-docking station

The ProPad Full HD (1280x800) display reveals bright colors and crisp images.

The ProPad consists of a high quality microscope camera system and a fully detachable tablet running the latest ImageFocus version.

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



product information

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-2, ProPad-5 and ProPad-12 are supplied with ImageFocus Plus. ProPad-WiFi is supplied with ImageFocus Alpha. The WiFi camera can also be operated through IOS and Android apps

ProPad

HIGHLIGHTS

- 10.1" Tablet with microscope camera
- 1280 x 800 pixels HD touch screen
- Windows 10 Home
- ImageFocus Plus software for PC
- ImageFocus Alpha for WiFi enabled PC and Android devices
- Tablet can be fully detached from camera
- Including keyboard
- The snap-on keyboard uses a magnetic docking system



SPECIFICATIONS

Processor	Quad Core 1.92 GHz with HD graphics processor
Screen	10.1 inch, 1280 x 800 (WXGA) touchscreen, 16:10, LED backlight
Memory	2 GB DDR RAM, 2 MB cache
Storage	32 GB Flash HDD, micro SD/SDHC up to 64 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, internal microphone and speaker
Battery	Lithium
Housing	246.9 x 174.2 x 9.4 mm (tablet), 246.9 x 174.2 x 8.2 mm (keyboard)
Weight	588 grams (tablet), 551 grams (keyboard)
System	Windows 10 Home
Supplied with	Keyboard-docking station

Specifications can be changed by Euromex Microscopen bv without prior notice

MODELS	Camera (MP)	Sensor size	Resolution	Pixels size (µm)	ADC	Color rendering	Dynamic (dB)	Sensitivity V/lux-sec	Interface	Product number
ProPad-2	2.1	1/2.9"	1920 x 1080	2.8 x 2.8	12 bits	24 bits	--	0.51	Windows USB 2.0	PP.2000f
ProPad-5	5.1	1/2.8"	2592 x 1920	2.0 x 2.0	12 bits	24 bits	72 dB	2.0	Windows USB 2.0	PP.5000f
ProPad-12	12.0	1/2.3"	4072 x 3176	1.33 x 1.33	8 bits	24 bits	60 dB	--	Windows USB 2.0	PP.12000f
ProPad-WiFi	5.0	1/2.5"	1280 x 720	2.2 x 2.2	12 bits	24 bits	61 dB	1.0	Windows Apple WiFi Android	PP.5000-WiFi

All ProPad models are supplied with a C-mount objective that fits the standard 23.2 mm trinocular tubes. The PP.2000f, PP.5000f and PP.12000f are supplied with ImageFocus Plus software. The PP.5000-WiFi is supplied with ImageFocus Alpha. Only suitable for straight photo tubes

SOFTWARE

The software is compatible with all cameras mentioned in table below. Besides live imaging the software captures images in various formats and video in .avi format

IMAGE FOCUS 4	
DC.1300c	

IMAGE FOCUS PLUS	
DC.2000f	VC.3036
DC.5000f	VC.3031
DC.12000f	

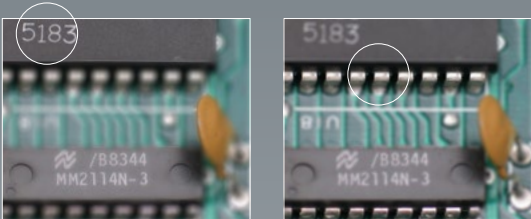
IMAGE FOCUS ALPHA	
DC.3000-Pro	DC.5000-WiFi
DC.5000-Pro	DC.3000s
DC.10000-Pro	DC.6000s
DC.18000-Pro	DC.20000s
VC.3039	VC.3042

IMAGE STITCHING

Image stitching is the process of combining multiple images with overlapping fields of view to produce one image

EXTENDED DEPTH OF FOCUS

"The extended depth of focus" function in the ImageFocus Alpha software or "stacking software, allows to combine a number of digital images of a object, focused at different focus planes, into one final image with much greater depth of field (see illustration below)



ImageFocus Plus
software

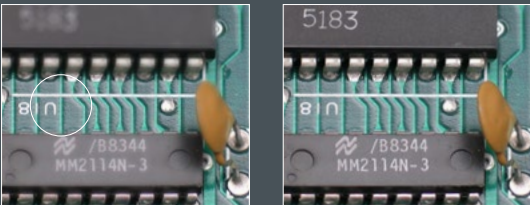
ImageFocus Plus has a wide range of functions:
Measurements on still and live image
Extended depth of focus and stitching on still and live image (only with VC.3036 and VC.3031 cameras)
Images can be saved in .jpg, .tif, .bmp or .dicom formats as well as .avi and mpeg-4 format videos
The brightness, 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 fluorecence such as combining captured fluorecence images
Compatible with Windows 10 and higher, both 32 and 64 bits configuration. A Mac OS version is also available

PC requirements: Intel Core2 2.8 GHz or higher or equivalent, 2 GB memory or more, 17" screen

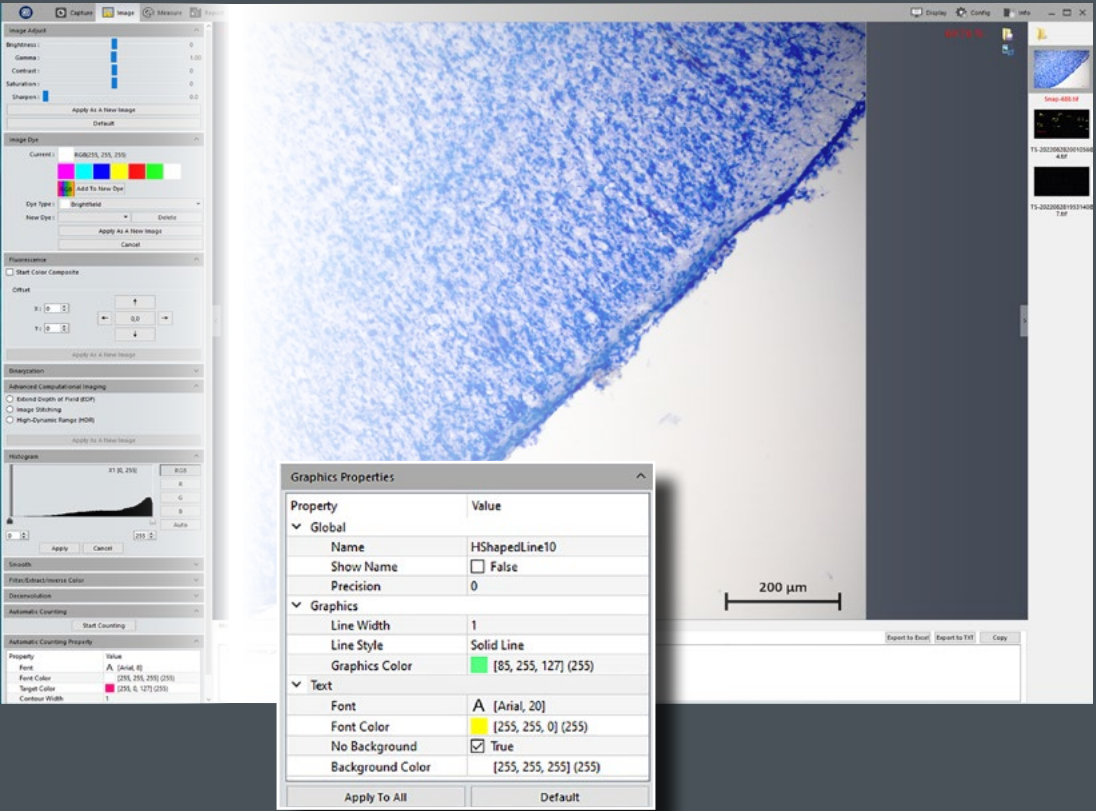
ImageFocus Plus software features English, German, French, Dutch, Spanish and Russian



downloads



FREE UPDATES
AVAILABLE ON
EUROMEX.COM



ImageFocus Alpha

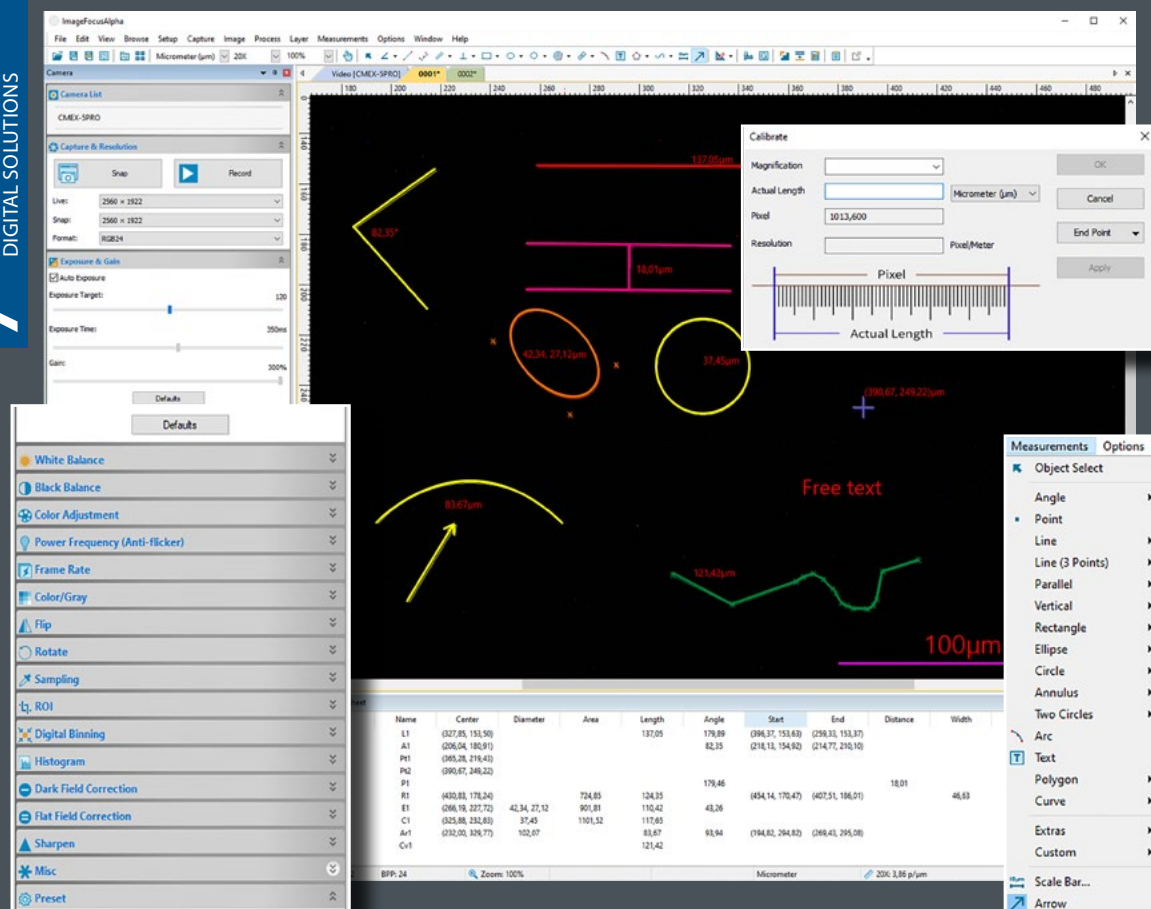
software

ImageFocus Alpha has a wide range of functions:

- Measuring, segmentation & counting, stitching of images, extended depth of focus, etc
- Images can be saved in .jpg, .tif, .bmp or .dicom formats as well as .avi format videos
- 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 such as combining captured fluorescence images
- Compatible with Windows 10 and higher, both 32 and 64 bits configuration. A Mac OS version is also supplied (with a few differences in features)
- PC requirements: Intel Core2 2.8 GHz or higher or equivalent, 2GB memory or more, 17" screen

One language can be selected during initial installation of the ImageFocus Alpha software English, Catalan, French, German, Indonesian, Italian, Japanese, Korean, Polish, Russian, Simplified Chinese, Spanish, Thai, Traditional Chinese, Turkish



ImageFocus 4

software

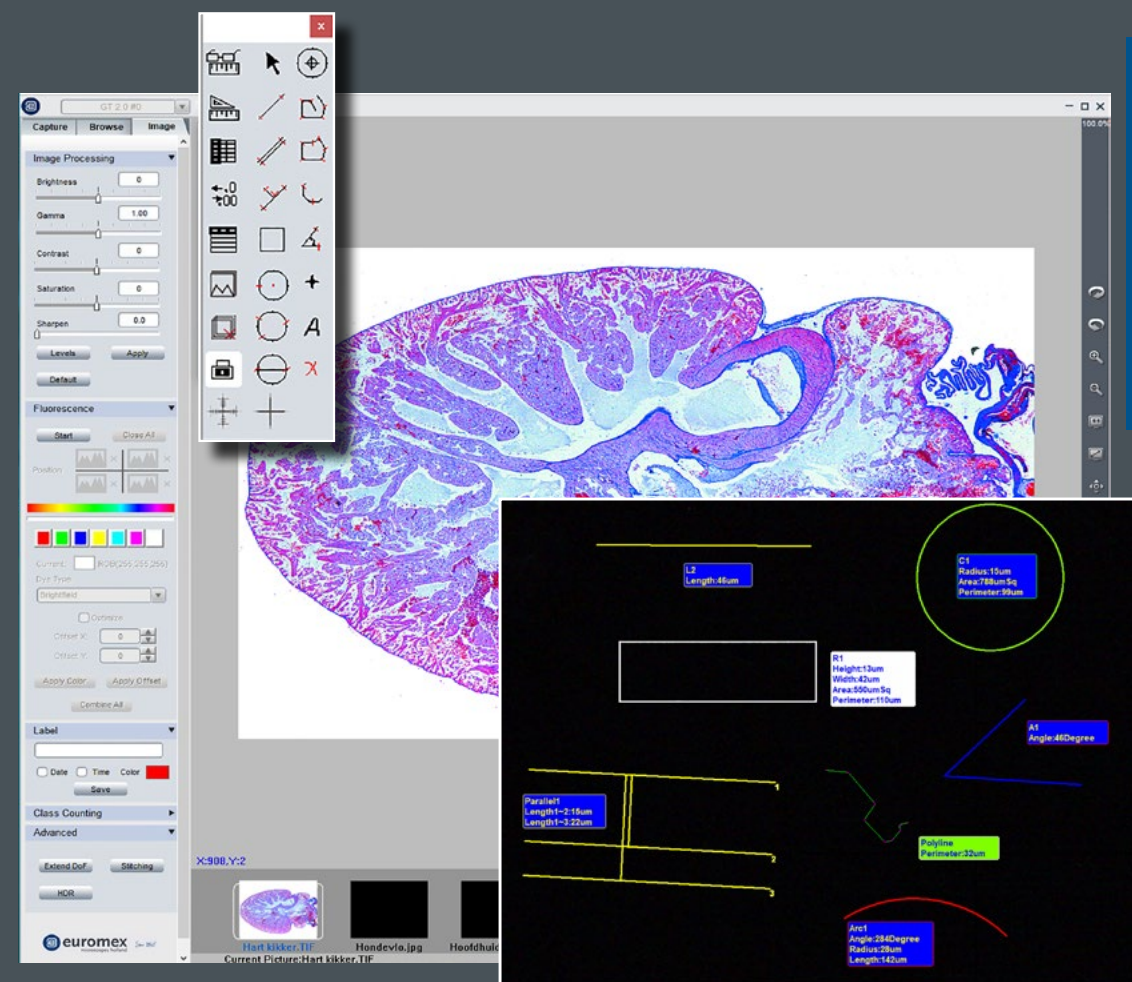
ImageFocus 4 has a wide range of functions:

- Measurements can be done on still and live image
- Images can be saved in .jpg, .tif, .or .bmp formats as well as .avi format videos
- 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 such as combining captured fluorescence images
- Compatible with Windows 10 and higher, both 32 and 64 bits configuration. A Mac OS Light version is also available for capturing images*
- PC requirements: Intel Core2 2.8 GHz or higher or equivalent, 2GB memory or more, 17" screen

* Mac version not available for VC Series

One language can be selected during initial installation of the ImageFocus 4 software: English, German, French, Dutch, Spanish and Russian



ADAPTERS



adapters

FOR ALL
MICROSCOPE
CAMERAS

● AE.5130

NZ.9850 ●

adapter guide

microscope and camera

Most Euromex cameras are supplied with a photo port c-mount adapter to connect it to any Euromex trinocular microscope*. Monocular microscopes require the removal of the eyepiece so that the camera can be fitted into the 23.2 mm tube. Binocular microscopes require the removal of an eyepiece plus an additional mechanical adapter

* Except for the Oxion, Oxion Inverso and Delphi-X Inverso series. These microscopes need an additional adapter. See next page

Should you want to connect one of our cameras to another microscope brand, see adapter references below:

MODELS	1/3 inch camera	1/2 inch camera	2/3 inch camera	1 inch camera
Leica ⁽¹⁾	AE.9835-L (0.35x)	AE.9855-L (0.55x)	AE.9870-L (0.70x)	AE.9810-L (1x) AE.9812-L (1.2x)
Olympus ⁽²⁾	AE.9835-O (0.35x)	AE.9850-O (0.50x)	AE.9863-O (0.63x) AE.9880-O (0.80x)	AE.9810-O (1x) AE.9812-O (1.2x)
Zeiss ⁽³⁾	AE.9835-Z (0.35x)	AE.9850-Z (0.50x)	AE.9865-Z (0.65x)	AE.9810-Z (1x) AE.9812-Z (1.2x)
Zeiss ZA ⁽⁴⁾	--	AE.9850-ZA (0.50x)	AE.9863-ZA (0.63x) AE.9880-ZA (0.80x)	AE.9810-ZA (1x) AE.9812-ZA (1.2x)
Nikon ⁽⁵⁾	AE.9835-N (0.35x)	AE.9855-N (0.55x)	AE.9870-N (0.70x) AE.9880-N (0.80x)	AE.9810-N (1x) AE.9812-N (1.2x)

⁽¹⁾ Leica DM, 35 mm to 25.4 mm C-mount, stainless steel

⁽²⁾ Olympus CX, CX2, BX, BX2, IX, MX, GX, SZX, STM, 42 mm to 25.4 mm C-mount, anodized aluminum

⁽³⁾ Zeiss PrimoStar, PrimoStar Vert, 30 mm to 25.4 mm C-mount, anodized aluminum

⁽⁴⁾ Zeiss 60N-C, 60N-T2 photo ports of Axio examiner, Axio Imager, Axio Lab, Axio Observer, Axio Scope, Axio Zoom, Stemy 508 and SteREO Discovery

⁽⁵⁾ Nikon E100, E200, 50i, 55i, 80i, 90i, Ni series, Ti Series, SMZ800, SMZ1000, SMZ15000, 38 mm to 25.4 mm C-mount, stainless steel

● AE.9835-L



23.2 MM PHOTO PORT C-MOUNT ADAPTERS

Suitable for all Ø 23.2 mm (photo) tubes

DC.1324 C-mount adapter with 0.45x objective for 1/2" camera

DC.1353 C-mount adapter with 0.37x objective, fixed focal length and short barrel*. For 1/3 camera

DC.1355 C-mount adapter with 0.50x objective, fixed focal length and short barrel*. For 1/2" camera

DC.1357 C-mount adapter with 0.75x objective, fixed focal length and short barrel*. For 2/3" camera

DC.1359 C-mount adapter with 1x lens, fixed focal length and short barrel, for standard 23.2 mm tube and 1 inch camera

DC.1330 30 mm to 23.2 mm conversion adapters

DC.1335 30.5 mm to 23.2 mm conversion adapters

* for increased light efficiency



● DC.1355



● DC.1330 / DC.1335



● DC.1324



● AE.5130



● AE.5120-2

PHOTO PORT ADAPTERS

Suitable for Euromex microscopes with a photo port such as Oxion, NexusZoom, StereoBlue, Delphi-X Observer and Delphi-X Inverso

AE.5120-2 Standard 23.2 mm diameter tube for Oxion photo port

DI.9840 C-mount with high resolution 0.40x objective for 1/3 inch C-mount camera

DI.9850 C-mount with high resolution 0.50x objective for 1/2 inch C-mount camera

DI.9810 C-mount with 1x magnification for C-mount camera

DX.9835 C-mount with high resolution relay 0.35x objective for 1/3 inch C-mount camera

DX.9850 C-mount with high resolution relay 0.50x objective for 1/2 inch C-mount camera

DX.9863 C-mount with high resolution relay 0.63x objective for 2/3 inch C-mount camera

DX.9810 C-mount with 1 magnification for C-mount camera

NZ.9850 C-mount adapter with 0.5x objective for NexusZoom microscopes and 1/2" cameras

OX.9810 C-mount adapter with 1x magnification for 1" cameras

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

SB.9850 C-mount adapter with 0.5x objective for StereoBlue microscopes and 1/2" cameras

accessories

for microscopy



accessories



product information

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illumination solutions

For stereo microscopes choosing the right illumination is essential to obtain a perfect image with maximum resolution. LED light sources have a much longer life span, 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 kinds of applications in industry, life sciences and materials sciences



education



university



life science



industry

ILLUMINATION SOLUTIONS

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



Illumination solutions

MULTIFUNCTIONAL 150 W HALOGEN OR 30 W POWER-LED • 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 such as the single LE.5213, dual LE.5214, triple LE.5215 or the LE.5239 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)
Luminous flux	21,000 lux max ¹⁾	30,000 lux max.*
Color temperature	3,000 K	6,500 K
Operating voltage	100 and 240 V AC / 12 V DC (50/60 Hz)	100-240 V AC / 12 V DC (50/60 Hz)
Dimensions	(h) 150 x (w) 150 x (d) 230 mm	150 (h) x 150 (w) x 230 mm (d)
Weight	3,9 kg	2.8 kg
Model	LE.5211	LE.5211-LED

* with LE.5214 dual arm light conductor

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 such as the single LE.5213, dual LE.5214, triple LE.5215 or the LE.5239 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 kinds of applications in Life and Materials sciences, various industrial applications and for stereo microscopy



Power	100 W halogen
Luminous flux	20,000 lux max.*
Color temperature	3,000 K
Operating voltage	100 and 240 V AC / 12 V DC (50/60 Hz)
Dimensions	115 (h) x 320 (w) x 215 mm (d)
Weight	3.8 kg
Model	LE.5210

* with LE.5214 dual arm light conductor

COMPACT SINGLE 20 W LIGHT SOURCE

Compact cold light source with single 40 cm, 6 mm diameter fiber 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	80 (h) x 110 (w) x 165 mm (d)
Weight	2.0 kg
Model	LE.5209

ECONOMICAL AND COMPACT DUAL 3 W LED • LIGHT SOURCE

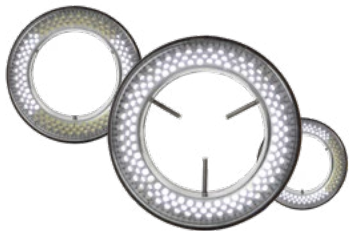
Economical dual LED intensity adjustable light source with two 44 cm flexible gooseneck arms, each mounted with a 3 W LED. Ideal for applications in life and materials sciences, various industrial applications and for stereo microscopy



Power	2x 3 W LED = 2x 28 W halogen equivalent
Luminous flux	25,000 lux
Color temperature	6,500 K
Operating voltage	100-240 V AC / 5 V DC (50/60 Hz)
Dimensions	70 (h) x 106 (w) x 140 mm (d)
Weight	1.5 kg
Model	LE.5207

144 LEDS RING LIGHT SOURCE • LE.1973

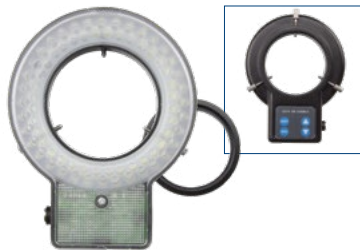
LED ring light source with high illuminance and segment illumination for all kinds of demanding applications



Ring illumination	144 LEDs with adjustable intensity and 4 segment illumination
Color temperature	6,500 K
Illuminance	23,000 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) / 4.5 Watt
External diameter	100 mm
Model	LE.1973

COMPACT 72 LEDS • LE.1974

Compact 20,000 lux LED ring light source



Ring illumination	72 LEDs with adjustable intensity and 4 segment illumination
Color temperature	6,500 K
Illuminance	21,000 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) / 4 Watt
External diameter	100 mm
Model	LE.1974

PROFESSIONAL HIGH POWER LED 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	Required power supply/ controller
LE.1980	48	6,000 K	17,000 lux	from 30 to 66 mm	45/90 mm	LE.1992 Analog controller
LE.1981	48	6,000 K	17,000 lux	from 30 to 66 mm	45/90 mm	LE.1993 Digital segments controller

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	Required power supply/ controller
LE.1990	72	6,000 K	21,000 lux	from 40 to 66 mm	60/110 mm	LE.1992 Analog controller
LE.1991	72	6,000 K	21,000 lux	from 40 to 66 mm	60/110 mm	LE.1993 Digital segments controller

ILLUMINATION STATION LE.5212

Light source station with multiple power supply connections for two self-sustaining gooseneck-type guides, one ring light and one transmitted stage illumination. For stand-alone usage or mounted on stereo microscope pillar stands with diameters up to 44 mm or with 35- and 25-mm pole mounting adapter rings

Each self-sustaining gooseneck-type LED guide is equipped with a 3-lens focusing head and has a length of 56 cm
White 6,500 K LED ring light generating with 60 LEDs up to 24,000 Lux. Mounting diameters from 21 to 61 mm
Transmitted light stage illumination with a 6,500 K white LED generating up to 8,000 Lux with 42 LEDs. Stage diameter 94.5 and 15 mm thick

MODELS	3 W gooseneck guide LED	4 W white LED ring light	2 W white LED transmitted light stage
LE.5212	White LED, 6,500 K	•	•
LE.5212-365	365 nm, monochrome	•	•
LE.5212-395	395 nm, monochrome	•	•
LE.5212-420	420 nm, monochrome	•	•



FLUORESCENCE 40 HZ RING LIGHT SOURCE
FOR Z SERIES STEREO ZOOM MICROSCOPES

Suitable for Z series stereo zoom microscopes,
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	LE.1863



ACCESSORIES AND SPARE PARTS
FOR LE.5210, LE.5211 AND LE.5211-LED COLD LIGHT SOURCES

FIBER LIGHT CONDUCTORS

- 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.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.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.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.5231 Conversion KB12/80B filter

HALOGEN BULBS AND FUSES

- 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

FOR LE.1980 AND LE.1981

- LE.1984-050 Fresnel lens, WD from 40 to 80 mm
- LE.1984-100 Fresnel lens, WD from 80 to 150 mm
- LE.1984-200 Fresnel lens, WD from 150 to 240 mm
- LE.1984 Diffusing filter, for WD from 40 to 300 mm
- LE.1985 Glass protection window
- LE.1987 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, WD from 40 to 80mm
- LE.1994-100 Fresnel lens, WD from 80 to 150 mm
- LE.1994-200 Fresnel lens, WD from 150 to 240 mm
- LE.1994 Diffusing filter, for WD from 40 to 300 mm
- LE.1995 Glass protection window
- LE.1997 Polarizing filter
- LE.1998 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.5212

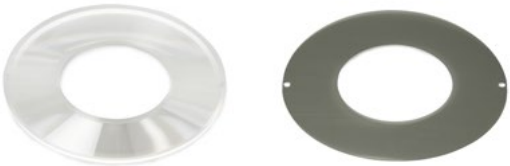
- LE.5260 Interchangeable self-sustaining gooseneck-type guide with a white 6,500 K high-power LED for NZ.9018, LE.5207 or LE.5212, 1 pc (A)
- LE.5261 Interchangeable self-sustaining gooseneck-type guide with a 365 nm high-power UV-LED for NZ.9018, LE.5207 or LE.5212, 1 pc (B)
- LE.5262 Interchangeable self-sustaining gooseneck-type guide with a 395 nm high-power Violet-LED for

- NZ.9018, LE.5207 or LE.5212, 1 pc (C)
- LE.5263 Interchangeable self-sustaining gooseneck-type guide with a 420 nm high-power Violet-LED for NZ.9018, LE.5207 or LE.5212, 1 pc (D)
- LE.5264 Polarization filter, screw on type for Interchangeable self-sustaining gooseneck-type guides for NZ.9018, LE.5207 or LE.5212, 1 pc

FOR LE.1863

- SL.1864 Spare fluorescence lamp

WD = working distance



Fresnel lens Polarizing filter



Dual arm fiber light conductor



Triple arm fiber light conductor

PREPARATION ACCESSORIES

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



product information



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, Ø 2 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. Circular 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



PREPARATION ACCESSORIES



product information



dissection kits

4-PC DISSECTION KIT PB.5110 IN IMITATION LEATHER CASE

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

6-PC DISSECTION KIT PB.5111 IN PLASTIC CASE

Kit with straight dissecting needle (PB.5050), lancet-shaped dissecting needle (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.5110

PB.5111

10-PC DISSECTION KIT PB.5112 IN IMITATION LEATHER CASE

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



PB.5112

9-PC DISSECTION KIT PB.5114 IN WOODEN CASE

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



PB.5115

PROFESSIONAL SLIDE PREPARATION KIT PB.5125 IN PLASTIC DELUXE CASE

Kit with three 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 deluxe case



PB.5125

MICROSCOPE PREPARED SLIDES



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

sets with 25 slides for education
histology, zoology and botany set

PB.5211 FOR EDUCATION

Set with 25 microscopy slides for education: histological samples of mammals, zoology and botany. All microscope slides are 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, zea 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

histology, zoology and botany set

PB. 5212 FOR EDUCATION

Set with 25 microscopy slides for education: histological samples of mammals, zoology and botany. All microscope slides are 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 cattle, mature proglottid, w.m
- SZ.1635 Ascaris megalocephala, 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, zea 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

c.s	cross section
l.s	longitudinal section
w.m	whole mount

histology, zoology and botany set

PB. 5213 FOR EDUCATION

Set with 25 microscopy slides for education: histological samples of mammals, zoology and botany. All microscope slides are 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** Pieres 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 smear

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, zea mays/helantius, c.s
- SB.2040** Solanum tuberosum, potato, starch grains
- SB.2075** Tilia, lime tree, one year stem, c.s
- SB.2091** Hydrilla stem, c.s
- SB.2100** Pelargonium hortorum, geranium, stem c.s
- SB.2337** Mmium, antheridial branch, l.s
- SB.2339** Mmium, 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

histology, zoology and botany set

PB. 5214 FOR EDUCATION

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

HISTOLOGY OF 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** Lancelet, Section through gonads and gills, c.s

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,zea 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** Fern, prothallium w. young sporophyte w.m
- SB.2320** Cyrtomium, fern, leaf with sporangia
- SB.2384** Volvox sp. w.m

histology, zoology and botany set

PB. 5215 FOR EDUCATION

Set with 25 microscopy slides for education: histological samples of mammals, zoology and botany.
All microscope slides are 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

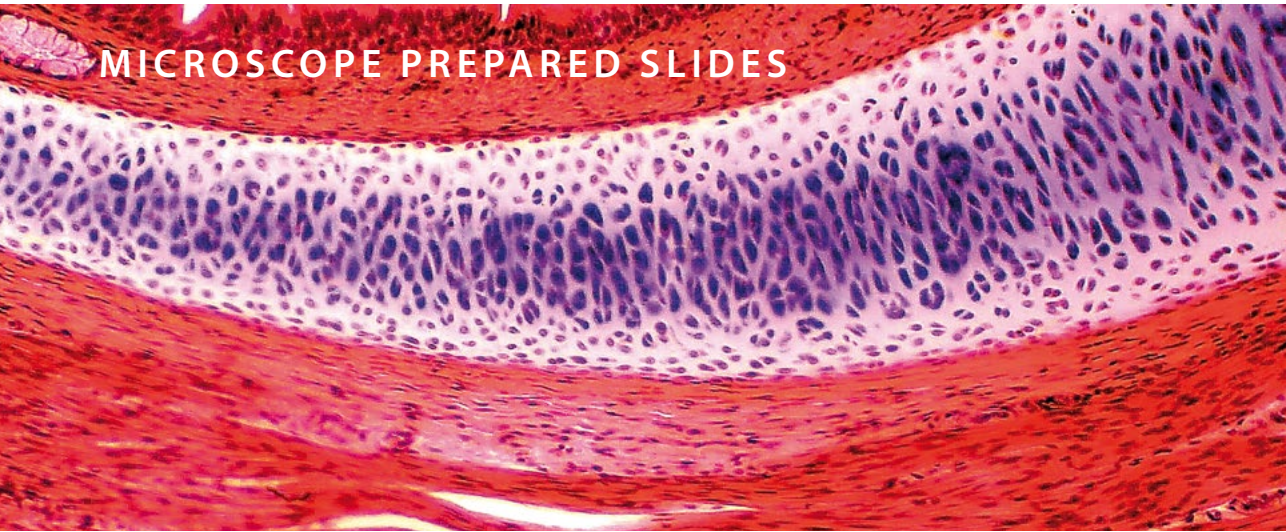
ZOOLOGY

- SZ.1610** Planaria, flat worm, injected intestinal tube, w.m
- SZ.1636** Ascaris megalocephala, 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	
c.s	cross section
l.s	longitudinal section
w.m	whole mount



MICROSCOPE PREPARED SLIDES

sets with 23 slides for education

mammal histology set

PB.5221 SET FOR EDUCATION

Set with 23 microscopy slides for education: histological samples of mammals.
All microscope slides are 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
- SH.1310 Injected kidney, rabbit, sec
- SH.1330 Testis, rabbit, c.s
- SH.1340 Ovary with developed eggs, rabbit
- SH.1376 Human chromosomes in blood, female

URINARY AND GENITAL SYSTEM

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

mammal histology set

PB.5222 SET FOR EDUCATION

Set with 23 microscopy slides for education: histological samples of mammals.
All microscope slides are 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

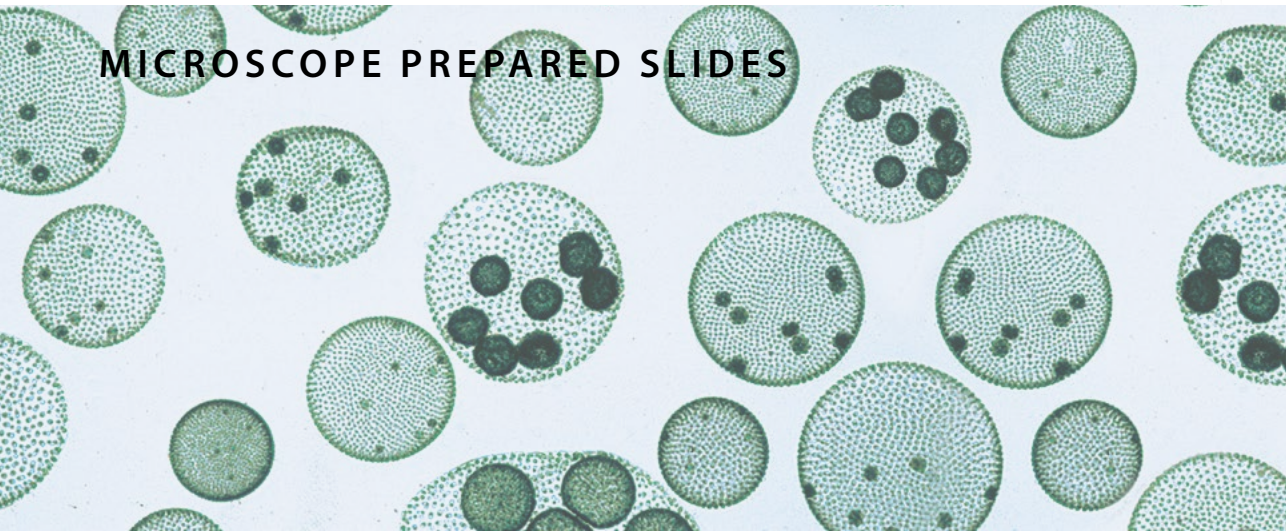
- SH.1220 Oesophagus dog, c.s
- SH.1235 Large intestine, dog, c.s
- SH.1260 Gall bladder, dog, section
- SH.1280 Golgi apparatus in Basal spinal ganglion, dog

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 Fruit fly, 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



set for hobby 10 slides

zoology and botany set

PB.5204 SET FOR HOBBY

Set with 10 prepared microscopy slides for hobby: zoology and botany.
All microscope slides are 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	
c.s	cross section
l.s	longitudinal section
w.m	whole mount

set for hobby 25 slides

slides of histology, zoology and botany

PB.5218 SET FOR HOBBY

Set with 25 prepared microscopy slides for hobby: zoology and botany.
All microscope slides are 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, cs
- 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 cattle, mature proglottid, w.m
- SZ.1635** Ascaris megalocephala, 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** Fruit fly, drosophila, giant chromosomes of salivary gland, w.m

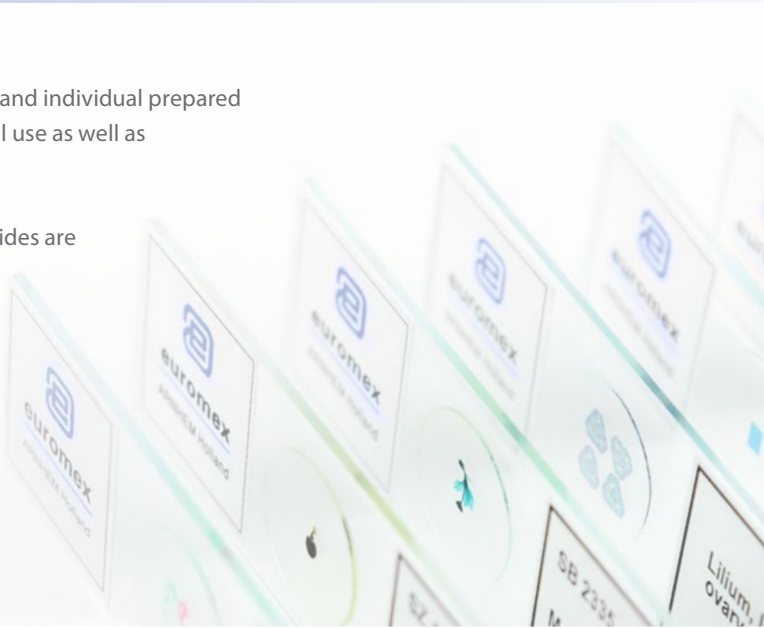
MICROSCOPE PREPARED SLIDES



individual eurolides
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 slides on the next page are separately available



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 storage box (e.g. PB.5181 for 25 slides)

individual eurolides for histology

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

EPHITELIUM 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 with developed eggs, rabbit
- 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

c.s	cross section
l.s	longitudinal section
w.m	whole mount

individual euroslices for zoology

This series 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 megalocephala, horse roundworm, female + male c.s
- SZ.1636** Ascaris megalocephala, 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 unclaved 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 euroslices for botany

This series 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

HOW TO ORDER INDIVIDUAL EUROSIDES

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

DISPOSABLES



disposables

MICROSCOPE SLIDES AND COVER GLASSES

- PB.5150** Microscope slides 76 x 26 mm, half white glass, cut edges. 50 pieces

PB.5155 Microscope slides 76 x 26 mm white glass, ground edges. 50 pieces

PB.5157-W Microscope slides 76 x 26 mm, ground white frosted side, 50 pieces

PB.5157-B Microscope slides 76 x 26 mm, ground blue frosted side, 50 pieces

PB.5160 Microscope slides 76 x 26 mm with concavity, ground edges. 10 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.5170 Cover glasses Ø18 mm, thickness 0.13-0.17 mm. 100 pieces

MICROSCOPE SLIDE BOXES

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

11 ACCESSOIRES FOR MICROSCOPY



STAINS

Staining enables observation of cells and tissues of low contrast. 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
- PB.5250** Solid paraffin. Melting point 60°C, 200 grams
- PB.5255** Immersion oil, refractive index nD = 1.515. (25 ml)
- PB.5265** Entellan, quick drying Canada balsam. In bottle (25 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.5276** Microscope maintenance and servicing kit, 16pcs: cleaning brush, 6 pcs screwdriver set, air blower, 3 pcs Allen key, 1.5, 2, 2.5 mm, lens cleaning fluid 20 ml, cleaning cloth 140 x 140 mm, 100 pcs lens tissue sheets, tube of maintenance grease, 10 ml bottle of oil, packed in a nice toolbox



(DISSOLVED) STAINS

Supplied in 25 ml bottles

- PB.5283** Eosin yellow. Stain for general overall-view coloring
- 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 color for Azo pigmentation
- PB.5305** Fuchsin. For staining bacilli in tissue

11 ACCESSOIRES FOR MICROSCOPY

other products

optical instruments



optical instruments



product information

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 398
REFRACTOMETERS • PAGE 402
POLARIMETERS • PAGE 408
SPECTROMETERS • PAGE 410**

MAGNIFIERS & MEASURING MICROSCOPES

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



product information

handheld magnifiers and magnifiers with handles

- PB.5020** Magnifier with handle 4x, lens Ø 50 mm and handle Ø 8 mm. Fits on PB.5022
- PB.5021** Magnifier with handle 10x, aplanatic lens Ø 25 mm and handle Ø 8 mm. Fits on PB.5022
- PB.5022** Heavy stand with adjustable cross clamp, base Ø 70 mm. Weight 450 grams. For PB.5022 and PB.5021



● PB.5020

● PB.5021

● PB.5022

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 20 mm. Field of view 15 mm
- PB.5033** Achromatic magnifier 20x, triplet. Lens Ø 20 mm. Field of view 8 mm



● PB.5032

- PB.5036** Aplanatic magnifier 10x, doublet. Lens Ø 20 mm. Field of view 20 mm
- PB.5037** Achromatic diamond magnifier 10x with four lenses Ø 21 mm. Field of view 25 mm



● 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 magnifications from 20 to 100x times



magnifiers & measuring microscopes

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 aplanatic 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 crosshairs
- PB.5045** Measuring magnifier 7x.
Eyepiece Ø 18 mm. Field of view 24 mm.
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, 0.2 and
0.5 mm graduations
- PB.5047** Measuring magnifier 10x.
Eyepiece Ø 25 mm. Field of view 30 mm.
Measuring scale 15-0-15 mm with 0.1, 0.2 and
0.5 mm graduations. White LED-illumination



MEASURING MICROSCOPES

- PB.5008** Measuring microscope 20x with LED illumination.
Measuring scale 7.2 mm with 0.1 mm graduation
- PB.5010** Measuring microscope 40x with LED illumination.
Measuring scale 3 mm with 0.05 mm graduation
- PB.5012** Measuring microscope 60x with LED illumination.
Measuring scale 1.75 mm with 0.02 mm graduation
- PB.5014** Measuring microscope 100x with LED illumination.
Measuring scale 1.1 mm with 0.01 mm graduation



refractometers



refractometers



Refractometers are used for the identification of substances and concentration measurements 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 • PAGE 400
ABBE REFRACTOMETER • PAGE 403

REFRACTOMETERS

The Euromex refractometers are ideal for determining concentrations, testing and measuring of fluids



Analog refractometer

Digital refractometer

refractometers
handheld and table models

A refractometer is an instrument that measures the refractive index of a liquid or refractive material such as sugar concentrations in fruits, juices, soft drinks, energy drinks, wines or must, liquors, jams, honey, industrial lubricants, antifreeze, ethanol, battery acids, salt, propylene glycol, ethylene glycol solutions

A few drops of the liquid that needs to be examined are gently deposited on a measuring prism and covered with a cover-glass. The rays of the light source (ambient light, built-in LED light source or external cold-light source) will be bent (refracted) in function of the composition of the liquid under observation

This results in a shadow line between a dark and a light portion. The measured value can be directly read through a focusable eyepiece on a refraction index scale and/or on a specific built-in scale(s) of the refractometer in Brix, Oechsle, Babo units or % volume, specific gravity, protein in serum or in °C

Euromex offers portable or handheld refractometers, analogue or digital and laboratory Abbe refractometer products used in wine making, distilling, food processing, canning, beekeeping, brewing, pharmaceutical, manufacturing, machining, automotive industries

Most of the refractometers have also an A(utomated) T(emperature) C(ompensation) mechanism in order to compensate for temperature variations. Calibration can be verified with a calibration fluid (in most cases distilled water) and adjusted by a screw if needed

Application	Art no	Range	Accuracy	Remarks	ATC	Handheld model	Table model	Analog	Digital
Concentrations of sugar in marmalades, fruits, syrups, wine and monitoring of oil emulsions	RF.6190	0-90 Brix	0.2	3 scales: 0-42 / 42-71 / 71-90 Brix		*		*	
	RF.6510	0 - 10 Brix	0.1		*	*		*	
	RF.6520	0 - 20 Brix	0.1		*	*		*	
	RF.6532	0 - 32 Brix	0.2		*	*		*	
	RF.6562	28 - 62 Brix	0.2		*	*		*	
	RF.6580	0 - 80 Brix	0.5		*	*		*	
	RF.6582	45 - 82 Brix	0.5		*	*		*	
	RF.6592	58 - 92 Brix	0.2		*	*		*	
	RF.6635	0 - 150 °Oe	1	Oechsle units Sugar concentration Babo units % volume	*	*		*	
		0 - 35 Brix	0.2						
		0 - 27 °KMW	0.2						
		0 - 22 %	0.2						
		0 - 37 CNM	0.5						
	RD.6735	0 - 150 °Oe	1		*	*			*
		0 - 35 Brix	0.1						
		0 - 25 °KMW	0.1						
		0 - 22 %	0.1						
	RD.6645	0 - 45 Brix	0.1		*	*			*
		1.33 - 1.41 R.I.	0.0003						
	RD.6666	0 - 80 Brix	0.5		*	*			*
		1.33 - 1.51 R.I.	0.0005						
	RD.6667	58 - 92 Brix	0.2		*	*			*
		1.43 - 1.52 R.I.	0.0003						
Honey	RF.6642	13 - 25 %	0.1	Honey moisture	*	*		*	
	RF.6644	58 - 92 Brix	0.5		*	*		*	
		38 - 43 °Be	0.5						
		12 - 27 %	1	Water					
Concentration of sugar/alcohol %	RF.6627	0 - 25 %	0.2	% volume	*	*		*	
		0 - 40 Brix	0.2						
		0 - 20 Baume	0.2						
Salinity and concentration of sugar	RF.6610	0 - 100 ‰	1		*	*		*	
		0 - 10 Brix	0.1						
		1.00 - 1.07 R.I.	0.005						
	RF.6628	0 - 28 %	0.2		*	*		*	
	RD.6728	0 - 28 %	0.1	% NaCl	*	*			*
		0 - 45 Brix	0.1						
		1.33 - 1.41 R.I.	0.0003						
Clinical applications Proteins	RF.6612	0 - 12 g/dl	0.2	Proteins in serum Urine specific gravity	*	*		*	
		1.00 - 1.05 sg	0.002						
		1.333 - 1.360 R.I	0.0003						

Application	Art no	Range	Accuracy	Remarks	ATC	Handheld model	Table model	Analog	Digital
	RD.6712	0 - 12	g/dl	0.1	Proteins in serum	•	•		•
		1.00 - 1.05	sg	0.001	Urine specific gravity				
		1.33 - 1.39	R.I.	0.0001					
	RD.6714	0 - 14	g/dl	0.1	Proteins in serum (dog)	•	•		•
		0 - 14	g/dl	0.1	Proteins in serum (cat)				
		1.00 - 1.06	sg	0.001	Urine specific gravity (dog)				
		1.00 - 1.06	sg	0.001	Urine specific gravity (cat)				
Battery Acid/Coolant	RF.6650	1.10 - 1.40	sg	0.01	Battery fluids	•	•	•	
		-50 / 0	°C	5	Ethylene glycol G13				
		-50 / 0	°C	5	Propylene glycol G11/12				
		-40 / 0	°C	10	windshield washer fluid				
	RD.6730	1.0 - 1.50	sg	0.01	Battery fluids	•	•		•
		-50 / 0	°C	0.5	Ethylene glycol G13				
AdBlue/Urea	RF.6652	-50 / 0	°C	0.5	Propylene glycol G11/12				
		-40 / 0	°C	0.5	windshield washer fluid				
Identification of precious stones	RF.6381	1.30 - 1.81	R.I.	0.01				•	•

ACCESSORIES AND SPARE PARTS

- RF.5295** Test slide 78.8 Brix for calibration of RF.5190
- RF.5385** 5 ml immersion nD 1.65 liquid for RF.5381 and RF.6381
- LE.5209** 20 W 12 V cold light source with single fiber light conductor (for Abbe refractometer 98.490)
- 98.492** Thermometer 0-50° C (for Abbe refractometer 98.490)
- 98.496** Calibration slide nD 1.5163 (for Abbe refractometer 98.490)



● Digital refractometer



● 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 and suitable for determination of the refractive index of solid samples, such as glass, plastics, and polymer films

The instrument is supplied with a thermometer and water connection to control fluid temperatures. Also equipped with a Brix and a refraction index scale and supplied with a test plate

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 such as the LE.5209 is recommended.

This Abbe table refractometer has scales for measurement of sugar concentrations and refractive indices. Delivered with carrying case, digital thermometer, calibration plate, adjusting tool and with 0.5 ml calibration liquid

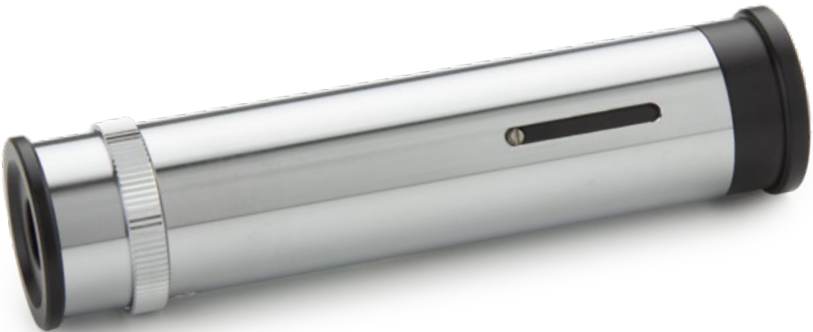


product information

Substance identification of sugar concentration

MODEL	Scales	Accuracy	Remarks	Analog
98.490	0-95 Brix	0.5 Brix	Abbe table refractometer without light source	•
	1.300-1.700 RI	0.0002 RI		

polarimeters & spectrosopes



polarimeters & spectrosopes

A polarimeter measures the rotation angle of polarized light traveling 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

Spectrosopes are used to visualize the light spectrum of light sources

POLARIMETERS



polarimeter



99.400-LED

Polarimeters are suitable for fast and accurate measurements of sugars, glucose, perfume, chemical substances and medical drugs. Equipped with a Glan Thomson prism and Laurent Quartz plate, a built-in 230 V 589.3 nm sodium lamp or a high-power LED with 589.3 nm filter

Polar scale, range $\pm 180^\circ$ with 0.1° readings. Supplied with observation tubes of 100 mm and 200 mm. Bright light measuring field permits reading with accuracy of 0.1° with aid of Vernier



HIGHLIGHTS

The polarimeters are delivered with 100 and 200 mm observation tubes
Equipped with a built-in 230 V 589.3 nm sodium lamp or high-power LED with 589.3 nm filter
Fast and accurate

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	Scales	Accuracy	Observation tubes 100 and 200 mm	230 V sodium lamp with 589.3 nm filter	230 V High power LED with 589.3 nm filter
99.400	$\pm 180^\circ$	$\pm 0.1^\circ$ polar scale	•	•	
99.400-LED	$\pm 180^\circ$	$\pm 0.1^\circ$ polar scale	•		•

SPECTROSCOPES

Euromex handheld spectrosopes are used for optical experiments in natural sciences, industry and education



product information



handheld spectrosopes

SP.5200

Handheld spectroscope with adjustable slit, comparison prism, mirror, five glass mini-cuvettes and wavelength scale 400 - 700 nm with 589 nm indication. Divisions 10 nm

- Direct vision type
- Adjustable eye lens
- 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	Dimensions	Weight (grams)	Adjustable slit	Comparison prism	Angle dispersion	Linear dispersion	Wavelength scale	589 nm indication	With 5 glass cuvettes
SP.5200	h50x1115xp23	250	0-1 mm	•	C-F 7°	60 mm	•	•	•

SP.5155

Handheld spectroscope with adjustable slit and comparison prism, mirror and five glass cuvettes

- Direct vision type
- Adjustable eyelens
- Adjustable slit 0 - 1 mm
- Angle dispersion C - F 7°
- Linear dispersion 60 mm
- Comparison prism
- Mirror
- five Glass cuvettes



SP.5155

MODEL	Dimensions	Weight (grams)	Adjustable slit	Comparison prism	Angle dispersion	Linear dispersion	Wavelength scale	589 nm indication	With 5 glass cuvettes
SP.5155	h45x1105xd23	125	0-1 mm	•	C-F 7°	60 mm	--	--	•

SP.5150

Handheld spectroscope with adjustable slit from 0 tot 1 mm

- Direct vision type
- Adjustable eye lens
- Adjustable slit 0 - 1 mm
- Angle dispersion C - F 7°
- Linear dispersion 60 mm



SP.5150

MODEL	Dimensions	Weight (grams)	Adjustable slit	Comparison prism	Angle dispersion	Linear dispersion	Wavelength scale	589 nm indication	With 5 glass cuvettes
SP.5150	90 x18 mm Ø	92	0-1 mm	--	C-F 7°	60 mm	--	--	--

SP.5100

Handheld spectroscope with fixed slit

- Direct vision type
- Adjustable eye lens
- Fixed slit
- Angle dispersion C - F 6°
- Linear dispersion 40 mm



SP.5100

MODEL	Dimensions	Weight (grams)	Adjustable slit	Comparison prism	Angle dispersion	Linear dispersion	Wavelength scale	589 nm indication	With 5 glass cuvettes
SP.5100	90 x18 mm Ø	72	--	--	C-F 6°	40 mm	--	--	--

choose the right
euromex microscope

Euromex offers a large range of microscope series. 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, MacroZoom
• electronics	Development, production, assembling and inspection of electronic components or circuitry	bScope® (materials), EduBlue, StereoBlue, NexiusZoom, MacroZoom
• 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, MacroZoom
• 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	bScope® (materials), EduBlue, StereoBlue, NexiusZoom, MacroZoom
• microbiology	Study of microscopic uni-, multi- or acellular small organisms such as protozoa, algae, bacteria and more. Identification and classification	EcoBlue, BioBlue, bScope®, Delphi-X Observer
• mycology	Study of fungi as branch of biology. Identification and classification	EcoBlue, BioBlue, BioBlue.Lab, bScope®, 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 invertebrates and vertebrates and related branches	EcoBlue, BioBlue, BioBlue.Lab, bScope®, AP series, EduBlue, StereoBlue, MacroZoom

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, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series, MacroZoom
• anatomopathology	Diagnosis of diseases of organs or tissues. Cytopathology and forensic pathology	BioBlue.Lab, bScope®, iScope®, Oxion, Delphi-X Observer, NexiusZoom, DZ series
• asbestos control	Research of asbestos fibers, environmental protection during restoration of older buildings	iScope® (asbestos and polarization), NexiusZoom, DZ series, Z series
• bacteriology	Study of bacteria as subdivision of microbiology. Identification, classification	BioBlue.Lab, bScope®, iScope®, Oxion, Delphi-X Observer
• biochemistry	Study of chemical processes within living organism. Identification and classification of enzymes and structure of biomolecules	BioBlue.Lab, bScope®, iScope®, Oxion, Delphi-X Observer
• biomedical	Study of medical microbiology, virology, epidemiology, biomedical engineering	BioBlue.Lab, iScope®, Oxion, Delphi-X Observer
• biotechnology	Study of living organism in order to make food products, for plant protection (genetically modified organism) and other bio-process engineering. Development of pharmaceutical drugs, genetic testing, enzymes production, biofuels, textile	BioBlue.Lab, bScope®, iScope®, Oxion, Delphi-X Observer, StereoBlue, NexiusZoom, DZ series
• botany	Study of plants as branch of biology. Plant anatomy and morphology. Plant genetics and ecology. Plant biochemistry	BioBlue.Lab, bScope®, StereoBlue, NexiusZoom, DZ series, MacroZoom
• cell culture	Controlled growing of cells and tissues, fungal culture and microbiological culture	Delphi-X Inverso, Oxion Inverso, NexiusZoom, DZ series
• chemistry	Study of the composition and properties of chemicals	iScope® (materials and polarization), Oxion (materials), bScope® (materials), NexiusZoom, DZ series
• cosmetics	Research, development and testing (safety) of substances for make-up or perfume	iScope® (materials), Oxion (materials), bScope® (materials), NexiusZoom, DZ series
• cytology	Study of cell structure, function and chemistry. Detection of cellular diseases	BioBlue.Lab, iScope®, Oxion, Delphi-X Observer
• dermatology	Study and diagnosis, treatment of skin, nails and hair diseases	iScope®, Oxion, NexiusZoom, StereoBlue, DZ series, MacroZoom
• digital imaging	Observation and analysis of microscope images, save and share captured images and videos	CMEX cameras, CCD cameras, HD cameras, Cooled cameras, EduPad, ProPad
• electronics	Development, production, assembly and inspection of electronic components or circuitry	iScope® (materials), Oxion (materials), bScope® (materials), StereoBlue, NexiusZoom, DZ series, Z series, MacroZoom
• embryo collection	Embryo collection and transfer in mares, pigs, cows. Quality control	NexiusZoom, DZ series, Z series

• embryology	Study of gametes, embryos and fetuses	BioBlue.Lab, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series
• entomology	Study of insects as branch of zoology. Identification and classification of beetles, flies, termites, moths and butterflies, bees, ants, wasps	BioBlue.Lab, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series, MacroZoom
• environmental	Monitoring of environmental conditions such as water, atmosphere, ecosystems, soil and pollution	BioBlue.Lab, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series
• fluorescence	Study of living and non living materials with the help of fluorescence markers (fluorochromes)	iScope® (fluorescence), Oxion (fluorescence), Delphi-X Observer (fluorescence), Oxion Inverso (fluorescence), bScope® (fluorescence), DZ series
• food and beverages	Quality and safety controls, before, during and after the production of food and beverages	BioBlue.Lab, bScope®, iScope®, Oxion
• forensics	Analysis of scientific evidence. Toxicology, fingerprints, Forensic anthropology and archeology, forensic botany and entomology	BioBlue.Lab, iScope®, iScope® (materials and polarization), Oxion, Oxion (materials), Oxion Inverted, Oxion Inverted (materials), NexiusZoom, DZ series, Z series
• genetics	Study of genes, heredity in living organisms including bacteria, plants, animals and humans	iScope®, Oxion, Delphi-X Observer, DZ series
• geology, mineralogy	Earth Science; Study of solids, rocks and processes Identification and classification of rocks and minerals	iScope® (materials), Oxion (materials), bScope® (materials), StereoBlue, NexiusZoom, DZ series, MacroZoom
• geology, petrology	Identification by means of petrographic microscopy	iScope® (polarization), Delphi-X Observer (polarization), StereoBlue, NexiusZoom, DZ series
• glass industry	Quality control, before, during and after the production of glass and coatings	iScope® (materials), Oxion (materials), Oxion Inverso (materials), bScope® (materials), StereoBlue, NexiusZoom, DZ series
• hematology	Study and diagnosis, treatment and prevention of diseases of the blood	iScope®, bScope® (darkfield), iScope® (darkfield), Oxion, Oxion (darkfield)
• histopathology	Microscopic examination of tissue, diagnosis of diseases	iScope®, Oxion, Delphi-X Observer
• horticulture	Selective breeding of plants and fruit for production of food	BioBlue.Lab, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series, MacroZoom
• in vitro fertilization	In vitro fertilization IVF. Quality control of collected egg and sperm	StereoBlue, NexiusZoom, DZ series, Z series
• marine Biology	Study of organisms living in the ocean or seas as branch of biology	bScope®, BioBlue.Lab, iScope®, Oxion
• mechanics	Manufacturing and quality inspection of mechanical parts	Delphi-X Observer (materials), iScope® (materials), Oxion (materials), Oxion Inverso (materials), bScope® (materials), StereoBlue, NexiusZoom, DZ series, MacroZoom
• metallurgy	Manufacturing and quality inspection of metallic elements, intermetallic compounds and alloys	Delphi-X Observer (materials), iScope® (materials), Oxion (materials), bScope® (materials), StereoBlue, NexiusZoom, DZ series, MacroZoom
• microbiology	Study of microscopic uni-, multi- or acellular small organisms such as protozoa, algae, bacteria and more	iScope®, Oxion, StereoBlue, NexiusZoom, DZ series
• mycology	Study of fungi as branch of biology	BioBlue.Lab, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series

• mining	Extraction of minerals for identification, quantitative and qualitative evaluation of minerals	iScope® (materials and polarization), Oxion (materials and polarization), Oxion Inverso (materials), bScope® (materials), StereoBlue, NexiusZoom, DZ series, MacroZoom
• neuropathology	Study and diagnosis of diseases in nervous system tissue	Delphi-X Observer, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series
• oncology	Study and diagnosis, treatment and prevention of cancers	Delphi-X Observer, iScope®, Oxion
• ornithology	Study of birds as branch of zoology. Diagnosis of diseases in birds such as competition pigeons	BioBlue.Lab, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series
• paleontology	Study of fossils in order to determinate organisms evolution	iScope® (materials), Oxion (materials), bScope® (materials), StereoBlue, NexiusZoom, DZ series, MacroZoom
• paper industry	Production of paper related products. Quality inspection	iScope® (materials), Oxion (materials), bScope® (materials), StereoBlue, NexiusZoom, DZ series, MacroZoom
• parasitology	Study of parasites, medical and veterinary	BioBlue.Lab, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series, MacroZoom
• pathology	Study and diagnosis of diseases	Delphi-X Observer, iScope®, Oxion
• petrochemical	Research and transformation of crude oil and natural gas	iScope® (materials), Oxion (materials), bScope® (materials), StereoBlue, NexiusZoom, DZ series
• petrology	Study of the composition and structure of rocks as branch of geology. Identification by means of polarization	iScope® (polarization), StereoBlue, NexiusZoom, DZ series
• pharmaceutics	Development and production of drugs for medication. Quality assurance and inspection of produced products	Delphi-X Observer, iScope® (polarization), StereoBlue, NexiusZoom, DZ series
• phytopathology	Study and diagnosis of plant diseases	BioBlue.Lab, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series
• plastics	Development and production of plastics and plastic based compounds. Quality assurance and inspection	iScope® (materials), Oxion (materials), Oxion Inverso (materials), bScope® (materials), StereoBlue, NexiusZoom, DZ series
• textile	Development and production of all kinds of textile based products. Quality assurance and inspection	iScope® (materials), Oxion (materials), bScope® (materials), AP series, StereoBlue, NexiusZoom, DZ series, MacroZoom
• veterinary medicine	Prevention, diagnosis and treatment of diseases, injuries in animals	BioBlue.Lab, bScope®, iScope®, Oxion, Oxion Inverso, StereoBlue, NexiusZoom, DZ series
• virology	Study and diagnosis of viruses and virus-like agents	Delphi-X Observer, iScope®, Oxion, BioBlue.Lab, bScope®
• water treatment	Production of drinking water and wastewater treatment. Quality control and disease prevention	BioBlue.Lab, bScope®, iScope®, Oxion
• wood production	Wood production for construction material, fuel. Quality control	iScope® (materials), Oxion (materials), Oxion Inverso (materials), bScope® (materials), AP series, StereoBlue, NexiusZoom, DZ series, MacroZoom
• zoology	Animal biology. Study of invertebrates and vertebrates and related branches	BioBlue.Lab, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series

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, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series, MacroZoom
• anatomopathology	Diagnosis of diseases of organs or tissues. Cytopathology and forensic pathology	Delphi-X Observer, iScope®, bScope®, BioBlue.Lab, Oxion, StereoBlue, NexiusZoom, DZ series
• bacteriology	Study of bacteria as subdivision of microbiology. Identification, classification	BioBlue.Lab, bScope®, iScope®, Oxion, Oxion Inverso, Delphi-X Observer
• biochemistry	Study of chemical processes within living organism. Identification and classification of enzymes and structure of biomolecules	BioBlue.Lab, bScope®, iScope®, Oxion
• biomedical	Study of medical microbiology, virology, epidemiology, biomedical engineering	Delphi-X Observer, iScope®, bScope®, BioBlue.Lab, Oxion
• biotechnology	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	Delphi-X Observer, iScope®, bScope®, BioBlue.Lab, Oxion, NexiusZoom, DZ series, MacroZoom
• botany	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
• cell culture	Controlled growth of cells and tissues, fungal culture and microbiological culture	Delphi-X Inverso, Oxion Inverso, NexiusZoom, DZ series
• chemistry	Study of the composition and properties of chemicals	iScope® (materials and polarization), Oxion (materials), bScope® (materials), NexiusZoom, DZ series
• cosmetics	Research, development and testing (safety) of substances for make-up or perfume	bScope® (materials), iScope® (materials), NexiusZoom, Oxion (materials), DZ series
• cytology	Study of cell structure, function and chemistry. Detection of cellular diseases	Delphi-X Observer, iScope®, bScope®, BioBlue.Lab, Oxion
• dermatology	Study and diagnosis, treatment of skin, nails and hair diseases	iScope®, Oxion, NexiusZoom, StereoBlue, DZ series, MacroZoom
• digital imaging	Observation and analysis of microscope images, save and captured the images and videos	CMEX cameras, CCD cameras, HD cameras, Cooled cameras, ProPad, MacroZoom
• embryo collection	Embryo collection and transfer in mares, pigs, cows. Quality control	NexiusZoom, DZ series, Z series
• embryology	Study of gametes, embryos and fetuses	BioBlue.Lab, bScope®, iScope®, Oxion, NexiusZoom, DZ series, Z series
• entomology	Study of insects as branch of zoology. Identification and classification of beetles, flies, termites, moths and butterflies, bees, ants, wasps	BioBlue.Lab, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series, MacroZoom
• environmental	Monitoring of environmental conditions such as water, atmosphere, ecosystems, soil and pollution	BioBlue.Lab, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series
• fluorescence	Study of living and non living material with the help of fluorescence markers (fluorochromes)	Delphi-X Observer (fluorescence), iScope® (fluorescence), Oxion (fluorescence), Oxion Inverso (fluorescence), bScope® (fluorescence), DZ series
• forensics	Analysis of scientific evidence. Toxicology, fingerprints, Forensic anthropology and archeology, forensic botany and entomology	BioBlue.Lab, bScope®, iScope®, Delphi-X Observer, Oxion, Oxion Inverso, NexiusZoom, DZ series, Z series
• food and beverages	Quality and safety controls, before, during and after the production of food and beverages	BioBlue.Lab, bScope®, iScope®, Oxion

LIFE SCIENCE
LABORATORIES

FIELD OF APPLICATION

RECOMMENDED MODELS

• genetics	Study of genes, heredity in living organism including bacteria, plants, animals and humans	Delphi-X Observer, iScope®, Oxion, DZ series
• hematology	Study and diagnosis, treatment and prevention of diseases of the blood	Delphi-X Observer, iScope®, bScope® (dark field), iScope® (darkfield), Oxion, Oxion (darkfield), iScope®, Oxion
• histopathology	Microscopic examination of tissue, diagnosis of diseases	Delphi-X Observer, iScope®, Oxion
• horticulture	Selective breeding of plants and fruit for production of food	BioBlue.Lab, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series, MacroZoom
• histopathology	Microscopic examination of tissue, diagnosis of diseases	iScope®, Oxion
• in vitro fertilization	In vitro fertilization IVF. Quality control of collected egg and sperm	StereoBlue, NexiusZoom, DZ series, Z series
• marine biology	Study of organisms living in the ocean or seas as branch of biology	iScope®, Oxion, NexiusZoom, DZ series
• microbiology	Study of microscopic uni-, multi- or acellular small organisms such as protozoa, algae, bacteria and more. Identification and classification	Delphi-X Observer, iScope®, Oxion, NexiusZoom, DZ series
• mycology	Study of fungi as branch of biology. Identification and classification	BioBlue.Lab, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series
• neuropathology	Study and diagnosis of diseases in nervous system tissue	Delphi-X Observer, iScope®, Oxion, NexiusZoom, DZ series
• oncology	Study and diagnosis, treatment and prevention of cancers	Delphi-X Observer, iScope®, Oxion
• parasitology	Study of parasites, medical and veterinary	BioBlue.Lab, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series
• pathology	Study and diagnosis of diseases	Delphi-X Observer, iScope®, Oxion
• pharmaceutics	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, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series, MacroZoom
• veterinary medicine	Prevention, diagnosis and treatment of diseases, injuries on animals	BioBlue.Lab, bScope®, iScope®, Oxion, Oxion Inverso, StereoBlue, NexiusZoom, DZ series
• virology	Study and diagnosis of viruses and virus-such as agents	Delphi-X Observer, BioBlue.Lab, bScope®, iScope®, Oxion
• water treatment	Production of drinking water and wastewater treatment. Quality control and disease prevention	BioBlue.Lab, bScope®, iScope®, Oxion
• zoology	Animal biology. Study of invertebrates and vertebrates and related branches	BioBlue.Lab, bScope®, 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® (materials), Oxion (materials), 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, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series, MacroZoom
• asbestos control	Research of asbestos fibers, environmental protection during restoration of older buildings	iScope® (asbestos and polarization), NexiusZoom, DZ series, Z series
• automotive	Manufacturing and quality inspection of automotive related parts	iScope® (materials), Oxion Inverso (materials), NexiusZoom, DZ series, Z series
• avionics	Manufacturing and quality inspection of aircraft related parts	iScope® (materials), 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® (materials), Oxion (materials)
• cosmetics	Research, development and testing (safety) of substances for make-up or perfume	bScope® (materials), iScope® (materials), Oxion (materials), NexiusZoom, DZ series
• digital imaging	Observation and analysis of microscope images, save and captured the images and videos	CMEX cameras, CCD cameras, HD cameras, ProPad, MacroZoom
• electronics	Development, production, assembling and inspection of electronic components or circuitry	iScope® (materials), Oxion (materials), NexiusZoom, DZ series, Z series, BE-50 LED, MacroZoom
• environmental	Monitoring of environmental conditions such as water, atmosphere, ecosystems, soil and pollution	BioBlue.Lab, bScope®, 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, bScope®, iScope®, Oxion
• forensics	Analysis of scientific evidence. Toxicology, fingerprints, Forensic anthropology and archeology, forensic botany and entomology	BioBlue.Lab, bScope®, bScope® (materials), iScope®, iScope® (materials and polarization), Oxion, Oxion (materials), Oxion Inverted, Oxion Inverted (materials), NexiusZoom, DZ series, Z series
• geology, mineralogy	Earth science that study the solid, rocks and processes. Identification and classification of rocks and minerals	iScope® (materials), Oxion (materials), Oxion Inverso (materials), B+ (materials), StereoBlue, NexiusZoom, DZ series, MacroZoom
• 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® (materials), Oxion (materials), Oxion Inverso (materials), bScope® (materials), StereoBlue, NexiusZoom, DZ series
• horticulture	Selective breeding of plants and fruit for production of food	BioBlue.Lab, bScope®, iScope®, Oxion, StereoBlue, NexiusZoom, DZ series, MacroZoom
• 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

INDUSTRY	FIELD OF APPLICATION	RECOMMENDED MODELS
• mechanics	Manufacturing and quality inspection of mechanical parts	iScope® (materials), Oxion (materials), Oxion Inverso (materials), bScope® (materials), StereoBlue, NexiusZoom, DZ series, MacroZoom
• metallurgy	Manufacturing and quality inspection of metallic elements, intermetallic compounds and alloys	iScope® (materials), Oxion (materials), Oxion Inverso (materials), bScope® (materials), StereoBlue, NexiusZoom, DZ series, MacroZoom
• mining	Extraction of minerals Identification, quantitative and qualitative evaluation of minerals	iScope® (materials and polarization), Oxion (materials and polarization), Oxion Inverso (materials), bScope® (materials), StereoBlue, NexiusZoom, DZ series
• paper industry	Production of paper related products. Quality inspection	iScope® (materials), Oxion (materials), bScope® (materials), StereoBlue, NexiusZoom, DZ series, MacroZoom
• petrochemical	Research and transformation of crude oil and natural gas	iScope® (materials), Oxion (materials), bScope® (materials), StereoBlue, NexiusZoom, DZ series
• petrology	Study of the composition and structure of rocks as branch of geology. Identification by means of polarization microscopy	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
• plastics	Development and production of plastics and plastic based compounds. Quality assurance and inspection	iScope® (materials), Oxion (materials), Oxion Inverso (materials), bScope® (materials), StereoBlue, NexiusZoom, DZ series
• printing industry	Production of relief printing, lithography	iScope® (materials), Oxion (materials), bScope® (materials), AP series, StereoBlue, NexiusZoom, DZ series, MacroZoom
• textile	Development and production of all kinds of textile based products. Quality assurance and inspection	iScope® (materials), Oxion (materials), Oxion Inverso (materials), B+ (materials), AP series, StereoBlue, NexiusZoom, DZ series, MacroZoom
• water treatment	Production of drinking water and wastewater treatment. Quality control and disease prevention	BioBlue.Lab, bScope®, iScope®, Oxion
• wood production	Wood production for construction material, fuel. Quality control	iScope® (materials), Oxion (materials), Oxion Inverso (materials), B+ (materials), AP series, StereoBlue, NexiusZoom, DZ series, MacroZoom

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PT. ZAFARO ELHA TRANSINDO

Bussiness Park Ruko Bukit Cimanggu City Blok. B1 No. 3A Bogor West Java
Indonesia 16166

Email : zafaro.elha@gmail.com

Contact Person : +62 812-8593-8682 (Yusuf Naruli R)